A RITUAL LANDSCAPE CONSIDERED:

Cosmography & Anglo-Saxon Ship Burials

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CONTENTS

INTRODUCTION

The period in Britain between 400 and 600 A.D. is referred to as the Dark Ages; this was because recorded history ceased following the departure of the Romans in 410 A.D. Even though this period spanned eight to ten generations, we barely know a handful of people from this era. Additionally, the written sources that we do have are from the minor fragments forming only two or three written sources [1].

Our modern day skyline is still peppered by the echoes and traces of our ancestors, through their use of temple worship on and in the landscape; however, the absence of any 'official status' through an accurate literary record means there is no 'neat' formalised account of to whom these temples were built to honour, or clarity behind these old belief systems. "Writing only came with the Church, and the conversion of the Old English had taken place before they were able to put down their ancient beliefs and myths" [2].

"In his parade helmet, friend or foe would recognize this King as a rightful heir of the God Woden" [3].

The above words greet members of the public, and indeed the authors of this paper, as they walk into the museum in Ipswich to view the meticulous life-size replicas of Raedwald's famous helmet, sceptre and shield that were discovered at Sutton Hoo, from the Anglo-Saxon period some 1,400 years ago. This resonating message, coming from a continually looping television broadcast, only serves to remind us just how little we still know, yet simultaneously how far we have come as a culture. Feeling somewhat impotent, we were reminded that the realm of the human imagination was once considered ***as*** important as today's rational mind [4]. Today's technology and scientific advances prove ineffective in trying to find answers to the deeper questions about our past, beliefs, values and cultural identity. Anthropological studies have shown that the landscape for many non-Western cultures was alive with stories, myths and memories, all contributing to the identification of those individuals and societies who in turn constructed themselves, mindful of how they related to this wider cosmos [5]. It was consequently the case that we left the museum, the words from the audio reel on loop in our heads, feeling somewhat disconnected and bereft from being able to understand truly or resonate with our Anglo-Saxon past. We were left with the questions of how to answer or understand what others have pondered, namely in '*Sutton Hoo and its Landscape: the Context of Monuments*', Williamson asks just ***why*** was the royal boat burial at Sutton Hoo, "found in this particular place… **why was it *here*, rather than five, ten or more kilometres to the North, East or West**?" [6].

The exact explanatory path of power that lay behind the associated supernatural, magical and religious beliefs of the Anglo-Saxons is largely absent, unlike the practices in Classical and Norse mythology. To date, Dark Age studies have been described as "the domain of the serious guess", a "cat's cradle of hypotheses" which "must in its nature breed speculation rather than provide assurance". Despite ***decades of study,*** there clearly remains the need for **"the creation of new hypotheses, in a sense the creation of new uncertainties"** Campbell states in his '*Sutton Hoo and Anglo-Saxon History*' [7].

Focusing primarily on locations in an area of Suffolk commonly referred to as the Sandlings, the authors of this work wish to elicit further uncertainties. We propose that the locations of the royal boat burials of the Anglo-Saxon kingdom in England, 550-625 A.D. were at the sharp end of what would later infuse the planning of early Anglo-Saxon minster sites and their churches, namely "**something akin to the geomantic notions of sacred sites as *axes mundi*"** as **"centres of a symbolic cosmos, which in other cultures have produced arcane rituals of survey, alignment, and preparation" [8].** They were part of a wider cosmography that enshrined a solar tradition linking the midsummer and midwinter solstices within the Milky Way, with the transformative god Woden in the surrounding georitual landscape.

Such relationships are strengthened when we consider:

- The famous sceptre found at Sutton Hoo has been described as an emblem from a Celtic solar cult [9].
- The ancient solar symbol of the swastika features at the royal settlement at Rendlesham and in the grave goods at both the boat burials at Sutton Hoo and Snape (featured in this paper).
- For 1,000 years prior to the Christian era, the Celts across Europe orientated their earthworks towards the sun [10].
- According to Norse mythology, Odin arranged the periods of daylight and darkness, placing the sun and moon in the heavens "and establishment of the solar path" [11,12].
- From a study in place names, evidently Woden was the chief Anglo-Saxon god with Woden / Odin associated with the rising sun [13].
- Odin's horse has been linked with the world tree, the Milky Way, with its branches extending into the heavens through which he has passed [14].

The summer solstice rising sun and winter solstice setting sun symbolically mirror ideas of kingly rule, order, liminality, transformation, death and renewal. These elements, as we will explore, are enshrined in the mythic grave goods of Sutton Hoo, Snape and the surrounding territory.

These ideas should not come as a total surprise when we consider that the main Anglo-Saxon festivals took place at the Midsummer and Midwinter Solstices, [15] the primary symbols of the Bronze Age – sun disk, spear and sword - did not disappear from the North and were "still of primary importance in the culture of the late heathen period right up to the Viking Age" [16]. It is also well documented that the ancient cultures of this time seemed to centre on a shamanically inspired vision of life with the fabric of the cosmos understood in distinct realms. The Norse myths contain fragmentary elements indicating that Odin engaged in cosmogenic acts involving the sun and moon while presiding over the dead as they journeyed on the celestial river [17]. At the deepest level, **"the journey's mythic end is the sun… the shaman flies through the sun door"** [18] and it is the solstices that act as a conduit in this process, against the horizon.

The Milky Way is crossed by the path of the sun, the ecliptic, just twice a year at both the Summer and Winter Solstice; at each crossing point, a pair of zodiacal constellations 'sit' on either side of the Milky Way, acting as a 'celestial gate'. While the father of English history Bede* had no desire to "give detailed instructions about the heathen sacred year… the power unleashed at the midsummer solstice must have been too strong and dangerous" [19] the constellations in the zodiac that "touches the Milky Way" was recorded by him in 725 A.D. [20], and it was believed through these celestial portals, the descent and ascent of souls occurred, a magico-religious tradition spanning thousands of years [21]. Evidence suggests that, over time, these two points in the path of ecliptic, where the Milky Way was crossed, became associated with Gemini and Scorpio "overwhelmingly the symbols of solstice duality," involving birds and serpents, ***both*** highly prominent on the grave goods found at Sutton Hoo [22]. The medium of boat burials combined mythical funerary theatre with the cosmology of traversing the underworld via the Milky Way. Understanding how our Dark Age ancestors may have related to such auspicious transformational moments in time, centring on the movements of the sun, which we will now turn to.

Footnote*: *An English monk (673 – 735 A.D.) Saint Bede or the Venerable Bede was also an author and scholar often referred to as the father of English history.*

INTRODUCTORY CONCEPTS

"King Henry went over the sea at Lammas; on the second day that he lay asleep in the ship, the day darkened over all the land, the Sun became like a three-day-old Moon, and there were stars around it at midday. Men wondered greatly, and dreaded, and said that a great thing should come thereafter; so it did for that same year the king was dead, the second day after St. Andrew's Day. Then the land was waste, for every man plundered it over who might."

Anglo-Saxon Chronicle 1133 A.D. [1]

When we try to appreciate that sense of 'awe' and foreboding described above, we do so knowing that we can land a rover on the surface of Mars. Consequently, our baseline for awe has somewhat shifted. Understanding the power that the natural world and its wonders, the case above involved a total solar eclipse that lasted 4 minutes and 38 seconds, would have held over you if you were alive in Anglo-Saxon England at the time requires a monumental paradigm shift.

Fortunately, however, there are some celestial events that still ***do*** move us all, bringing us fleetingly closer towards achieving the above mindset, the most obvious being across a wide range of cultures, the rising and setting sun at the solstice [2]. Even today, most countries in Europe "have at least one major site of ancient solar reverence" [3]. This should not be entirely surprising. The sun, after all, is the largest object in the solar system, containing more than 99.8% of the total mass of the solar system.

Basic human perceptions of space and time, which we use to root ourselves in the world around us, centre on what we see against the 360-degree circle of our horizon and it is the sun's apparent motion that determines time, something civilisations have monitored for aeons.

The apparent motion of the sun's course viewed from earth is in the clockwise direction and is called sunwise or deosil. This solar time is based on the apparent solar day, this being the interval between two successive returns of the sun to the local meridian, the great circle passing through the celestial poles.

A further means of defining this natural order is the quartered circle, based on our own spatial awareness of front (North), left (West) right (East) and back (South). The original meanings of these main four directions show that these were based on the observation of the sun's actual path along the horizon around us [4].

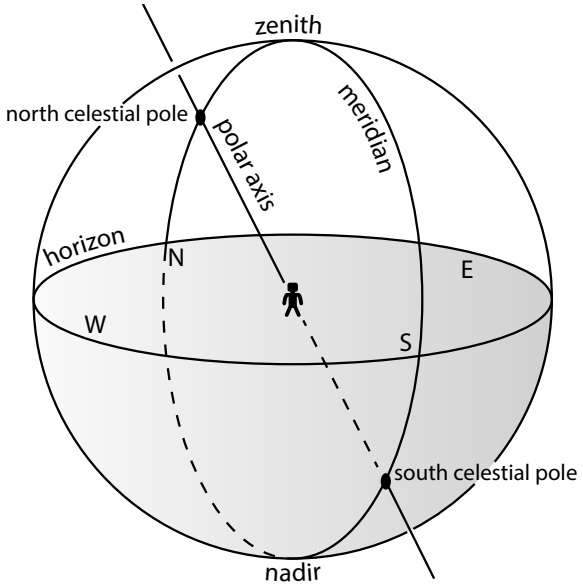
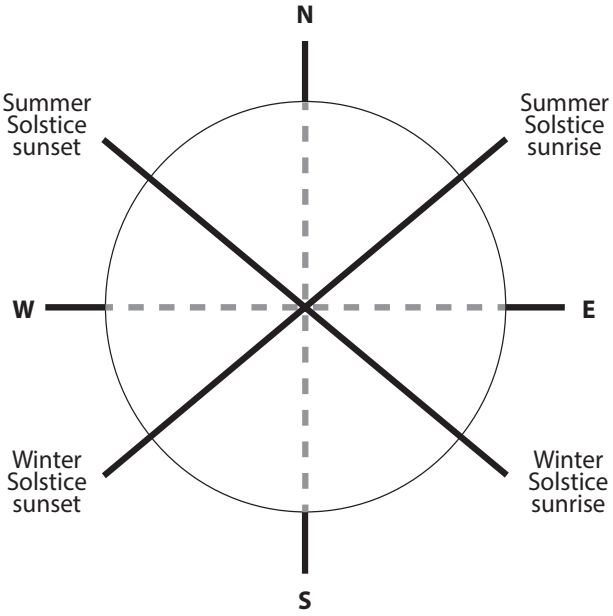


Fig 1: We say 'apparent' motion as of course the sun does not revolve around the earth, it just appears to against the horizon.
Both the sun and the earth move in circles around their barycentre - i.e. centre of mass together. Our earth moves around the sun taking a full year to return to its starting point travelling at 67,000 miles per hour while rotating on its axis every 24 hours at nearly 1000 miles per hour on its orbital path.

Fig 2: The eight divisions of the horizon used to obtain the main wind directions according to Vitruvius. Short heavy lines indicate the cardinal directions and the sunrise and sunset at both the winter and summer solstices as shown. After: Gonzalez-Garcia, A & Rodriguez-Anton, A & A. Belmonte, J. (2014). The orientation of Roman towns in hispania: Preliminary results. Mediterranean Archaeology and Archaeometry.



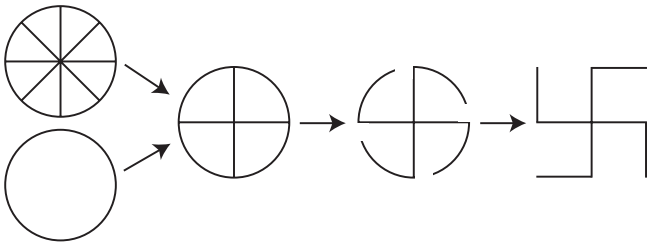
North = 'Away, below' – the sun's nightly journey beneath the horizon, northwards and below is the direction of the Hel road in old Norse speech.

East = 'Growing bright, burning' – the sunrise quarter, Easter (Ostern) for when the sun crosses the midpoint position on its way towards its summer position.

South = 'The brilliant', or 'going' quarter – above which the sun reaches its greatest daily height and greatest strength.

West = 'the evening quarter'.

As far back as 60,000 years ago, there is strong evidence for a West-East preference in the orientation in burials and funerary practices amongst the Neanderthals [5]. We know that for thousands of years these quarter points of the solar year were widely known and hugely significant. In Old Norse societies, and in the annual festival cycle, there were at least four festivals connected to the four quarters of the year [6]. This symbol of the four arm cross relates to the historical ritual importance of the two solstices (Summer and Winter) and the two equinoxes (Spring and Autumn) and evolved into the Germanic four-spoked wheel cross, seen on Swedish rock carvings evoking a 'sky wheel' before becoming the symbol of the cross used by Christianity [7]. The most sacred symbol had for centuries been this 'wheel of the year' represented by four, six or eight-spoked wheels with these arms symbolising the solar rays.



Left, Fig 3: Pattern of possible development from the sun wheel to the angular form of the swastika [8]. After:Taylor, S, Rev. (2006). The Fylfot File: studies in the origin and significance of the Fylfot-Cross and allied symbolism within the British Isles.

The Norse peoples, many of whom settled in what is now Yorkshire, "would construct massive solar wheels and place them on the top of hills, while in medieval times processions bore wheels on chariots or boats"[9]. In the rural tradition of Northern Europe, this compass rose correlated to the eight major festivals of the year, directly related to the annual cycles of physical and spiritual renewal evident in the natural world through the vegetation cycle. Regardless of the season when the sun is due South, it is noon. At the equinoxes when the length of day and night are of equal length, the sun rises due East and sets due West with the daylight period of these days lasting exactly half of the 24 hour period. The use of the sun wheel and the swastika feature on some prominent cremation urns in Anglo-Saxon England, and on one of the great hanging bowls discovered at Sutton Hoo, with what has been called a zoomorphic swastika design and also on the Anastasius silver dish (Fig 48).[10]

Above, Fig 4: Zoomorphic swastika: Sutton Hoo Hanging Bowl 2. After: Bruce-Mitford R.L.S (1983).

"...the summer solstice which, just like the other seasonal key moments (the winter solstice and the two equinoxes), has been long considered as the time in which the borders between worlds – this world and the Otherworld – and conditions – the dead, the living, the gods – become transitory and permeable, and therefore susceptible to be crossed in both directions."

The Shamanic Roots of European Culture: Visions of the Otherworld and Ecstatic Battles from the Middle Ages to the Present Day (Sonia. M. Barillari, 2017).

Day length is at its longest at the midsummer solstice and at its shortest at the winter solstice. At the latter, the night is at its longest in duration. 'Turning of the Sun' was an ancient idiom used by Homer and Hesiod* to describe this moment when the sun in transition, appears to stand still and seems to stop briefly in its path before doubling back on itself – hence the word 'solstice' – sol / sun and stitium, from sistere, to stand still [11]. Between the extremes of the summer and winter solstices, the suns risings and settings track progressively southward after summer and northwards after the winter solstice. In Bede's "Reckoning of Time", he quotes from the great works of Pliny, a Roman author, naturalist and natural philosopher born A.D. 23 – 79; "now the sun itself has four turning points; twice when the night is equal to the day, in spring and autumn... and twice when the proportions of day and night are reversed" [12]. **Bede was also aware that the "zodiac touches the Milky Way in Sagittarius and Gemini", both constellations that crucially house the sun at the time of the Summer and Winter Solstice.**

However, the idea that the Anglo-Saxons honoured the sun in any significant and meaningful way has cast doubt on the notion that the Summer Solstice was observed at all, with much of these pagan attributions being put on the romantic leanings of 19th Century anthropologists [13]. "Because the period between 21st and 24th June illustrates the sun's weakness rather than strength it is very unlikely that any early sun-worshippers, who depended on the sun's strength for survival, would have chosen this solstice to venerate their god. The summer solstice did not reflect a need". Billington underlies her argument citing Bede, who names the winter festival of Modranicht though "no summer celebrations are mentioned", before acknowledging that it was "known from the Sagas that the sun was worshipped" ***but*** with a predominant emphasis being put on the sun as part of the winter solstice celebrations, celebrating its joyous life-affirming qualities in a season of harshness, with iconoclastic midsummer traditions established much later in Scandinavia during the 16th Century. We do know, however, that for centuries, solar worship remained pervasive in Dark Age Britain and Europe. Repeated attempts were made over time to quell feasting to excess, with Augustine of Hippo (354 – 430 A.D.) and Pope Leo the Great (400-461 A.D.) feeling 'compelled to remind people that Christ, not the sun, was their proper object of worship' [14].

To many, 'dawn', from the Old English verb dagain "to become day", is conceptually the start of a day. In the Northern tradition, however, this is not the case; sunset - the 'dying sun', was actually the day beginning. Even today, many ancient annual festivals are prefaced with the previous eve - Christmas Eve, New Year's Eve, All Saints' Eve (All Hallows' Eve / Halloween). Writing in his Germania in 98 A.D., Tacitus had mentioned that the Germanic people started the day at night [15] where it continues in the Western world today, with day somewhat arbitrarily starting at midnight - 'Night ushers in the day' - as the saying goes. **"Conceptually the evening before the festival has become thought of as taking place on a separate 'day', whereas customarily, the evening is the first part of the festival, and a prelude to the morning's daylight festivities or observances. Symbolically, the gestation of the festive day is in the darkness before the daylight; the night is equivalent to the enclosure of the foetus in the womb, or the seed in the ground, before its birth with the light of dawn" [16].**

Today, our calendar still starts with the 'dying sun' that is associated with winter, with the Midsummer Solstice in the middle which corresponds to the Anglo-Saxon's calendar, migrating from the Germanic lands that Bede recorded in 725 A.D. "The solar year began with the turning of the sun towards longer days", that is, with the longest night, which they called "mothers' night", a celebration still known in Germany today, the mother being the goddess who brings the new born sun back into existence [17]. The long daylight hours of midsummer were a time for human activities, life and communal celebration. The dark hours of midwinter, in contrast, were a time for the gods; their movements were visible in the heavens throughout the long night. In some respects, this can be seen as a form of occupation; humans and light occupied one end of the year, darkness and otherworldly activity the other. **The night time was so revered, this being the abode of the 'gods', when they had their time, 'their day' when the planets, stars and constellations could shine for longer in darker skies and dominate around the winter solstice [18].**

Fig 5. Contexts of action and inversion in night and day: the gods' world versus the human world through the year. © Therkorn, L., L (2004).

During the Roman Empire, a festival of light, Saturnalia, was celebrated between 17th-23rd December. This coincided with a time of high feasting, public holidays and gift giving, leading to the Winter Solstice, the 'Birthday of the Unconquerable Sun' that was celebrated on 25th December. During this time, roles between slaves and their masters were reversed as they feasted and dined in honour of the return of their harvest deity. The festival of Yule was of critical importance to the community, symbolically welcoming back the sun from the ever shortening days [19]. Early Christian believers perceived the sanctified Sunday as a 'providential sign' with the fact that Christ rose from the dead on dies Solis, the Sun's day [20]. The other principal festival known to have been widely significant was the spring, or vernal equinox, the period in the year where the length of daytime had just become longer than night, equidistant between the midwinter and midsummer solstice [21]. Procopius, writing on the history of the wars fought under the rule on the Roman emperor Justinian 550 A.D., describes how the men of Thule climbed the mountain tops at the winter solstice to catch sight of the nearing sun after being enveloped by night for forty days "when a time amounting to thirty-five days has passed in this long night, certain men are sent to the summits of the mountains--for this is the custom among them--and when they are able from that point barely to see the sun, they bring back word to the people below that within five days the sun will shine upon them. And the whole population celebrates a festival at the good news, and that too in the darkness. And this is the greatest festival which the natives of Thule have; for, I imagine, these islanders always become terrified, although they see the same thing happen every year, fearing that the sun may at some time fail them entirely." [22].

In myth, Odin descended to earth on his horse in the season of Yule. Additionally, it was Odin's worshippers in the 9th Century that the Christian Alfred struggled against "and when Danelaw was established, it was to Odin that the people made their sacrifices, at the time of the winter solstice" [23]. Both the Celts and the Germans were known to use the half-year as the basic unit of time-reckoning where the opening of summer was measured at the very end of April and celebrated [24]. The Scandinavian time system was built around two seasons rather than four; these were summer and winter with the festival of Winter Nights being regarded as both a beginning and an end, commencing with celebration and "three sacrifices each winter: one during the Winter Nights, one at midwinter and a third in the summer." [25]. This duality of light and dark, death and renewal remained a constant umbrella governing the mortal lives of those dwelling beneath these mythic skies.

"Certainly it is not empty superstition but divine reason that makes them relate almost all the gods – at any rate the celestial gods – to the Sun. For if the Sun, as men of old believed, 'guides and directs the rest of the heavenly lights' and alone presides over the planets in their courses, and if the movements of the planets themselves have power, as some think… to foretell the sequence of human destinies, then we have to admit that the Sun, as directing the powers that direct our affairs, is the author of all that goes on around us."

Macrobius, Roman historian during the early 5th Century A.D. [26]

Traditionally, the Midsummer Eve was a fire festival and considered the second greatest festival of the Germanic holy year, comparable only to the twelve days of Yule [27]. According to one observer in Ireland in the Middle Ages, the Midsummer Eve Bonfire Night remained an important occasion; peasants would not weed the fields until Midsummer's Eve, then on that day "the boys collected bones and certain other rubbish and burn them, and… go about the fields with brands" to drive away evil spirits [28]. The Anglo-Saxon charms bear witness to native pagan beliefs whose incantations are an intermingled array of Latin, Greek, Hebrew, Celtic and Norse [29].** Even as late as the 11th Century, Old English healers were prescribing field remedies where some charms entailed a full-scale ritual which would take a whole day to perform involving exhortation to the sun in the East [30]. The heathens of ancient England lived in a manner which reflected their perceptions and relationship with the sun and the moon, day and night maintaining "a balance between the brightness of 'sun thinking' and the imagination of 'moon thinking'... the interplay of the sun and the moon created many a shimmering pathway into the 'otherworld'. The sun, moon and stars were essential to the magic and mystery of life." [31] The power behind the moment of sunrise and sunset mirrored a liminal moment in time. This liminal state has been defined as the period between two fixed points in a rite of transition where a sort of magic-in-ambiguity occurs at certain periods of the day - such as dusk and dawn being neither day nor night [32].

These moments in time had their earthly counterparts. The natural world had the capacity to achieve divine status, the numen or unseen, where the realm of this 'otherworldly' power was inhabited by beings to whom offerings could be made in order to secure their goodwill at these special places and especially at sacred moments in time [33]. **'In between' locations in the landscape, liminal zones where the sea met the shore line, the river met the land, fjords, river inlets, bridges and intertidal zones were all such spaces, between this world and the next; the underworld [34, 35].**

"...a time of 'no being', when the normality of the everyday earthly world was frozen and the spirits were able to invade the human domain" [36].

The importance of the sun in Northern Europe is clearly documented and forms part of a long cosmological tradition where the sun is supported by divine twins whose presence and role is richly symbolic and needs to be understood; this is because they support the sun through the rite of passage and transformation between both sunrise ***and*** sunset. As early as the 3rd Century B.C., the Greek historian Timaos reported that the 'Celts' along the North Sea coast were particularly devoted to the Dioscuri, from Greek Dioskouroi meaning "Sons of Zeus" who also received a place amongst the stars as the constellation Gemini (the Twins), Castor and Pollux.

The Divine twins are a mytheme, an essential kernel behind a myth in Proto-Indo-European mythology. They occur in Vedic myths as Ashvins, Latvian as Dieva Deli, Rome as Romulus and Remus and finally Hengest and Horsa [37] from Anglo-Saxon legend circa 5th Century A.D. This mythical role associated with divine twins in the heavens occurs throughout many cultures, be these as sons of the sky god, brothers of the sun maiden, associated with horses, having an astral nature, magical healers or having an association with swans [38].

The sun and the solar cycle with the divine twins are important parts of a broader mythological world view alongside other more widely known figures such as Tyr, Odin, Thor, Baldr and Frigg. The cult of Alcis that Tacitus mentions in his Germania, while describing the Germanic tribe of the Naharnavali, worshipped the gods Alcis stating that they have 'no image'. The ritual was performed by the priest in a grove and was likened to Castor and Pollux in the Roman tradition, these divine twins being Gemini. It is believed the name Alcis relates to the word 'elk' and associates these gods with horned helmets [39] as can be seen on the Sutton Hoo dancing warrior helmet plaques.

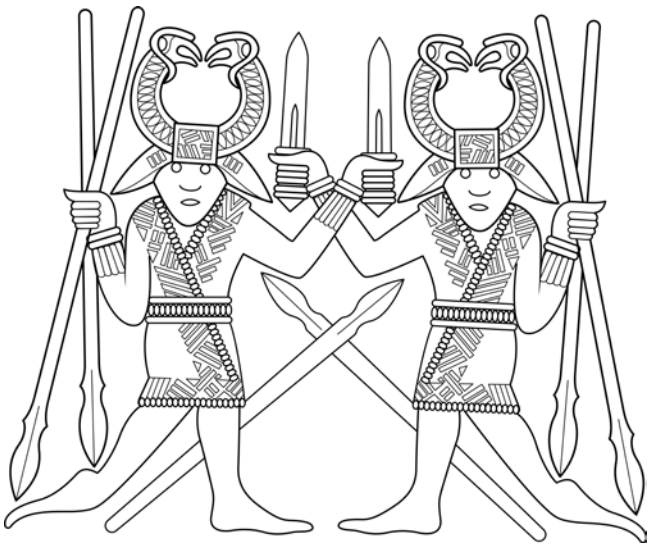


Fig 6. Sutton Hoo dancing warriors helmet plaques. After: Lindsay Kerr.

The Gotland Stone with its large whirl at the top is believed to correspond to the sun at its zenith with the two smaller spirals with serpent heads, representing the sunrise and sunset. This pairing in motif may again recall the idea of the divine twins, connected with the solar cycle helping the sun during its critical transition [40].

The symbol of two figures standing side-by-side, often holding axes, was important in the Bronze Age and was associated with the sun [41]. Twin youths also appear in the symbolism of the cult of Mithras, a mystery religion practised between 1st-4th Centuries A.D. in the Roman Empire where twins were often depicted standing beside the god with torches, one torch belonging to Cautes pointing upwards representing spring and the rising sun, and the Cautopates whose torch points downwards representing the sunset and autumn [42].

Throughout time, solar traditions have changed, adapted and evolved to reflect the feelings, core beliefs and symbols prevalent in the myths and cultures of the people at the time. In Northern Europe, much of the religious material culture can be recognised "as a magical response to the desire to make the sun appear" after night and winter [43].

In Norse cosmology the adaptive changes and symbolism linked with solar traditions and associated symbols morphed and evolved between 1500 B.C. – 550 A.D. and can be summarised as: [44]

1500 B.C:

Sun being drawn across the sky and the underworld by one or two horses.

Divine twins associated with transformative functions of sunrise / sunset symbolised with horned helmets/axes.

1100 B.C:

Sun transported by a ship accompanied by serpents or aquatic birds.

500 B.C:

Solar myth expressed through formalised symbols
– wheel crosses, concentric rings, ship forms.

200 B.C:

Aquatic birds, triskeles, less complex wheel crosses.

200 B.C. – 200 A.D:

Mythological importance of sun, horses and divine twins.

200 – 550 A.D:

Sun moving around a world tree, across the sky,
the underworld in a night ship.

Divine twins in the form of warriors support transformative function of sunrise / sunset.

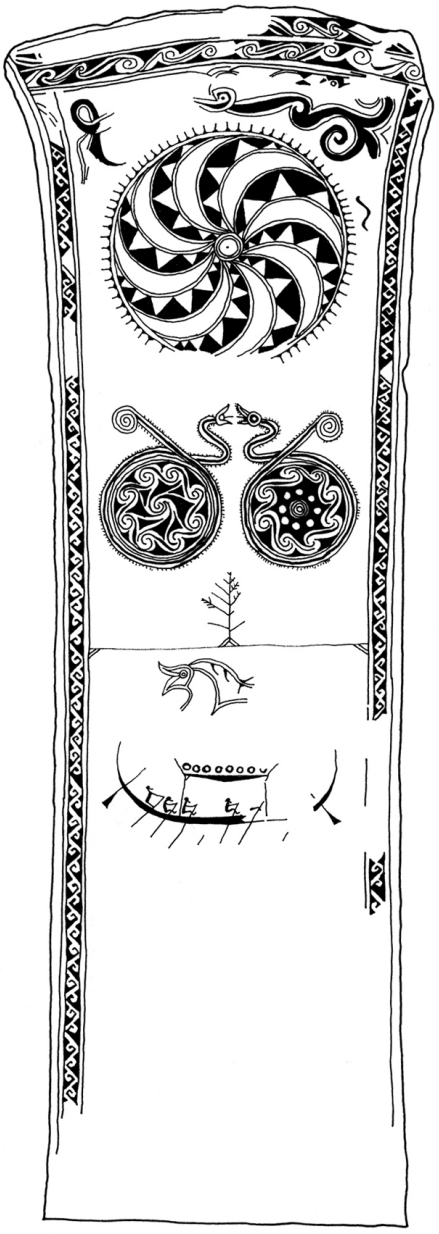


Fig 7: Drawing of the best preserved early picture stone from Gotland, c.400. The large circle representing the sun with the two smaller animal headed spirals representing the sunrise and sunset. © Andrén, A. (2014).

Evidently, allegiance to arcane deities and nature spirits masqueraded behind the worship of the early Christian saints. The "ancient traditions of ancestor worship lay at the core of the cult of the dead and that most sacred events in the Christian calendar, such as Christmas and Easter, were superimposed over already-existing pre-Christian religious festivals" [45]. Bede, in his *De Temporum Ratione*, briefly alludes to some of the Old English paganism he encountered, recording the Heathen year and the celebrations beginning in November which was Blod-monath, the blood month where animals were sacrificed to the gods and ending on 25th December. He describes how between these celebrations it shows "us a people who of necessity fitted closely into the pattern of the changing year... who drew on deeper wells of religious feeling than the worship of personal gods, being conscious day and night of the sun in its majesty and the moon in its splendour: in fact, a people who were in a symbiotic relationship with Mother Earth and Father Sky." [46]

"Heathen gods are hard to find in Old English Literature. Most Anglo-Saxon writers had no interest in them and consequently the reaction of today's scholars to this topic can vary from polite amusement to hostility." [47]

We know there would have been very little desire avidly to record the pagan celebrations of the Anglo-Saxons. Wulfstan instructed his priests to promote Christianity eagerly and thoroughly obliterate heathenism, and thus, less than a century later, all English kingdoms were officially Christian and with it, the beliefs and traditions of this age lost, their royal and scholarly patronage yielded no 'powerful motive for recording them' [48].

The Anglo-Saxons' earliest written histories were generally the work of Christian monks who 'had their own reasons for downplaying or ignoring the pagan traditions that pre-dated (and often continued alongside, or were absorbed by) Christianity' [49]. In addition, oral traditions based on shamanistic and animistic beliefs seem to prefer oral transmission of their vision and ancestral wisdom through stories and songs [50]. Over 200 ancient names for Odin exist, and though he was worshipped as Woden in England and Wotan in Germany, the role of this god across the Northern world appears fundamentally the same as far as we can discover from historical sources [51]. Rudgley states, that in myth Odin means frenzy, the Frenzied One – in terms of battle fury, hence the berserk, named after the Berserkers. Odin's symbols, the eagle, his two ravens (Huginn and Muninn - Thought and Memory) and his two wolves (Geri and Freki) are the Beasts of Battle which appear as a common literary motif in Anglo-Saxon poems as a prelude to a battle, warning of the carrion to follow [52]. He ruled creative inspiration "which often overcomes poets and other artists during creative acts" and in magical trances he was a god of altered states of consciousness ruling not the rational, logical and orderly aspects of the psyche but the more irrational and untamed facets, creative visions, dreams, nightmares, sexual passion, trance states and rage [53]. Woden has been described as a mercurial figure, which when worshipped in its earlier form, ***Wuotan*** may have signified movement or striding and even madness, through the concept of ***wod*** [54] ***. Through the leadership of a people in movement, this transforming arrangement contains both the positive aspects of motion, chaos and disarray. These same people guided their destinies through sacred oaths fastened on the spear "by powers, contracts and music, the rulers became heirs of Woden". **According to Norse mythology Odin arranged the periods of daylight and darkness, and in turn the seasons. "He placed the sun and moon in the heavens, and regulated their respective courses. Day and Night were considered mortal enemies. Light came from above, and darkness from beneath, and in the process of creation the moon preceded the sun" [55].**

The general picture of the Anglo-Saxons is that they diverged somewhat from Teutonic mythology in their beliefs, lessening somewhat in intensity from their neighbours across the Continent; however, they never lost their love of Germanic legends and held a widespread belief in charms, the spiritual potency of trees, wells, armies of elves and dragons [56]. **The idea that the passage to the mainland Britain across the North Sea somehow affected the quality of their faith once they arrived is "a doubtful view, to say the least, since a longer passage at a later date had no such debilitating effect on the beliefs of the Norsemen who went to Iceland" [57].**

The Saxon Chronicle may not widely explore Heathen practices (there are at least four solar references highlighted below) and by definition the implication is therefore, that ***they could not have existed*** is far too simplistic. Such a formal religious document was merely extending and "practicing a policy of suppression".

It is a myth to believe that just because 'authority' demands the suppression of something it automatically ceases to exist. It has been suggested that the names of six days of the week attest to that [58].

Sunday	Sun
Monday	Moon
Tuesday	Tiw – Old Sky Father God
Wednesday	Woednesborg – Woden
Thursday	Thunor / Thor
Friday	Frig
Saturday	Saturn's day

The solstice's and solar worship was still within the consciousness of the people at the time, as evidenced from at least four entries in the Anglo-Saxon Chronicle 898-1018 A.D [59].**** This continued up to and beyond at least the 13th Century where re-enacting the creation of the universe through blazing fires at both winter and summer solstices became common across the whole of Europe, Japan, Brazil and North-West Africa [60]. While scant in number, there are tracery fragments of what appears to be knowledge of Norse cosmology, something we will explore in more depth later. Anglo-Saxon literature captures the concept of the Continental Saxons Irminsul, itself relating to the Scandinavian world tree, the Germanic world pillar representing the column of the universe and "perhaps based on the Pole Star, the centre heavens" [61]. The great Norse god Odin had but one eye and in myth in order to obtain the great wisdom for which Odin is so infamous, in the dawn of time he visited Mimir's (Memor, memory) well, "the fountain of all wit and wisdom," in whose liquid surface reflections future events were clearly mirrored. Mimir, who well knew the value of such a favour, refused Odin unless he would consent to give one of his eyes in exchange. The god did not hesitate and he immediately plucked out one of his eyes, which became the sun, a theme we will return to later when exploring Sutton Hoo's grave goods.

> ***"Through our whole lives we strive towards the sun;***
> ***That burning forehead is the eye of Odin.***
> ***His second eye, the moon, shines not so bright;***
> ***It has he placed in pledge in Mimer's fountain,***
> ***That he may fetch the healing waters thence,***
> ***Each morning, for the strengthening of this eye."*** *[62]*

Odin's ability to move between worlds transcending boundaries fits well with the Dioscuri motif [63]. Andrén cites other works which reinforce later 6th and 7th Century expressions of the Dioscuri motif that have Odinic features, including elements such as helmets with two birds and spears. Chief of the Vanir (one of two class of Gods associated with nature, wisdom and fertility) is the god Freyr, god of light and the sun or, more precisely, the god of sunshine [64]. Freyr was the god of fertility and his sacred animal was also the pig. Brokk and Eiti created a wild boar with golden bristles called Gullinbursti (which literally means "golden bristles"), which drew his chariot and whose mane glows to illuminate the way for his owner, all allegories of solar symbols.

In references in Eddic poetry, Old Norse anonymous poems from the 10th Century, there are many metaphors for the sun:

- The shining God (Grimnismal 38)
- The Giants call it 'everglow'; the elves 'the lovely wheel', the sons of Aesir 'all shining' (Alvissmal 16)
- Day star (Skaldskaparmal)
- The Doubt disc (Skaldskaparmal) [65]

In just 50 pages in the Gylfaginning (the first part of Snorri Sturluson's Prose Edda, an Old Norse work of Icelandic literature written in the early 13th Century), there are 77 obvious celestial references. It is clear to many who have written on the Norse myths that they are similar to many myths from around the world in that they describe and refer to celestial phenomena, something we will explore later. As such, these mythical stories formed a corpus for understanding what could be seen on a starry winter night. What appears to be simply the physical stars and their white paths as they move

across the dome of the heavens going down below the horizon "should rather be imagined to be the home of divine figures, with different dwellings and with individual characters visible and moving around in both a regular pattern (as the sun and moon do) and in a very individualistic way when it comes to the planets" for instance Mars, Mercury, Jupiter – traditionally translated as Tyr, Odin and Þor (Thor) [66]. Diversity, Gísli Sigurðsson concludes, was the standard. That is not to say that there were not common themes; among the Norse, it was often the god Balder who was recorded as most closely associated with the Midwinter and Midsummer Solstices. In myth Balder, the son of the god Odin, was said to die at the hands of his trickster brother who wielded a mistletoe stake each Summer Solstice. Balder would be reborn at the Winter Solstice and it is from this that our Christmas tradition still honours and remembers this tragedy. In the epic of Sigmund (in a song sung by Tage, the poet in the early 9th Century and later recorded by the Benedictine Monk Obero Fidelus in his folio *Heroica Corium Comitis*), the sun's magic sword is named Balmung, which means 'sun beam' [67]. The sun as mythological motif, be it in different aspects of the solar cycle, the sun orb itself and the divine twins coexisted with narratives connected with other mythological figures. **"The core perennial concerns of a solar cult are that the movements of the sun are the very template for cosmic and royal order" [68].**

In looking for possible Germanic derivations and translations for the Christian terms used for the word 'God' in Norse Icelandic writings, the preferred term '***ass*** - god, pole, beam, stake' [69] contains obvious correlations to the principles connected with straight and light, such as sun beam. Notions of a secular sovereign ruler maintaining moral order, one who determined what was right and 'orderly', are priestly functions often associated with the Proto-Indo-European king and are at the root of all derivations: reg, rex, regal, right [70]. **The medieval existence of 'death roads' in Holland (Doodwegen) demonstrates a relationship between straightness, death and kingship [71]. Linear order, kingship and good government evolved into a notion of sacred straightness expressing itself in the straight ceremonial landscape line, something akin to 'mystical rule' [72].**

"Ritual sites might be expressions of cosmological ideas, but it is also possible that the sites and monuments themselves created and reinforced cosmological notions." [73]

In Lithuania, at the time of its Christianisation in the late 14-15th Century, the festival *Rasa*, a midsummer pagan festival celebrating the summer solstice, became *Jonines*, 'John's feast' [74]. The calendar system still in use at the time was based on the annual cycle of the sun's motion. Sets of wooden poles, which served as observation stations that marked the sun's most crucial solar stations on the horizon, at both the summer and winter solstices, have been discovered following archaeological investigations in Lithuannia. These solar practices have also left their mark in Lithuanian folklore and oral traditions.

The following text from an old song proves that wooden poles were used to assist in the observations of the sun:

On the sea on the wide blue
The sun was 'poling'
On two – three poles,
On nine arrows [75]

Furthermore, in England, it was the ancient custom on St. John's Eve to light large bonfires after sundown; June 24th became the Feast of St. John the Baptist (St. John's Eve). St. John himself was often seen as a rather pagan figure, he was, after all, called "the Oak King". Some traditions speak of the Holly and Oak Kings as the two rulers (summer and winter) [76]. In written sources, two Kennings, or poetic metaphors, are used in skaldic verse, these being Old Norse Icelandic poems from the 9th Century to denote the sun's disk, the Wheel of Heaven and Wheel of the Sun [77]. The symbol of the sun wheel survived past the pagan period right up until the late 19th Century where throughout parts of central and Western Europe the folk custom and practice was to roll a cart wheel covered in burning straw down a hill [78].

Footnotes:

* Homer: Classic Greek scholar born 8th Century B.C. his two outstanding epics the Iliad and the Odyssey defined this heroic tradition and Hesiod Greek poet famed for epic narrative around 750 – 650 B.C.

** The two primary sources of these were written between A.D. 950 and 1050, though it has been noted that these ideas are reflected in similar parallel religions going back as far as 500 B.C. The charm for increasing the fertility of fields clearly contains a pagan hymn to the sun and another to the earth. The hymn to the sun is introduced by the exhortation:

> *Turn to the East and bowing humbly nine times say then these words:*
>
> *Eastwards I stand, for favours I pray*
> *I pray the great lord, I pray the mighty prince*
> *I pray the holy Warden of the heavenly kingdom*
> *To earth I pray and to up-heaven…*
> *Then turn three times sunwise and stretch yourself along the ground full length and say the litany there…*

"Here is obvious sun-worship, no matter now obscured by Christian influence"
Branston, B. (1974) The Lost Gods of England.

*** Meaning 'madness with anger, enraged'. [79]

**** A.D. 898. Ethelm, alderman of Wiltshire, died this year, nine nights before midsummer; and Heahstan, who was Bishop of London.

A.D. 913. This year, about Martinmas, King Edward had the Northern fortress built at Hertford, betwixt the Memer, and the Benwic, and the Lea. After this, in the summer, betwixt gang-days and midsummer.

The sun and the moon as gods were still being honoured for their brightness as recorded by Abbot Aelfric of Eynsham (955 – 1010 A.D.) whose sermon 'on the false gods' declared these heathens "... perversely made gods for themselves and despised the Creator who had created them... they then accepted it as wisdom that they should worship the sun and moon as gods because of their shining brightness" [80]

In 1018 A.D., the Old English code represented the agreement reached between the Danes and the English early in the reign of King Cnut (1016–1035). Within Cnut's Laws it states "we seriously forbid each heathenry. It shall be heathenry that anyone should worship idols, which is that anyone should worship heathen gods, and the sun or moon, fire of flood, watersprings or stones or trees of any kind..." [81]

CONTEXT

"…symbols of space and its order most clearly illustrate the religious act of orientation, that is, the fundamental process of situating human life in the world. Orientation is the conscious act of defining and assuming proper position in space." [1]

The innate sense of reverence for the natural world that our ancestors would have carried is as a result, in part, of being so dominated by the impact of the surrounding seasonal landscape. Death, renewal and the parallel sky lore associated with the changes in the light and the dark. Astronomical phenomena in relation to ancestral monuments or natural landscape features would contribute to a perceived unity between the land and the sky, both past and present contributing to the way in which space was experienced designed to promote the impression that the kingdom stood at an axial point of an integrated cosmos [2]**.**

Traditional archaeology continues to deal with orientations in the landscape in a very narrow sense. **"Alignments and orientations do not exist without artefacts… The visual line that links a particular monument or place with horizon features associated with certain astronomical events, exists through this artefact. So, when we speak of alignments, we cannot separate them from artefacts, ultimately those are the artefacts that have certain meaning and this meaning may be stressed or emphasized by particular alignments"** [3]**.** Archaeoastronomy, a field which considers symbolically rich cultural interpretations of phenomena in the sky by other cultures, embraces the imposition on urban centres, temples and shrines encompassing sky lore and celestial myth. Symbolic representations of celestial objects, concepts and events, including astronomical orientation is today more often referred to as 'cultural astronomy' [4,5]. It is felt that *alignments* and *orientations* should form a class of attribute or characteristic in their own right when considering such material objects.

Orientations also need to be considered as an attribute in their own right, for they may carry multiple meanings [6]. A common source of data for the study of alignments is based on the simple notion that the axis of alignment of an archaeological site is meaningfully oriented towards an astronomical target. This alignment is calculated by measuring the azimuth, the angle from North, of the structure and the altitude of the horizon it faces. As these readings only change about 1/10th of a degree every 1,000 years, this level of change can be largely ignored and explains why the sunrise over the Heel Stone at Stonehenge has only moved slightly since it was built some 5,000 years ago [7]. The movement of the setting sun as it becomes smaller as it approaches its Southern (December) or Northern (June) limit, for instance at one week either side of the solstice the sun's setting path changes only by about 1/3 of its own diameter [8]. Singular areas within a given landscape and particular directions within it evoked special meaning with particular directions possessing a heightened temporality for the society at the time. At Maes Howe, for instance, a Neolithic chambered cairn on mainland Orkney built around 2800 B.C. whose mound is 115 feet across and 24 feet in height was built to honour this potent power, the rays from the midwinter sunset enter the tombs entrance chamber illuminating its 36 foot length before striking the rear of its inner chamber for three weeks either side of the actual solstice. **This highlights an important aspect, in so far as from solely being about 'exacting high precision' in landscape temple planning, it is now considered more plausible to propose solsticial orientations being more of "an alignment of symbolic significance" that were often associated "with the rituals of death and burial"** [9]**.**

It has been suggested that behind the construction of the Neolithic tombs in Southern Europe, it may have been more important to orientate the entrance to where the rising sun or moon would be ***seen to pass***, rather than necessarily solely towards its ***actual*** point of rising [10]. In a study on the alignments of over 2,000 early Bronze-Age and Neolithic burial tombs, 214 entrances faced sunset, West, with the 93% (2,130 of 2,290) remainder of the entrances aligned particularly close to the arc of sunrise between midwinter and midsummer, centring on East [11].

Alignment appears to have played a vital part in the monuments associated with daily life in prehistoric times, from the houses that people lived in, to the monuments associated with ceremonial and ritual aspects, even death, governing the orientation of the tombs and the way in which the bodies would be laid out [12]. These great monuments were built to influence the way people experienced the landscape and the way in which they were configured served to structure

the ways that people understood both space and time [13]. Monuments in the landscape would often be constructed, located and orientated with reference to earlier ones; this has been termed inter-site alignment [14] and has a context when we understand how important ancestral beliefs were, woven around historical mythical stories of the past. Landscape temples, as is often claimed, are far more than observing 'instruments' of the heavens. A recent innovative approach in archaeology is to consider the wider power of 'Skyscapes', [15] moving away from ideas of meticulous alignments and orientations alone. As such, it provides a **"framework for thinking about the dome of the heavens above the Earth. It allows consideration of broad connections with the changing patterns in the heavens. Orientations towards both broad and precise astronomical events can be accommodated, as are events played out over time (i.e. the actions of a heavenly body/bodies through an entire night or season) for it is the unfolding 'drama' of the changing heavens that is important, not just a single moment. In this way widely-differing alignments or aspects of sites might still fall under an all-encompassing aegis of 'ritual time', perhaps pointing to different moments in the same 'drama', and therefore be connected by an overlying ritual pattern that a narrower analysis might simply miss."** [16] Landscape temples, as is often claimed, are far more than observing 'instruments' of the heavens. UNESCO (United Nations Educational, Scientific and Cultural Organisation) on their 'portal to the heritage of astronomy' website propose that alignments ***["the feature that 'connects' the human monument to the sky and contributes to its significance in relation to astronomy"]*** link the human with their surrounding natural landscape. "It follows that the natural landscape, and in some cases specific features within it, must in a very real sense be considered as contributing to the value of the monument" [17]. Others have pondered whether these ceremonial astronomical straight lines relate to the dead or for the spirits of an ***otherworld?*** [18]. **"Ancient landscapes might also have been structured according to symbolic or cosmological principles, forming what have become known as 'sacred geographies'. Specific places, and indeed whole landscapes, are 'contexts for human experience, constructed in movement, memory, encounter and association." [19]**

Within a highly detailed study published by Oxford University into late Anglo-Saxon settlement, Rodwell explores the "Anglo-Saxon predilection for linear planning" [20]. In any other Journal or Volume, were it not so erudite, I am sure that this article would be considered too "new age," leaning towards the derided subject of Ley Lines. Churches and their graveyards, unlike the ebb and flow of household building (prone to subsequent demolition, defences being erected then realigned and common changes to land use) had a greater level of stability over time, providing stable fixed points in the landscape. It is these churches that provide the most readily appreciable evidence for late Anglo-Saxon settlement in England; their numbers are estimated to between 4,000-5,000, although physical remains for such numbers are wanting. In Suffolk and Kent, there were at least 345 churches recorded by the time of the Doomsday Book in 1086 A.D [21]. **It is proposed that the founders of early Anglo-Saxon minster churches "entertained something akin to the geomantic notions of sacred sites as axes mundi, or centres of a symbolic cosmos, which in other cultures have produced arcane rituals of survey, alignment, and preparation" [22].**

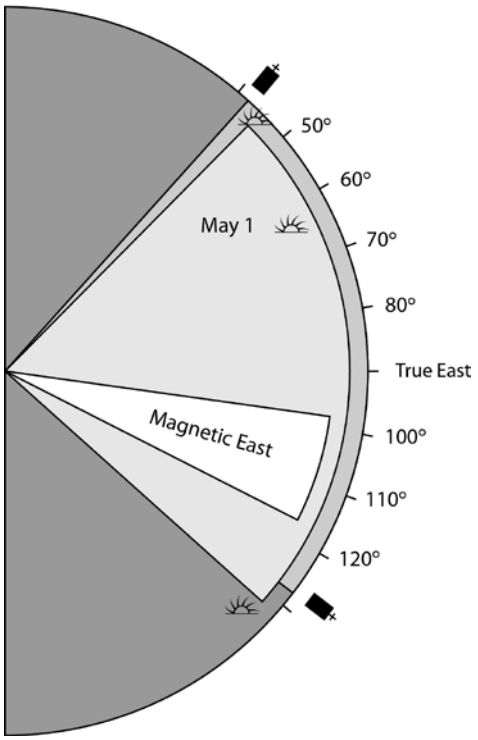


Fig 8: The range of orientations within the solar arc of early medieval churches 600–1000. The study confirmed it was the early medieval ideal to obtain a liturgically –correct alignment. Variations in the location of magnetic East during this period are also indicated. After: Hoare, P.G & Sweet, C.S (2000).

The term 'foundation stone' relates to the practice of building churches on top of other stones of equal importance, commonly the ancient pagan stone of the time and the foundation stone was the symbol of that ancient mark stone which originally 'founded' the site [23]. In 2000, a study of 181 early medieval churches (7th to early 12th Century) measured the orientations and alignment of the buildings and concluded that it was clear that the early medieval ideal was to obtain a liturgically-correct alignment [24]. The developing Christianisation of Medieval Europe supplanted their liturgical year upon pre-Christian calendrical practices and a study in the Carpathian Basin revealed that separate churches were frequently orientated towards the sunrise on the saint's day to whom the church was devoted [25].

There is much to indicate the predilection for continuity among Anglo-Saxon settlements whose construction often maintained close evocative links with the past. The Roman forum or basilica complex at the site of St. Paul in the Bail, Lincoln, where the centre of the 7th Century church was erected near the forum courtyard centre, illustrates this. It "was clearly not a mere casual reuse of some old foundations, but a deliberate embodiment of an ancient and significant religious structure as the very core of the Anglo-Saxon church". The re-use of Bronze Age barrows for funerary purposes was a frequent occurrence throughout the 5th – 8th Centuries with as many as a quarter of mortuary sites in this period illustrating such reuse of Prehistoric and Roman monumental remains with the tradition of secondary burial increasing in frequency in the 7th – 8th Centuries [26, 27]. "Communities were constructing and reproducing their idealized visions of the past and present, their mythical origins and their social identities." [28] The Saxon boroughs of Worcester and Hereford share this desire of linear planning, having a pair of churches, the major entrance to the town, market-place and cross, planned on a single axis. "Groups of churches... were often ascribed a sacred, coherent character, heightened by the processional arrangements which bound them together in ritual cycles extending through the year". [29] At Wells, two separate churches are set end to end, axially aligned with the holy well; this is an example of an accretive plan, whose humble initial stages developed into a complex conclusion. Not only did linear planning take account of just man-made religious structures, it also included natural springs and wells (see Fig 28).

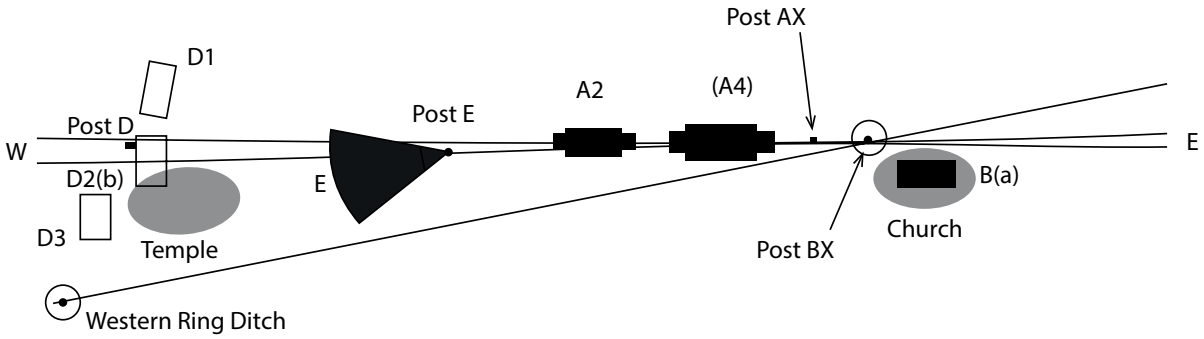


Fig 9: The ground plan at Yeavering. Each of the three primary axial alignments allowed an observer to date sunrise at different times of the year. After: North, R (2017).

The dominant features of the ground plan at Yeavering are centred on what is now considered one of the features of high-status Anglo-Saxon settlements of the sixth to ninth centuries, namely strong axial alignments, in this context on an East-West axis [29]. Pre-Roman and early Roman temples were usually orientated within the arc from the Winter Solstice sunrise to due South [30]. "The majority of Roman towns in Italy are aligned to sunrise, in relation to important sacred festivals or to the cardinal points".

Later, we will explore the mechanics of large scale surveying and planning; however, "the existence of astronomical orientations confirms statements made by Roman writers" such as Ovid and Plutarch who describe the ritual of taking auspices from the flight of birds with which to trace the boundaries through the ploughing of a furrow. In the study, thirty-eight Roman towns in Italy fell into two "families" or class of planning, one lying in the sector within ten degrees of South-East, the other near the winter solstice sunrise. Given these results, it has been determined that Roman towns in Italy were not randomly oriented.

In Serbia, as late as 1230 A.D. the Church of St. Nicholas was constructed in such a way that on midsummer at the time of the solstice sunrise, the sun could be seen to rise and traverse across the horizon through the apse window. Christian churches were re-aligned from having the sanctuary in the Western end, as was common practice in the time of Constantine, to the more familiar Eastern dominant configuration found since the 4th Century. This combined with the East facing practices needed within the field remedy ritual of the Æcerbot charm, making it probable "that the Anglo-Saxon sanctuary or holy space was similarly orientated" to the East [32]*. We can thus see that honouring the sun at key celestial moments of the year has been an overriding ritual concern, captured through various aspects of temple construction for thousands of years.**The 6th-Century East Anglian adoption of boat-burial practice (at Snape and Sutton Hoo) has been interpreted as an attempt to align the local elite with the Scandinavian's ritual-cosmology, publicly signalling a defiant Scandinavian orientation, accentuating self-conscious intentions to remain pagan and autonomous [33].**

However, the notion that our Heathen ancestors picked up from where the Iron Age and Bronze Age left off regarding continuity of sun worship has been deeply criticised, with claims of folly "to confuse the "sanctity" of sun-worship with that of Christian worship" [34]. Early Christian sources ranging from the 6th to the 9th Centuries illustrate that the distinctive megalithic division of the solar year did survive and pervaded the Christian period, with the division of the seasons in relation to Easter, falling between the solstices and equinoxes. Parallel elements from the Celtic ritual cycle later infused the Christian liturgical year. "In this transformation the feast of All Saints (November 1st) was a response to Samhain; the feast of St. Brigit (February 1st) and Candlemass (February 2nd) supplanted Imbolc; an informal feast of the Blessed Virgin arose in early May around Beltane." [35] "One would then celebrate the coming of the new sun or commemorate the old one with fire... Ideas about control of time and control of the sun would thus mesh easily with that of lordship over the solar aligned Bruig" (temple) [36].

The monument's structuring function in the landscape is however hugely potent, giving rise to mythmaking with these myths in turn confirming "how the monumentality of the mound controls us." [37]

We will now very briefly explore some examples, which exemplify this monumentally with the cosmos in the landscape.

Ales Stenar Stone Ship setting 750-700 B.C.

On a coastal ridge in Southern Sweden's *Osterlen* district there is the symbol of a vast ship constructed from boulders and sandstones (quarried from the bedrock at Brantevik), 40 meters high on top of the cliff above the Baltic Sea. Ales Stenar has been called the "Sun's ship" and the "Sun god ship".

Ales Stenar consists of 55 large erected boulders, weighing up to 1.8 tonnes each, and 2 huge sandstones, weighing approximately 5 tonnes each, with their form creating a 69.8 metre long (spaced 2.5 metres apart) and outline creating the shape of a boat nearly 19 metres wide [38]. Various dates have been proposed for the site ranging from 3600 B.C. to 600 A.D. Whilst the Swedish National Heritage Board has suggested that Ales Stenar was constructed 1,400 years ago i.e. 600 A.D. towards the end of the Nordic Iron Age (based on birch charcoal remains from 540-650 A.D. beside an undisturbed boulder) [39] Mörner and Lind favour a much earlier date for the erection of the monument, 700-750 B.C. [40] based on a variety of factors. Cup marks associated with favoured Scandinavian rock-carving from the Bronze Age to early Iron Age align perfectly with the constellation of Cygnus, the swan, with the sunrise at the Winter Solstice. In addition, the precise solar alignment of the sunrise at Winter Solstice over the stern stone occurs in 700 B.C. as well as stratigraphy indicating that the monument was itself erected before the major sand-drift period, 600-400 B.C. based on the imprint in excavations of one of the huge blocks [41].

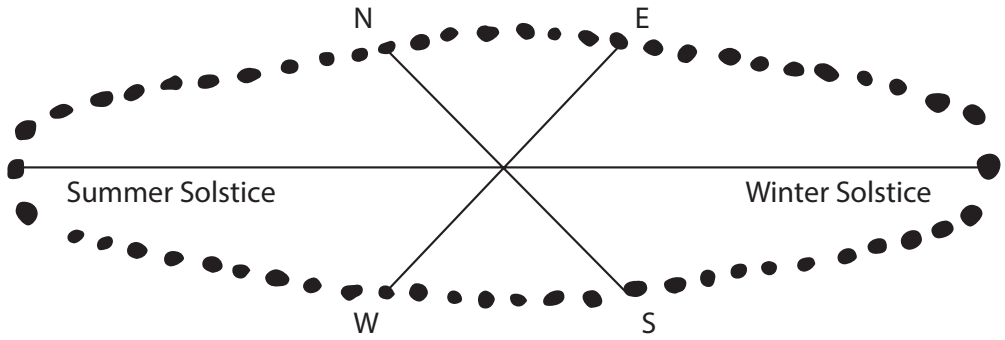


Fig 10: Ales Stenar - stone-ship is organized as a perfect solar calendar recording the annual motions of the sun. The four main boulders mark the cross quarter dates: Summer Solstice sunrise (North-East) Winter Solstice sunset (South-West) and Winter Solstice sunrise (South-East) and Summer Solstice sunset (North-West). After: Mörner, N and Lind, B (2012).

Astronomer Curt Roslund believes the ship's long sides are constructed as parabolas that would allow one to measure the days left towards both solstice events. On the top of the stones which mark the North-West / South-East axis, the Summer Solstice sunset and Winter Solstice sunrise there are cup marks which exhibit strict alignments to this movement of the sun. "The stone-ship is organized as a perfect calendar recording the annual motions of the sun" [42]. The stones at Ales Stenar are built so that **"seen from the centre, the sun rises over the stern stone at winter solstice and the sun sets over the stem stone at Summer solstice. The sun rises at Summer Solstice between the two stones marking the mid-ship in North-East and sun sets at Winter Solstice."** [43]

The stern at Ales Stenar conforms to very strict alignments recording the four main solar turning points of the year, the sunrise at the Spring Equinox, Summer Solstice, Autumn Equinox and Winter Solstice. The four main boulders that mark the cross quarter dates: Summer Solstice sunrise (North-East) Winter Solstice sunset (South-West) and Winter Solstice sunrise (South-East) and Summer Solstice sunset (North-West) have also been assigned the symbolism of the four Nordic gods, Heimdall, time god and the guardian of sanctuaries; Ing-Frö, fertility god; Balder, Summer god and Ull, Winter god [44]. There has been speculation that the stones at Ales Stenar go even further than merely recording the rising and setting of the sun. On one of the stones, Stone N1, based on the pattern of the cup marks carved into the surface they are believed to resemble the form of the main stars in the constellation of Cygnus the Swan [45]. In Mörner & Lind's 'Ales Stones in Southern Sweden: A Remarkable Monument of the Sun Cult and Advanced Astronomy in the Bronze Age' the authors highlight other landscape settings that also demonstrate precise archaeo-astronomical ritual planning, this time over long distances, 4 km (Fig. 11) 16 km and 63 km (Fig 12). The Heimdall's Stones monument at Vitemolla, South-East Sweden includes sightlines of both the sunrise and sunset at the time of the Winter Solstice, of the sunrise and sunset at the equinoxes and the sunrise and sunset at the time of the Summer Solstice [46]. This alignment of the sunrise at Winter Solstice (Fig 12) also passes directly over the hillside of Stenshuvud where there is a rock-carving of the front part of a foot pointing to the South-East (just as the majority of feet and shoes at Järrestad (see Golden Gates below).

Fig 11: The sightline from Heimdall's Stones (1) via the Angakasen stone ship (2) to the peak of Stenshuvud (3) is 4 km. At Winter Solstice, the sun rises in the South-East right along this line. © Mörner, N.-A., & Lind, B. G. (2019).

Fig 12: The sightline from Lensbjer to the sunset at Summer solstice over Hammer Odde and Stenshuvud in the North-West is 63 km. The 135 degree compass reading to the South-East is where the sun rises at the Winter Solstice with the 315° compass reading relating to the North-West where the Sun sets at the Summer Solstice. The white ship has a form dating from 900-1000 B.C. which sails towards the sunset. At Madsebakke (Allinge) there is a sun-wheel with the same astronomical function as that of Ales Stones. A red ship i.e. from the Ales Stones-Brantevik area in Sweden comes from the West. © Mörner, N.-A., & Lind, B. G. (2019).

Royal 'ceremonial roads' at Uppsala, Sweden: 565 B.C.

In May 2013, a row of large stone fundaments, about 850 metres in length was discovered beneath an old road leading from the North to the main entrance to Old Uppsala with a second similar row, some 600 metres being found to the South of the Royal burial mounds. The postholes were each approximately 6 metres apart and contained up to 1,500 kg of rocks, necessary to stabilise wooden vertical posts that would have stood 8 metres in height [47]. In some of the holes, there was evidence of ritual animal sacrifice through the depositing of bones from horses, cows and pigs believed to have taken part during the construction period. Initially it was thought that these 'ceremonial roads' would both have been constructed as part of the royal mounds i.e. between the 5th – 6th Century A.D. with some stone fundaments containing remains from the original pine wooden posts dating from the 14th Century.

The larger Northern row was 854 metres in length and contained 144 posts; each 5.93 metres apart being situated about 200 metres from an Iron Age burial site. Henrikssson fully explores the background behind his astronomical calculation enshrined in the site, which is rooted to the tradition in Sweden, as recorded by the archbishop Adam from Bremen circa 1075 A.D. that a celebration occurred every eight years governed by the eight year cycle of the phases of the moon.** The overriding principle, therefore, behind these ceremonial roads was to record, through the patterns in the heavens, the actions that should occur on earth i.e. if it was a full moon on 6-7th February the Great Midwinter Sacrifice should take place the next year on its earliest date, 26-27th January. **Interpretations regarding the orientation of the Southern row at about 600 metres in length indicate that this was oriented towards the rising sun on 6-7th February, a fundamental date for the definition of the re-start of the sacrificial cycle, a date that would later be by the sunset along the Northern side of the Royal burial mounds.**

The construction of the rows of postholes was undertaken in order to accurately mark and record the beginning the upper limb of the rising midwinter full moon. Calculations based on the above chronology reveal that its construction would have been for the rising on 26th January 565 B.C.

Large scale burial pits in the pattern of stellar constellations: 600 B.C. - 350 A.D.

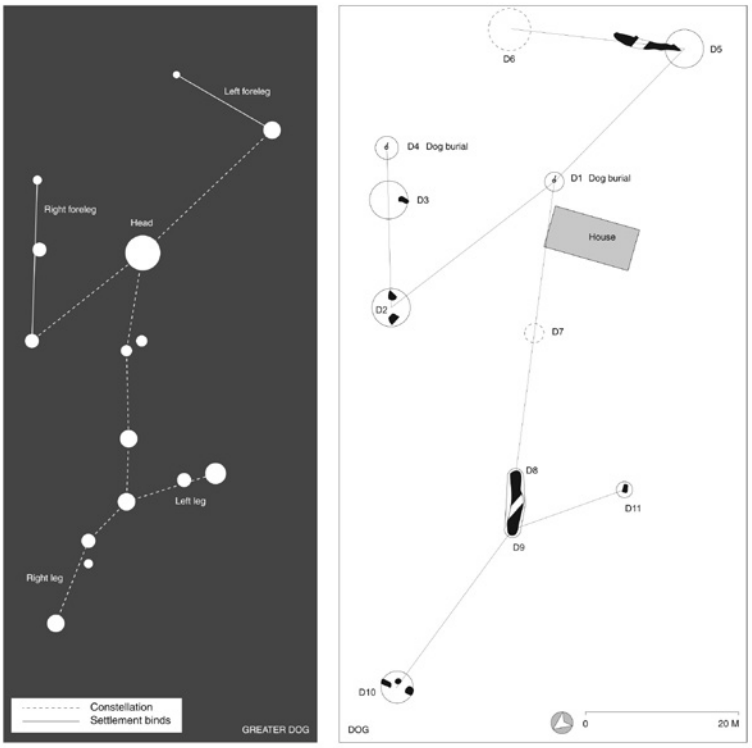
At the coastal province of Noord-Holland, a study into the comparison of settlement forms found that particular deposits of materials, defined by large scale patterns, were individually features that formed a representation of the stars in order to create large recognisable patterns of the constellations; a landscape of the sky [48].

The dating of the traces examined spanned the period from 600 B.C. to 350 A.D. (although some traces dated to the medieval period, around 1200 A.D.). "The nature of the intertwining of everyday aspects and cosmology as landscape, including both the earth and the sky" also governed the ritual sighting of single farmsteads. The aspects of night and day, the metaphors of the power of darkness and light were translated into daily practices and sky phenomena framing the creation and various features of the settlements as part of the cosmology of the area. Seasonal ritual deposits throughout both shallow and deep pits excavated convey how inhabitants maintained this designated practice and long standing tradition over centuries, depositing leaves, wood, twigs, pots, rope, bundles of bones, both animal and human.

- 58 deep pits from 35 cm – 2.7 metres (when originally constructed/dug)
- 11 shallow pits

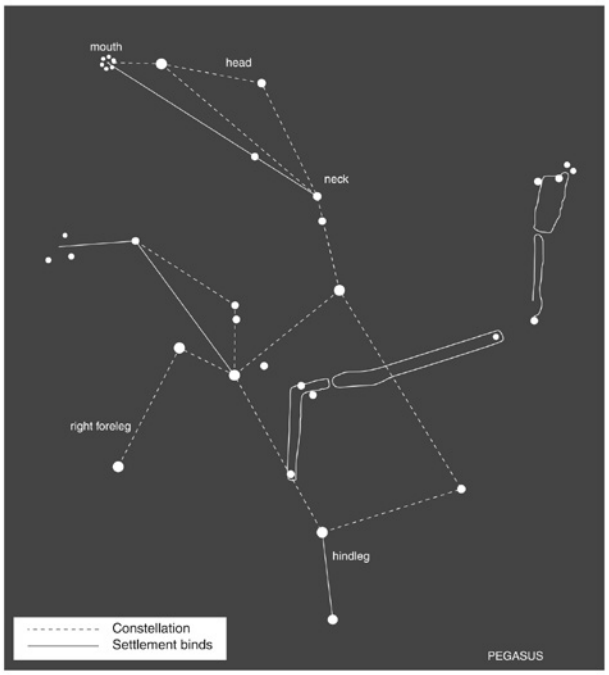
Analysis of the pits reveals that their deposits contained objects of divination as well as having direct symbolic association, in that they represent and mirror on the ground their celestial counterpart i.e. a horse's hoof / foot / bone buried to mark the hoof of the constellation of the Horse, Pegasus or part of a cows skull buried in the spot to represent the head of the constellation Taurus the Bull. "Taken as larger patterns, features seem to form constellation patterns of stars, mapping the cycles of seasonal time". The patterns created on the ground via the burial pits in the form of constellations, has been described as multi-faceted formalised iconography. The figures in the settlement are not exactly replicating the proportions of the sky constellation patterns, as there is no 'absolute' way to bind stars together. **The formulas used in setting out and aligning the pits on the ground included a system of orientations on the constellations in the sky as well as with the suns orientations at points in the year against the horizon, particularly at auspicious times of the year, namely the Winter Solstice, the longest night when the 'gods' mythical landscape was inverted.**

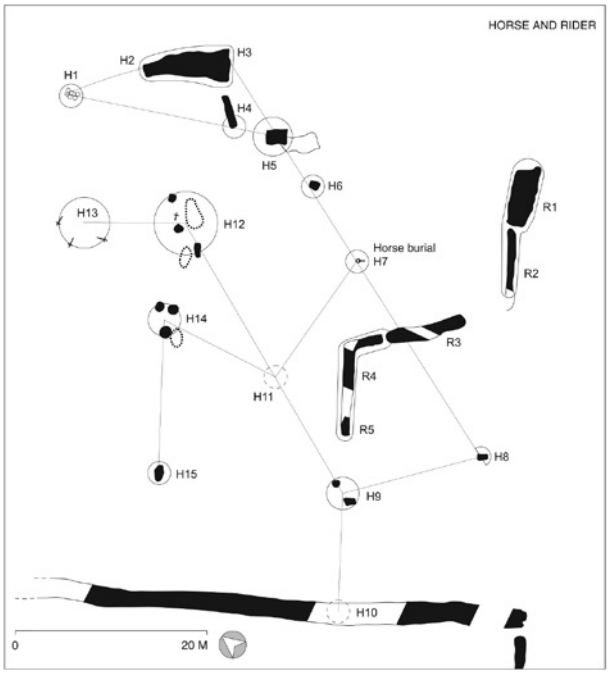
Therkorn explains that on our earth it is humans that are predominantly active during the day and largely honoured around the Summer Solstice, whereas in the mythical night-sky world, the suspected deities of planets and heavenly landscape features are out and about and visible during the night. "Correspondingly, that which lightens up that night-sky landscape is the moon. As the light source, it is the night's 'sun', and moves about. In the otherworld, dark is light. Seasonally, the inversion of time results in the longest day equals longest night, and the reverse" [49]. The ritual patterns and forms created here have been interpreted as cosmological landscaping of settlement areas. Through their celestial wanderings, individuals could readily access the gods via the material burial pits mirroring the sky-gods, their heavenly counterparts the stars and planets which dominate (see Figs 13 & 14). This view of the heavens is in accordance with Scandinavian time systems which were built around two seasons, as opposed to our current four, a belief in two distinct halves underlined by the Norwegian farmers' use of the Primstaven, a flat rod-shaped calendar made of wood. Here the year was visibly split in two; winter was on one side with summer on the reverse. Each side was associated with different parts of the year with its relevant festivals and celebrations marked [50].



Left, Fig 13:
Constellation Greater Dog and the settlement traces, including two great dog burials.
© Therkorn, L.,L (2004).

Below, Fig 14:
Features forming Horse and Rider in the sky and on the ground.
© Therkorn, L.,L (2004).





The Royal mounds at Old Uppsala & the Great Midwinter Sacrifice 450- 500 A.D.

Medieval Scandinavians held Gamla Uppsala as one of the oldest and most important locations in Scandinavia. As we will explore later, the royal estate at Rendlesham mirrored elements from Uppsala in the construction of its kingdom through its temple, royal halls and Christian church [51]. The German missionary Adam of Bremen wrote in his "Deeds of the Bishops of Hamburg" (1073-1076 A.D.) of the great festival at Uppsala every nine years held at the ancient main heathen cult centre. The temple of Uppsala is described in the fourth book, chapters 26 and 27 "this people have a widely renowned sanctuary called Uppsala. By this temple is a very large tree with extending branches. It is always green, both in winter and in summer. No one knows what kind of tree this is. There is also a spring there, where the heathens usually perform their sacrificial rites... This sacrifice takes place in connection to the spring equinox" [52]. **By observing the rising and setting of the sun along the sides of the mounds, a perfect control was established over the course of the solar year and it was possible to determine the dates of the three important sacrifices at the beginning of the winter, the middle of the winter (midwinter) and the beginning of the summer [53].**

The three Royal mounds are carefully aligned so that their orientation corresponded to sunset on 8th February, the restart date of the eight-year lunar cycle. "Midwinter month is the second month after the winter solstice and Midwinter Day is the day exactly between the Winter Solstice and the Vernal Equinox... The three mounds are also oriented in the direction of sunset on 3rd November. In ancient Sweden, the year started at the first new Moon after the 14th October, the first winter day on the runic calendar staff, or 22st October according to the modern calendar." [54]

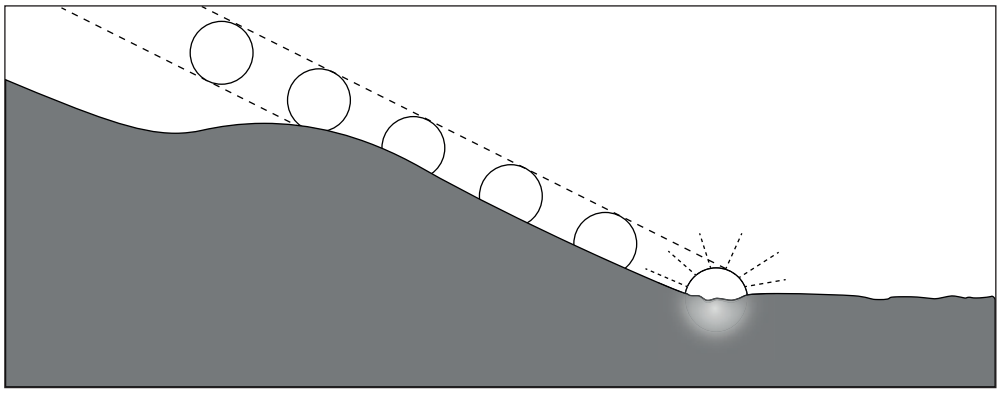
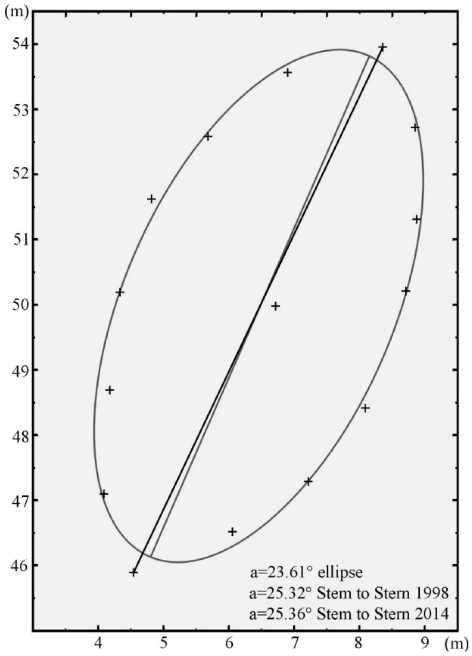


Fig 15: Sunset along the large mounds 8th February 1993. After: Henriksson, G (2003).



Ship setting at Valsgarde burial ground: 1241 B.C. – 556 A.D.

At Valsgarde in Sweden, there is a prehistoric burial ground which sits just 2.5 kilometres North-North-West of the Northern row of posts described at Old Uppsala above.

The burials at the site date from approximately 500 B.C. to 1100 A.D. Valsgarde is commonly known for its rather famous fifteen boat graves dating from 550 to 1100 A.D. Less well known are 62 cremation burials, fifteen inhumations and chamber graves. 14 post holes in the burial ground at Valsgarde have been positioned to form an almost perfect ellipse [55]. **The orientation of the above ship settings, according to Henrikkson align to 25.34 degrees, differing from the orientation of the Northern row of posts, described earlier at Uppsala, by only as little as 0.32 degrees. At this orientation they point "towards the rising full moon of the Great Midwinter Sacrifice in the eight-year cycle" [56].**

Fig 16: The 14 postholes in the burial ground at Valsgarde placed along an almost perfect ellipse. The orientation of this ship setting differs only from the orientation of the Northern row of posts at Old Uppsala by 0.32 degrees. After: Henriksson, G (2014).

Equinox and the freestanding posts at Yeavering: 594 – 616 A.D.

Yeavering is the most important royal site of old Bernicia whose Brittonic place name Gefrin derives from the Yeavering bell, a huge twin topped hill lying to the South means 'hill of goats'.

Extensive standing posts and wall trenches at Yeavering portray a site that has a long tradition of West-East axial alignments. The consensus is that the big hall was built for King Æthelfrith *c.* 594 – *c.* 616 with each of these alignments designed to allow an observer to date sunrise to different times of the year. **"The sun would shine from East to West directly through these halls on the morning of the spring equinox, to be seen by (or proclaimed as rising behind) the king for the benefit of his subjects standing before him...When or in what order these alignments were first established cannot be known, but the valley of the Glen was home to solar observations long before the Berncians: the East facing doorways of most Bronze Age huts on Yeavering Bell confirm the importance of observing (true Eastern) sunrise in this valley over many centuries before the Yeavering site was developed"** [57]

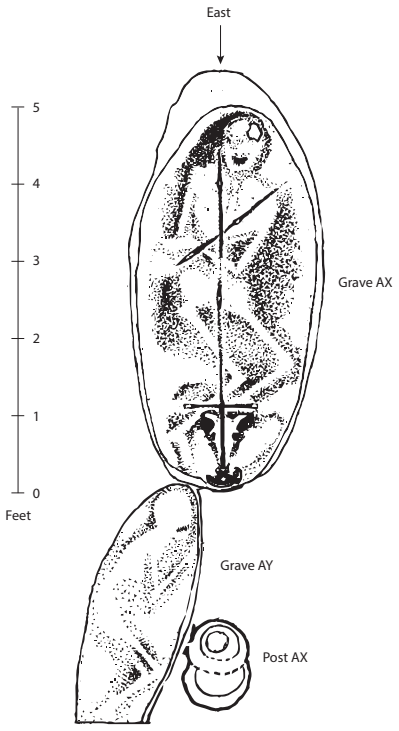


Fig 17: Grave AX,' celestial surveyor' or astronomer (North, R. 2017). After: Hope-Taylor, B (1977).

A Roman surveyor's ***groma***, ideal for siting a true East-West line, lay ceremoniously across a skeleton and its grave-goods in Yeavering's acidic soil. At the top of this 'standard', for it has been likened to the standard discovered at Sutton Hoo, appears to have been an animal figurine, possibly a boar [58] * similar to that on top of the 7th Century helmet discovered at Benty Grange. **Buried slightly to the left of the person's feet below the cross hairs of the groma was a horned animals skull, believed to be that of a goat and 'is suggestive in itself of "ritual" intention'.** Bede describes his zodiac in chapter 16 of his *De temporum ratione* with his first house named after Aries, the Ram; the constellation that once rose at the time of the spring equinox from when the ancient year began. Using key alignments from the site (Post D to Post BX. See Fig 9) North found: **"a sunrise consistent in Bede's zodiac with Aries 1°. By chance or otherwise, this sighting finds roughly the day on which the sun moves into the house of Aries."** [59]

Sunrise dating of death and burial: Orientation in an Anglo-Saxon Cemetery: 650-725 A.D.

At Finglesham, Kent an Anglo-Saxon cemetery was excavated in 1928-9. A study completed by 1967 specifically examined grave orientation and its implications for the 243 burials present. The first burials on the site, part of an aristocratic family dated from the first half of the 6th Century. In Anglo-Saxon cemeteries, orientation of burials can be very diverse [60]. From a cursory glance at the plan of the cemetery it is said that one might conclude that the pattern of burial "might seem quite random". Yet when the grave bearings were plotted diagrammatically it was found that 240 out of 243 burials cluster in an arc between N.23 degrees and N.126 degrees. **Of the total 243 burials, 215 of the slightly later graves from the 7th and early 8th Centuries clustered closely between the azimuths of the midsummer and midwinter sunrise. In summary, Chadwick Hawkes concludes that, "there can be little doubt that they were dug on sunrise bearings deliberately."** [61].

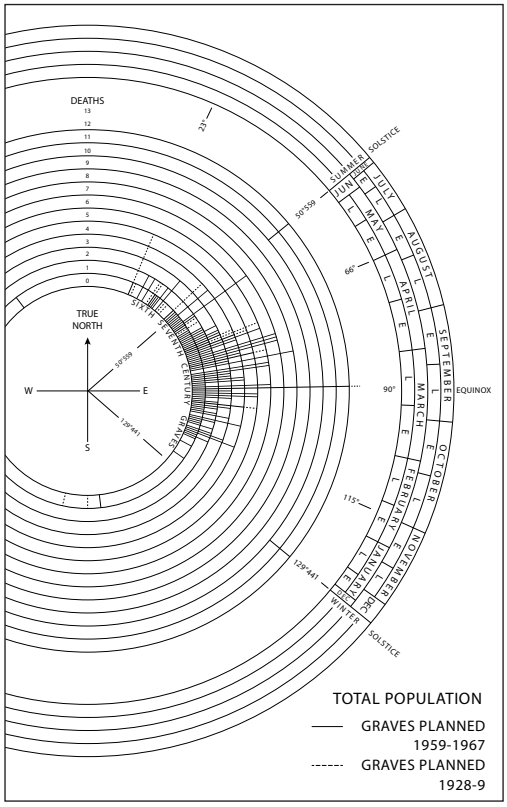


Fig 18: 215 of the 243 burials 7th–8th C clustered closely between the azimuths of the Midsummer and Midwinter sunrise. After: Chadwick Hawkes, S (1977).

The Rösaring ceremonial Road: 815 A.D.

The Rösaring roadway is located in the municipality of Upplands-Bro lying on a glacial ridge rising 40 metres above the surroundings. The name Rösaring alludes to a 16 metre wide labyrinth of unknown date laid on a site that contains two large Iron Age mounds and some Bronze Age cairns. To the South, two cemeteries contain a total of 200 graves, including some 50 mounds of late Iron Age character [62]. This rare early Viking road was constructed in 815 A.D. +/- 80 years, stretching for 540 metres and 3.5 metres wide; it is believed to have been of ritual use [63]. The processional roadway is orientated North-South and appears to have been used for a number of astronomically related events,**** including ***the Milky Way which passed over Rösaring about three hours before midnight at the time of the winter solstice.*** For the next two to three hours, the Milky Way crossed the heavens, appearing as a white cloud of light in the clearing above the barrow at the South end of the roadway.

As the Milky Way crossed the heavens appearing above the barrow at the end of the roadway, "the effect would have been heightened by the simultaneous passage above the mound of the prominent pattern of stars in the constellation Orion" [64]. In 'The Sun and the Rösaring Ceremonial Road' the authors present tangible evidence of an attempt to establish a connection with the heavens via the sun, moon and the Milky Way.

A striking effect occurs when the sun in winter passes low over the road at the Winter Solstice, lighting up the whole length of the roadway just a quarter of an hour before the sun passes over it [65].

The Trelleborg fortresses: 980 – 1000 A.D.

The Trelleborg fortresses were a Viking Age ring fortress of a particular unique design built mostly in Denmark and Southern Sweden. Seven of the eight 'borg's' known presently have been dated to the reign of Harold Bluetooth of Denmark 980-1000 A.D.

Designed to be an exact circle, they were crossed by two roads at right angles in the geometric centre, leading to four gates with two gates always opposite each other like the points on a compass. However practical this design may have been, its symbolism as a four spoked wheel has been likened to Scandinavian Bronze Age solar symbols [66]. The main circular castles were surrounded by an earthen rampart, in some cases like the one at Trelleborg, being 5 metres in height and 17.5 metres wide at its base. It was common that in each of the four quarters stood longhouses, arranged in a square, which may have accommodated as many as 1,300 people. The example at Trelleborg had an inner diameter of 136 metres containing 16 longhouses each approximately 29.5 metres in length, with the largest Borg at Aggersborg at 240 metres across.

Fig 19: Trelleborg Fortress

Astronomically, in addition to the obvious Easterly direction of the Trelleborg's, possibly relating to the sunrise according to Pasztor and Roslund, the Easter full moon "could also have played a role in the newly Christianised Denmark" as "the rise of this moon through the East gate at Trelleborg for four years prior to winter 980-981 when the last trees for the construction of the fortress were cut down." [67] **"Landscape archaeology intends to reconstruct ancient cultural landscapes. Such investigation identifies basic landmarks around which cultural landscapes were created. Their location in space may be emphasized through particular orientations which project human attributes onto distant horizons, creating meaningful skyscapes" [68].**

In approaching ritual landscapes of the past, we need to reflect on the limitations of material remains and our own ways of thinking [69]. Our generalisations and categorisations may allow us to recognise similar aspects in the landscape, but what about the power to be able to shed light on unexplored long-forgotten conceptual worlds and patterns of action? This has been described as both the strength of archaeology and its weakness, whereby everything in the border zone between sacred and secular becomes blurred [70].

The Anglo-Saxon Kingship tradition linked the themes of day and night to the full span of a king's rule. The movements of the sun were linked to maintaining cosmic Royal order, to a seasonal, yearly division meant to legitimate a king's ritual role in seasonal regeneration and at the apex of Proto-Indo-European society the title associated with kingly rule has at its root concepts of doing the right thing, straightness, correctness, goodness, sovereign kingly rule and even "movement along a straight line" for the core meaning of reg, as in regal [71]. Palmer discovered that the carriages carrying the deceased in Holland were forbid not to use the straight doodwegen deathroads in the Dutch landscape [72].

The horizon we know is of widespread mythical significance the place where the earth meets the heavenly vault and has strong associations with the power of the underworld and 'places of emergence' [73]. The 'below world' - the place below the horizon where the sun disappeared to and rose from - was the underworld; the chthonic realm of dark and destructive forces. There is a long tradition of associating the rising sun with connotations of birth and rebirth. Understandably, the point on the horizon where the solstitial sun was seen to rise or set was often imbued with sacred significance [74]. Symbolically, the two horizons of the East (sunrise) and West (sunset) represent the 'hypnopompic' and 'hypnagogic' states in the waking (day) and sleeping (nightcycle).

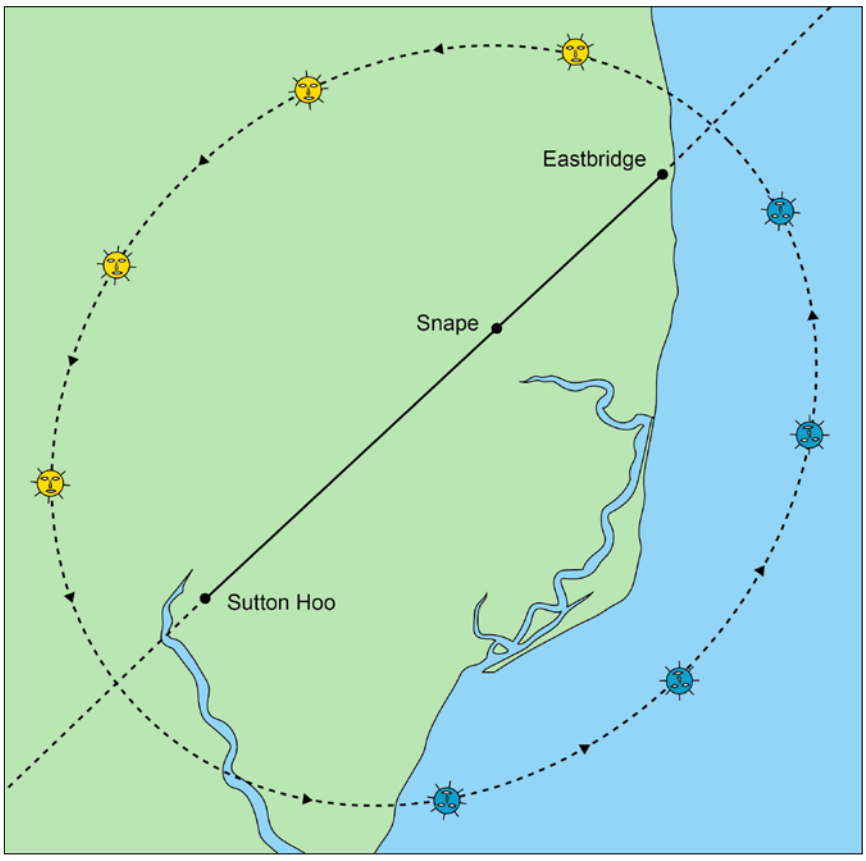


Fig 20: The Sandlings landscape from Sutton Hoo, across Rendlesham, Snape terminating beyond Leiston at Eastbridge. The path of the sun dies in the west, traversing the underworld before being reborn and rising in the East.

The ship was a consistent burial feature in the tombs of Predynastic Egypt since 6000 B.C. – 3100 B.C. In Egypt, the symbol of the boat maintained symbolic dominance for millennia 'through changing cultural paradigms' even as religions shifted their focus between lunar and solar pantheons – **'the boat remained the celestial vehicle of the gods who were closely associated with rituals and funerary rites [75]. As a man made construction it allowed the "sun god to move safely over the water of the dark night world. Psychologically, the ship can be understood as a symbol for a solid mental concept based on knowledge and experience of the ancestors. Such a concept enables the light of consciousness to regenerate, go through a process of renewal, in the dark and dangerous realm of the beyond, which is today referred to as the unconscious" [76].**

In old Europe, there are ceremonial ships on the megalithic tombs in Brittany and Ireland, Cycladic tombs dating from the 3rd Century B.C. in Malta and rock carvings of ships from the Bronze Age in Scandinavia and Denmark called ships of renewal. The boat serves as a cradle and a coffin "in the souls transition away from its birth mother and in its return to Mother Earth" [77]. Whilst boats are associated with the sun's journey at night on water, horses and chariots in Scandinavian rock art reflect the suns passage across land [78]. The horizon has a long tradition in shamanistic societies associated with hypnagogic (trance) states where the acquisition of information during this enlightened state coincides with the experience of the horizon opening like a door.

The image of the solar vessel is of great antiquity in the North from at least the Bronze Age and we know that ships were of great importance to lives of the Northern Europeans whilst forming part of their cult iconography [79]. Given the importance of this item in English political and economic life, it has been considered astonishing that this symbol is so scarce in Anglo-Saxon art [80]. Symbolically, the ship is associated with the Vanir deities [81] and may depict the 'celestial boat' of origin myths when it appears on some early Anglo-Saxon coin series. Whilst there have been burials which include the remains of boats, such as clench nails in some 8th – 9th Century burials in Norfolk and clinker-built vessel fragments in burials from the 6th Century in Kent (termed pseudo boat burials), only two deposits of anything like an actual boat, an entire ocean going vessel i.e. boat burials have been discovered in the UK [82]. These are at Sutton Hoo and Snape, both just a few miles apart from one and other, and both which feature in this paper.

Footnotes:

* The Ærcerbot ritual, Erce being the name of the Earth-Mother, was an 11th Century Anglo-Saxon charm, consisting partially of Christian prayer and was a day long. The healer once in the field faced the East, where the sun would rise, turning three times clockwise calling upon the "holy guardian of the heavenly kingdom" to "fill the earth".

** Adam of Bremen [83] wrote every ninth year; however, when the early Swedes said *every ninth year* this corresponds to *every eighth year*, as, according to Henriksson, they had no zero and counted the beginning of the first year as year one and reached year nine when only eight years had elapsed.

*** Sheep, goat or crested bird.

****
"Every "18th or 19th year, the full Moon's path in summer will take it down to an altitude of merely one degree above the horizon in the direction of the road. If there is no vegetation on the burial mound or beyond it to obstruct the view, the full disc of the Moon will be standing right on the crest of the mound as seen from the road".

The Milky Way moves with the stars and during the Viking Age, it passed over Rösaring about three hours before midnight at the time of the Winter Solstice. For the next two to three hours, the Milky Way crossed the heavens, appearing as a white cloud of light in the clearing above the barrow at the South end of the roadway. "The effect would have been heightened by the simultaneous passage above the mound of the prominent pattern of stars in the constellation Orion."

Another light phenomenon occurring over the road is the rainbow, caused by sunlight falling on raindrops, appearing in the sky as a bridge of colours when the sun is near the horizon on the opposite side. It then forms a semicircle the authors continue "with both its ends rising straight up from the ground. The Rösaring road has the correct orientation for the right leg of such a rainbow to be seen from the road to hover over the barrow when the sun sets around midsummer."

FUNERARY RITES

Anglo-Saxon settlers have been known to situate themselves near to Neolithic barrows in both East Anglia and the Midlands with examples of monument re-use more frequent in the 5th and 6th Centuries, in what is often referred to as the Early Anglo-Saxon period [1].*

Funerary rituals with ancestral presence at particular places in the landscape acted as an important symbolic resource "perhaps serving to sustain the moral and social order and ideologies of certain groups in societies… The spirits of the dead and supernatural powers can be associated with old, ruinous or abandoned places, leading to their use as sacred places and burial sites" [2]. Any approach which fails to consider this wider symbolic activity in the same way as the deployment of material culture is clearly "incomplete", failing to "interpret the burial evidence within its appropriate context of ritual practice" or to accept the "social, political and religious motivations" behind the location of burial sites where often monument re-use is oversimplified as a pagan reaction to Christianity [3]. Prehistoric round barrows represent the most frequently re-used form of monument in the early Anglo-Saxon period, accounting for 61% [4]. It has been suggested that ancestral and mythic associations perhaps enshrined in the beliefs around associations with the dead at burial sites and ancient monuments lay at the heart of charter boundaries from the 7th Century onwards [5]. We know also that during the early 7th Century the 'contexts and meanings of prehistoric remains seem especially complex and fluid… when they were caught up in a fundamental restructuring of the human landscape' [6]. Anglo-Saxon ecclesiastical history is revealing the continued importance of Christian practices of periodic assembly and ritual procession not just at churches but also the very same sorts of valleys, hills and open-air landscape features that had been long revered traditionally [7]. The bounds of social groups and the specified locations for meeting places and ritual sites were shaped by raw topographic form. If human autonomy is seen as the sole agency in the perceived 'choice' for the these matters this misses the full complexity of the past, for **"the landscape has itself been an actor in human affairs, and many patterns in the past are difficult to understand without considering its influence" [8].**

'Threads of the imagination were cast over the objective features of the physical world like a magical net, pulling together the hills, trees, streams and hollows within the deeper dimensions of inner experience'

Bates, B (2002) The Real Middle Earth.

The pattern of Anglo-Saxon life within the community shared a strong resonance with far earlier Mesolithic cultures, where people lived 'intuitively, habitually, verbally, drawing on myth, aphorism, and ritual' [9]. 'Charging the landscape' facilitated being able to live side-by-side with ***supernaturals*** and as such this landscape manipulation fostered a relationship, a coming to terms with phenomena that people had no direct control over [10]. This ensouled landscape also extended to a belief that the ancestors were both connected and within distinct landscape features, be these mountains or hills, to which they would go upon their death [11]. The monumentality of ancient structures could lead to an investment with the ancestral and supernatural qualities of the landscape, enhancing their use as sacred places by constructing their idealised visions of the "past and present, their mythical origins and their social identities" [12]. Cremation, which had been practised alongside inhumation from the first quarter of the 5th Century started to decline early in the 6th Century before almost completely dying out by the 7th. Recent studies address the symbolic use of fire, its transformative capabilities, how the process of the cremation may relate to broader conceptions, and in the way that heat and fire were used (in the past) and that through fiery transformation there is survival and rebirth [13]. In most cases, cremation cemeteries were intentionally located far closer to the water's edge than general land distribution would imply with 70% in a recent study located within 1 kilometre of the river with the vast majority of these just 400 metres from the water's edge [14]. In the Ynglinga Saga (chapter 10), we read that Odin ordained that all dead men should be burned on a pyre and instituted the customer of cremation. Pre 600 A.D. in England, we find many cremation sites are on higher ground or hilltops "whence the smoke and spirit might go to Woden" [15].

The usual orientation for inhumation in pagan Anglo-Saxon cemeteries was East-West; however, there were often deviations from this and unusual orientations. It has been suggested that "**on some occasions the orientation of the body was related to Winter and Summer sunrise or sunset, and might have been a reflection of some sort of sun cult for which we have no other evidence" [16].** Although we know that the Angles did know of both the Winter and Summer solstices, as evidenced by Bede's recording in his *Reckoning of Time* (725 A.D.) [17].

Depictions of animals in Anglo-Saxon cinerary artwork are highly rare with the few examples known across Eastern England mostly depicting horses with over sized eyes [18]. These abstract designs and circular decorative schemes Nugent and Williams have interpreted as an attempt to deliberately inscribe and stamp an ocular emphasis onto urn decoration for the sole purpose of creating watchful human and beastly eyes imparting a sense of sentient and sighted onto the dead. The material culture from cremation sites across East Anglia shows urns and other objects decorated with concentric incised patterns, reminiscent of 'eyes,' such as the bone disc discovered inside a bronze cremation bowl circa 460 A.D. at Brightwell [19].

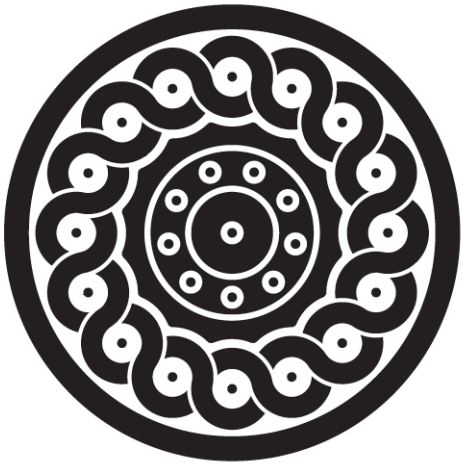


Fig 21: Inscribed bone disc, Brightwell, Suffolk. After: Moir, R.J (1921).

Some of these individual motifs employed on urns that resemble concentric punch-marks are similar to contemporary gold bracteates. Motifs on these single sided gold pendants encircle a central image mostly of mythical and/or cosmological significance, including human forms with emphasised eyes with the artwork being "regularly linked with an ideology of transformation embodying shamanistic themes, perhaps associated with an early stage in the cult of the Norse deity Odin... The decoration was apotropaic and active within the funerary context, framing and protecting the urns' human and beastly occupants" [20]. Out of a study of 252 type C-bracteates the animals or central image faced left, West at 73%, and correlates to the critical part of the solar cycle, the sun entering the underworld when "a new day is beginning with the night" [21]. The one eyed Scandinavian god Odin in myth retained one eye to observe the mortal world whilst sacrificing his other by placing it in the Well of Mimir to oversee the spirit world, the Otherworld [22]. Snorri Sturluson (1179-1241) who wrote treaties on Scandinavian regal history and the poetic arts acknowledges the early dynasties of Norway and Sweden claiming their royal descent from Odin (Ynglingasaga) [23]. In Anglo-Saxon England, we find Woden/Odin listed as a progenitor of several royal lines in Bede's Historia Ecclesiastica (c. 731) and various 9th Century versions of the Anglo-Saxon Chronicle [24]. Sutton Hoo has been described as a rapidly "evolving commemorative project in which the red and gold coloured, brilliant and seemingly 'animated' artefacts were integral to the technologies of remembrance in operation". The landscape and the animal art encoded "ritual transformations linked to early versions of the cult of the Norse god Odin and his far-seeing and soul-journeying shamanic manifestations in particular face-masks and animals with exaggerated eyes makes this an art of transformation, perhaps used to facilitate the social and cosmological reconfiguration of personhood in life-cycle rituals... intended for seeing into, and passing into, other worlds" [25]. **Odin's shape-changing abilities personify a supreme shamanic deity who transforms into an eagle to traverse the heavens and a serpent to explore the underworld, the 'All Father' who is emblematic of the sun who's great orb both sinks into the underworld only to return and ascend to the heavens, reborn. It is not uncommon for cremation urns to contain solar fylfot or swastika symbols.**

Odin stands out as a divine archetype and teacher with powers of sorcery, shape changing into animal forms, manipulation of natural elements fire, wind and sea and the foretelling of the future. He has been likened to the Langobardic myth and is regarded as a sky god associated with the rising sun [26].

The great helmet at Sutton Hoo has recently been understood to intentionally embody Woden's 'one eyedness'. Price and Mortimer allude to the helmet's ceremonial or ritual function, based on the absence of any back-foil on the 25 garnets of the left eyebrow. In firelight, the effect of this would be to see only a single eye illuminated, suggesting the wearer could appear as one-eyed Woden, or could use the helmet to 'channel' certain powers, potentially in the context of warrior-cult activities: drinking rituals, dramas and pseudo-shamanic rites. This practice of 'one eyed-ness' was pursued by creators of prestigious artefacts across a wide range of European locations [27].

Fig 22: Price and Mortimer's suggested chronological sequence and facial side of the 'altered eyes'. Source: Price, N & Mortimer, P. (2014)

Object and location	Deposition date A.D.	Altered eye (proper)
Högom textiles, Sweden	c. 500	Left
Elsfleth buckle tongue, Germany	c. 500–600	Left
Hellvi helmet mask, Gotland, Sweden	c. 550	Right
Torslunda matrix, Öland, Sweden	c. 550–700	Right
Uppåkra helmet eyebrow, Skåne, Sweden	c. 550–700	Right
Gevninge helmet ocular, Roskilde, Denmark	c. 550–700	Right
Vendel Grave 12 shield grip, Uppland, Sweden	c. 600	Right
Valsgärde Grave 7 helmet crest, Uppland, Sweden	c. 620–710	Left
Sutton Hoo Mound 1, East Anglia, England	c. 625	Left
Helmet eyebrow, animal head, whetstone and purse-lid figure		
Uppåkra figurine, Skåne, Sweden	c. 700–900	Right
Øster Vandet mask-weight, Denmark	c. 700–900	Left
Staraja Ladoga ferrule, Russian Federation	c. 750–800	Left
Ribe pendant head, Denmark	c. 750–950	Right

Boat Burials and Funerary Rites

Whilst boat burials across Europe are less scarce than in England, it has been argued that each boat-funeral was wholly unique and embodied a mythological performance [28]. The image of the solar vessel is of great antiquity in the North from at least the Bronze Age and we know that ships were of great importance to the lives of the Northern Europeans whilst forming part of their cult iconography [29]. Symbolically, the ship is associated with the Vanir deities [30]. Norse gods associated with fertility and wisdom, such as Freya, Freyr and Njord, may depict the 'celestial boat' of origin myths when it appears on some early Anglo-Saxon coin series. The sun, on its journey after sunset where it dropped below the horizon to the Underworld, was believed to be transported by boat at night and symbols of boats and sun-wheels frequently appeared together in Bronze Age Europe [31]. The idea of journeying through the perilous night, traversing the great underworld and the realm of subconscious before proclaiming renewal and the reality of the new day rising in the East is the story of great sun gods personified for thousands of years.

At least two thousand years before the Bible, the symbolism of the boat was chronicled in myth on clay tablets by the Sumerians, Mesopotamia between 4000 – 3100 B.C. in *The Descent of Inanna*. Enki, god of wisdom and father of the most enduring and Innana, popular fertility goddess of the Semites, used his boat as a vehicle to journey to the underworld on his quest to encounter the great unknown. In old Europe there are ceremonial ships on the megalithic tombs in Brittany and Ireland, Cycladic tombs dating from the 3rd Century B.C. in Malta and rock carvings of ships from the Bronze Age in Scandinavia and Denmark called "ships of renewal". The boat serves as a cradle and a coffin "in the souls transition away from its birth mother and in its return to Mother Earth" [32]. In pre-patriarchy societies of Neolithic and Palaeolithic Europe, the epiphany of the great mother goddess predominated, expressed in a system of interchangeable symbols, something which has been called 'aquatic symbolism'. Water representing the maternal depth and place of rebirth, the boat [33] which like its masculine counterpart the serpent also stood for regeneration. When associated with burial practices, the boat thus acts as a metaphor for the transcendent energy of renewal and eternal life, a material object designed to coalesce these essential dual aspects [34]. Carl Jung compared the psychological meaning of the night sea journey as a "downward way" to the earth, to "the darkness of humanity" with the boat being the vessel in which life's cosmic patterns of death and renewal are transformed and reanimated [35]. **"The journey's mythic end is the sun… the shaman flies through the sun door to the realm of eternally awakened consciousness" [36].**

The solar myth is a fundamental narrative of the Bronze Age period in Scandinavia. The direction of travel in the images of the ship sailing denotes a fundamental distinction, just like that described above on the gold bracteates, making it either a 'day ship', transporting the sun from sunrise in the East to sunset in the West across the sky, or from sunset in the West

to sunrise in the East, passing through the underworld as a 'night-ship' [37]. In mythic tradition, barrows were considered magical places, entrances to the realm of the goddess. Within Northern Europe, the fertility deities the Vanir have close connections with burial mounds [38] and were considered magical places, entrances to the realm of the goddess. Chief of the Vanir is the god Freyr, god of light and the sun, or, more precisely, the god of sunshine [39]. Freyr was the god of fertility and his sacred animals included the stag and the boar, with Gullinbursti the boar whose mane glows to illuminate the way for his owner. No myth involving Skíðblaðnir have come down to us, but Snorri relates that Freyr rode to Baldr's funeral in a wagon pulled by Gullinbursti whose symbol the ship may link with the symbolism of the ship burial at Sutton Hoo, indicative of a vessel to the otherworld [40].

Boat burials represent a rite associated with transition and a belief in the liminality of death and visually; this artistic representation has strong connections with a shamanistic belief centred on the idea of a journey to the otherworld [41].

Funerary practices associated with ships and sailing vessels, most commonly occurring between 4th - 9th Century A.D., are known at over 300 separate locations, with more than 420 boat-graves known across North-Western and Northern Europe alone. This grave form bares both mythological and cultic connotations (42). In East Anglia, we developed a particular penchant for what has been termed 'pseudo' boat burials, the practice of placing clinker boat timbers, or substitute planks of boats to either line the grave or cover a grave. In Kent, another class of pseudo boat-burial also developed involving interred boat fittings, mirroring an evocative maritime symbol through the use of clench nails and iron roves (a small quadrilateral or diamond-shaped ***iron*** plate) as intentional grave deposits, echoing the East Anglian boat-burial tradition found at Snape and Sutton Hoo with a much wider pan-Germanic concept [43]. Whilst there are a scattering of whole dug out log boats and trough shaped wooden containers** **there are only three known examples where whole intact Anglo-Saxon sailing vessels have been deliberately buried in England. Remarkably all three of these examples have been in Suffolk.**

At Snape, the inhumation in Grave 1 was placed in the clinker built Anglo-Saxon boat measuring 48 feet long and nearly 10 feet wide. There were also two inhumations in dugout logboats in Graves 4 and 47 plus two inhumations with partial dugout boat used as container or cover at Graves 3 and 10, 5 vessels in total.

At Sutton Hoo, we have four potential boat burials with two inhumations at the primary boat burials. In Mound 1, the greatest boat burial discovered in England, the vessel was 89 feet by 14 feet. In Mound 2, the looted grave contained rivets to indicate a small boat buried in a rectangular plank-lined chamber, itself 22 ft by 6 ft 7 wide with the remains of an inhumation placed on a trough-shaped wooden container or partial dugout boat. At Burial 15, there was an inhumation on a trough-shaped wooden container, possibly a partial dugout boat and at Mound 3 possible cremations (human and a horse) were deposited on a trough-shaped wooden container, laying East-West on a possible partial dugout boat, and at Mound 3, a wooden tray or partial dug out boat (4 in total) [44]. It seems the symbolism of a boat taking the dead on a journey continued in East Anglia into the early onset of Christianity, with pieces or boats used as cradles and lids for burials in graves as late as the 7th and 8th Century at Caistor-by-Norwich [45]. Whilst cremation is not uncommon in Anglo-Saxon England or Suffolk, with the two largest cemeteries in Suffolk alone at Lackford and Eye producing 530 and 130 cremations respectively, instances of cremations occurring in or alongside metal vessels, of either bronze or copper in the form of bowls, is very uncommon. Cremated remains either directly inside a metal bowl or where a cremation occurs in a barrow alongside a bronze or copper bowl is even rarer, with only 24 instances known currently (we have added to and updated Dickinson and Speake's 1992 list) [46], a custom which originated in the early migration period in Norway with two thirds of these occurring in East Anglia [47].

Some of the earliest Anglo-Saxon burials at Sutton Hoo (590-610 A.D.) were cremations actually placed in bronze vessels. At least 8 of these also contained animal bones with at least 7 containing gaming pieces. Not all of these bronze vessels can be described as hanging bowls, a type of thin walled bronze vessel capable of being suspended from three or four hooks, with the attachment plates known as escutcheons. The bronze bowls at both Brightwell and Snape were different to the above, and were both flat bottomed, of different proportions and were not designed to be suspended. **Of the 117 known hanging bowls to date in England, East Anglia ranks as the area with the greatest number [48].**

Whilst most hanging bowls vary from 135 – 460 mm in diameter and are mainly of Celtic origin, the vast majority have been found in Viking or Anglo-Saxon graves; we broadly know the style of art and decorative motifs date these to 450-650 A.D. The Anglian-cultural area of Early Saxon England then drew heavily on Scandinavian and Norwegian influences where gaming pieces and animal bones occur regularly as components of total cremations [49]. Understanding hanging bowls use, function and purpose remains shrouded in mystery and uncertainty with some plausible pragmatic and unlikely suggestions proposed: these include hanging lamps filled with oil, containers for food offerings or for specific uses in Anglo-Saxon churches [50]. Other suggestions are these are purely decorative, used as storage vessels, lamp reflectors to provide greater spread of light when lit, serving vessels for drink, water containers or that these were solely for funerary use only [51] with which we fully concur. Nayland believes that perhaps it is in the large hanging bowls location in the Sutton Hoo ship burial chamber, some 12 feet in height and 18 feet in length that we can find a clue, for it *"was not on the East wall with the tub, cauldrons and suspension chain, which suggests that it was not considered part of the kitchen equipment. Nor was it on the coffin lid with the drinking horns, drinking bottles, Byzantine silver dish, silver spoons and nest of silver bowls, which may indicate that it was not considered as (just) high-class tableware. Instead, the large hanging bowl was on the West wall, with what Martin Carver calls "the symbols of office"* [52] *– the standard, whetstone sceptre, shield, lyre, and a bundle of spears threaded through the handle of a Coptic bowl."* The West wall being as near to the setting midwinter sun within the burial chamber as was possible.

Footnotes:

* Recent interdisciplinary research is increasingly challenging the fragile walls of periodisation of the Anglo-Saxons; early (450-650 A.D.), middle (650-850 A.D.) and late (850-1066 A.D.) [53].

** Other possible cemeteries with complete boats or pseudo-boat burials are present or suspected in England at Burrow Hill, 8-9th C log boat, in a bath tub or coffin boat form, Buttermarket in Ipswich, three inhumations in possible logboats 6-8th Century with the whole vessel at Walthamstow, Essex believed to be a river barge later placed over a Viking grave. Ashby Dell at Suffolk – sewn boat, no trace of a burial, Caister-on-Sea Norfolk, inhumation graves with parts of boats for the AS period. In the UK but on the Scottish islands boat burials have been found at Shetland, Isle of man, the Orkney Islands and Western Scotland at Ardnamurchan [54].

THE PROPOSED SOLSTICE ALIGNMENT

At one time, from North Suffolk to Ipswich, a gently undulating plateau of heath land ran unbroken; this was almost the full length of the Suffolk Coastline. This wild landscape, known locally as the 'Sandlings', that follows the line of the coast was in fact created by the impact of humans and grazing sheep resulting in the clearance of the original woodlands thousands of years ago.

The Sandlings are both our natural and cultural heritage which is currently managed as a protected landscape being an outstanding area of natural beauty (AONB). Today, the Sandlings represent just 0.8% of the Suffolk landscape at approximately 3,000 hectares, compared with as much as 16,000 hectares less than 250 years ago [1,2]. These landscapes were not favoured for settlement due to the scarcity of water and were instead managed as marginal areas with settlements in the adjacent and better-watered valleys. The relationship of the Sandlings with very early settlements contributed to them being used as burial grounds in the Bronze Age, as at Levington Heath, Martlesham Heath and Seven Hills at Nacton and latterly at Sutton Hoo and Snape, which will be explored in some detail later. The locations in this paper fall within the above AONB covering 403 square kilometres of Suffolk's coastline and heaths. The sites themselves are all exactly on the 'marginal edge' of this nationally important and protected landscape of sandy open ancient heathland, mudflats and estuarine creeks.

The distribution of known early Saxon settlements appears to be divided into two main areas; one of these being the heads of the major river valleys in the South-East of the county on the Sandling soils [3,4]. Most of the significant settlements in late Roman and early Saxon times were located on major valleys, with the main areas of arable land beside them with a good supply of water. In contrast, the higher valley sides were occupied by pasture and tracts of woodland which were agriculturally as well as spatially marginal. By the 5th and 6th Centuries, Lowland England was divided "into a myriad of diminutive tribal territories, each extending over tens rather than hundreds of square kilometres" [5,6]. Conditions such as proximity to water and the light soils of the Sandlings coastal region favoured early Anglo-Saxon activity in these restricted areas, which produced a series of internationally significant high status cemeteries with boat burials and barrows, including Sutton Hoo, Snape and also Bloodmoor Hill, Carlton Colville. We know that two of the key changes to occur in Anglo-Saxon territorial organisation in the 7th Century were a spatial dislocation, reflecting a significant shift in conceptions of sacred geography between human and supernatural residents of the landscape and that richly furnished barrow-burials emerged, before quickly disappearing [7]. The blurring of cultural migration and adoption of styles and influences between the Romans and Anglo-Saxons, lasting nearly two centuries around this time, raises some difficult questions. Blair cites the accurate replication of Roman culture as implicit in the writings of Bede as well as the adoption of late-pagan shrine forms that derived from the Romano-Celtic temple tradition before describing the Anglo-Saxons as ***'trying to look Roman'***. In the conference proceedings for 'Anglo-Saxon Rendlesham - Royal Centre of the East Anglian Kingdom', it was revealed that several Roman settlements had been identified in a large archaeological survey in Rendlesham, including groups of 4-5th Century finds hinting at 'some kind' of an official presence right to the very end of the Roman period [8].

Fig 23: The Suffolk Coast and Heath's area: from Sutton Hoo, Rendlesham, Snape and Minsmere on the fringe of Suffolk's AONB (area of outstanding natural beauty).
© Suffolk AONB

Like their Celtic predecessors, Anglo-Saxon heathen worship seems to have occurred in open-air sanctuaries. They connected with distinct features in the landscape supporting the pre-Christian belief in an "ensouled" landscape [9].

Areas of activity can be identified from names involving the elements ***hearg*** and ***weoh***, such as Harrow-on-the-Hill and a Harrough Pightle marked on a 17th Century map just down the road from Sutton Hoo [10]. Hearg sites were generally located on high ground, and may have been spaces for the enactment of certain tribal rituals. Weoh sites, by contrast, were found near important routeways and may have functioned as personal shrines [11]. This use of hills and open spaces may even have been an expression of ongoing Romano-Celtic beliefs.

In a recent seminal study titled *Building Anglo-Saxon England*, the author makes it clear that too little account is being taken of the strong associations the Anglo-Saxons maintained with their homeland with strong affinities in Anglian-England to Norway, Denmark, Southern Sweden and Jutland [12].

"If in modern times, we are dealing with a rational-economic and profane reading of the landscape, in the past it appears to have been experienced more in mythical terms. The notion of a sacral, cosmologically-embedded ordering of space applies to both pre-Christian (Celto-Germanic, Roman) and Christian cultural traditions" [13] The landscape around Sutton Hoo towards Rendlesham became the home of the Wuffingas, the 'people of the wolf' who came from Sweden and were an offshoot of the Scylfings and established their vicus regius, 'royal estate' described by Bede as the 'king's village' at 'Rendlaesham' in his 8th Century book 'An Ecclesiastical History of the English People' [14].

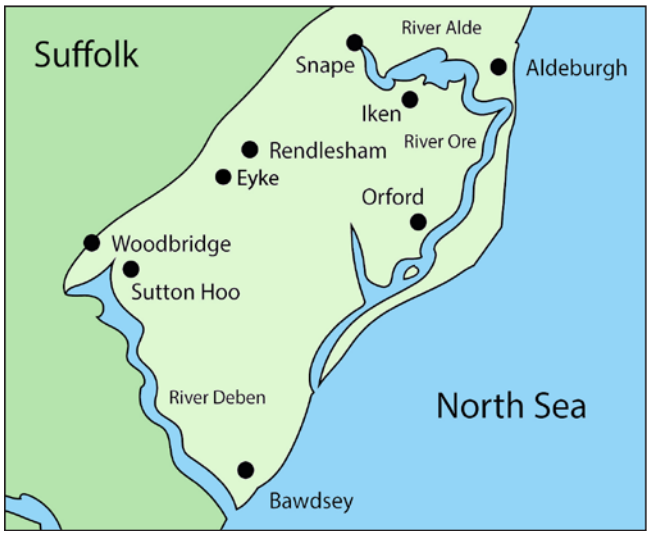


Fig 24: The Sandlings region around Rendlesham by the early 7th Century was virtually the capital of the whole of Southern England [15]. © Suffolk AONB

In *Norse Religion and Ritual Sites in Scandinavia in the 6th-11th Century,* Jorgensen explores the sacred landscape of the Vikings on the *West* bank of Lake *Tissø* in *Western* Zealand, Denmark [16]. Six areas, all with distinct ritual functions, were integral to this idea of an ensouled landscape, including resident and cult buildings alongside the lake, which was found to contain weapon and jewellery offerings. He concludes "how the ritual landscape in the close surrounding area of an elite residence was structured. More or less all characteristic places in the landscape were charged with a psychological significance, which meant that a number of rituals were associated with them. The density of the sites shows that the Vikings had superimposed their cosmological understanding on the surrounding environment." The people of the Viking Age had organised these 'mental' landscapes, where the religious world picture was given a heightened physical and concrete expression. Our emerging and unfolding understandings of the early Anglo-Saxon populations closer to home demonstrates that they also had this "synergic relationship with the natural world" and the supernatural, with evidence that in the late 6th Century and into the 7th it became increasingly important, as small elite groups secured greater regional power, to manufacture "dynastic traditions and linkages between the living and the dead" [17].

Water was an important landscape element and the main interface for communication with the metaphysical world. Many Anglo-Saxon hoards seem to favour being placed at boarders in the landscape and in pagan cosmology streams formed borders which may have also impacted upon Viking society in terms of boundaries and land ownership [18]. Many early Christian churches were founded in direct correlation to the watery sites that featured so heavily in the Anglo-Saxon's perception of where the otherworld could be accessed - beside natural places such as springs, river crossings and wells [19]. The liminal qualities associated with wet and watery landscape features were seen as potent markers, a conduit for the 'in between', where transitions were possible, travelling between the present world into the supernatural "even from the living to the dead" [20]. Such places according to Semple accrued significant meaning in the psyche of the early Anglo-Saxons with 'the local' it seems giving rise to more selective myths and legends, invented or real memories "that valorised some features and places over others". Anglo-Saxon cosmology featured a vision of an idle Earth surrounded by a ring called Garsecg, an infinite ocean that acted as a waterway marking the boundary between this world and the next [21].

Bridging the liminal physicality of water through practical means became symbolic of religiosity and kingly rule such as the Roman tradition of the high priest, that later merged with that of Imperator, becoming known as the 'pontifex maximus', 'the greatest bridge-builder.' In the Eastern Indo-European religion of Jainism, saints and great sages of the faith were bestowed "the title 'Tirthankara', meaning 'ford-maker" with waters that must be forded identified as samsāra, the cycle of birth and death" [22]. Open air sites as places of assembly where ritual in the landscape occurred, have been shown to play a significant feature in Anglo-Saxon ecclesiastical development [23]. Christian practices became overlaid, with their ritual processions and assemblies not just at churches but also at the same valleys, hills and open air sites that had long been held as significant to the local populations. The Old English word Ping "originally referred to an assembly – evidenced in the place-names of open air sites like Thingley ("assembly clearing/wood") and Finedon ("valley assembly") – suggesting that ritual landscapes and "things" of the past may not have been as distinct to an Anglo-Saxon speaker as they are to us" [24]. After embracing the Christian faith, barrows and hills often had cut 4 ½ feet deep into them trenches compacted with three courses of thin stones filled with chalk and clay in the form of an equal armed cross. Many of these mounds continue to bear the name moot hill, hangman's hill or Gallows Hill, a direct link to the god Odin who was also known as the Lord of the Gallows [25] as in Gallows Corner near Sutton Hoo. Odin, Wotan or Woden was the deity of the crossroads, where three ways met was perceived to be a liminal space, between Middle-earth and the Lowerworld.

As referenced in the 'Golden Gates' section, Odin's association with crossroads has been understood by some solely to relate to his celestial associations but which overtime became understood in more literal terrestrial means. The god of the hanged man, having hung himself for nine days and nights in order to increase his divine power [26] it was customary to erect gallows at crossroads and dismembered convicts and bodily pieces were often left there [27]. Due to this, Odin would lie in wait, waiting to obtain wisdom and knowledge from the spirits of those departing, a sorcery practice known as necromancy [28]. Icelandic literature documents in ancient songs, songs of power being among the special skills acquired by Odin in his magical quests [29], the custom of 'sitting out': Utiseta, whereby a person would spend a night sitting out alone in a sacred or powerful place in order to gain magical insight and wisdom through inducing a trance state and which would often occur seated beside burial mounds and/or the gallows [30]. Professor of Shamanic research at Sussex University Brian Bates states that the name Odin is so close to the root meaning of the actual word 'shaman' that he believes this denotes one of Odin's titles [31]. In *Northern European Shamanism: A Preliminary Reconstruction* Hussey [32] considers the question 'why is ambiguity shamanic? ' This 'in-betweeness' was defined as a "liminal" state by Arnold van Gennep, in *Rites de Passage*, defined as the period between two fixed points in a rite of transition, a sort of magic-in-ambiguity that occurs in folklore, at certain periods of the day - such as dusk and dawn, being neither day nor night [33]. Evidence of ecstatic rites prior to the Anglo-Saxons have been discovered here in Suffolk evidenced by the great silver platter from the Mildenhall treasure of the late Roman period. It shows maddened dancing Maenads performing the ecstatic rites associated with Dionysus who believed in the intoxication of wine as 'a highway to other worlds' [34]. Shamanism has come to be associated almost exclusively with American popular thinking though it is a rightful part of our own heritage [35]. Its images and symbols ring more truly in our collective unconscious than those of other cultures. Shamanism itself is not even strictly a religion but has instead been termed a world-view system or a 'grammar' of the mind [36]. Shamans enter into spirit worlds in order to gain knowledge, perform magical activities or appropriate more powerful deities [37]. The word itself is a Siberian Tungus one and can mean simply 'the ecstatic one' [38] or may derive from the Tungus noun saman, deriving from ***sa***, 'to know' [39].

What is often poorly understood by critics is "that in a shamanistic society, the visionary and mythic world is projected out into the landscape". The ancient mind was as much out there in front of the eyes as it was behind them. As well as all life being infused with a sense of the scared, the land, the Earth and its topography could also become anthropomorphized "here were hills that looked like breasts of the Earth Mother, there a rocky cragg that looked like the face of a god. The landscape became the stage for legendary events and beings, the creatures of mythic time" [40]. Mircea Eliade noted that within it shamanism exhibits particular magical specialities which separate it from other magical practices pursued the world over, two key components being mastery over fire and magical flight [41]. There is also evidence in the Old English metrical charms that "the early English used shamanistic techniques in their medical practices" [42]. It has been suggested that if we want to position the data for the Anglo-Saxon society somewhere, the Siberian Khanty offer a potential parallel [43]. A traditional shamanistic culture the Khanty closely link kinship with a complex bond wedded to the landscape, demarcated into areas for the living, sacred and the dead imbued with spirits that can both offer help if propitiated or hinder if offended.

DESIGN PRINCIPLES

As we previously explored, there is a long tradition of the solstice directions, the solar azimuth angles, the point on the horizon where the sun rises or sets being venerated and held as sacred. The path of the sun revealed the workings of the cosmos and the design of the gods.

The use of alignment can connect the human monument with the sky, contributing to its significance through astronomy, linking the individual with their surrounding landscape. Alignments cannot be separated from artefacts and have been used to substantiate a vital component of the human condition since at least prehistoric times, be this in relation to the homes people occupied, the ceremonial monuments associated with ritual or in relation to death and burial. Landscape orientations, temples and alignments are polysemous in nature, conveying multiple meanings at given locations. We know that at least one quarter of all known Anglo-Saxon burials in Britain have a direct relationship with older, mostly Bronze-Age monuments [1] and that this relationship involves both proximity and alignment [2]. There are precedents for large scale surveying in the landscape and we will consider a few aspects from farther afield before exploring some of these precise and technically sophisticated surveying methods used to organise settlements by the Anglo-Saxons in the Anglian zones of central to Eastern England. **Associating such design principles and know how with the Anglo-Saxons has long been dismissed or ignored, put simply in 'Building Anglo-Saxon England' "why should the Anglo-Saxons have been incapable of design technologies that we take for granted in the Neolithic?"[3].** The grid planning of Anglo-Saxon settlements from the 600s A.D. and radially planned curvilinear enclosures in the 8-9th Centuries are thoroughly explored by Blair who demonstrates strict design principles, many of which deploy the use of the 'short perch' as a unit of measure at 4.59 metres. Moreover, in the Anglian zones of central and Eastern England this unit was often used in multiples of four, to make boxes 60 feet, 18.3 metres square because, as Blair reveals **"grid planning was pre-eminently an Anglian cultural trait".** The use of linear measurements in precise modules by the creation of grids by setting out right angles and parallel lines governed many enclosures and complexes built by the Anglo-Saxons. Evidence ranges from sophisticated surveying ranges from 100 metres across, such as the ditched enclosure at Bramford, Suffolk which conforms to polygonal radial planning, to the perimeter of the sacred space around the minster near Bondgate, Ripon, North Yorkshire delineating the sacred from the protected space, with a circle whose radius was 1.24 miles, just under 2,000 metres. There is archaeological evidence that suggests that some Anglo-Saxon burial mounds had a central post hole in the top. Understandably, the poor state of any material remains or preservation of such practices means it is unclear as to how exactly common this practice was. There are records in Old English literature of such posts or becuns, the origin behind our modern day word beacon, but which originally inferred more of an actual 'marker' [4]. Such markers or becuns may or may not relate to stapols, large wooden posts akin to maypoles which may be carved and similar in form to a totem pole and whose name still survives in a handful of English place names, Stapelford and Thurstaple, 'the stapol dedicated to the god Thor or Thunor'. At least 10 Stapols are listed in Anglo-Saxon charter deeds [5] relating to grants of land largely drawn up in 670s A.D. The word appears to mean post or column and there is some evidence that these may have been stone [6]. The large wooden post shown in the groundplan at Yeavering below may be such a stapol or god-post [7] as there is evidence that such large wooden pillars either supported the roof of great halls or stood outside 'on a barrow or prominent landscape feature'. According to Blair, a stapol may also have meant a platform, as well as post or pillar, with these important markers in the landscape taking the form of a tree marking the site for ritual and social activity [8]. **"The Anglo-Saxons were heirs to both the prehistoric European and the classical Roman traditions of rectilinear planning; their domestic and cultural space was defined by straight lines." [9]**

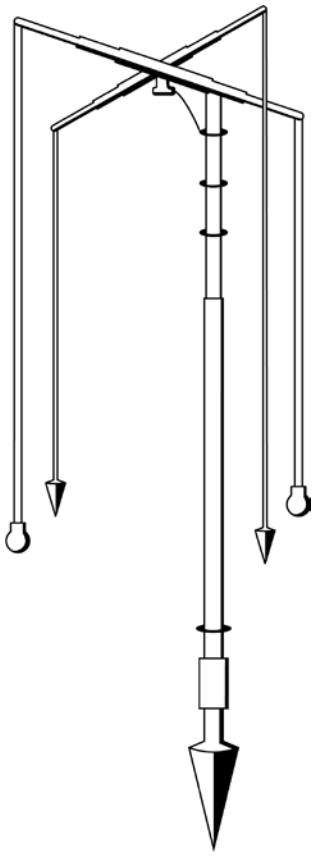
Designed landscape alignments in the form of Ley Lines were tested and critiqued over thirty-five years ago which concluded that coincidental alignments (of under 10 km) were not uncommon at similar scales and accuracies, producing many coincidental alignments [10]. However, as has been eloquently argued, just because 'some' larger number of random alignments exists among a set of features in the landscape, this should not in itself rule out intentional patterns among 'some' of these. "It just means that one cannot use comparisons with random phenomena to prove intentional design" [11]. *American Antiquity*, the flagship journal of American Archaeology in 2003 published analysis of signal fire alignments against randomly generated sets of points across the mountains over several kilometres, at the monumental site located at Cerro

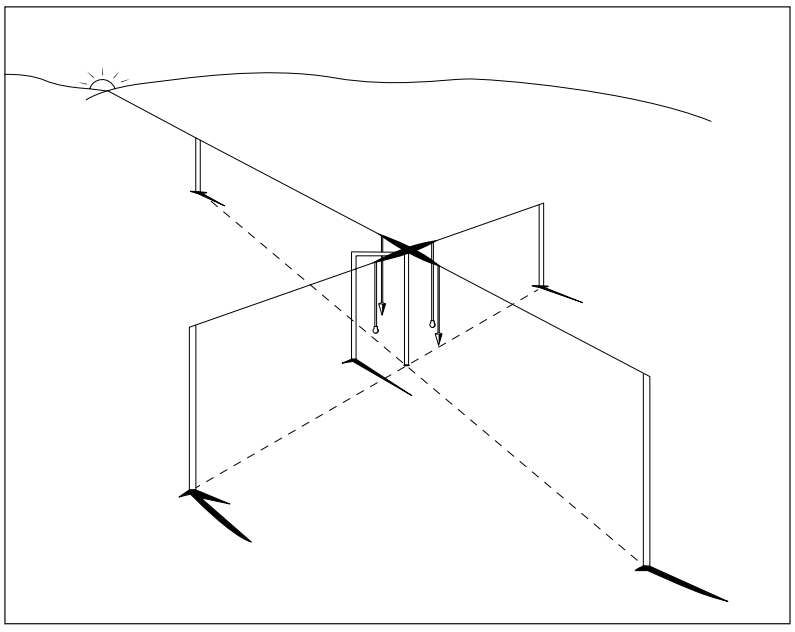
Moctezuma, in Northern Mexico [12]. The survey analysed 107 hills recording predominantly the use of raised platforms from 1200-1450 A.D. that may have functioned as a signalling system in support of defence, warfare, signalling, rituals and ceremonial purposes. Flat top platforms both supported the burning of material whilst leaving a permanent feature in the landscape for future use, even if this was only one to two metres above the surface of the ground it would help raise a signal above the horizon thereby preventing surrounding vegetation from obscuring any signal. This effective use of signalling meant that smoke could be seen during the day by up to 8 km and at night up to 42 km. By using 10 randomly generated sets of points on the mountain, Swanson concluded that the existing pattern of signal locations had a high probability of intentional design. **In Germany, the Romans placed twelve watchtowers across diverse terrain in a line covering 80 km. The greatest deviation of any tower across this vast distance was just two metres (deviation of approx. 0.016 degrees) [13].**

Whilst we may lack direct evidence of cultural transmission of the technology behind this engineering feat, it may surprise the reader to learn that the technology required to support such a dramatic landscape plan is relatively simple. The 'instrument' itself might have been a threesome of "range poles" [14] aligned across the landscape with the process of prolonging a line, with one of the exterior poles being moved to an aligned next position, and so repeated. With poles of 0.10m in diameter, an accuracy of 0.017 degrees can be achieved with the poles being spaced at 300m.

The straight building and alignment of roads in the Roman period seems to come from a law enacted by tribune Gracchus in 123 B.C. which were built and aligned as a series of straights which changed direction at high points [15]. **The strategic road network included the four famous Royal roads of Watling Street, Ermine Street, the Icknield Way and Fosse Way, though these routes appear to have been overlain on top of an older Celtic system [16].**

Vitruvius in about 30 B.C. details the surveying methods deployed by the agrimensores, the name for land-surveyors amongst the ancient Romans. A field engineer used a Groma assisted by a stake man to align the road using chorobates to run the levels [17,18]. A Groma consisted of a vertical iron staff about 5ft long and usually pointed at the lower end with a cross arm supporting the main aligning elements – the revolving "stelleta" having arms sometimes up to 3 ft across. When used they could achieve an accuracy of 0.5 mm error in 3 feet giving 15 metres across 10 km [19]. Collections of Roman surveying manuals known as Corpus Agrimensorum dating from the sixth and ninth centuries are in the libraries of the Vatican and Wolfenbuttel [20]. The earliest works in the Corpus are dated 74-78 A.D. and are those of Sextus Julius Frontinus, a Roman Soldier and Governor of Britain and designer of the Roman aqueduct system.





Above, Fig 25: Possible reconstruction for the Groma, consisting of a vertical iron staff (ferramentum) about 5 feet long used to obtain the direction of the grid according to the path of the sun. After: Hucker, R.A (2009).

Left, Fig 26: The Groma, used to obtain the direction of the grid according to the path of the sun.

A number of ancient textual references record the importance of alignment and correct orientation by the sun in the layout of a city such as those of Hyginus Gromaticus and Frontinus [21] that suggest the role of some celestial objects in the layout of a city.

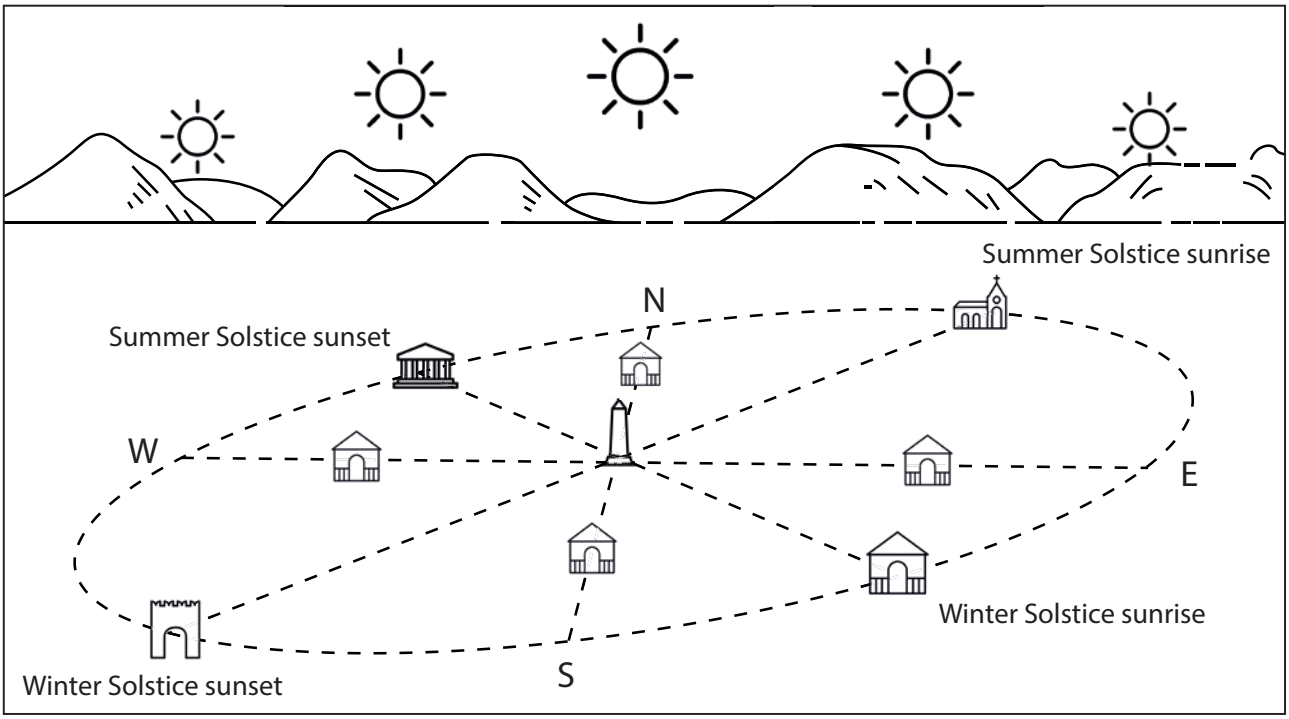


Fig 27: Sites on an alignment with the town and buildings laid out to the cardinal points.

"Whilst augury was used for determining the umbilicus. It was the task of the Jagrimensor to lay out straight lines across the land. From the central point, straight roads were laid out to the four cardinal points, making a cross" [22]. **This was achieved through direct observation and measurement of the sun with the surveyor recording the azimuth at sunrise on the foundation day. Roman towns were laid out according to the sunrise, with many aligned to the fundamental principle of the Winter Solstice sunset and Summer Solstice sunrise 'axis' line (see Fig 27 above).**

Across the earth the world over, the sun is always due East at the Spring Equinox and due South at midday. At the Summer Solstice the sun rises as far to the Northeast as it ever does, before setting as far to the Northwest at the Summer Solstice. The solar alignments recorded through the use of the above technologies marked equal divisions of the year which, according to archaeological evidence, "suggests a more complex interaction of astronomy, society, ritual and trade than that of a simple farmers calendar" [23]. The construction of towns, religious and ritual monuments mirrored this preoccupation with celestial symmetry, such as the Carpathian Basin churches mentioned earlier that were orientated towards the sunrise on the saint's day to whom the church was devoted i.e. St. Nicholas' day on 6th December with the church being constructed so as to align to the direction of sunrise on this date.

There are huge visual similarities between the Groma and royal standards, believed to have been symbols of Royal authority. The standard discovered buried at Sutton Hoo, with Raedwald, is almost identical in size to a traditional Groma and it is thought may have influenced the Saxon overlord and high king of Diera, Edwin (616-632 A.D.). That gromatic technologies of the Western Roman Empire were used by the Anglo-Saxons is the obvious conclusion according to Blair [24]. The technical treatises behind such methods deployed were written, copied and available through the 5-8th Centuries. **Put bluntly, why after 600 A.D. would "such enthusiastic self proclaimed heirs to Rome have taken no interest in Roman ways of structuring the world around them?"**

Raedwald's wrought iron standard is 5 feet 3 inches tall and was still very much intact at the time of its discovery (unlike the acidic impression that was all that remained at Yeavering) and was first thought to be an elaborate torch, a flambeau to hold an oil soaked rag when originally recorded [25] though must surely only make sense if viewed as a symbol of a royal geomancer, surveyor and landscape overlord. The complex at Yeavering shows an obvious and architecturally planned

schema displaying a strong preference for axial linearity, as early as 620 A.D., combined with expert grid planning [26]. The use of the short-perch throughout reinforces Blair's overall analysis, for it was deployed meticulously in high status grid planning and the construction and monastic complexes in the 7-8th Centuries, including Canterbury, Yeavering and Wilfrid's aligned churches at Hexham. Precision surveying techniques also included the creation of grid plans for large settlements, as in the case of Watlington, Norfolk at approximately 1.1 miles.*

As highlighted earlier, the use of the four square at 18.3 metres was pre-eminently an Anglian cultural trait and preliminary investigations suggest this may have also been employed across the Ango-Saxon landscape at even larger scales than Watlington.** At Yeavering, the most important Royal site of old Bernicia, there is extensive evidence that the construction of the Great Hall was built so that the passage of the sun could pass through its interior at both the Spring and Autumn Equinoxes. Outside there were also free standing posts that carried these astronomical obsessions still further which were continued beyond the grave. The burial of the royal standard (some time before 627 A.D.), whose appearance is almost identical to that of a Roman-style surveyor's groma [27] was placed strategically over a suspected priest in Grave AX. Both were placed exactly on this East-West line, and as previously mentioned at the feet of the priest lay a horned skull. "The goat's or ram's skull aligned with the groma may signify the house of the zodiac with which this sunrise was traditionally associated: for Bede, if not also for Yeavering in or before c. 600, both the Aries star-sign and the spring equinox signified the beginning of the year on 20th or 21st March… In light of both the instrument and the quasi-zodiacal symbolism, it might be better to call the occupant of Grave AX a celestial surveyor, or even an astronomer" [28].

A 10th Century church at Barton-on-Humber is aligned to a group of wells with the alignment itself pointing to the "the pre-minster importance of the springs". Just as heathen groves, fissures and clefts were once held in reverence, wells and springs offered legitimacy as landscape features within the establishment of the spiritual Christian landscape [29]. As explored earlier, groups of churches were often ascribed a sacred, coherent character, heightened by linearity in a processional arrangement. Warwick Rodwell [30, 31] noticed that as well as there being a propensity for East-West axial alignment, now considered to be one of the features of high status Anglo-Saxons settlements, that this could also include non-architectural features such as wells, crosses and even market places, an idea Blair [32] took further that included cemeteries, hermitages, retreat houses and old ritual sites, and which can sometimes span at least half a mile. [33]

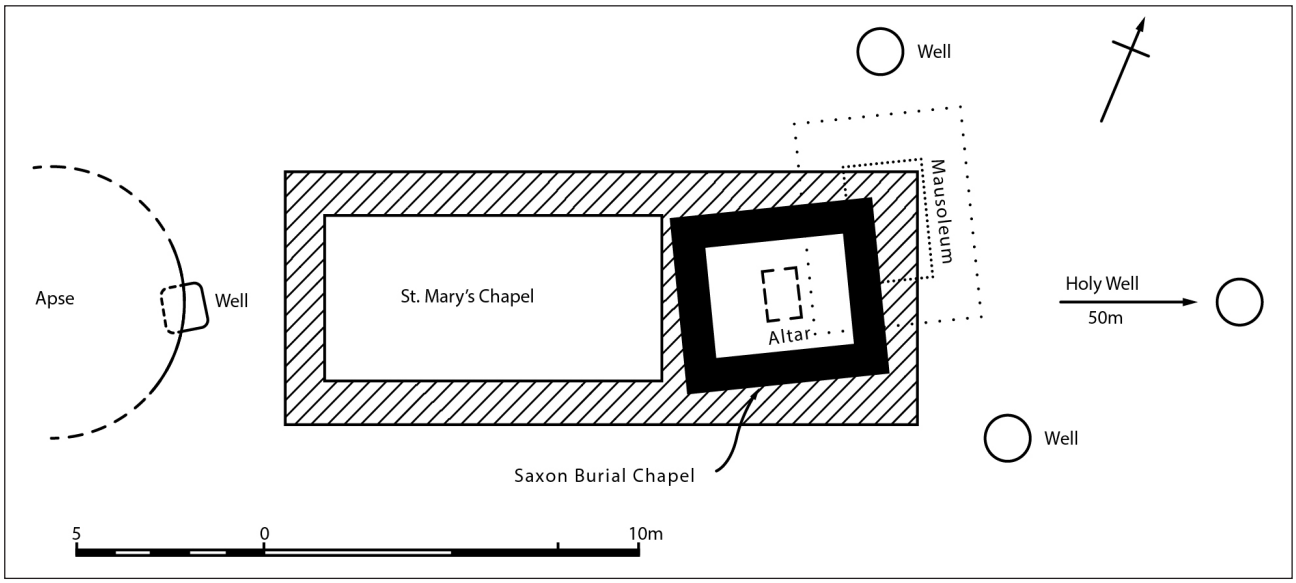


Fig 28: Wells Cathedral. Plan of the late Saxon St. Mary's Chapel demonstrating East-West axial alignment: Apse of St Andrew's church, well, St. Mary's Chapel, Saxon burial chapel, mausoleum, holy well. After: Rodwell, W. (1984).

The landscape itself continued to imbue its transformational qualities into the early 9th Century, which in turn governed the places suitable for building a church. Bede describes how "the temple stood facing East with its door toward the rising (sun), so that as soon as it rose it could bathe the whole of the interior with its radiance." [34]. Axial symmetry is deployed in the groundplan at Jelling, Denmark with King Harold's runestone standing at a midpoint on a line between the North mounds, marked by the burial chamber and the South mound, the central post. On this same alignment is a centrally placed burial in the middle of the church and six large stones marked (distance 200 metres).

Fig 29: The mounds at Bertnem, Norway, 400-500 A.D., demonstrate precise landscape planning within the trio of mounds. Similar to that at Jelling, the mounds are aligned with an earlier ship setting. After: Doxtater, D (2009).

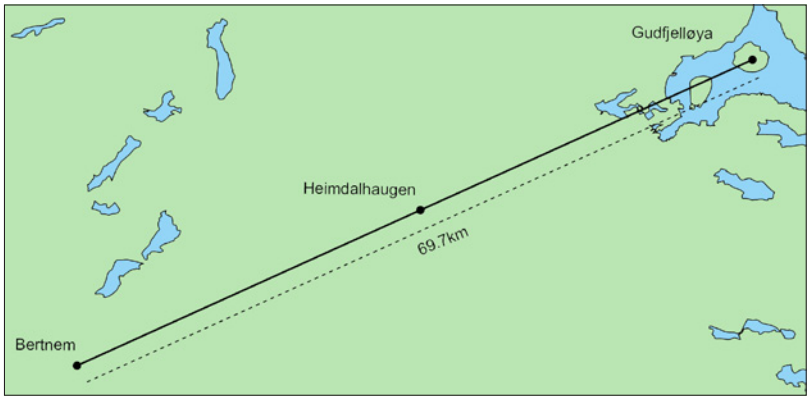
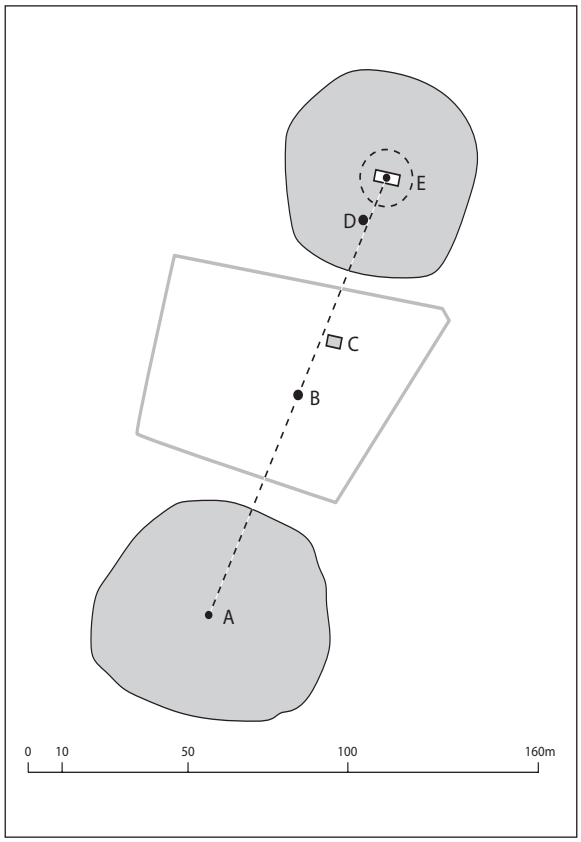


Fig 30: Summer solstice bearing - Bertnem, Heimdalhaugen and Gudfjelløya. After: Doxtater, D (2009).

The mounds at Bertnem, Norway, 400-500 A.D., known locally as the kings mounds, with the largest being 48 metres across, demonstrate precise landscape planning within the trio of mounds. Similar to that at Jelling, where the two huge mounds are also aligned with an earlier ship setting. The Bertnem mounds however also form part of a much larger landscape frame. A Summer Solstice sunrise bearing from Bertnem stretches 69.70 kilometres passing through the peak of Heimdalhaugen, the 'location of the gods' and the centre of God Mountain Island, Gudfjelløya, "one of the most phenomenologically and culturally powerful natural sites in Scandinavia" [35].

King Belinus the Great, the legendary King of the Britons who reigned from 399-364 B.C. as recorded by Geoffrey of Monmouth, a British Cleric born in 1095-1155 A.D. in his History of the Kings of Britain (written in 1136 A.D.), built nine significant roads, completing the work started by his father [36] with four of these being the royal highways. "He summoned workmen from all over the island and ordered them to construct a road of stones and mortar which should bisect the island longitudinally". He then ordered a second road to be built running East to West across the Kingdom before building two more roads in a diagonal pattern across the island. These highways were then consecrated "in all honour and dignity, proclaiming it to be an integral part of his code of laws that punishment should be meted out to any person who committed an act of violence upon them" placing them under the sacred protection of God and the nation, hence "the Kings Highway" [37]. The rights of sanctuary extended and were stipulated in the Laws of Edward the Confessor (1003 – 1066 A.D.) [38] with later law books and

Below, Fig 31: Evidence of linearity in the plan of Jelling at Denmark. (A) indicating post in the centre of the South mound, (B) King Harold's rune-stone, (C) burial in the church, (D) six large stones, (E) burial chamber in North mound. After: Roesdahl, E (1976) Vikingernes verden, in Roesdahl, E (1992) Princely Burial in Scandinavia at the Time of the Conversion. CB Kendall & PS Wells, Voyage to the Other World. The Legacy of Sutton Hoo.



Anglo-Saxon Charters of the 12th Century distinguishing at least three of the four 'royal roads' (Chimini regales), these being Watling Street, Fosse Way and Ermine Street, together with the prehistoric Icknield Way [39]. The four Royal Roads are shown in a drawing currently in the British Library by Matthew Paris, a Benedictine Monk (1217-1259 A.D.), who worked in the scriptorium of the abbey at St. Albans.

Paris's drawing and the works cited above have allowed an accurate picture to emerge of the network of major roads which once radiated out across our land and centred on Oxford [40]. **It is believed that these four Royal Roads were singled out (of nine Belinus' roads) in legend as they were prime examples of the Celtic system and that each road represented one of the four British Solstice bearings.**

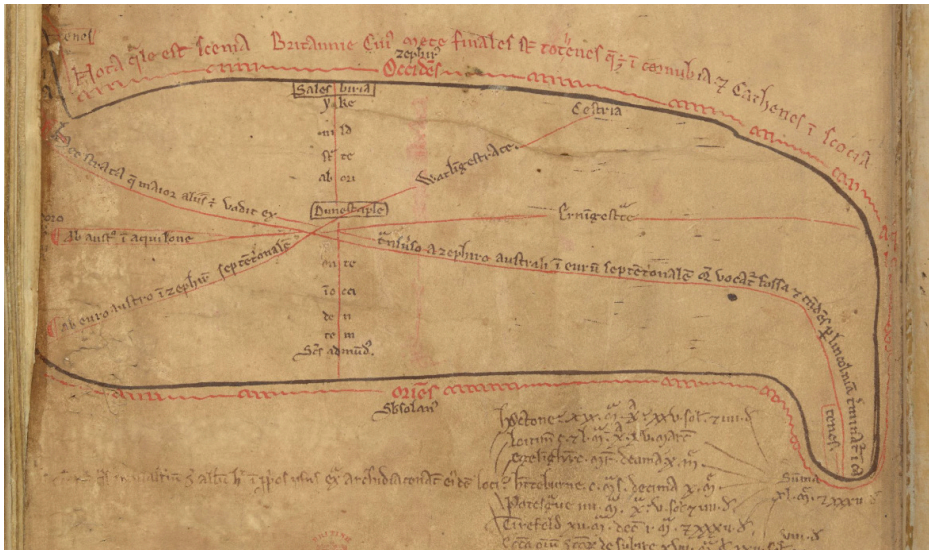


Fig 32: Map of the four Royal Roads drawn by Matthew Paris (Cotton MS Nero D I - Liber additamentorum, 1250-1259), with each one representing one of the four solstice bearings radiating out from the omphalos centred on Oxford. © British Library

Decades of archaeology at Silchester into the now invisible Roman city of Calleva, whose origins date back to between 20-50 B.C., revealed in excavations undertaken in 2011, a puzzling resistance to the seemingly well planned Roman ideology. This traditional neat, formal Roman square grid system that dominated was 'plonked down' and orientated at opposing angles on top of the earlier Iron Age street plan which was apparent in the archaeology beneath, *however,* according to Michael Fulford, professor of archaeology at Reading University who has dug at Silchester for over 30 years, he also found evidence of a series of dwellings and streets which he believed were standing at the same time amidst this plan around 80-125 A.D [41]. Whilst some of the key dwellings and smaller buildings may have related to each other, crucially they ***completely ignored*** the prevailing Roman grid and – **"seemed rather to be aligned to the Midsummer Solstice sunrise, and the Midwinter Solstice sunset... persistently ignoring the neat Roman system of Roman roads in favour of an orientation of their own".**

Was this, as Higgins proposes, a physical and mental refusal to align with this Roman ideology, in favour perhaps of a greater religious significance in orientating the buildings with an alignment towards the solstice sun? [42]. There is some suggestion that this Iron Age system also encompassed field systems, orientated on prime solstice alignments with historic county boundaries

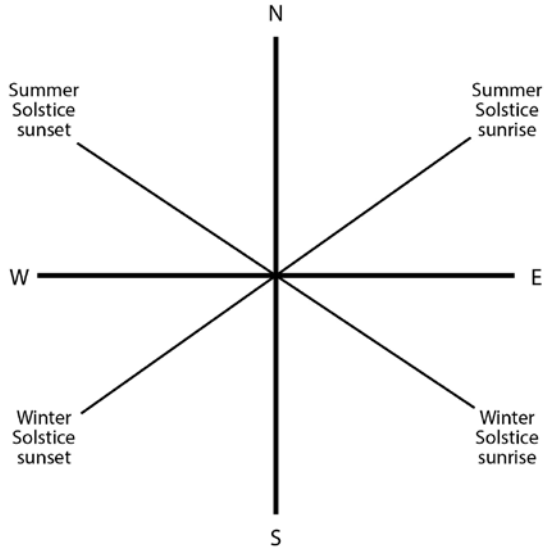


Fig 33: Since the solar angles change with latitude, a local standard would have been chosen in order to produce a straight line i.e. at Stonehenge 1,600 B.C. latitude 51.18 degrees North. The angle in question is the number of degrees measured clockwise from North, against the point on the horizon where the sun rises or sets. In 2,500 years ago the angle was only 0.5 degrees less than today. © Robb, G (2013).

continuing with this tradition (explaining how seemingly featureless landscapes, against which these now somewhat arbitrary borders define a now invisible misunderstood boundary system) later influenced the territories of the Saxon Kingdoms [43]. **Incredibly, a similar system of orientation in planning in relation to the solstice sun is believed to be part of the landscape of East Anglia [44].**

Through a surveyed network of sites that included a Saxon shore fort, large tumuli and other earthworks, these sites were believed to be located and constructed according to invisible pathways that criss-crossed the landscape *"in an elaborate network of solar alignments which if produced over the whole of England, would show a complete system of archaic observation posts and bearing lines"*. Arnott was not the first to write about such a solar network in the landscape of East Anglia and it is almost certain he was referencing the Suffolk Archaeological Institute paper from 1933 by Herbert Hudson titled 'Ancient Sun Alignments – the meaning of artificial mounds and mark stones' [45]. In it Hudson explained simply that as *"a necessary consequence of the angle the earth's pole makes with the plane of her orbit, the sun rises in midwinter immediately opposite the point where it sets at midsummer.* ***It is evident that the early astronomers made use of this alignment running North-West and South-East as a datum line for long measurements".*** Hudson then details and maps out rather sketchily, various castles, tumuli, standing stones and mounds across the landscape of Norfolk and Suffolk which he believes were done so in relation to using *"the alignment of the rising sun at midsummer to give them cross bearings"*. He was aware of the limitations of such alignments and recognised that they were to some extent wholly dependent upon geography due to the nature of the curvature of the earth. The further North one travels, the distances between lines of latitude narrow. i.e. "*If an observer in the West of England sets out an alignment on the rising sun, the extension of that line will not serve as a bearing on the rising sun on the East Coast"*. This solar observation method serves a limited area only. *"The bearing at which the sun first appears on the horizon depends upon the latitude at which the observer stands. At Stonehenge, lat. 51 degrees, it rises approximately 49 degrees East of North; at Edinburgh, lat. 56 degrees, it rises at a bearing of 43 degrees East of North"*. For Suffolk, Hudson recorded the summer solstice sunrise bearing at approximately 50 degrees. The paper, understandably, was published with a caveat commentary by A. F. Bennett from the Archaeological Institute citing the "problems of orientation" being not "so simple as they appear at first sight". That said, the Institute were willing to accept that if upon closer inspection Hudson's provisional findings could be "shown to be within a degree or two of actual sunrise or sunset bearings, they may reasonably be accepted as very strong presumptive evidence".

Determining the 'exact' point and time at which the solstice sun rises or sets is practically impossible. At the time of the solstice, as already stated, the sun on the horizon appears to stand still briefly in its path, before doubling back on itself, a process that can take up to two weeks and only deviating by 1/3 of its diameter during this time [46]. In addition, the horizon at a given location can vary enormously as it is never perfectly flat. We do not know whether it was the sun's upper limb or lower limb when it gleamed against the horizon or whether it was the full solar orb, having finally risen, that was the focus of solsticial observation in East Anglia. Whilst we might be discussing accurate landscape surveying, we are not always necessarily referring to high-level solar precision as outlined in section 3 above. For solar alignments, it is useful to contemplate Figures 27 and 34 in tandem with the evidence from other megalithic monuments where it is "more plausible to suggest that solsticial orientation, if deliberate, was of a much lower level of precision: *an alignment of symbolic significance associated with the rituals of death and burial.*" [47] Atmospheric refraction can bend rays of sunlight downwards to an observer, when in fact the distant object being viewed could in fact already be below the horizon. This effect at low altitude can also alter declination (*the angular distance of a body North or South of the celestial equator*) by up to half of one degree. [48]

For all of the aforementioned reasons, a standard solstice angle was introduced in Gaul around 600 B.C. and which was also adapted and adopted in Britain at 53.13 degrees, with the system centring on Oxford, the then omphalos [49]. It is from the Celtic system mentioned above, in relation to the four Royal Roads, that there is further evidence for another 'possible' solstice alignment that might feature Sutton Hoo, emanating from a land map, designed to be used from Londinium.

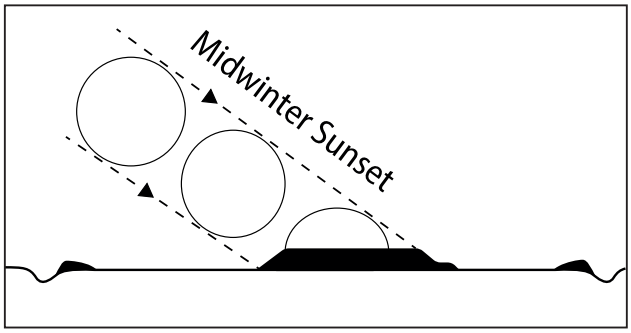
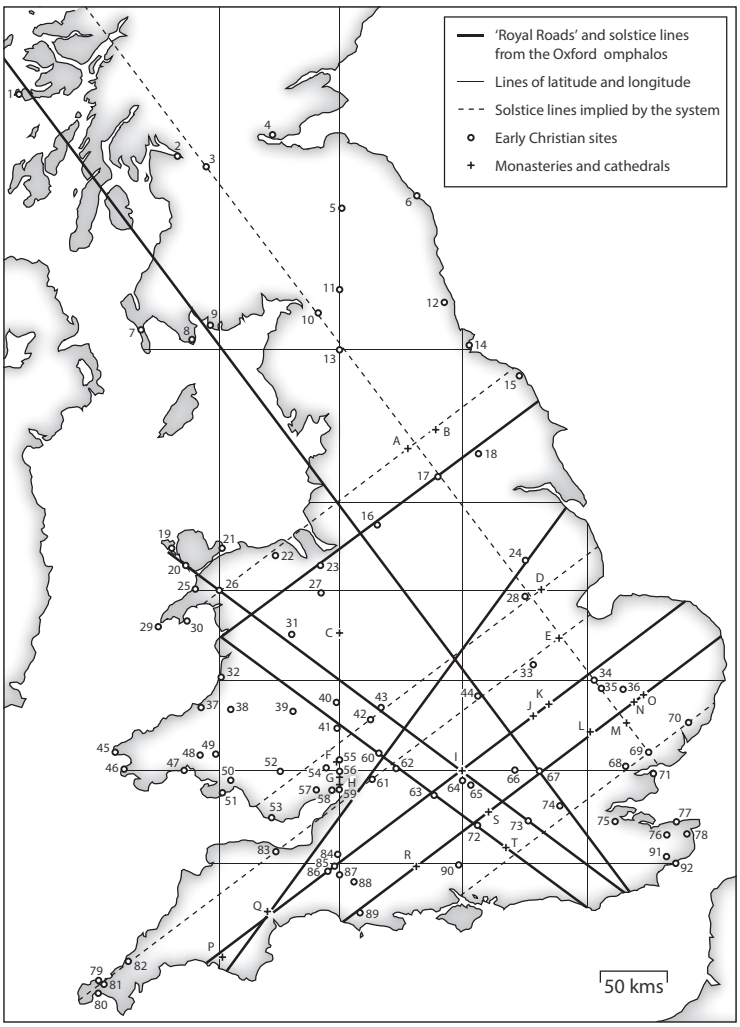
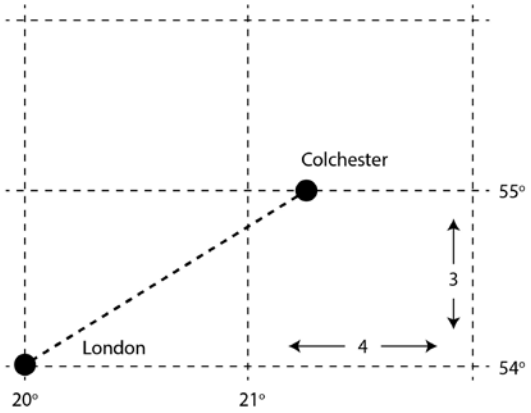


Fig 34: The movement of the midwinter sunset. After, Ruggles, C (1999).

The map is designed on Ptolemy's map of the British Isles in 150 A.D. For a detailed explanation of this, readers are advised to read *The Debatable Land* [50] and consult Robb's *The Ancient Path's* for full analysis. Ptolemy produced the grid for his map based on the unfinished work of Greek mathematician Mariuns of Tyre who had assigned coordinates of longitude and latitude to every place on Earth, thereby defining their exact location. Ptolemy's grid derived from the distances he deduced, separating these lines of latitude, though the further North one travels the shorter the distances separating these lines***. Robb's findings have revealed that the Romans founded their towns and Forts from 43 A.D. in Southern Britain (travelling northwards) by using a 4:3 ratio. By using a Pythagorean 3-4-5 triangle in relation to lines of latitude and longitude, they mapped the whole of Southern Britannia with "spectacular success".



Above, Fig 35: The early Christian sites up to the mid 7th Century plotted without reference to the solstice lines. Solid lines = Royal Roads and solstice lines from the Oxford Omphalos. Dotted lines are implied by the system. 68. Witham. 69. Colchester. 70. Sutton Hoo (?). © Robb, G (2013).



Left, Fig 36: London and Colchester - 3-4 triangle on degrees of longitude and latitude. © Robb, G (2013).

As the map itself was designed to be used in Londinium, its practical use would have been limited, however "it would have suited the purposes of an ancient Briton who, like a Muslim praying to Mecca, wanted to know the exact direction in which a certain place lay"[51]. The distances between locations were less important and approximate "but the bearings from Londinium are remarkably precise, with an average deviation of only 1.8 degrees… since the survey was based not on degrees, but on right-angled triangles with whole number sides, most of the deviations are consistent with the inevitable margin of error." [52]. **A solstice bearing of 51.35 degrees from the map's centre at Londinium centring on Westminster Abbey goes within 5 metres of the Western edge of Mound 1 at Sutton Hoo, before passing through Colchester.**

To clarify why he included Sutton Hoo in his key in Fig 35, Robb further explained that "the question mark is there because, although it does have Christian elements, Sutton Hoo is not an unambiguously early Christian site. It matches the pattern but there is little else on that particular line" [53].

Our determinants re: the solstice alignment

The only three intact Anglo-Saxon ship burials in England appear to be laid out across the landscape, aligned on a summer solstice sunrise, winter solstice sunset axis. The alignment in this paper also contains the locations of eight copper and bronze vessels associated with cremations and six pseudo-boat, dugout log boat burials.

There are further supplementary sites, of varying importance along the alignments path; locations that we believe were used to both aid construction as well as honour this sacred 'solar corridor' across the landscape. **The orientation of the alignment of sites is South-West to North-East. This orientation has been described as "a seemingly auspicious orientation" for Viking period graves, cemeteries as well as ship settings, described as the "road to Hel" [54].**

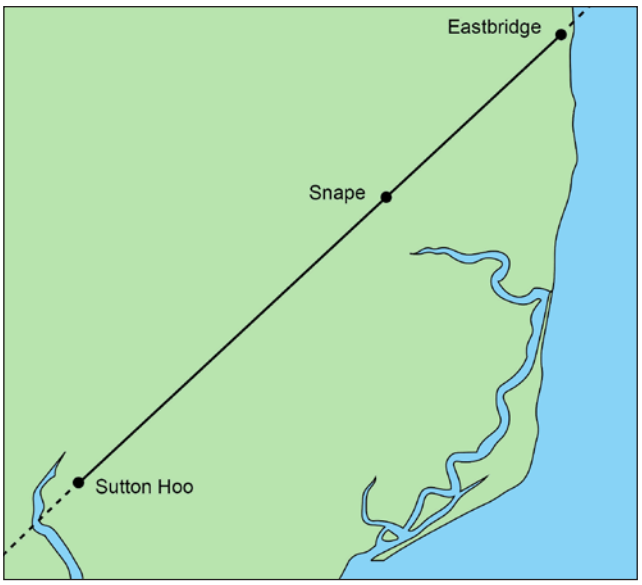


Fig 37: The three primary locations: Sutton Hoo, Snape, Eastbridge. The alignment also passes through other key strategic locations (see secondary and tertiary sites below).

The orientation of the Viking age ship burials at Salme, Estonia (650-750 A.D.) is similarly along this South-West / North-East axis, which may also possibly orientate these "ships of the dead" with the notion of **"the Milky Way, which at midnight lies over the firmament in approximately the same direction, as the way of souls." [55].**

The calculations below were derived from using Geopatterns 3, a custom descriptive and analytical software created by Cross-River for an Emeritus Professor in Architecture. It computes direct and inverse calculations of geodesics on the ellipsoid with nested applications. The alignment from Mound 1 at Sutton Hoo passes through Mound 5, on the highest part of the promontory. Looking from Sutton Hoo Mound 1 towards the Summer Solstice rise at a bearing of 49.78 degrees towards Eastbridge, at the original site of Leiston Old Abbey, the alignment line misses the centre of the interim point, the boat burial at Grave 1 at Snape by 11.39 metres. The chapel at the original Leiston Old Abbey site, that may have once been dedicated to St. Nicolas, patron saint of sailors, supplanting a much older Anglo-Saxon site. The azimuth from Sutton Hoo to Leiston Old Abbey is 310.34253**** (49.65 degrees) and from Sutton Hoo to Snape is 310.30078 (49.69 degrees). The deviation of the interim point is 0.04175 degrees at a distance of 15,635.04 metres. To obtain an average, one reverses the sighting starting with Leiston Old Abbey to Sutton Hoo 130.11922 (229.88 degrees) and Leiston Old Abbey to Snape 130.18650 (229.81 degrees) for an angular difference of 0.06728 (distance 25,343.39 metres). The angular differences from each end averaged 0.054 degrees (see Figs 38, 39 & 56).

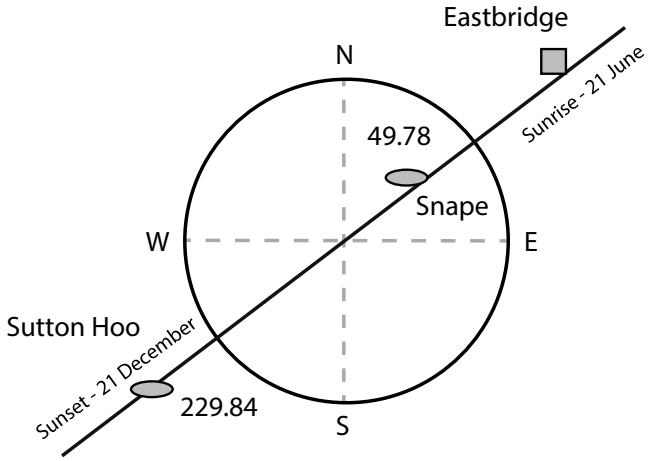
Mound 1 at Sutton Hoo is itself 30.48 metres across, with the royal boat buried within itself just over 27 metres. The sacred inner burial chamber at 5.48 metres across was inside this vessel. The intended 'exact' central point envisaged for the burial at Sutton Hoo remains circumspect. It could well have been designed to have been 'off centre' and more towards the West end of the chamber, along the far Western wall described as the 'distinguished' end of the burial chamber with the primary ceremonial objects [56]. Similarly, we do not know the intended central point at Snape, whose mound at Grave 1 was estimated to be 22 metres across, with half of this mound's diameter being 11 metres, the same distance that the alignment 'misses' its centre point from as recorded in Geo 3. Perhaps the solar ritual marker in this landscape setting at Snape was the cremation urn with the swastika that was placed on top of the far Eastern edge of the boat's mound? (see forthcoming section and Fig 39).

The Anglo-Saxon boats burials at Sutton Hoo and Snape align to the chapel at Eastbridge (Leiston Old Abbey site) at 49.78 degrees with an accuracy of 0.05451 degrees. According to the Sohland Observatory and its Section on Archaeoastronomy (SOSA) in Germany they confirmed that the rising and setting points of the solstices vary by a maximum of +/- 1 ° over a millennia. The authors were fortunate enough to have the SOSA provide independent confirmation of the solstice sunrise and sunset azimuth's. The primary azimuth measurements of note are highlighted in bold below in Fig 38 showing variations from 0.29 – 0.41 degrees, for the summer solstice sunrise from Sutton Hoo and the winter solstice sunset from Snape.

Sunrise = Summer Solstice Sunset = Winter Solstice	Date	Azimuth	Geo 3	Difference in degrees
Sutton Hoo Sunrise	**625 A.D.**	**49.37**	**49.78**	**0.41**
Sutton Hoo Sunset	625 A.D.	231.18	229.88	1.3
Snape Sunset	**625 A.D.**	**230.13**	**229.84**	**0.29**
Snape Sunrise	550 A.D.	48.23	49.73	1.5
Snape Sunset	**550 A.D.**	**230.16**	**229.85**	**0.31**

Fig 38: The primary sunrise and sunset directions are shown in grey i.e. from Sutton Hoo sunrise towards Snape and from Snape sunset to Sutton Hoo showing variations from 0.29 – 0.41 degrees.

The SOSA confirmed that in the professional world, tolerances between +/- 2.5 degrees are considered normal [57]. Our hypothesis is in accordance with the SOSA evaluation, in that "every archaeo-astronomical view is considered a hypothesis in science" [58]. We will now explore the primary, secondary and tertiary sites covered by this hypothesis.



Right, Fig 39: The two primary boat burial locations with solstice sunrise and sunset angles. Measurements in degrees from North.

"...the study of material culture in relation to the landscape not only provides insight into the socio-economic use of space, but also into its mythical dimension; the scared manifests itself at specific, prominent locations, where supernatural powers are nearer to the people than elsewhere… Thus the study of sacred places and their material culture provides us insight into the mythical ordering of the integral landscape in the past." [59]

Footnotes:

* private correspondence.
** Jeremy Taylor, forthcoming: "Staverton - Wonderland of Kings and the totemic symbols of the Wuffing kingdom".
*** Which is why a 4:3 ratio was used for Northern England from Caistor Northwards.
**** Geo 3 uses a 360 degree system.

SUTTON HOO

So much has already been written about Sutton Hoo and we make no apology for 'cherry picking' certain aspects from the tomes already published. Our intention is to highlight the primary grave goods and to ascertain whether they support the view that the cosmos around the time of the summer and winter solstices mattered to the extent that its imprint was embedded both on the land and enshrined in the symbols of royal office, taken to the grave.

Sutton Hoo is on the edge of the River Deben, an estuary in the town of Woodbridge; it was proposed in 1922 that the name Woodbridge derived from the Anglo-Saxon Wodne's town or even Woden's-beorh seu mound [1]. The ship barrow at Mound 1 is on a plateau 100 feet above the present high water mark on a forward position on the scarp and at the time of the 1939 excavation was 10.6 feet in height [2]. We know through soil analysis, that at the time the mounds were constructed, the surrounding landscape was heath land with the current woodland running down to the river being planted much later in 1881. The mounds' visibility, therefore, would be particularly enhanced [3]. **In the early 7th Century, the landscape around Sutton Hoo was an open one, with the mounds standing "uninterrupted, for more than seven kilometres to the East", with a similar open view westwards from the cemetery towards the river Deben [4].**

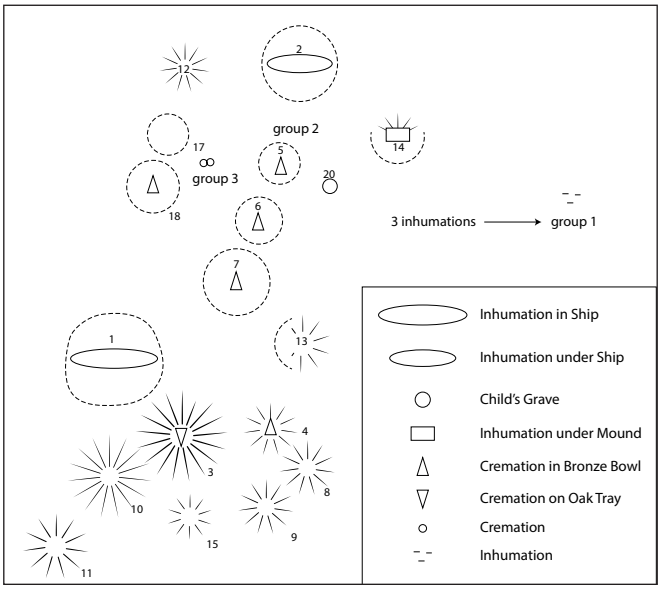


Fig 40: Sutton Hoo Mound Plan. After: Carver, M.O.H. (1992).

Williamson continues his analysis of the cemetery by observing how the first phase developed with Mounds 3, 5, 6 and 7 forming an accurate line running through the middle of the cemetery and closely paralleling the course of the river. This seems to be supported by Carver's analysis of the dating evidence that suggests the site developed from North-East to South-West [5]. All of the boat burials at Sutton Hoo and Snape were within the Anglo-Saxon kingdom ruled by the Wuffingas, 'the people of the wolf' [6]. A Swedish family and a branch of the Scylfings, they were the first dynasty to rule the Angles in Britain and are referenced in Beowulf, taking their name from Wuffa [7]. There is evidence that the primary burial mounds may have appropriated an older Neolithic site with the Wuffingas choosing to remythologise the landscape for themselves. Understanding exactly why they chose this spot, to drag the 27 metre long boat, large enough for 40 oarsmen, 20 on each side, the full 228 metres needed [8] is not immediately obvious. As Williamson eloquently questioned in his 'Sutton Hoo and its Landscape, the context of monuments', "why is the Sutton Hoo cemetery found in this particular place… why was it *here*, rather than five, ten or more kilometres to the North, East or West?" [9]

Fig 41: View across Sutton Hoo, Mound 2.

As previously explained, certain orientations for the alignment of sites, South-West to North-East, have been described as "seemingly auspicious", for Viking period graves, cemeteries, as well as ship settings, with this alignment called the "road to Hel" [10]. The recorded measurements of the barrow mound in 1940 by Phillips as part of the original excavation record it being of elongated shape, some 100 feet by 75 feet, making it so markedly different in design from the others that this idea was soon "abandoned" [11]. The barrow at Mound 1 when re-excavated in 1967-69 measured 98 feet wide by 110 feet on a North-North-East / South-South-East axis [12]. These measurements from the 1967-69 excavation have not been taken as wholly accurate either, and the measurements taken at the time of the 1939 excavation, North / South 103 feet and East / West at 91 ft similarly dismissed, on the basis of weathering and denudation. It is claimed, therefore, that the barrow was originally designed to be circular in order to match the other barrows in the cemetery. It is curious, however, that on initial examination, the axis of the mound recorded appears to be on an approximate 50 degree bearing, the Summer / Winter Solstice axis as previously explored.

The Anglo-Saxon kings claimed in their genealogies to be direct descendants of Woden/Odin [13] the truth seeking wandering shamanic god, placing Caesar as Woden's son. The placing of Woden at the end of this royal genealogy hints at the importance of the past as a source of power and can be more accurately understood to represent "symbolically filiated conventions" as opposed to an authoritative dynastic chronology [14]. Wuffa is believed to be the first to be buried at Sutton Hoo, on the highest part of the promontory at Burial Mound 5. The grave goods including a bronze cremation bowl, silver mounted cup, comb, knife, glass fragments, textiles and cremated animal bone have been described as the initiation of a "Scandinavian manifesto" [15]. **Raedwald was king of East Angles 599- 625 A.D. and high king of the Southern English from 616 and claimed to be the eighth descendent in line from Odin and was acknowledged as Bretwalda, the only East Anglian king to attain this pre-eminent unifying status being overlord over the other kingdoms of the Saxon heptarchy [16].** Radewald's death occurred in 625 A.D.* and whose elaborate and spectacular boat burial would require the removal of between 17,000-20,000 cubic feet of material [17] .

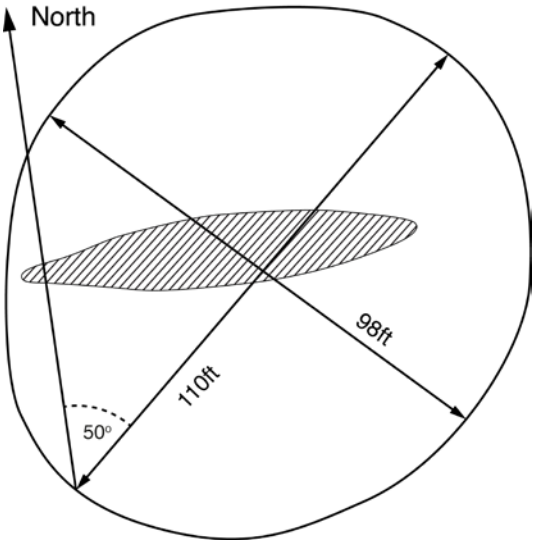


Fig 42: The long and short axes of the ship-barrow as established by re-excavation in 1967-69. Long axes measured appears to be at 50 degrees azimuth. After: Bruce-Mitford, R.L.S. et al. (1975).

In considering the grave goods at Sutton Hoo, we need to do so with a beginner's mind, forgetting that today we have 3D printers and can almost, at the click of a mouse, produce anything we wish. In the Dark Ages, the technical skill and labour required in the execution of any given object would mean that its decorations were "unlikely to be meaningless exercises in attractive ornamentation... motifs were deliberately chosen for ceremonial treasures of this kind, associated with traditional lore and divine power" [18]. The interrelationships in styles of the figurative mounts at Sutton Hoo with Scandinavian bracteates suggest that the cult of Odin was at the heart of its iconography [19]. As stated above, East Anglia ranks as the area with the greatest number of Hanging Bowls and whilst the context in which the 3 bowls occur at Sutton Hoo is Germanic no one doubts that the majority of the bowls are of Celtic manufacturer [20]. No burial other than Sutton Hoo has produced more than one such bowl [21]. At Sutton Hoo, 3 circular hook escutcheons have decorative Celtic spiral designs each with 7 roundels, all evenly spaced, all slightly convex, designed to hold the solder (as there were no rivets) and were designed to carry suspension hooks. The terminations on the hooks have a naturalistic look "and are unlike any other zoomorphic terminals in late Celtic metalwork".

Fig 43: Detail from Hanging Bowl 1 showing bronze scroll-work on the basal escutcheon. After: Bruce-Mitford, R.L.S. (1983).

In Mound 3, a beautiful portion of an oval limestone plaque 4 x 3 inches of late-classical or Byzantine style was found. Believed to date from the 3rd Century, a Victory figure, adorned with large wings, whose head appears inclined, has the line of drapery over the arm suggestive "that the arm or arms were held out in front of the figure" [22]. Why might this treasured small piece of a plaque be retained for over 300 years and then buried? It is tempting to speculate that the symbolism behind this Victory figure parallels those of the Victory statues that flanked the twin pillars of the Altar of Rome and Augustus at Lyon. Whilst the whole altar has never been found, various fragments on coins struck at the Imperial mint are believed to represent it [23]. The design of the altar is a Romanised version of an earlier Celtic solar calendrical shrine it has been suggested, with the two pillars dedicated to the rising sun [24]. Similar pieces of broken carved stone have been found in the Norse Royal West Mound at Old Uppsala [25].

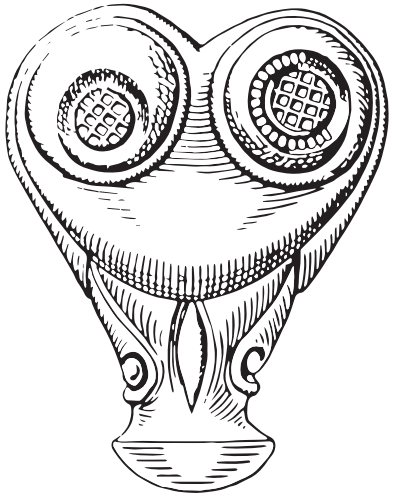
Fig 44: The twinned column altar dedicated to the rising sun, surmounted by winged figures. McCluskey, S.C (1993). After: A. de Caumont.

Hanging Bowl 1

Rim diameter 29.8cm and 13.5cm deep is highly unusual, in that in the centre on top of an iron column is a three dimensional model of a fish designed to rotate on its central pedestal and whose function is unclear. Professor John Haskins, Department of Fine Arts of Pittsburgh University, believes that the presence of an iron rod 2mm across in the fish's mouth is significant in determining the bowl's function. He believed the iron rod was the remains of a magnetised needle making Chinese analogies where geomantic devices were used for navigation and more importantly for the 'orientation of sacred sites and temples' from 1000 A.D. onwards.**

The largest of the Sutton Hoo hanging bowls has an Irish origin dated to 600 A.D. and was one of nine bronze vessels at the site. There are three stylised boar heads around one of the roundels on the bowl. **Along with the Sutton Hoo shoulder clasps, each with over 450 garnets themselves at only 11.3 and 11.8cm x 5.4cm, the mythological boar is referred to as Freyr's sacred animal, and according to Blind "the golden bristles poetically signified the rays of the heavenly orb" representing a solar symbol [26].**

The boar Gullinbursti, 'golden bristles' was "not the only boar to represent the sun: the same also applied to Sæhrímnir (here called Sährímnir), because it is eaten (disappears) every evening and next day is whole again, like the sun. For Blind, even the bright colour of the apple traditionally put in the mouth of the boar eaten at the Oxford Boar's Head feast symbolized the sun" [27]. A small six stringed pan Germanic Harp or Lyre was reconstructed in 1948 that was originally found inside the hanging the bowl. The Lyre is a common symbol for the God Apollo, which we will explore later; however, it is worth noting that as God of music, art, prophecy and the sun, he was born at midwinter and his other famous symbols are a stag, wolf and swan and whose iconography features heavily in the grave goods at Sutton Hoo [28].



Above, Fig 45: Three boars' heads found inside the Coptic bowl at Sutton Hoo. After: Bruce-Mitford, R.L.S. (1983).

Left, Fig 46: Detail of the reserved bronze decoration on the square escutcheons. A pelta device links the upper pair of scrolls. After: Bruce-Mitford, R.L.S. (1983).

Fig 47: Zoomorphic swastika: Sutton Hoo Hanging Bowl 2. The bronze and enamel design is visible on both the inside and outside of the bowl.

Anastasius Byzantium Silver Dish

The large dish has a female figure holding a spear in her right hand and an orb in the left representing the cities of Rome and Constantinople. The dish has a quartered design, with four female figures acting as the North, East, South and West 'compass nodes'. Long stamped patterns, visible around the outer perimeter of the dish, were a common decorative feature under the Emperor's Anastasius reign (430-518 A.D.). Along one of these quarters, there is a rolling solar swastika pattern.

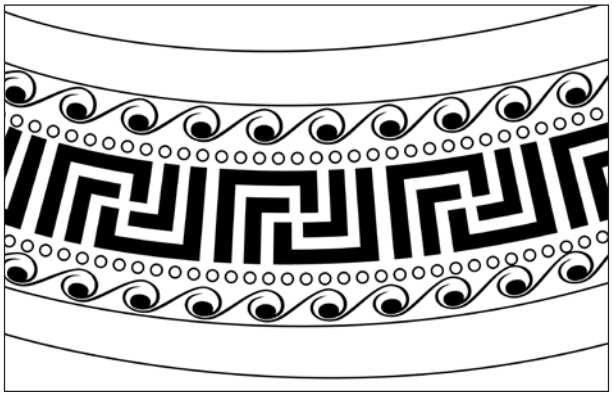


Fig 48: The inner frieze of the Anastasius dish showing a rolling swastika pattern.

Standard

As mentioned above, the standard was buried vertically, erect. Historical theories as to its use have included a lamp stand, a weapon rack or a royal banner holder. We fully concur with Blair, that the standard mirrors Roman gromatic technology for surveying, [29] it may also have been the Anglo-Saxon tuuf or turf. The top may have been crowned with feathers or bracken, and possibly even holly within the cage at the top of the standard, with its backward facing animal heads perfect for retaining such foliage [30]. Whilst the standard may appear similar to Edwin's at Yeavering, it is "without any convincing parallel" [31].

The Purse Lid

A leather pouch, covered by an exquisite metal worked lid measuring only 19cm long and 18.3cm wide with the plaques, themselves only 4mm thick contained an incredible 1,526 hand cut garnets. It held 37 coins and 2 ingots within Mound 1 at Sutton Hoo. The coins represent a pagan practice not usually associated with the Anglo-Saxons [32] and would have been to pay the ferryman for the journey in death to the 'otherworld'. Hinged at the top, the cover features two pairs of plaques: one depicts birds, the other a figure flanked by what appear to be wolves. The bird plaques are curious in that they show a raptor – likely an eagle – grasping a smaller bird, possibly aquatic, such as a duck or goose, or a dove (see Fig 79) [33]. While no compelling explanation for this composition has been made to date, traditional interpretations point to the popularity of hawking amongst Anglo-Saxon nobility. On this basis, the bird held in the clutches of the eagle is prey [34]. The eagle itself is depicted in a style relatively common in the 6th and 7th Centuries: curved beak, rounded back and prominent claw. Eagles also denote royalty and may, therefore, function as symbols of social status. In some contexts, they relate to Odin who, as a shape-shifter, transforms into an eagle. Rulers, royalty and nobility are able to understand the language of birds, often through trance-like states [35]. In these cases, it is thought the eagle had an apotropaic function, invoking Odin and protecting the bearer from harm. These suggestions are no doubt valid, but seem somewhat prosaic when considered in relation to the Anglo-Saxon pre-Christian animistic worldview – where nature is supernaturally charged and animals are messengers from the otherworld. Birds in Old Norse tradition are associated with kingship and wisdom, symbols of transcendence and numinous knowledge. Birds may also indicate the existence of a solar cult; aquatic birds are sometimes depicted with chains, embodying the binding power of the sun [36].

Fig 49: A cloisonné design from the Purse Lid – the radiate head Sun-god attacked by cosmic wolves? © Lindsay Kerr (2010).

It was deemed favourable for both King and country for a new reign to start at midwinter, which lay behind the Christmas day coronations of William the Conqueror and St. Edmund, King and Martyr 855 A.D. [37]. We do not know when Raedwald was crowned, but it is fitting that the rights of kingship commenced at Yule, an auspicious time as explained.

During Ragnarok, a myth foretelling the final battle between the ruling gods, we read that Tyr will die fighting the Hellhound Garm. The animals either side of the above figure could then be explained as Fenrir and Garm, alternatively, the plaque may be totemic, evoking the legendary Wuffinga progenitor Wuffa. The wolves, therefore, are tribal totems, spirit-animals of the Wuffinga clan. The figure flanked by two animals is no less easy to interpret. On one hand, it may represent the god Tyr (Tiw in Old English) who in legend lost his hand to the wolf Fenrir. During Ragnarok, the sun and moon are swallowed and it has been suggested that the above image shows a radiate head in dotted outline portraying the sun-god radiating from behind the clouds [38]. Another explanation concerns a representation of Odin / Woden. In myth Odin is accompanied by two wolves – Geri and Freki. The plaque also bears comparison with an Öland foil showing a figure flanked by two animals, likely bears in this case. Similarly, a reconstructed scabbard from Gutenstein illustrates a central figure – possibly Woden – flanked by weapon-bearing wolf warriors. The wolf appears to have been a totem animal within Woden / Odin warrior-cults. A number of depictions show warriors clad in wolf pelts, perhaps as part of pseudo-shamanic rituals to channel the prowess of the animal. Odin's warriors, known as ***ulfhednar*** (wolf-skins), could appear in the shape of wolves, echoing the shape-changing abilities of Odin himself [39].

…Wolves offered much to the warrior bent on going beyond the bounds of his humanity:
he could walk, jump or run as the chosen animal did; also, hide, creep, lurk, scream, bray, and howl as they did –
wolves often in triumph at a kill – and in all he could frighten the enemy while venting his own fear.
He could take on an animal's rage, dread or pride and thus free himself of cultural constraints or conscience…
Moreover, with their power to change into animals and travel to other worlds,
shamans gave wolf- and bear-warriordom a cosmic dimension [40].

Our own interpretations of the possible cosmic symbolism of the wolves in this plaque will be explored later; however, a clue to the identity of the central figure lies in the much earlier photographs that were taken and appeared in Bruce-Mitford's definitive Volume series, in Volume 2, 1978. The object received conservation treatment in 1980, 1993, 1995 and 1996*** and it appears that an inlay from an eye in both figures of the plaques in question was missing, before later being restored. Recent research has highlighted examples of metalwork finds where an eye has been deliberately struck out [41] (see Fig 22). This one-eye symbolism hints at ritual activity, perhaps within a cult context, re-enacting the myth of Odin / Woden plucking out his eye at Mimir's Well. The same might be said of the missing eyes in the figures on the Sutton Hoo purse lid, originally constructed with two eyes with one in each figure being ritually removed as noted by Ewing [42]. **"The god was not half blind, but blessed with double vision" [43].**

The Helmet

The Sutton Hoo helmet is undoubtedly the most iconic of all the Sutton Hoo finds. Covered with foils depicting warriors, riders in battle, and zoomorphic artwork, the helmet is a treasure trove of symbolism. The face piece contains what appears to be a dragon, but more likely a bird, flying upwards; its wings form eyebrows, its torso the nosepiece and its tail a moustache; at the end of each wing is a boar's head. Above is another creature bearing down, possibly a serpent or wyrm. Its head, similar in design to the bird below but elongated, is replicated at the helmet's rear base. Beaten metal panels around the helmet depict a horse and rider trampling a warrior, a pair of horned figures and intricate decorative interlacing. One point to note is the helmet may not have been designed (exclusively) as a piece of war gear. It may have had a ceremonial or ritual function. Professor of Archaeology Neil Price (and Mortimer) alluded to this in their paper 'An Eye For Odin'. A line of cloisonné garnets can be found along each of eyebrows / wings. Typically, these garnets would be backed with gold or silver foil, to reflect light back through the stone and producing a red glow. The 23 garnets of the right eyebrow are backed with foil, but the 25 of the left eyebrow are not. The effect of this is described:

We can picture the scene: a great hall full of warriors, retainers, and servants, some sitting, others moving about the benches and tables. It is very dark, the air filled with heavy layers of smoke from the fire, lit erratically by its shifting flames… At the head of the company, in the high seat, sits the lord of the hall himself - his helmet shining silver, its surface covered in writhing little figures as the raised images on its surface seem to move in the firelight, the gilt-covered animal heads and facial features glowing. His eyes are in shadow and cannot be seen, appearing as blank and empty holes in the mask, but one nonetheless stands out with its eyebrow a glittering red line, bright against the blackness. The effect is replicated on the face of the animal above his brows. ***When seen indoors by the flickering light of the fire, the wearer of the Sutton Hoo helmet was one-eyed*** [44].

In other words, the regent was reinforcing his sacral kingship, his descent from Woden, by appearing to his retainers as Woden himself. The wearing of the helm may have occurred in the context of warrior-cult activities: drinking rituals, dramas and pseudo-shamanic rites. The pair of warriors featured in foils or plaques have been associated with the divine twins Alcis or Haddingjar, or the 'helpers of mankind', the Dioskouri mentioned above, separately Castor and Pollux, the twin stars of the constellation Gemini. Four of these plaques appear on the helmet (See Fig 5). The Dioskouri invented and performed the war song and war dance [45] and this places them within a Woden cult context; in appearance, they certainly resemble Vendel-era depictions of Woden. Their horned helms link them directly to the divine warrior twins central to Scandinavian sun myths. The bird – possibly an eagle – and serpent are traditionally viewed as both talismanic and literally protective; the eagle provides actual defence from blows to the nose and brow, while the boar heads invoke protection from the god Ing – a warrior defender who actively protects life [46]. The prophylactic powers of the boar are enshrined in Beowulf: *[His helmet was] hooped and hasped by a weapon smith… and embellished… with boar-shapes; since then it had resisted every sword* [47].

The eagle, with its outstretched wings, also resembles a cross – certainly a deliberate feature of the later Christian-era Coppergate helmet from York, and potentially a useful (peripheral) symbol here for the dual-faith Raedwald was later to adopt, himself having twin altars at Rendlesham. Taking into account the helmet's ritual function in relation to Woden, what can be said about the eagle and serpent? The snake as a symbol represents knowledge procured from the 'otherworld' [48] and the hero's victory over the wyrm "formed part of the annual mythic cycle" [49]. It is interesting that the creatures are two opposing symbols in Norse cosmology. As mentioned in relation to the purse lid, the serpent – representing death and darkness – sits at the base of the world tree; the eagle – representing divine wisdom and life – sits at the top. Perhaps their presence here, although inverted, articulates the wearer's status as a divinely-ordained king with binding power over society and the land.

In many Indo-European societies, the myth of the warrior-god who must restore the harmonious balance over nature by restoring order over chaos "**was re-enacted at the Winter Solstice**" [50]. Like Odin, the wearer obtained wisdom from and power over the upper and lower worlds, a sacral king acting as a conduit for divine energies [51]. Like Odin, the king has traversed both worlds, has become the snake and the eagle through initiatory rites, in order to access divine wisdom for the benefit of the kingdom. The inversion – the snake looming over the eagle – is perhaps an apocalyptic statement regarding Ragnarok, or an intimation of absolute power on the part of the wearer.

A second interpretation concerns the eagle and the swan. The creature traditionally viewed as a serpent, looming over the bird, can equally be viewed as a swan, or as we will explore in 'Cosmology' a dragon, symbolising Scorpio perhaps; elements of the helmet need not be viewed in isolation; Price and Mortimer suggest that 'it is possible to see the entire helmet as a… creature.' [52]. In this conception, the swan motif is also replicated on the helmet's rear.

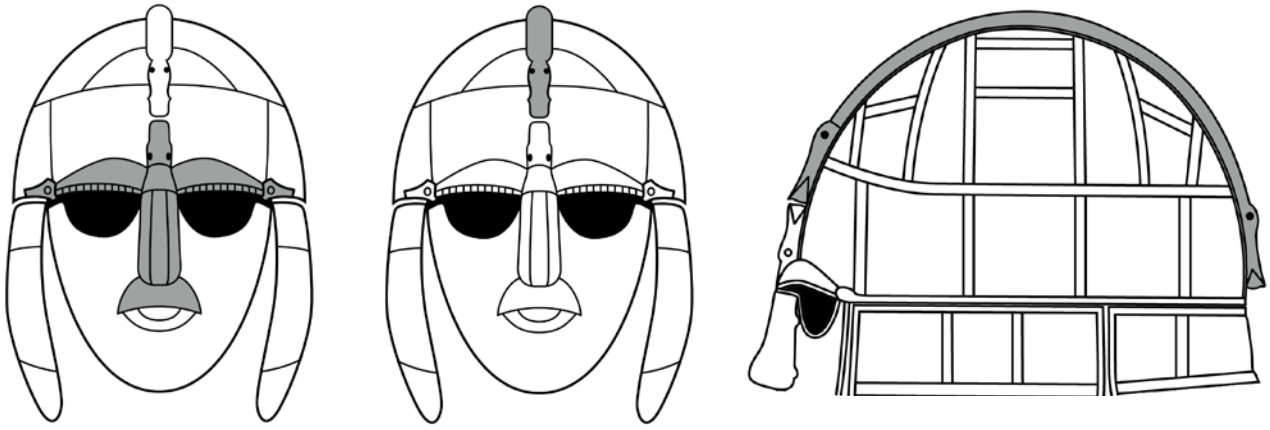


Fig 50: Left – the bird / eagle on the Sutton Hoo helmet. Middle – The swan(?) or the serpent/wyrm which acts like a crest over the helmet has a dragon like head at each end of its' 25.5 cm length. Right – Side profile of the serpent/wyrm. After: Bruce-Mitford R.L.S (1972). Also see Fig 80.

The eagle is a regal bird and could be viewed as a psychopomp, bearing souls away to the afterlife, or as a spirit guide granting souls access to the otherworld. Heathen conceptions of the soul included the concept of a 'free soul' or 'dream soul' – one that could journey freely outside the body. Known as ***Hugr***, these free souls could shape-shift, mainly as birds; their purpose was to gain access to the otherworld in order to converse with their ancestor-spirits. In Anglo-Saxon culture, these wandering souls were often associated with birds; the soul would fly in bird form to other realms [53]. Similarly, in shamanic tradition, birds are seen as a psychopomp because they are receptacles of souls of the dead, enabling the ecstatic flight of the shaman; they are capable of traversing both the mundane world and otherworld [54]. Further parallels exist between shamanic dress and valkyries, who were capable of understanding the language of birds [55]. **Could the bird/swan and eagle represented in the zoomorphic designs on the front of the helmet, mirror the position of the constellations Cygnus (the swan) and Aquila (the eagle) at astronomical twilight on midsummer sunrise?** *(see Cosmology section)***. At midsummer, the constellations hang directly over the solstice line with the Milky Way and River Deben joined to form a bridge between the human and celestial worlds.**

Taking into account the swan's associations with the sun and solar cults, we may speculate that the wearer of the helmet, as a kingly embodiment of Woden / Odin, led shamanic rites on Midsummer's Eve enabling the transfer of (dead) souls to the heavenly realms – a propitious time that presaged the rising of the sun at its most vibrant and powerful. Midsummer celebrated the power of an ordered universe, the sun, the gods and the regent. From Enright, we know that the study, understanding and veneration of the sun's progress were an essential part of the practice of proper kingship [56]. Therefore, midsummer celebrations represented the apogee of this worldview. The sun – like Odin – traversed both the underworld (the serpent) and the heavens (the birds.) At midsummer, the sun – embodied by Woden, his son Balder, and the king, was preeminent; the king himself became a bridge between worlds and a herald of the sun.

The Shield

The impressive and lavish shield with a diameter of 96.5cm has a huge central boss 21.5cm wide and 10cm in height. It is decorated with a number of zoomorphic metal fittings; all that remained of the shield in Mound 1 when it was excavated as the wood had long rotted away (see Figs 81 & 82). The shield boss at the centre is flanked by a raptor – likely an eagle – on the right, and a many-winged dragon on the left. The shield bird is similar to the birds on the purse-lid at Sutton Hoo and Enright suggests that together the regalia as a whole make an interrelated politico-religious statement. Decorative fittings top and bottom are supplemented by 12 zoomorphic metalwork heads around the rim. A grip on the obverse was also decorated with bird and dragon motifs. As is the case with the Sutton Hoo helmet, the shield's animal decorations were protective; the ornaments magnified its apotropaic qualities [57]. Certain animals may also have invoked a divine capacity. The eagle, suggesting aggressive predatory prowess and battle-victory, additionally invokes Odin / Woden's supernatural aid. Also comparable with the Sutton Hoo helmet, the shield's eagle fitting may be understood as a heathen bearer of souls, linking the bird with the fate of men and the subsequent passage of their souls [58].

Furthermore, Enright proposes that the eagle is depicted wearing a chain around the head, connecting the animal to solar cult traditions: 'the shield bird is one way in which the sun's message is provided to the ruler in order to attune his behaviour and decisions to the cosmic balance.' [59]. To date, the shield boss has not been treated as a sun disc. However, the position of the eagle and dragon recall the antithetical creatures flanking sun wheels in Old Norse picture stones. In these examples, figures carry sun-whirls and spirals [60] and the shield / sun association is established in Eddic poetry, where a shield called Svalin stands before the sun – the 'shining god' [61].

Fig 51: Detail of an Odinic style oval head, within the raptors claw on the Sutton Hoo shield. © Lindsay Kerr (2010).

The Byzantine Silver Bowls

Ten Byzantine silver bowls, all roughly 22.5cm diameter and 5cm deep, were found in Mound 1. Bintley has noted that 'these items, which lay separated from the rest of the silver in the burial and close to the head of the body-space (where no body was found), may have had some special meaning which has never been discovered' [62]. Bintley explores the possible relationships between the Christian symbol of the cross and the myth of a Germanic dying God on the world tree, establishing an association with a wider cosmology. The bowls are decorated with a rosette-and-cross motif, but the design may just as easily be described as a wheel-cross. "Whether we interpret them as flowers, sun-wheels, or as emblems of the ***sol invictus***, their symbolism is multifarious and easily transferable as a solar symbol".

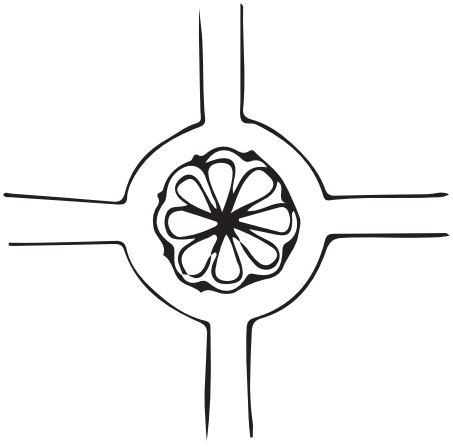


Fig 52: Central rosette and equal-armed cross from one of the ten silver bowls. After: Bintley M., D.J (2011).

The Sceptre

The Sutton Hoo sceptre is a complex object, laden with rich symbolism. A four sided carved whetstone is surmounted by a metal ring on top of which sits a stag. Overall, the sceptre is 82cm in length with the metal elements, 5cm wide and 3.25kg in weight. Its symbolism is not a random collection of icons gathered together for effect, but reflects enduring theories of kingship, rooted in a belief system linking solar veneration to the craft of royal rule. At each end, the sceptre is topped by a crimson painted orb.

In 'The Sutton Hoo Sceptre and the Roots of Celtic Kingship Theory', Michael Enright explores the symbolism of the sceptre in considerable detail whilst concluding firmly that the object lacks any direct Anglo-Saxon elements and is clearly a Celtic object [63]. Some of his insights are hugely pertinent to the topics explored here, which are summarised, for he concludes that **the sceptre is an emblem of a Celtic solar cult.**

Enright's interpretation of the Sutton Hoo sceptre as being Celtic in origin however has been rejected by some [64]. One of many arguments put forward is the critique of his Celtic kingship theory and that the making of right and true judgements, ritual speech associated with the swearing of oaths and land claims with "the king acting as intercessor between the divine and the people" are all concepts that "are found within the Germanic context". Interestingly for the purposes here, the same author concluded that is ***was*** possible for the sceptre to be "**involved in a solar cult**".

The sceptre, a symbol of kingly authority, relates to the king's verbal commands and truthful speech. Speech was associated with ideas of projection, casting and throwing. Poetry was the truest form of speech, related to truth, authority and kingly judgment. The source of poetic inspiration was the sun, symbolised in birds, particularly those depicted wearing chains (see earlier.) Birds are, therefore, associated with the carriage of speech – literally winged words; in divination rituals, paths of flight indicate supernatural directives; words travel the paths of birds. This relationship gains its ultimate expression in the feather-cloaked avian poet-druids of Celtic tradition; they advised kings and were directed by the Sun-god. The stag is a regal animal; its presence on the sceptre symbolises the coming of the new year, new life, through the warming Sun, based on the seasonal growth and shedding of antlers. The stag is most definitely not Anglo-Saxon in manufacture and derives from a Celtic workshop [65]. The stag is also not particularly lifelike either, itself being adorned with oversized antlers "indicating a symbolic accentuation" which Enright is clear is a solar one, the antlers depicting the sun's rays [66]. The king, in holding the sceptre, is keyed to the seasons. As sacral ruler, he is, after all, responsible for the flourishing of nature and community and the beneficent action of the elements. In the *Sutton Hoo Ship Burial: recent theories and some comments on general interpretation* [67] Bruce-Mitford wrote that the closest parallels to the stag that he had been able to find "were similar stag figures associated with open-work 'sun-discs' and thought to represent the tops of standards, excavated at Alaca Höyiik in Turkey, and dating from the Copper Age". **The stag atop of its ring were both designed and carefully constructed in order that they could rotate, leading Enright to conclude that the concept of solar travel may be part of a plausible explanation.**

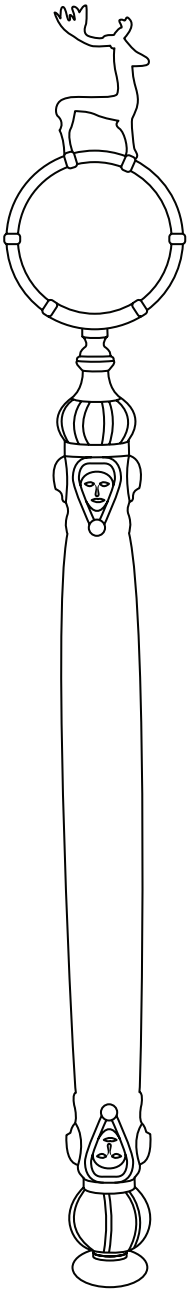
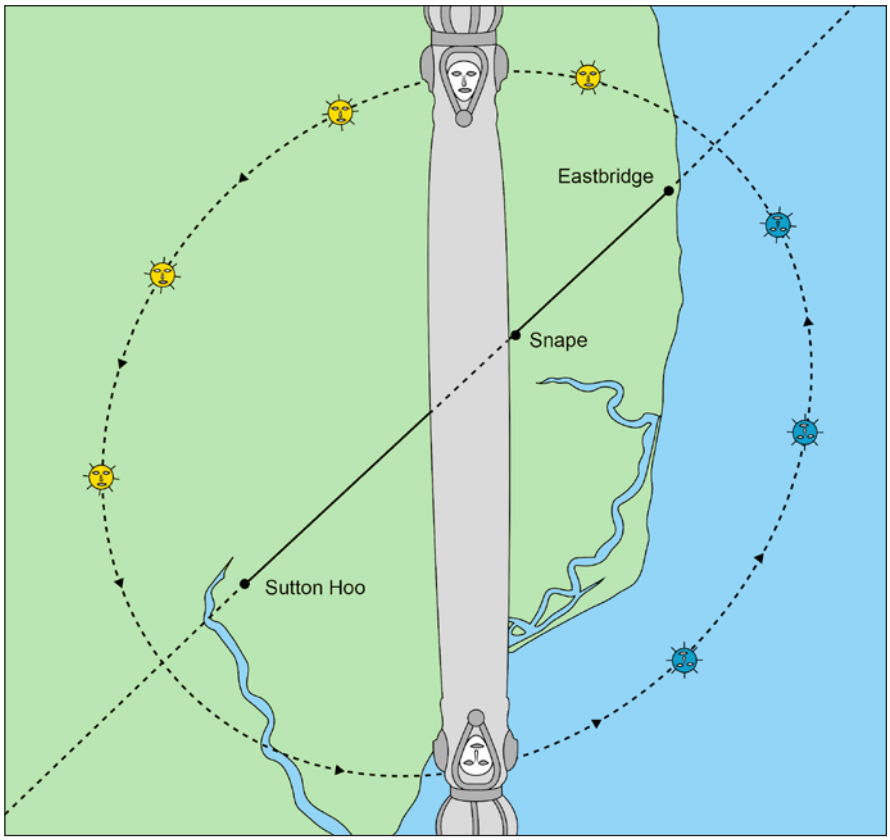


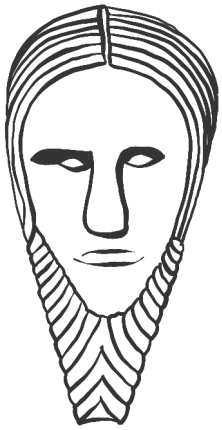
Fig 53: The Stutton Hoo Sceptre. After: Lindsay Kerr.

This would link the artefact with universal solstice customs, the movement of the sun being the universal common denominator marking time and place in both microcosm and macrocosm. The sun and the whetstone are inextricably linked. The Celts viewed the sun as an eternal traveller in a constant cycle of revolving, rising in the morning, traversing the sky by day before seeing all things beneath at night in the underworld. The "most significant thing about the sceptre is that it looks backwards rather than forwards. It is itself an outstanding example of intellectual continuity" [68]. The sun is the eye that cannot be escaped – particularly in relation to Odin's roving eye. It confirms the importance of solar veneration in kingship rituals. **This is why the concept of a solstice alignment chimes so strongly with Enright's analysis, for "it was obvious to all observers, the Sun did not simply set in the evening, it actually went into something, into the land or into the water" [69].**



Left, Fig 54a: The solstice alignment across the Suffolk landscape superimposed against the rising and setting sun and the four sceptre heads. Upright heads symbolising the risen sun, inverted heads upside down below the land traversing the great ocean or the underworld in water.

Below, Fig 54b: Detail of the clean chinned head from the Sutton Hoo Sceptre. After: Bruce-Mitford R.L.S (1978).



The Germanic belief was that water acted as a liminal gateway between our world and the world of the unseen [70]. The 'solstice alignment' is bounded by water at each end.

The symbol of the rising and setting Sun, across the four primary compass directions is embedded in the sceptres design. The four pear shaped heads look out from the top of the sceptre and similarly, but interestingly, the four heads mirrored at the bottom of the sceptre are upside down. This symbolism is mirrored in the Theodore Psalter, an illustrated manuscript of Psalms completed in Constantinople in 1066 A.D. in an illustration titled 'planets'.

Each direction, in the upper world and the underworld has a sentinel, each quarter surveyed based upon directional vectors for winds and birds, "each almost universally associated with the sun in archaic thought… the role of the sun directed forces from eight parts of the horizon." The symbol of the human head, often portrayed as a radiate sun head, is a comparable and interchangeable symbol with that of radiate spoked sun wheels [71]. **Overall the sceptre is an axis mundi staff, in microcosm, its bearer the king functioning as the binding link between earth and sky, upper and lower worlds.**

It is a symbol of an ordered universe, one where the legitimate truth-speaking king receives his power and wisdom from the sun. At the time of the solstices, who could fix an ailing sun, or control and govern its rising and setting? In turn, through an understanding and veneration of the sun's progress marked by solstice customs, the king became aligned with the cosmos; his behaviour was synchronised to the predictable movements of an orderly sun.

Fig 55: Planets. From the Theodore Psalter, Constantinople, February 1066, Add MS 19352.

The Cups and Drinking Horns

The large drinking horns are especially notable due to their bird-headed terminals, similar in style to the shield and purse lid raptors and therefore likely to represent an eagle. The horns' diameter at the drinking opening was 10 cm diameter with the horns curved length at 90cm long. Every detail of the drinking horns was richly symbolic, complete with four anthropomorphic pilasters used to hold the silver gilt panels to the body of the horn. Drinking rituals were important components of early Anglo-Saxon culture; cups and glasses have been found in a number of high-status burials, suggesting such rituals were particularly significant amongst the warrior class. Drinking and drink-giving were solemn acts that reinforced socio-military fabric and the lord-retainer relationship [72]. However, they were fundamental to (shamanic) ceremonies concerned with establishing bonds between the living and dead [73]. The eagle, as a psychopomp and transcendent animal, is significant when considered in the context of drinking rituals and decoration on drinking paraphernalia. Perhaps the eagle terminals upon the Sutton Hoo drinking horns 'ensorcelled' the drink, enabling the drinker to acquire the language of birds (and therefore divine wisdom), much like Sigurd in Norse myth, who drank the blood of Fafnir and thereafter understood bird-speech. Intoxicating drinks give access to the otherworld, and Celtic and Viking-era grave goods contain elaborate drinking vessels [74].

Footnotes:

* The exact year of death is disputed, with 624 A.D. or 625 A.D. as equal contenders.

** Bruce-Mitford believes, however, that the fish was not magnetised or even light enough to rotate in liquid but does concede that magnetised needles and lodestones were used for navigation and geomancy as far back as the 4-5th Century A.D. Reference in British Museum as correspondence preserved in the Sutton Hoo files in the Dept. of medieval and later Antiquities in the British Museum.

*** Private correspondence Dr Sonja Marzinzik, MA FSA, Curator, Insular Early Medieval Collections, British Museum, Sept. 7th, 2009.

SNAPE

The Anglo-Saxon cemetery at Snape, home to England's only second intact Anglo-Saxon boat burial, was originally excavated in 1862 and has been dated to 550-575+/- A.D. It was the first Anglo-Saxon dated vessel ever found in England or even excavated in Europe. The 13th Century church in the village dedicated to St. John the Baptist whose feast is on June 24th which has a long tradition of coinciding with the Midsummer Solstice sits proud on high land overlooking the vast sloping terrain.

The name Snape may be an old Norse name, deriving from an Icelandic word for poor pasture, snap [1] and more recently the village's name was the inspiration behind JK Rowling's naming of Severus Snape in the Harry Potter book series [2]. Filmer-Sankey and Pestell's [3] detailed study of the site, published in 2001, presents the findings and excavations from 1824-1992 and will form the foundation of our analysis. We will attempt to interpret the georitual aspects of the site and its location, while highlighting the material culture present that illuminates a rich pre-Christian tradition, where possible solar and cosmological traces may be interpreted.

The 54 feet long, 9 feet 7 inches wide boat in its barrow of 85 feet wide at Grave 1 was the only intact boat excavated at Snape; however, 2 or possibly 3 other graves also contained logboats or parts of a boat within them [4]. One theory as to why we find such an elite cemetery at Snape, for that is what we have here, there is no evidence of any 'normal' Anglo-Saxon burials, is that the newly emerging Royal dynasty of the Wuffingas broke free from a local tribal base in order to establish themselves in the region [5]. That the Wuffinga kings of East Anglia had their origins in the Sandlings is not in doubt, but exactly why they chose to settle in such a peripheral area is less understood. **Analysis of the size of Grave 1 and the local topography indicate that it would have been visible from the sea, from over 7 km away, with the boat itself needing to be dragged some 2.5 km from the river [6].**

Placing the boat in such a prominent location would pragmatically offer a navigational aid, for it was also common for churches to be used as navigational marks against the skyline for such a purpose, as with the inland church at Wickham Market being seen from as much as 12 km away [7]. Why though place the boat where it was, ***why*** this exact spot? This was a question we explored previously at Sutton Hoo. Undoubtedly, the Wuffingas would have been influenced by the presence of at least one Bronze Age barrow at this location, though it appears at the time of the initial excavation in 1862 many of the 8 or 10 barrows present at the time were of small size, some not exceeding 2 metres in diameter and it is possible therefore that a small Bronze-Age barrow was enlarged to receive the ship burial [8]. There must however "have been more to the choice of site than simply the presence of an existing burial mound" [9].

There are many parallels between the sites of Snape and Sutton Hoo which have already been listed and compared [10] with Filmer-Sankey and Pestell concluding "as at Snape, so at Sutton Hoo".

Sutton Hoo

- Inhumation in ship (Mound 1)
- Inhumation under ship (Mound 2)
- Inhumation in tray or dugout under mound (Mound 3)
- Inhumation burial in coffin with horse (Mound 17)
- Cremation burial in bronze bowl (Mounds 4, 5, 6, 18)
- Deviant burials', including human sacrifice, associated with mound (Mound 5) or in isolation (Group 1, East of the barrow cemetery)

Snape

- Inhumation in ship (Grave 1)
- Inhumation under part of a boat (Grave 10)
- Inhumation in a dugout (Graves 4, 47 and 3?)
- Coffin burial (Grave 17)
- Horse burial (associated with Grave 47)
- Cremation burial in bronze bowl (Grave 68)
- Deviant burials associated with another body (Grave 19, upper body)

We would like to extend the above list by adding drinking horns and lyres, more commonly associated with Mound 1 at Sutton Hoo but of which remains were found at Snape in Grave 4 and Grave 32 respectively.

The East-West cemetery at Snape is approximately 200 metres by 70 metres. As previously mentioned, the two largest cemeteries in Suffolk at Lackford and Eye produced 530 and 130 cremations respectively; however, it has been calculated that if grave density remained constant, the site at Snape would have held 1,200 cremations [11]. Whilst there are many parallels between the two elite sites as listed above, there are some striking differences. All of the burials at Sutton Hoo appear to be 7th Century or later with the cremation grave at Snape dating to the fifth-early 7th Century and the inhumations, including the ship burial at Grave 1, to the mid sixth to early 7th Century with the cemetery in use for over 100 years [12]. Sutton Hoo, by 'contrast, seems to have had only a brief burst of intense activity' [13]. The use of an open bronze metal bowl as a container for a cremation is unusual and, as previously stated, **all of these** occur in East Anglia, the Snape example being found in Grave 68.

Another burial at Grave 51 carries some exclusivity and parallels what we believe is a solar association having a relatively early form of Anglian type swastika decoration (see Fig 57, dating to the late 4th – first half 5th Century) [14].

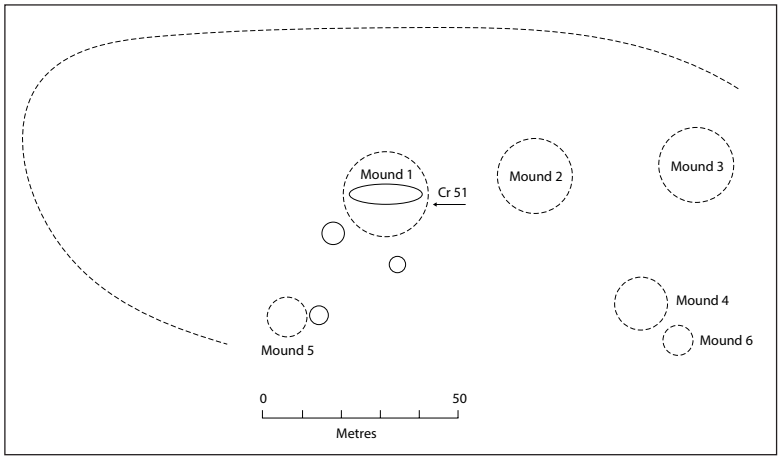


Fig 56: Cemetery plan showing the ship burial with Cr 51 highlighting the Swastika Bowl.
After: Filmer-Sankey, W & Pestell, T (2001).

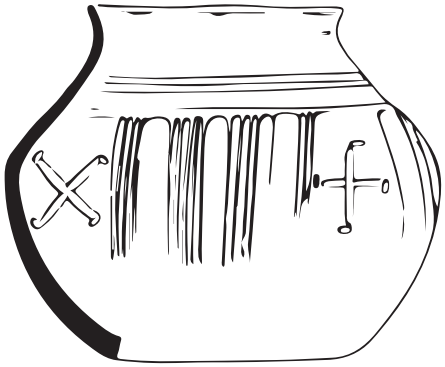


Fig 57: Grave 51. Shouldered urn: 0641 with diagonal grooved swastikas.
After: Filmer-Sankey, W & Pestell, T (2001).

Other urns present carry a combination of ocular designs previously explored as well as solar representations and quartered orbs. The idea of placing images of the sun or solar symbols within graves is long standing and is Pre-Roman in origin and may have been designed to transmit illumination into the dark world of death, presenting hope of resurrection in the underworld [15].

The radiate sun symbols below are similar to the solar designs that appear on cremation vessels in Villanovan, Italy [16]. Apollo, the son of Zeus is the God of light, music, art, prophecy and the Sun and was born at Midwinter. The Lyre was one of Apollo's symbols and was discovered at Grave 51. Apollo, like Mars is linked with many different names and titles and one name found in conjunction with him is Belenus, probably from bel ('shining') and Grannus, again thought to mean something like 'shining' or 'burning [17]. The Celtic Apollo also has associations with the sea and may be reminiscent of the "sun's descent into the sea on the Western horizon every dusk" [18]. His image at Shrines in Burgundy is that of a radiate sun-god showing rays emanating from the head [19]. A sun god, surmounting a ritual pillar in Apollo's likeness, is described in the Widukind of Corvey, a passage of his Deeds of the Saxons (c.970). "When morning was come they set up an eagle at the Eastern gate, and erecting an altar of victory they celebrated appropriate rites with all due solemnity, according to their ancestral superstition: to the one whom they venerate as their god of Victory they give the name of Mars, and the bodily characteristics of Hercules, imitating his physical proportion by means of wooden columns, and in the hierarchy of their gods he is the sun, or as the Greeks call him, Apollo" [20].

Fig 58: Cremation urn pot stamps – solar and ocular symbolism.
After: Filmer-Sankey, W & Pestell, T (2001).

Use of Oak / Rowan

Clive Tolley [21] has argued that what is being described by Widukind above is the erection of an Irminsul, created to celebrate the Saxon leader Hadugato's victory in 531 A.D. over the Thuringians. Widukind says the Saxons set up an altar to their god of victory, depicting the body as a wooden column. Although there are no explicit parallels between Yggdrasill and a world-tree in Anglo-Saxon paganism, symbolic ***axes mundi*** in the form of timber uprights point to the notion of a 'world-pillar' and, ultimately, the distinction may be academic. ***Irminsul*** (universal column) is the canonical example of the Saxon 'world-pillar'.

Small deliberate selected elements of wood have been used across the Snape cemetery, perhaps related to specific ritual intentions. The wood oak has had many religious and mystical connotations [22] and is known to have had ritual associations with the Germanic predecessor to Thor, Donar who was affiliated with Groves and oak woods in particular [23]. These traditions may of course relate to Yggdrasill, the World Tree which bridged the nine worlds of Norse cosmology acting as a central pillar between the heavenly realms, Midgard, the 'home to men' and the underworld, a bridge between the dead and the Gods [24]. The use of rowan has possible associations with Thor being described in the *Skaldskaparmal* as 'Thors salvation' [25] and was widely known in Scandinavia as having apotropaic powers [26]. There are various aspects within the burials at Snape that seem to support an affinity with the properties of wood as evidenced by the meticulous methods necessary to execute these. In total, charcoal from a variety of woods has been found to be carefully prepared and chosen for over thirty graves. Branches of charred oak were carefully arranged in Grave 9; additionally, a charred container was deliberately selected in Grave 3 to be placed over a body being part of a boat, made of oak heartwood. Oak also appears to have been ritually placed under and around the log boat in Grave 4. The symbolic transformational parallels between the heat of the Sun and the process of fire are obvious. At Snape, the remains of a cremation pyre is the first one to be identified and recorded in detail in the whole of Anglo-Saxon England [27]. The whole process of the ritual was a very specific one and we can only but guess at the mindset of its intenders. For instance, the 9th Century Viking mounds at Ingleby show that the lowest layer of earth and stones were blackened by heat, indicating that the mound had been placed straight on top of the hot embers [28].

The use of charred wooden coffins in later Anglo-Saxon burials has symbolic associations with the concept of eternity [29] with eight small pieces carefully laid out over the body in Grave 9. **Whilst Filmer-Sankey and Pestell [30] acknowledge that there may be some difficulty in transposing ideas around Yggdrasill into the interpretations here, they conclude that the "possibility of a totemic inclusion must" be considered.**

"Associations can be seen in the pagan Prussians still celebrating their thunder god Perkuno - linked with Latin quercus (oak) - with a fire and images of gods placed in a holy oak, as late as the 16th Century" Freyr is the sun god and his horse is the 'sun horse' [31] and we have explored his relationship with the celestial boat above. Freyr's image was taken to winter feasts and his sword was made out of the flashing rays of the sun [32]. In a 1998 survey in the Friston area right beside Snape, a figurine was unearthed and considered to be associated with a fertility cult, possibly that associated with a cult of Freyja, a Goddess and twin sister of Freyr [33].*

The grave goods at the cemetery at Snape indicate a rich tapestry of elements drawn from a wide area of Northern Europe, Scandinavians, Alamanni, Saxons and Angles [34] with the name Friston also indicating that there were Frisians too [35].

Freyr, in his role as solar god, has been described ruler of rains and of the shining sun which he created. More importantly his 'sun-ship represents the movement of the sun across the sky and the underworld' [36]. **The identification of boats with burials in this context is strong evidence for a cult of Freyr whose magic ship Skidbladnir is the best of ships in Norse mythology [37].**

The Ship and Vessels

The stains in the graves of log boats, from Graves 4 and 47, indicate that these were re-used as burial containers and had fittings on them associated with the boat burial rites conducted on the Baltic Island of Bornholm [38].The boat in Grave 4 was 2.96 metres in length and in Grave 47 was 3.09 metres. Both boats were made of oak and pointed at each end and in Grave 3 there was also the outline of a burial container, that had been burnt and left a charred stain. The width of the container was very similar to the log boat in Grave 47 and has been interpreted as being part of a boat, with the West end bow point and Eastern half removed [39]. Parts of boats have known to have been used as burial containers in Denmark [40] and it is reasonable to assume that this practice is being mirrored at Snape. The primary boat burial in Grave 1 was originally measured at 48 feet long however it has been calculated to have been longer, taking into account the lost bow and stern with a revised length of 54 feet [41]. This clinker built boat and riveted construction is identical to the boat discovered at Mound 1 at Sutton Hoo. Unlike the vessel at Sutton Hoo however, the boat at Snape was pointed at both end, double ended. This monumental burial vessel was accompanied by iron spearheads, a fragment of blue glass and jasper, a bundle of red hair, fragments of a glass claw beaker and a gold ring set with a Roman intaglio. Rings like the one discovered here at Snape, set with classical cameos with a figural scene were found in the West Mound at Old Uppsala in Sweden which Bruce-Mitford thought represented another archaeological parallel between Suffolk and Sweden, citing the limestone plaque of a classical winged victory discovered at Snape [42].

Claw Beaker

Glass claw beakers like the one discovered at Snape have been likened to shamanic vessels designed to hold the elixir of life. Dr. Brian Bates, Senior Lecturer in Psychology and Director of the Shaman Research Programme at the University of Sussex, commented on one found at Dry Drayton in Cambridgeshire from the 7th Century "of course, it is listed by museums in typically prosaic fashion merely as a 'drinking beaker'. A shaman I brought over from Siberia told me that some of the Anglo-Saxon drinking vessels in the museums here are almost exactly like ones still used by shamans for magic and medicine in her country." [43].

Berserkers were thought to imbibe intoxicating drinks before battle that, in turn, endowed them with ferocious martial prowess and potentially shape-changing abilities. Therefore, we may suggest that drinking rituals were conducted within Wuffinga culture, at least on class grounds and potentially within a magico-religious context to access the otherworld, converse with ancestors or, like Odin, receive wisdom.

Fig 59: Glass claw beaker.
© Wikimedia Creative Commons

Footnote:

* Lisa Brundle however records that the trousers on the figurine indicate a slight bulge and "may be taken to indicate the presence of male genitalia." [44].

Fig 60: View towards Blaxhall from Snape.

Fig 61: View towards Leiston from Snape.

EASTBRIDGE

The solstice bearing from Sutton Hoo through Snape reaches the original site of Leiston Abbey, its foundation site being the chapel at Minsmere, Eastbridge, itself only half a kilometre from the sea. This original site is the only location in the whole of Suffolk where the Premonstratensian order of community priests, "White Canons" settled, an order that modelled themselves on the Cistercian values of seclusion, founding all of their monasteries in rural locations [1].

Built in 1182 A.D., it was originally on a small, low island set within extensive marshland. This extreme coastal location and low-lying nature of the site led to such problems with marine incursions that the priory was moved to its present location about two miles further inland in 1362 A.D. **The building currently present is the remains of a chapel built on the site of the monastic church when the abbey moved and originally "must have been the most physically isolated monastic house in East Anglia" [2].**

Beside Minsmere are the nuclear power stations of Sizewell and it was within an archaeological assessment report written in 2014 that records how the current site lies on what was, in the Middle Ages, the Western edge of the town, close to an earlier known bridging point called 'Chapel Brook' [3]. The name Chapel Brook has resulted in some uncertainty regarding *which* Chapel the brook led to, though it is obvious that Chapel Brook is a reference to a stream leading either to or from a Chapel, although the debate as to whether this was the Abbey Chapel at Minsmere or another in Sizewell itself remains in doubt [4]. A lost Chapel of Sizewell undoubtedly existed, reputedly constructed in 1243 A.D. [5] though this appears to contradict the detailed 2014 archaeological report previously mentioned which concluded in its analysis that "*Minsmere Haven, once the mouth of the Minsmere River was a shelter for boats and the chapel at the original abbey's Minsmere site was dedicated to St. Nicolas, the patron saint of sailors, reflecting the local population's strong association with the sea*" [6].

Trying to understand and piece together the historical fabric of the lost religious architecture of the past at Eastbridge continues to the present day [7]. An article by Redstone in 1904 describes "a free chapel, endowed with 1 rood of ground, founded for ease of the parish church of Leyston. Value 2s. It stands on the sea bank." [8] This account of the chapel as being sited on a sea bank is at odds with the current Old Abbey Minsmere Chapel, which itself is on natural raised ground above the marshes, described as a typical island site in historic accounts. Combined with William White's account of 1855 [9] who references both a Chapel at Minsmere that was near the Minsmere river as well the existence of some small ruins called Leiston Chapel, near Minsmere haven, supports the hypothesis that the Chapel recorded on Minsmere, at Eastbridge, on the site of the old Leiston Abbey and the Chapel at Sizewell located in the Minsmere Marshes were separate entities [10].

The Premonstratensian Abbey at Leiston, built by Ralph de Glanville originally had a dedication to St. Mary de Insula however it was Claude Morley (1873-1951) the antiquarian whose collection of notes for a history of medieval Suffolk crossed out this dedication of 'St. Mary de Insula' and inserted 'Chapel of St. Nicholas' [11].

Whilst we do not know what the present Chapel above was built on top of, or exactly what Chapel was which when being described in the records, we do know that the process of sacred continuity created a ritual and religious palimpsest in the landscape, with the reimagining of the sacral on top of older sites. **This is in keeping with the suggestion made in 1848 by Alfred Suckling that the site's founder, Ranulf, may have chosen the Minsmere site because it had been used for religious purposes in Anglo-Saxon times [12].**

Fig 62: View towards Leiston from Eastbridge, Minsmere Chapel.

There was, in general, what we might call a 'continuity of retrospection' [13]. In 604 A.D., Pope Gregory wrote to the Abbot Mellitus "I have determined, after mature

deliberation on English affairs, that the temples of the idols of that nation ought by no means to be destroyed. Rather, let the idols that are in them be destroyed; let water be blessed and sprinkled in these temples; let altars be erected and relics placed in them. Provided the temples are well built, it is requisite that they should be converted from the worship of devils to the service of the True God." [14]. The first monasteria often drew on the past, on concepts of romanitas, being placed in "or near Roman structures such as forts. Subsequently, some old Anglo-Saxon monasteria came to be regularised in the 10th-Century monastic reform"[15]. Excavations at neighbouring Dunwich concluded that whilst no definitive Roman structures or features had been found within the vicinity, the presence of reused Roman tiles nearby in the Greyfriars monastery at Dunwich, the ruined Chapel at Eastbridge (Leiston Old Abbey site) and Leiston Abbey itself [16] suggested that a Roman occupation of the site or sites is likely to have existed [17]. In Norfolk, Anglo-Saxon cemeteries had an affinity with being placed near to Roman or Romano-British sites, with Roman tiles being used to contain or deliberately cover the inhumation or cremation [18]. It was customary in Roman times to erect the 'martyrihm', a temple or church built around the remains of a king, hero or saint on the site of the burial [19]. In the second half of the 3rd Century, East Anglia and the South-East became associated with defence and housed the first in a series of 'Saxon Shore' forts, largely constructed in response to coastal raiding [20]. These shore forts were connected by signal stations and beacons along the coast at the time of the 4th Century and during the reconstructions under Theodosius. Johnson concludes that the place name of Leiston may possibly mean 'fire-tun', though no late Roman activity has yet been found in the area [21]. As mentioned earlier, mastery over fire and magical flight was important as the two core components that separate shamanism from other magical practices.

Whilst there are over 10,000 named saints recorded through history, of the approximately 810 canonised Roman Catholic saints widely known, it is of interest that we should find a dedication to St. Nicholas, patron saint of sailors on a possible summer and winter solstice alignment that joins two locations that contain numerous Anglo-Saxon ship burials affiliated to a Woden, Odin cult. St. Nicholas of Myra in Asia Minor was an early Christian bishop during the time of the Roman Empire [22]. He is most famous for being the patron saint of sailors and merchants but due to his often associated legendary secret gift-giving brought about the traditional model of St. Nick, Sinterklaas and known to all as Santa Claus. Parallels have been drawn between Odin and his grey eight legged horse Sleipnir who could leap great distances with Sinterklass leaping the rooftops on his white horse which some have likened to reindeer, of which Santa Claus has eight. Combined with the importance of the Yule festival at the time of the winter solstice, a time when Odin would ride through the air bringing sweets and toys to children with this pagan celebration itself being adopted and overtaken as Christmas, these arguments are more than compelling. To conclude, there is the association of "elves in Santa's North Pole workshop who work all year long making Christmas toys" and it "was Odin who was the lord of Alfheim, home of the elves" [23].

Fig 63: View towards Leiston from Eastbridge, Minsmere Chapel.

Eyke

The settlement now called Eyke, "eik", coming from Old Norse meaning place at the oak-tree, [1] is considered to have once been of **prime importance within the royal estate of Rendlesham [2]**. Later, we will explore the importance of the great oak, world tree and cosmic world pillar and its role as supporter of the sun as a magical object.

Fig 64: The secondary sites on the alignment.

The axial design of the church of All Saints at Eyke, Warner [3] proposes is similar to other buildings which would have once stood on late Anglo-Saxon ***minster*** sites, a word that is a corruption of the Latin monasterium [4] with the current walls, with level stone rows, evidence of Saxon features [5]. This cruciform plan church, now a remnant of a much larger Saxo-Norman minster, may be the site of a church that perhaps dates back to the early to mid 600(s)A.D. and was possibly "central to Raedwald's Kingdom" [6]. Christianity had successfully removed all traces of English paganism by the 730(s)A.D., in terms of any obvious formal belief system, something that was achieved not solely through any simple 'stamping out', but by assimilating "a diverse penumbra of festivals, calendar customs, folk beliefs" and crucially, holy sites [7]. For this reason, Blair believes that minsters were more prevalent on the ground than is usually credited and particularly in the Eastern region, where their material culture and modes of planning had spread to a much larger range of sites than the laity occupied, overlaying older monuments and prehistoric sites with their chapels and churches. Minsters are most often found close to major watercourses [8] and especially close to principal rivers in Suffolk [9].

An escutcheon from another rare Anglo-Saxon hanging bowl from the mid-second half of the 7th Century was found in Eyke. Discovered in 1984 in long grass and presumed to be from the spoil as a result of the former house building ten years previously, the design contains three trumpet spirals, in what is more commonly called a triskele, with the inner triangular section containing a ring [10]. **It has been suggested that the triskele symbol, with its three arms may derive from Celtic triadic magic and could also possess solar significance [11].**

Suffolk is 1,467 square miles and there are only eight known examples of three dimensional human figurines made of metal dating from 400-750 A.D. spanning the Anglo-Saxon conversion period [12]. These eight examples of talismanic, human representations from this period signifies the 'special nature' of these objects [13]. Their distribution tracks the Eastern coastal zone of East Anglia and it is of note that three of these are at locations on our proposed solstice alignment, being found at Sutton Hoo, Eyke and very close to Friston. Early Anglo-Saxon human representational art is usually attributed to the Norse gods, an assumption based on parallel studies on Scandinavian bracteate art that often depicts human figures with animals and have been ascribed to Odin, with the object itself interpreted as being amuletic or apotropaic [14].

Fig 65: Triskele escutcheon from Anglo-Saxon hanging bowl.

According to the Suffolk Historic Environment Record (SHER) held by Suffolk Archaeology, there is a crop mark recorded which shows an unusual linear feature in the landscape, just below the pronounced kink in the road at Cracks Lane [15]. An RAF aerial photograph taken in 1948 [16] shows a darker area across the field where the feature has been recorded and its relationship with current boundaries and roads suggests a pre-medieval date. At approximately 350 metres in length, on a South-East to North-West orientation the SHER record speculates that "given the amount of Roman and Saxon activity in the area, it is possible that the boundary and/or road could relate to a feature of this date" [17]. It is curious to note that the banks westerly end falls almost exactly on the apparent path of our proposed solstice alignment.

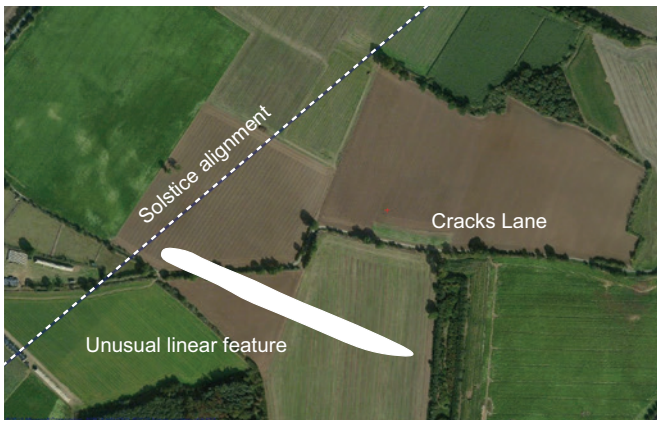


Fig 66: Cracks Lane – unusual linear feature in the landscape of possible Roman or Anglo-Saxon date.

Fig 67: Eyke human figurine, dating from 400-750 A.D.
© TimeLine Auctions.

Fig 68: Church of All Saints, Eyke.

Rendlesham

The name Rendlesham has pre Scandinavian associations meaning village, settlement of Rendil [18]. The current church at Rendlesham dates from the 14th Century and is dedicated to St. Gregory, a dedication that is described as being rare [19]. And, according to Bruce-Mitford at the time the Doomsday survey was completed in 1086 A.D., there was an earlier church on the same site.[20]. The cremation cemetery at nearby Hoo hill, on similar glebe land that came down in ownership of the church may suggest continuity of a pagan burial ground or even a temple [21]. Bede refers to persistent pagan worship alongside Christianity in East Anglia, where Raedwald maintained a temple with one altar for "the Christian sacrifice and another small altar on which to offer victims to devils" [22] and where Swithelm of the East Saxons was baptised sometime between 655 and 664 A.D. Writing only 100 years after Raedwald's death, Bede wrote in his *History of the English Church and People* of a royal residence, ***vicus regius*** called Rendlesham; that is, Rendil's steading in East Anglian [23]. The location and nature of the Sutton Hoo burial site has parallels with the well-known Swedish ship burials at Vendel and Valsgärde [24]. Three miles South of Valsgärde lies Gamla Uppsala, burial site of the Inglinga royal dynasty and supposedly a ritual centre for Midwinter sacrifices to gods of the Aesir.

The Wuffingas Swedish royal house of Uppsala, just North of Stockholm and great religious centre at the royal capital at Uppsala later became mirrored in Rendlesham with its connection "between temple, the royal halls and the first Christian church." [25]

In describing the findings of the archaeological survey work around Rendlesham between 2009 and 2014, Professor David Gill, Director of Heritage Futures at the University of Suffolk, said they were "likely to be some of the most important archaeological discoveries in the UK during the early 21st Century." [26]. The Suffolk Institute of Archaeology and History, which supported the excavation, has described the results as 'conclusive evidence of the long-lost Anglo-Saxon royal settlement whose people buried their kings at Sutton Hoo'. Magnetometry as part of the above mentioned survey undertaken over a 46 hectare site revealed, along with crop marks, the site of the supposed royal timber hall, 23 metres by 9.5 metres [27]. The royal centre at Rendlesham would have been a place where the East Anglian Kings would have stayed, feasted and administered justice and whilst there were other sites in the region that would have provided temporary residences to the royal households across the kingdom "Rendlesham appears to have been the largest and the longest-lived of these places" [28] for at least three centuries [29]. Indeed, the settlement discovered at Rendlesham is the largest and richest of its time known in England. **The Deben estuary was navigable as far as Rendlesham in the 7th Century and the site of this Royal palace has been likened to Uppåkra in Southern Sweden and the royal seat at Lejre in Denmark [30].**

In any territory, different types of "places" exist, interpreting the relationships between such spaces, in this instance of the Wuffinga estate, requires us to understand context and relationships between cemeteries, communication routes and cult sites, the perception of which is influenced by "liminality, cosmology, social aspects and functional ones" [31]. Liminal "places are charged with power because of their physical character and people's movements, actions and experiences there" with many cult sites in a broad sense sharing features characteristic of liminal places, such as high up or low down locations, enclosed or being far away. Sites of royal authority often share a common attribute by being on the edge of settled communities, enhancing such numinous power by being both focul and marginal, sources of spiritual and worldly direction where 7th Century great hall complexes "were sometimes positioned between wooded uplands and expanses of river terrace pasture" [32]. Rendlesham's ecological landscape embued liminality, with riverside grasslands down to the Deben and hunting grounds surrounded by forests giving it an abiding well equipped environment Blair concludes. For at least 8.5 kilometres, our proposed solstice alignment hugs the high ground on the 20-25 metre contour line, following the path of the current Bromeswell to Tunstall road from the A1152 along the B1069.

Fig 69: The view from Cracks Lane looking towards the site of Raedwald's Anglo-Saxon palace.

Two of the 3,946 items found at Rendlesham in the above survey warrant attention within this work. Firstly, a circular disc at just 31.44 mm in diameter, a copper alloy fylfot-escutcheon from ***a hanging bowl which is decorated with a swastika, formed of four animals, either a type of raptor, eagle or possibly a snake,*** their heads with a rectangular neck and body were filled with blue enamel. Around the swastika motif is a circular border with a geometric design of zig-zags around the edge of the disc. White metal coating appears to be on the front face of the escutcheon and on the heads of the snakes. It is thought that the escutcheon could fit into Kendrick's Romanising Series, a design which fits with the assumptions regarding the beasts arranged in a swastika pattern that were examples of Roman 'free style' [33]. **More importantly, and paramount to this study, Sun wheels with animal-head terminals are, according to Schutz also representative of a solar cult [34].**

Fig 70: Copper alloy fylfot-escutcheon from an Anglo-Saxon hanging bowl decorated with a swastika, formed of four animals raptor or snake heads. © Suffolk County Council.

A circular gilded copper-alloy harness mount fitting, with a finish of shining gold has a central red garnet set in white paste dating from the late 6th or early 7th Century. With a diameter of 57mm, a very similar example was found on the brow-band of a horse bridle excavated in 1991 from Mound 17 at Sutton Hoo.

As well as the obvious solar disc that this could represent, the red dot in the centre is emblematic of the all-seeing eye as previously mentioned. Odin "associated with the rising Sun" [35] was able to bind the fates of men and 'army-fetter'; he and the other Norse gods were known collectively as 'those who capture' and bond, both words associated with containing and fettering [36]. This knotted and interlaced woven design on war gear and weapons is a common motif throughout Germanic Iron Age symbolising "the god's power to subdue, to take captives, to render others impotent, to enmesh foes in charms and keep them 'spellbound" [37]. With reference to the harness itself, horse burials occur at four known burial sites at Sutton Hoo with a possible further two being listed there as 'probable' [38]. As previously mentioned, in Grave 47 at Snape there was the burial of a horse's head, an Anglo-Saxon practice with few parallels [39]. Complete with harness tack, dating to 600 A.D., it has been considered that the removal of the horse's head may link to a shamanic practice, perhaps designed to release the animal's spirit [40].

Fig 71: Gilded copper-alloy harness mount fitting with shinning gold finish and central red garnet, set in white paste denoting the all-seeing eye, the rising sun and power to bind. © Suffolk County Council.

Whilst examples of whole horse burials do occur at other sites in East Anglia, examples where only a horse's head is buried is a practice restricted to the South-East, and close to the coast [41]. **The connection between the ship and the horse occurs far back into Scandinavian prehistory, with both objects playing a complementary and equivalent role within both sun and fertility cults [42] maintaining a closely linked symbolic association into Iron Age Europe [43].**

We saw earlier how the sun has a long tradition of being associated with divine twins who support the sun through the process of transformation at both sunrise and sunset and it is possible that affiliations with horse imagery relates to either the cult of Alcis, Castor and Pollux or Hengist and Horsa, legendary brothers in Anglo-Saxon mythology who led the Angles, Jutes and Saxons into Britain in the 5th Century. Hengest means "stallion" [44] and along with his brother Hersa through lineage, being sons of Uitta and Wehta, were partly divine and Woden-sprung [45]. The sun, wheel and horse are persistent images combined often on Celtic coins, as with the example discovered at Wickham Market as part of the Dallinghoo Hoard where 840 coins dating from 40 B.C. – 15 A.D. were discovered in 2008 approximately 6 kilometres away from Raedwald's royal palace and "is one of the largest hoards of iron age gold coins ever found in Britain" [46]. Whilst the harness mount was not, as far as can be ascertained, directly associated with any horse burial, we know that harnesses at other burials are seen as potent emblematic symbols, with their deliberate inclusion in any burial highly significant [47].

Fig 72: Gold Stater from the Dallinghoo Hoard
© Ipswich Museum / Ipswich Borough Council.

Epona was a Celtic goddess, protector of horses, foals and mules and may have been a riderless mare herself. **One of her possible roles may have been as leader of souls into the ride of the afterlife [48] as well as guardian of the gateway to the afterlife itself [49].**

In some instances, rock carvings depict ships with horse heads and tails acting as the sterns and prows. If Frey is the 'sun god' his horse is the 'sun horse', which later developed into Odin's 'death ship' sailing to Valhalla [50]. Odin himself rides his eight legged steed Sleipnir to the land of the dead and becomes therefore the 'horse of death'. We have seen how the symbol of the human head is an interchangeable symbol with that of solar spoked wheels and the horse itself is also an unequivocal solar symbol [51].

The name of Woden's consort Friga or Frigg is preserved in the word Friday and it is of note that we have a Friday St. in Rendlesham, Benhall and Chillesford [52].

Leiston

The church of St. Margaret with its 15th Century West tower and 13th Century font is a former medieval church and has been cited as possibly being an earlier Saxon minster [53].

TERTIARY SITES

We do not know what, if any, ritual markers served to both aid construction or honour the ritual alignment proposed across the Sandlings. Large wooden structures, like the ones discovered during a field survey off the coast on the foreshore of the Deben, below Sutton Hoo, were wattle like structures that were radiocarbon dated to 420 - 590A.D. [1] *Perhaps other smaller markers, stapols or 'hearg' sites as explored above, if present, would yield little in the way archaeological remains for "some of these may have consisted of little more than wooden platforms or miniature houses and may not have survived"* [2].

Below are some of the interim points that lay close by, or are on the proposed solstice path in the landscape.

Bromeswell

As mentioned previously, 'hearg' and 'weoh' sites were generally located on high ground, and may have been ritual spaces, temples or groves. Two such examples exist, close to and either side of the alignment emanating out from Sutton Hoo at Bromeswell, Thurstow Went and Harrough Pightle. The first place name has been suggested to mean "the place of Thunor", "way or path" [3] with Harrough Pightle a possible temple site marked by a 16th Century gallows. As well as this being likely to indicate 'a traditional place of heathen ritual', the frequency of Scandinavian place names in the Deben valley such as Eyke and Stokerland lend credence to the view that the area around Sutton Hoo may have continued as a place of burial and 'even as an enclave of heathen worship as later as the 9th Century' [4].

Fig 73: The tertiary sites on the alignment.

Blaxhall

For a very small village whose population is under 200, Blaxhall has at least four features worthy of note. The Blaxhall Stone currently lies in the yard of Stone Farm and is for Suffolk, a large circular sandstone, pushed down by glacial action some 150,000 years ago from a parent mass in Spilsby, Lincolnshire [5]. The boulder is 1.52m across and 0.6m high weighing five tons and was apparently ploughed up from a nearby field at the end of the 19th Century [6].

In 1971, a Roman bath-house was discovered and excavated beside large quantities of metal working slag and Roman tiles [7].

Blaxhall Common or heath, a Site of Special Scientific Interest, is of considerable historical interest with a well preserved ancient bank and ditch along the Southern boundary and a number of internal earthworks dating from the Iron Age.

Fig 74: Blaxhall common on the edge of the tumuli.

On Blaxhall Common, there is a large tumulus where in 1827 A.D. it was recorded that a "Roman urn was found about 20 years ago, containing ashes, two coins and a piece of a sword 3 inches long" [8]. As Roman barrows are very rare, with the only known examples, the Eastlow Hill group at Rougham in Suffolk it is believed that this cremation and barrow could "well be Anglo-Saxon" [9]. The re-use of ancient monuments by the Anglo-Saxons was known to include barrows and earthworks from the Iron Age and Roman structures which were not solely restricted to mausoleums, cemeteries or temples but also included villas and bath-houses [10].

Whilst St. Peter's Church at Blaxhall dates from the 14th Century the West wall of the nave contains a fragment of 12th Century stone, and it is tempting to pose that this may derive from the Blaxhall Roman bath-house [11].

Conyngure Hill

Listed on the dissolution survey of Snape 1525-1528 A.D. Conyngure, or Conyngyre Hill probably contained Henry VIII's rabbit warren bequeathed as a gift in 1530 A.D [12]. At 5 metres above sea level the land slopes to -1 metre below sea level 500 metres to the South East and North West with this open hill clearing being exactly on the proposed alignment. Belief in the inherent sacrality of natural features is universal throughout imagistic religions and would often include and connect the gods with trees, pools and open clearings such as Conyngyre Hill [13].

Polsborough Gate

Snape Warren close to Conyngure Hill is post-medieval in date and marked as Black Heath on an 1837 OS map [14]. There are references to an elusive landscape feature called Polsborough Gate which seems to lie near the main gate to Blackheath [15]*. In his 'Lost features of an ancient landscape' article for the Suffolk Institute of Archaeology, [16] Steerwood draws on the associations between the ship burials at Snape with a possible fertility cult mentioned by Filmer-Sankey and Pestell in their detailed analysis of the site and the god Phol that is recorded in the 9th Century 'Merseburg Charms' who appears as a minor deity within the Scandinavian fertility cult of the Vanir [17]. Pol was the Saxon name of the Norse god Balder, the resurrecting light god [18] sometimes known as Helios, the sun god, with Apollo being a variation of Phol [19].

In his work on Teutonic Mythology, originally published in 1835, Grimm connects Phol and Pol with the Celtic Beal, Bel and Belenus, a god of light and fire [20]. A more conventional meaning for Pol in this instance has been the Anglo-Saxon term for a "wide estuary or land-locked bay of the sea" given the proximity of the Snape burial mound and the surrounding topography and access to the estuary and the sea beyond [21]. However "*under these circumstances, it is extremely tempting to see in the Germanic Baldur-name Fol, Falr, a cognate of the name which the Romans called the second Discouri: Pol-lux, Pol-luces and... Pol in Pollux, Polluces, like the Baldur-name Fol, Falr, can refer to the root pal with the meaning -to take care of, -to defend. Under this condition, what Pollux should mean is -care-illuminator, -defence-illuminator*" [22].

The word 'gate', meaning street has origins that derive from the Old Norse 'gata' [23]. At Polsborough Gate do we have an arcane reference to a street or processional route that honoured celestial illumination, the path of the sun or the alignment itself? Or was it simply, as Steerword continues, that an ancient track once lead to the site of the great tumuli that was the Snape boat burial itself, so prominent from the river estuary? (24) Recent investigations seem to indicate it is more accurate to locate Polsborough Gate T-junction on Blackheath corner.

Friston

As mentioned above, examples of early Anglo-Saxon human representational art in three-dimensional form are incredibly rare with a fine example of a male figurine with its arms folded at the waist and an ovoid face discovered at Friston [25]. This complete copper-alloy figurine probably dates from the first half of the 7th Century (26). The figure may be amuletic representing an Anglo-Saxon equivalent of the Norse gods of fertility Freyr and his sister Freyja (27) or the cult of Odin or Woden (28).

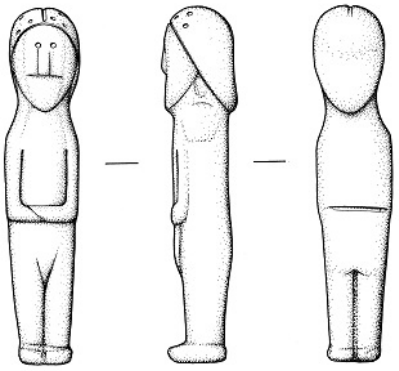


Fig 75: Copper-alloy figurine from the first half of the 7th Century discovered at Friston. Amuletic in nature, possibly representing the Norse god of fertility Freyr. © Donna Wreathall / Suffolk County Council.

Though the name Friston may only have come into usage from the 8th Century A.D. the name Friston probably refers to an 'enclosure or settlement of Frisians' or scattered homesteads of several peoples originally from Frisia [29]. One of the urns discovered at the neighbouring cemetery at Snape is of Anglo-Frisian type.

The church at Friston contains remains from the 11th Century structure in its North wall [30] and is presumed to stand on the site of a much older Saxon church, with links also to the priory at Snape [31].

Knodishall

There is speculation that a significant 'lost' Roman settlement, perhaps equated with the place named as Sitomagus fits with evidence for its location being in Knodishall [32]. Near to this location archaeology has revealed there was once a Roman villa, as evidenced from the roof and flue tile, tesserae and more importantly a fragment of a puddingstone quern [33]. Puddingstones are natural boulders of conglomerate material formed by the grinding action of Ice Age Glaciers and attracted a great deal of symbolic attention becoming known as 'mother stones' - 'from whence grew all the stones found in the fields' [34]. They were venerated as sacred to the mother goddess with many puddingstones originally placed beside fords or in full view upon hilltops.

Footnote:

* On further investigation, it would appear it is more accurate to locate it at the T-junction on Blackheath corner.
(Private correspondence, G. Chamberlain 27-4-2019).

COSMOLOGY

Our Earth's rotation around its axis is slightly off from centre, causing the earth's axis to scribe a cone, a bit like a child's spinning top as a result of the earth's equatorial bulge due to the gravitational influences of the sun and moon.

Such a motion is called precession and consists of a 'cyclical wobbling'. This precession results in a slow westward shift of the equinoxes along the plane of the ecliptic, the apparent path of the sun on the celestial sphere, as viewed from earth and "has the visual effect of causing the constellation that 'houses the sun at the four key moments of the year – the two equinoxes and the two solstices – to shift very slowly around the belt of the zodiac" [1]. This precession of the equinoxes also results in the Pole Star, the North Star, shifting over time as it gradually moves away from the celestial North Pole.

Many people are no doubt familiar with the Christian symbol being a fish and the somewhat hippy new age song which refers to this as being the age of the dawning of Aquarius, possibly without knowing that they both describe a period in time, a 'celestial age' governed by what constellation in the zodiac that the sun has as its back drop during the vernal, Spring Equinox. At the time of Christ, we were in the age of Pisces and are now in an age when the Spring Equinox sun rises in Aquarius. The sun progresses through all twelve zodiac constellations every 25,920 years, having completed a full cycle, a 'great year' (during which time there are seven different Pole Stars) with the sun spending 2,160 years in each zodiac 'house'. As a result of this phenomenon the central pivot in the sky, around which all other stars dance, shifts over time. Commonly referred to amongst cultures as 'Navel of the World', 'Gate of Heaven' or 'Hub of the Cosmos' [2] seen from the ground it was as if the old world of the known heavens had been swept away, being replaced by a new order. Celestial markers that would have once defined space, time and the heavens would need to be redefined, thereby reordering the natural world after this shift, heralding the seasons with different stars, once possibly invisible, but now dominating the sky. In a sense it was as if the old world had been swept away, being replaced with a new one.

The Greek astronomer Hipparchus noticed this shifting in the star patterns, away from the earlier Babylonian records whilst compiling his own star catalogue, completed in 129 B.C. It is no surprise, therefore, to find many myths commonly referring to the destruction and loss of an old world, coinciding with human societies experiencing great changes and tumultuous upheaval. These times of chaos were blamed on the stars, the gods not remaining in their familiar positions, hence we speak of disasters and catastrophes both words containing 'aster' and 'astro', root words which mean star. The 'abodes of the gods' would have been seen to have moved and it is this which is described in myths as representing the end of the world, in a sense the end of a cosmic world age. An example of this we find in Norse mythology and how the wolf Fenrir, whom the gods had so meticulously chained up, broke his bonds and escaped: 'He shook himself and the world trembled... The earth began to lose its shape. Already the stars were coming adrift in the sky.' This myth typifies and "mixes the familiar theme of catastrophe with the quite separate theme of precession. On the one hand, we have an earthly disaster on a scale that seems to dwarf even the flood of Noah. On the other, we hear that ominous changes are taking place in the heavens and that the stars, which have come adrift in the sky, are 'dropping into the void." [3] It is this type of celestial imagery, the uncertainty and chaos behind the fixed known stars, including the North Star and the major sun stations i.e. the solstices and their backdrop (the constellations which change over time) "repeated again and again with only minor variations in myths from so many different parts of the world" that belong to a category and pattern of storytelling of the kind that does ***not*** come naturally [4]. In the Grimnismal, one of the mythological poems of the Poetic Edda, twelve of the Aesir Gods are designated as superior with each one assigned directorship over their respective month **with these twelve celestial abodes, arranged as "Solar Houses" interpreted as the twelve signs of the zodiac which the Sun passes through annually [5].**

There is a "dearth of evidence" of Anglo-Saxon source material compared to "what may be gleaned about Norse cosmology" [6], although virtually nothing written survives from the pre-Christian period from Scandinavia apart from runic inscriptions on monuments [7]. We can suppose at the very least that the 'above world' of the stars for the Anglo-Saxons was viewed as the realm of the gods, of mythological beings and, potentially, of the dead with the constellations marking the actual movements of the gods themselves, rather than merely providing a record of the mythic cycle.

The 'below world' – the place below the horizon, where the sun disappeared to and rose from was the underworld. "The ecliptic is important in the cosmological sense; the abode of the gods is above the ecliptic and the underworld inhabited by monsters and the dead" [8]
the below – the chthonic realm of dark and destructive forces.

These 'otherworlds' may have been accessible via the Milky Way or alternatively the Pole Star, around which the heavens rotate and either could have performed the role of ***axis mundi***, a conduit to the heavenly realms by either crossing a star-bridge or scaling a world-tree or pillar. In terms of understanding Anglo-Saxon constellations, it is reasonable to assume that a range of influences shaped the early Anglo-Saxons' understanding, from British ideas (with their roots in Roman and Celtic traditions), Norse and Classical and potentially even Arabic models, for there is no ***one*** definitive celestial source or "list" regarding which Gods and more importantly which constellations and what forms these might have taken that were honoured. The 48 constellation figures published by the Greek astronomer Ptolemy in the *Almagest*, in about 150 A.D., were almost certainly known. In Bede's *The Reckoning of Time* (725 A.D.) the movement of the sun and moon through the twelve zodiacal houses is discussed in some detail [9]. The 10th Century Exeter Book contains over ninety riddles; Riddle 22 may allude to a number of constellations in the region of 'Charles's Wain' (Ursa Major), including Draco [10]. The Exeter Book poem 'Christ' mentions the star *Earendel*, likely Venus, which Ælfric's *De temporibus anni,* an Abbot of Eynsham (his treatise produced in 993 A.D.) calls the evening star and the day star. Ælfric also refers to the Pleiades 'which rise in Autumn'. Payne's work in trying to understand and explore one vague reference regarding the turning of the celestial heavens around the North and South Pole Stars which is described like a giant axis through a mill wheel in Aelfric's above work illustrates the challenges behind interpretation of sources. He concludes that whilst the Finns and Norse peoples used this 'mill' analogy as a mythological explanation of a natural phenomenon, was Aelfric's writing in referring to the Northern and Southern stars as 'axle' "informed by mythological knowledge and folklore" reflecting his "personal awareness of an imported phenomenon" or "that of his own Anglo-Saxon heritage"? [11]. St. Gregory of Tours in his De cursu stellarium, a work designed to 'explain the chronology to monks, provides an early Christian description of the sky written in 573 A.D. However, as is historically the case, sky maps can reveal something of the time from when they were compiled. An assigned narrative that corresponded to the prevailing religious beliefs of the time often replaced characters in the sky with national language and motifs, whilst simultaneously applying local mythology to an often ancient originating one [12]. St. Gregory exemplified this by drawing on widely known European folk astronomy assigning in his treatise the 'lesser cross' to the Dolphin constellation and the 'Greater Cross', to Cygnus the Swan [13]. Similarly, later Christian approaches attempted to supplant the twelve apostles to the names of the constellations of the yearly zodiac.

Certain celestial phenomena in different cultures, regardless of geography, ***retain a degree of constancy*** however, with the most obvious being the rising and setting Sun and also seasonal positions of the constellations. At their core, these cultural star maps played out in myth lend them "a certain degree of regularity cross culturally, regardless of whether cultures are in close contact with each other or not" [14]. Norse cosmology therefore almost certainly exerted an influence on the early Anglo-Saxons; however, the exact specifics of this have been variously interpreted. In one version, the Milky Way is Yggdrasill and the constellations within it correspond to the creatures that inhabit the mythical tree. In another, the night sky is the canopy of the world tree, the Pole Star is the trunk of Yggdrasill - this conception is likely to be closer to the reality of an early Anglo-Saxon cosmology, given the world-pillar's association with the Pole Star [15]. Elsewhere, the Milky Way is one of Yggdrasill's roots or, alternatively, is Bifrost - the glittering star-bridge to the domain of the gods. There "apparently was never one consistent set of "Norse" constellations, just as there are several representations of the sun or moon" [16]. This fluidity is evident even within Norse cosmologies, where more information is available. In Snorri Sturluson's Prose Edda, *Gylfaginning*, the tricking, illusion or beguiling by Gylfi, recounts the Norse myths that describe the universe's creation and destruction though scholars also consider that *Gylfaginning* 'should be read as a general introduction to what can literally be observed in the sky where, as Snorri tells us 82 times, we should be looking for the gods' [17]. The constellations referred to in both the Prose and Poetic Eddas "views Old Norse mythology from a learned Christian perspective", so whilst "the poems contained within possibly stem from the 10th Century, pre-Christian Scandinavia or earlier... there is no satisfactory way to date them"[18].

It is also not wholly clear which celestial bodies relate to which myths. To complicate matters further, Tacitus equates Odin with Mercury, Thor as Hercules and Tyr as Mars; the Danish historian Saxo Grammaticus equates Thor with Jupiter. Tyr may also be identified with Polaris, the Pole Star. Venus is associated with Freya or Frigg and Loki may correspond

with Saturn. Elsewhere others equate Venus with the toe of the hero Aurvandil and the twin stars Castor and Pollux, part of Gemini, are the eyes of the giant Thiazi [19]. In other conceptions, Ursa Major is known as Odin's Wain, the chariot which circles the trunk of Yggdrasill depicted by the Pole Star; the constellation of Orion in the Milky Way is named after Frigg, Odin's wife and known as Frigg's Distaff. Further, the constellation Cepheus is the god Heimdall; with his horn Gjallarhorn (Ursa Minor) he remains high in the night sky, guarding the rainbow bridge Bifrost to the realm of the gods in Asgard [20]. One persuasive example certainly lies in the description of the woman Gefiun of the Æsir, who put her oxen before the plough; her oxen wore eight brow-stars, and this is thought to relate to the constellation Ursa Major, also variously know as the Big Dipper, Odin's Wain and The Plough [21]. Similarly, in the Poetic Edda's *Grímnismál,* the entrance to Valhalla can be identified by a hanging wolf to the West and an eagle that hangs over it. These have been correlated with the constellations Aquila and Lupus; between them sits Ophiuchus, which certainly in part resembles a house or doorway [22].

Etheridge explores 23 anonymous Icelandic manuscripts that focus on the four subjects of geometry, astronomy, music and arithmetic, collectively called the *quadrivium* [23]. Whilst some of these were composed by scribes who wrote between the 12th-14th Centuries, the author considers the sources of the constellation images that became popularized in a treatise known as the *Aratea*. The constellation Cygnus appeared in a French manuscript 820-840 A.D of the famous poem *Aratea* on the constellations and planets [24]. The poem is a late Roman version of a Latin translation done in the 1st Century B.C. by Cicero, who had translated a Greek poem written in the 3rd Century B.C. by Aratus of Soli (315-240 B.C.). His *'Appearances'* described the names of the constellations, and its popularity was largely due to its use as a mnemonic device for interpreting the night sky. Etheridge concludes that medieval Icelandic scribes had source material from Bede's work of the 8th Century through to textbooks on astronomy by Johannes de Sacrobosco (1195-1256 A.D.), all of which were heavily influenced by the *'Appearances'* whose renown spread over the Roman Empire, including Latin translations from the Imperial general Germanicus Caesar (15 B.C. -19 A.D.). By the time the first Aratea manuscripts arrived in England via Abbo of Fleury (945-1004 A.D.) dating from around 830 A.D. it contained constellation images and excerpts from Pliny, Macrobius and Hyginus, i.e. 5th Century B.C [25].

Why does all this matter? Firstly, it highlights that "no ancient culture remained indifferent to celestial phenomena" [26] and that cross pollination from multiple celestial references across continents was commonplace. So while there are celestial constants such as the above 48 names of the primary constellations, there were also some variables, case in point being the constellations of Libra and Scorpio.

The important distinction made in the example here we will explore later in relation to the Milky Way, Yggdrasill and the Sutton Hoo helmet, for Scorpio is depicted as both a scorpion and a dragon. The centrality of the world tree as a concept being interpreted as the Milky Way cannot be ascribed to any one particular country and is at least 6,000 years old as a symbol [27, 28]. In Norse mythology, the world tree connects the human realm of Midgard to the heavens above (and the underworld below), along with the correlation of the eagle atop Yggdrasill with Aquila. **The schema of a world tree with a bird at its summit and a serpent at its base is not uncommon [29]. In the Norse conception, the serpent Nidhogg gnaws at Yggdrasill's roots.**

These opposing creatures are heavily symbolic – of two worlds but also of opposing qualities: base and refined, high and low, chthonic and celestial, death and life. In myth, Odin transforms himself into ***both an eagle and a serpent***, representing initiation between two worlds where numinous knowledge is acquired [30]. In doing so, Odin obtains a complete understanding of the secrets of existence – relating to both life and death. The Eagle echoes the broader symbolism of birds in Norse cosmology; it represents divine wisdom, the ecstatic ascent to the top of the world-tree, illumination and the flying of souls to the afterlife in the sky; in some cultures, 'soul birds' sit on the branches of the world tree awaiting ascent to heaven [31].

Right, Fig 76: Icelandic manuscript dated to 1680 A.D.
Twin birds sit aloft the celestial tree with the serpent at its roots.
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In Adam of Bremen's tale of the Saxons' the Irminsûl was felt to "sustain everything" and has cultural echoes across the centuries in the European Maypole [32]. Recorded in the Royal Frankish Annals following Charlemagne's victory over the pagan Saxons at Eresburg in the 8th Century, Irminsul is described as an idol. It was probably located at one of the highest points in the region (a church now stands in its place) [33]. Finno-Ugric equivalents include a world-pillar rearing up from the earth to the Pole Star, marked with a spike or nail. Archaeology at the early Anglo-Saxon settlement of Yeavering has revealed post holes that suggest a large free-standing pillar – potentially with a cosmological function – as part of a West-East axial alignment. Elsewhere, pillars surmounted by an eagle echo the eagle atop Yggdrasill, and may have functioned as proto-axes mundi [34]. Anglo-Saxon crosses may have performed a similar function into the Christian era, notably the cross reportedly erected by Oswald in the sacred meadow called Hefenfelth (Heavenfield) [35]. Additionally, the poem 'The Dream of the Rood' essentially removes any distinction between 'cross' and 'tree'.

In his Eddic Constellations, Ogier lays bare the evidence for myths of the great world tree mirroring the Milky Way with its neighbouring constellations, providing a parallel with regards to answering 'what did the early Anglo-Saxons see when they looked up at the night sky' by asking to what extent did the people of North see *"roughly the same shapes in the constellations as those handed down by classical antiquity. First, as heirs to an Indo-European cultural system, they divided the zodiac into 12 sectors (as suggested by the Vafþrúðnismál), they associated Venus with a goddess of love (i.e., as the Friggjarstjarna) and they interpreted the constellation Orion as a male human figure, rather than, for example, as a turtle, as did the Maya. Secondly... the Northmen had access to European culture through travel, trade and tribal ties. Yet, just as Scandinavian mythology differs from that of other IE groups, so too must one expect a Northernization of astronomical terminology. It should come as no surprise, for example, that the constellation Scorpio should turn into Niðhöggr the serpent at the base of the world tree, rather than a more Southerly critter not native to Northern climes."* [36]. Constancies of astral phenomena in the Nordic region's star maps, even where different linguistic populations live side by side over thousands of years can however retain a "degree of regularity cross culturally, regardless of whether cultures are in close contact with each other or not" [37]. DuBois explores the commonality of astral lore amongst the medieval Scandinavians, pre-modern Finns and Sami people drawing parallels between all three distinct linguistic populations who shared common 'basic ideas of the sky and its denizens'. Whilst all three groups call the same stars by different names and also saw different spaces between the stars forming different constellations by looking at "the actors and activities described in the skies, we can recognize a shared view of the cosmos"[38].

Hence, in answering the question, "what did the early Anglo-Saxons see when they looked at the night sky" we have multiple overlapping symbols. The period we are concerned with – the early and mid 7th Century, was a transitional period, a time of dramatic change in terms of tradition and belief. It marked the waning of native heathenism and the growth of Christianity. Such transition is illustrated best in the Mound 1 ship burial at Sutton Hoo which, although heathen in appearance, contained Christian elements. So perhaps with the night sky. New ways of seeing the night sky would no doubt have been imported into the busy royal town of Rendlesham and were also certainly taught by Christian missionaries, although the Latin Christian tradition itself was entirely dependent on its astronomical knowledge from the earlier works of pagan Greek and Roman scholarship. Bede and Ælfric of Eynsham both give accounts of the cycle of the year and it is also possible that Celtic star-lore was incorporated in Anglo-Saxon ideas [39]. Anglo-Saxon interpretations of the night sky then were probably quite fluid and heterogeneous, creating a patchwork cosmology that conformed to the prevailing ideas of the time infused with ideas of sacral kingship and ancestry, all within a ritual landscape. If we look at the symbol of the world tree, of the Great Oak it is mainly a calendric, agricultural fertility myth tied to the annual solar cycle [40]. **Repeated mythical stories relate the great oak with the "restoration of cosmic order and the return of the sun to its proper place". As a magical symbol the great oak is called Sammas in a Finnish myth whose role is the world pillar is supporter of the sky and the sun.**

The identification of the world tree, Yggdrasill with the Milky Way is a 'logical solution for Scandinavian regions' [41] with interpretations of some of the key constellations in this region remaining prevalent namely the swan, eagle and snake. It is described as a world ash tree above the heavenly sea with an Eagle and hawk, that is sun and moon nesting in its branches [42]. This portrayal of a world tree, where birds live amongst its branches and snakes that live at its roots are "highly universal motifs" [43] and the notion of an eagle crowning a tree with the world serpent coiled around its roots has parallels in other cosmologies from Asia [44]. Yggdrasill is "a compound from two words, yggr is ygg – 'frightening' or 'awe-inspiring one' which was one of Odin's nicknames; drassill is a literary word meaning 'horse' [45]. **The axis mundi, the Milky Way with its roots in the underworld, its branches touching the sky-world, 'sky-land' or 'star-land" [46] was therefore the horse of "the principal deity, with a threatening serpent below" through whose precinct Óðinn had to pass [47].**

Odin, Woden the primary mulitifarious god of frenzy, ecstasy, battle, death and sorcery is often depicted with his two birds of battle, Hugin and Munin on his shoulder sitting astride his eight legged horse Sleipnir, a reference to the eightfold directions of the solar calendar. Whether or not Odin's birds *are* actually ravens has also been questioned [48]. Odin can be seen with two birds above him and the serpent that coils at the base of the world tree, his horse Yggdrasill's feet. Odin's powers are linked to various elements of control and include his ability to shape-change and in various tales Odin becomes a bird and a snake [49]. So as well as Odin riding the Milky Way, a transformative celestial symbol, here we see Odin's transmogrification (see Fig 76 and 77).

As highlighted earlier, the orientation of the Viking age ship burials in Estonia might be based on the notion of aligning with the Milky Way, the same direction, as the 'way of souls'. In Lithuania, the Milky Way presides over the fate of the dead and is known as the Way of Birds, or the Way of Geese [50]. The symbol of the oak tree, acting as a bridge between the worlds (from whose branches the dead would hang) seen alongside the sun in the heavens are central features in world tree myths of Germanic peoples [51]. The Milky Way is referred to by Widukind, a monk in Corvey during the 10th Century, as 'Iring's Way' when describing a zodiacal feature and elsewhere referenced as Watling Street [52]. **Watling Street was one of the four Royal roads of Anglo-Saxon England and whilst there might be some uncertainty behind the deity ascribed to, it was more than simply a functional route and "most likely included some kind of cosmic symbolism" [53].**

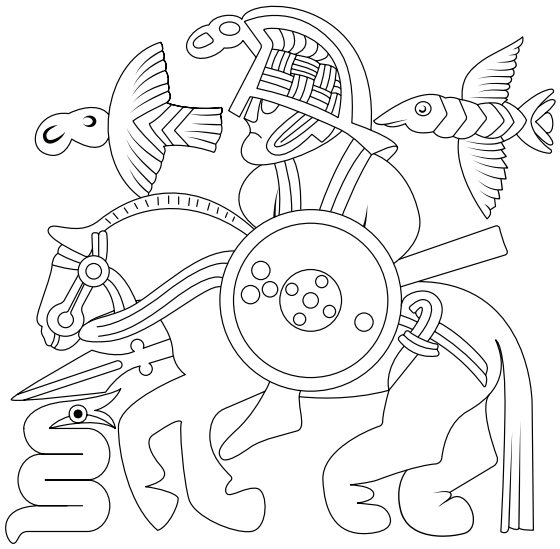


Fig 77: Vendel Royal Helmet Plate.

In many conceptions of the night sky, the canopy of the world tree, the Milky Way, Cygnus is the eagle that sits on the uppermost branches with the star Altair sometimes representing the hawk Vedurfolnir [54]. Importantly then, the eagle constellation some believe is how the Norse saw Cygnus the Swan with the constellation consisting of largely the same stars as Cygnus, with one star for its body, tail and head with its left wing being four stars and its right wing being five stars [55]. The hawk that is often depicted in Norse mythology, Veðrfölnir "storm pale," [56] "wind bleached" [57] or "wind-witherer" [58] sits between the eyes of an unnamed eagle perched on top of the world tree Yggdrasill (see eagle and hawk in Fig 78). The forms of Cygnus the Swan and Aquila the Eagle, flying in close proximity in the belt of the Milky Way are very important in ancient myth and legend [59]. Across the Eurasian and American continent, Cygnus switches between being a swan, goose and an eagle, falcon or hawk. **The Milky Way has been described as polysemous resembling both a road, a river when it hugs the horizon or a tree when it extends vertically, and in its tree aspect it attracts serpents and birds [60].**

In shamanic traditions birds are seen as a psychopomps because they are receptacles of souls of the dead, enabling the ecstatic flight of the shaman; being capable of traversing both the mundane world and otherworld [61].

There is tangible evidence that the peoples of the Mesolithic Age in Scandinavia regarded the swan as a 'soul-carrier', a psychopomp and the Siberian shamans of Buriat, Mongolia believe their tribe was descended from a swan and an eagle [61]. Further parallels exist between shamanic dress and valkyries, who were capable of understanding the language of birds [62]. Therefore, the Purse Lid eagle-and-bird may be interpreted as follows: the raptor (eagle-raven) is a psychopomp, a transcendent creature, capable of transporting souls to other realms. It may also be a shape-shifted Odin, the supreme shaman-deity, or one of his two ravens Huginn and Muninn (themselves powerful soul-birds), or even valkyries – choosers of slain souls for transport to Asgard.

Fig 78: The hawk and eagle in the canopy of the world tree / milky way. After: Jonsson, B (1994).

The bird in the raptor's clutches is a human soul, possibly dead, or a wandering spirit, or a shaman's soul in ecstatic flight.

In Norse and Celtic myth, birds are active mediators between the mundane world and the otherworld, and so play a crucial role in the cosmology related to the landscape explored here. Eagles were specifically connected to royalty, regal wisdom and Odin / Woden, utilized as psychopomps and spirit guides – transporting souls to the otherworld. Swans, by contrast, were ***from*** the otherworld; they were shape-changing supernatural beings strongly connected to the Sun and solar cult activity, and the bearing of souls to the afterlife. In Celtic myth, the swan is especially associated with royalty, otherworldly travel and Sun veneration [63]. From the swan-maidens of *Volundarkvida* to Celtic figures such as Senchan Torpeist, the Druid Mug Roith and Chief Bard Nemglan, the donning of swan feathers enabled magical ability, flight and avian kinship. Similarly, the text of *Thrymskvida*, reveals how the goddess Freyja donated her feather cloak to Loki. The cloak created from eagle feathers is a recurring motif in shamanic lore and its existence relates to the idea of the eagle as father to the first shaman. Its symbolism relates to the notion of magical flight to the centre of the world – to the world tree [64]. This connection between eagles and ecstatic flight is found 'more or less all over the world, precisely in connection with shamans, sorcerers, and the mythical beings that the latter sometimes personify.' [65] Pollington also associates eagles with 'the dead rising to the heavens on a pillar of smoke [66].

Cygnus is the valkyrie-swan, the collector of the dead, who descends from Asgard to bear souls back to Valhalla. In myth, valkyries are shape-changing supernatural beings (both male and female.) Transformation occurs via a swanskin, garment or cloak with swan feathers attached. Valkyries have been tentatively identified as swan-maidens in the *Volundarkvida*. Volund (or Weyland) steals a swanskin and the valkyrie, turned into a human maiden, becomes his wife. In a version of the tale, Volund uses (swan) feathers to make a garment enabling his escape from imprisonment. However, in other (not necessarily later) sagas, the connection is made explicit. In *Helgi Haddingjaskati,* for instance, the valkyrie Kara flies in the form of a swan; Brynhild is famously a valkyrie and a swan-maiden. And the meaning of the name Svanhild – an ancient figure – is 'swan-maiden-warrior.' [67] The influence of Celtic mythic cosmologies on Germanic and Norse culture are well attested (not least in a number of the Sutton Hoo grave goods.) [68]. **In Celtic culture, the significance of the swan cannot be understated, particularly in relation to solar cults.** Ross comments that 'the evidence strongly suggests that [the swan] was especially connected with the solar cults which were widespread in Europe.' [69] A Bronze Age sun disc from Eskelhem in Sweden hints at the presence of this symbolism in Old Norse material culture [70]. In Celtic literature, 'gods and goddesses appear in the form of swans, but are recognizably supernatural on account of the chains of gold and silver that they wore about their necks' [71]. Significantly, the chains of swans are sometimes attached to a solar circle or representations of a setting (or rising) sun [72]. As indicators of otherworldly beings, chain-bearing swans recur again and again. The Dream of Angus, for instance, contains reference to swan-maidens linked by silver chains, and overall the story bears comparison with the tale of 'valkyries' in *Volundarkvida.*

Celtic associations with birds (especially swans), human-animal transformation and otherworldly powers extend explicitly into the shamanic realm in the early Irish text known as Cormac's Glossary. It mentions a garment known as a ***tuigen***, a covering of birds made from white and multicoloured feathers. Only master poets or bards – one of three categories of Druid – were permitted to wear it [73]. This strange garb is associated with transformation. The wearing of feathers is a sign of avian kinship and magical ability [74]. A similar cloak was worn by the Druid Mug Roith, enabling him to fly; by reciting magical rhetoric, he would descend back to Earth. The legendary 7th Century poet Senchan Torpeist also wore a cloak of feathers.[75] Nemglan – 'king of the father's birds', was a chief poet or bard. He obeyed the sun god and was empowered to give advice to kings. Thus the feather-cloaked avian poet-druids travelled the winds at the behest of the sun [76].

Similarities can be found in Norse tradition. The text of *Thrymskvida*, reveals how the goddess Freyja – associated with the shamanic sorcery known as ***seiðr*** – donated her hawk feather cloak to Loki:

> *Then Loki flew, and the feather-cloak whirred,*
> *Until he passed beyond the borders of the gods,*
> *And passed into the Giants' Domain.* [77]

This symbolism relating to eagles and ecstatic flight is found 'more or less all over the world, precisely in connection with shamans, sorcerers, and the mythical beings that the latter sometimes personify.'[78]. The early Neolithic cult of the dead "saw the vulture, equated as a celestial bird with the stars of Cygnus, as the vehicle for the transmigration of the soul".

In Norse religion, swans were seen as Valkyries, heroines gathering around Odin's side, as corpse goddesses welcoming the slain warriors from battle bearing mead to those chosen for the afterlife in Valhalla.

In her role as swan-maiden, the Valkyrie can travel through water and air. Sometimes accompanied by ravens or horses, the Valkyries come from an ancient tradition in Scandinavian countries which speak of visitations to the physical world of maidens who adorn themselves in swan dresses or swan's plumage [79]. In Finnish mythology, birds are involved throughout the creation of the world to the beginning and end of each human life. Birds are said to migrate between the edges of the Earth ("Lintukoto" home of the birds) and the Milky Way ("Linnunrata" path of birds) [80]. The world springs from a bird's egg (duck or eagle) and in some versions the sky is said to be the upper cover of an egg. The Sutton Hoo purse lid is curious in that it seems to depict a raptor on top of a smaller rounded billed bird, is this a duck or a goose? As mentioned, the Milky Way is known in Lithuania as the Way of Birds, or Way of Geese. A village song from 1883 in Leningrad recounts the sun forming from the yolk of an egg and is seen alongside similar mythic symbols as the primordial sea [81]. The Karelian song tradition portrays the central figure of the god Vainamoinen having his knee serving as the nesting place for a bird, be this an hawk, eagle or duck. From Gotland, the Eskelheim sun disc dated to 500 B.C. portrays functional and ritual solar symbols alongside images of serpent shapes and waterfowl images [82]. Throughout the late Bronze Age period 1,200-500 B.C., the eternal journey of the sun would be woven into narratives alongside images of ships, snakes and aquatic birds responsible for its transportation [83]. The Franks Casket, an ornately carved whalebone box 23 x 19 cm full of diverse religious iconography from the 8th Century appears to portray the three magi following the spirit of an angel perhaps to Christ were it not for the fact that "the bird looks more like a duck or a goose" [84]. In the Near East and Asia symbols of love, devotion and purity were interchangeable when representing the three Arabian goddesses as a dove, goose or swan [85].

The serpent and scorpion overlap semantically for the Norsemen as evidenced by the poetic designations for such common terms as snakr, nadra and as previously mentioned Nidghoggr, with scorpion borrowed from the Latin term for snake [86]. The depiction of raptors as fierce looking adversaries that are encountered at key points on the journey across the path of souls is a common feature in Native American death journeys [87]. The depiction of the "feathered serpent" (Fig 81), the constellation of Scorpio is strikingly similar to that on the Sutton Hoo helmet above. As mentioned above, the constellation of Scorpio throughout the Middle Ages on Old Icelandic calendars circa 1,200 A.D. is also depicted as a dragon with another dragon's head at the end of its tail. If we wanted to interpret the Sutton Hoo helmet as having this serpent, or dragon running over the crown we will see that it terminates with another head at its tail, at the end (Fig 50). **The Old Icelandic word for a scorpion translates as 'tail dragon' [88].**

Fig 79: Birds on the Sutton Hoo Purse Lid. After: Bruce-Mitford R.L.S (1978).

As well as the Sutton Hoo helmet associating the wearer with Odin, there are further obvious symbols which embed the wearer to the cosmos through the symbols associated with the primary constellations of the golden gates of the ecliptic: the Milky Way, Gemini – the dancing warriors / twins, Taurus - the Boars head terminals and Scorpio – the serpent and dragon. There is evidence that the Anglo-Saxons held a shamanistic belief in terms of soul dualism, with the soul being able to leave the body usually taking the form of an animal, both in literature in the later Anglo-Saxon poems of the Seafarer and the Wanderer [89] and also in well known artefacts such as the Bentey Grange and Sutton Hoo helmets. Both of these majestic items from the conversion era embody protective animal figures indicating another "common facet of non-Christian soul belief and shamanistic practice – belief in a totemic guardian animal which endowed the wearer of its representation with power" [90]. The swan maid sister is an important element connected with divine twin mythology, an example of which is the Frisian tradition in which two horse brothers have a sister called Swana, linking to the tradition of a Swan marking the epiphany of twin gods [91].

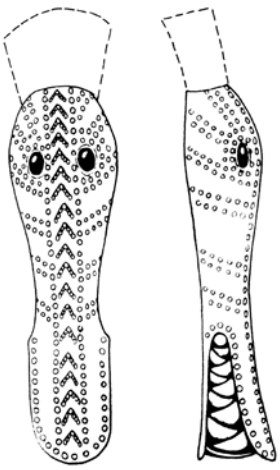


Fig 80: The serpent/scorpio which acts like a crest over the helmet and has a dragon like head at each end of its' 25.5 cm length. After: Bruce-Mitford R.L.S (1978).

The shield boss as sun disc between the eagle and dragon recall the antithetical creatures flanking sun wheels in Old Norse picture stones. In these examples, figures carry sun whirl-shields [92] and the shield / sun association is established in Eddic poetry, where a shield called Svalin stands before the sun – the 'shining god.' [93]. On the Gotlandic picture stones, the sun symbol was accorded prominence at the top centre of the stones which was later supplanted by images of Odin [94]. It is tempting to view the shield with the serpent and an eagle either side of the central pillar, flanking the Irminsul, world pillar or Milky Way; end on, with the constellations of the twelve months of the zodiac year represented by the twelve zoomorphic animal heads on its perimeter. "Our sun, which is situated in one arm of a spiral galaxy we call the Milky Way, is thus surrounded by the twelve "animals" (i.e. animate beings) of the celestial zoo" [95]. Zoomorphic decorations were a display to the uninitiated of having access to secret knowledge through symbolic 'badges', denoting shamanic and priestly knowledge [96].

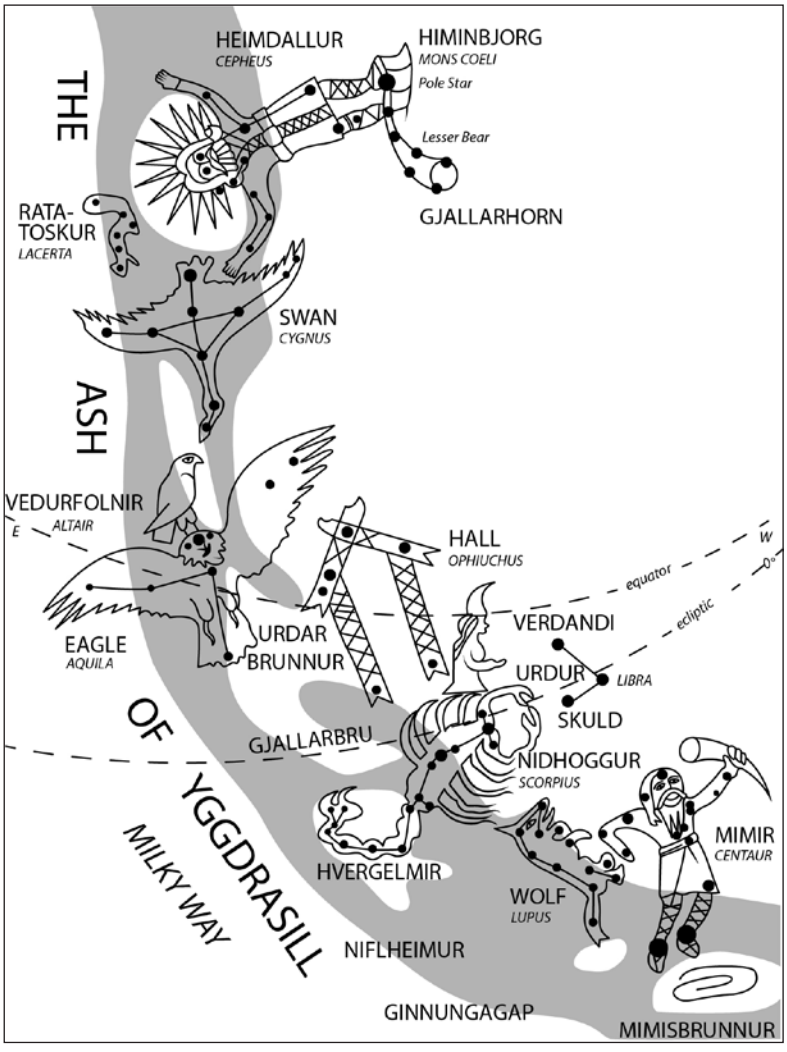


Fig 84: Bjorn Jonsson's star map. After: Jonsson, B (1994).

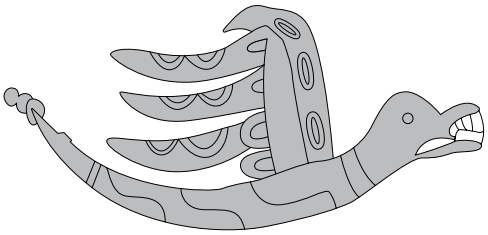
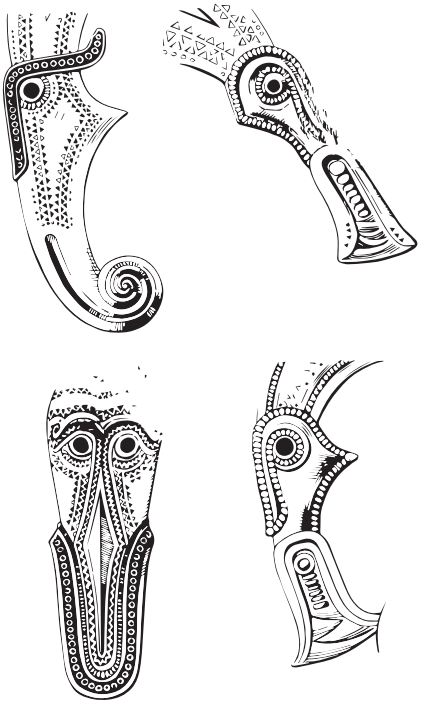


*Fig 81: The feathered serpent of the underworld. * After: Little, G. (2014).*

Above, Fig 82: The great shield. © Timeline Originals.

Below, Fig 83: Twelve animal heads, in four styles, circle the perimeter of the great shield. After: Bruce-Mitford R.L.S (1978).



Footnote * Universal in nature and Palaeolithic in origin the great rift or Cygnus rift in the Milky Way is where the starry stream divides in two. The shorter path tapers towards Scorpius, identified as the underworld creature, the feathered serpent found on Moundville pottery 800-1600 A.D. The mound complexes of the Adena culture 1000 – 200 B.C. were the ancestors to the South Eastern ceremonial complexes and such native American starlore (Little, G. 2014).

Hanging Bowls, Bronze Cremation Bowls and Urns

In myth, the story of how Odin stole Gunnlod's mead of inspiration is told in the Elder Edda in the words of Odin himself. Here, Odin transforms himself into both a serpent and shortly after an eagle in order to make his escape, both creatures central to the symbols associated with the Milky Way, the powers of death and the realm of Hel [97]. At the conclusion of the battle between the Aesir and Vanir gods, their truce was secured by spitting into a great vat, from which a being named Kvasir the wisest human that had ever lived was created. Upon travelling the world, Kvasir was subsequently invited into the home of two dwarves where he was slain and mead named Odroerir "stirrer of inspiration" was brewed from mixing honey with his blood. This mead was brewed in three vessels; a kettle known as ***Odrarer*** and in two smaller jars called Bodn and Son, and had the power to bestow poetic scholarly wisdom upon those whom ingested it. These three containers came into the possession of Suttung who was avenging the deaths of his mother and father, also killed by the same dwarfs [98].Odin later changed himself into the likeness of a serpent and crept into the auger-hole and was promised *"three draughts from the mead. With the first draught he emptied Odrarer, in the second Bodn, and in the third Son, and thus he had all the mead. Then he (Odin) took on the guise of an eagle, and flew off as fast as he could. When Suttung saw the flight of the eagle, he also took on the shape of an eagle and flew after him. When the asas [that is, the Aesir] saw Odin coming, they set their jars out in the yard. When Odin reached Asgard, he spewed the mead up into the jars"* [99].

Odin's acts, including escaping with the mead of poetry, gathering wisdom in the underworld and returning with the runes, are all connected with ***conquering death*** [100]. Odin, therefore, spewed out the mead that he was carrying inside him, most of which was "collected by the Aesir in pots that they set out on the heavenly fields as they see the pair approaching, but some of which falls to Earth for the benefit of anyone who finds it" [101]. Norse concepts of the ***hugr, hamr, fylgja*** and ***hamingja*** could all possibly fit into the "free-soul" concept that is so crucial to shamanism [102]. In contrast, mead is associated with imbuing the owner with secret and esoteric knowledge offering enlightenment and wisdom [103]. Mathisen proposes a more direct cosmological alternative, that the spewing forth of the mead symbolises the band of the galaxy, the Milky Way "*which can be seen descending to Earth in a misty ribbon like a silvery waterfall during the time of the year that the constellations Aquila and Cygnus are aloft... this myth touches upon deep matters of initiation, shamanic transformation, and ecstatic travel across the boundary of this world and into the "other world"* [104].

Looking at the above imagery and the importance of the ritual landscape in question, we are reminded that: (1) East Anglia contains two thirds of all known examples where cremations occur in or alongside bronze or copper bowls, and (2) of the 117 hanging bowls known to exist in England, East Anglia ranks as the area with the greatest number. The purpose of these vessels as covered above ranges from the purely decorative, for functional - storage vessels, lamp reflectors and bowls to serve drink from to these being solely for funerary use, in this instance we would like to propose the capture of Odin's mead, the Milky Way, during the journey on the great celestial river, the path of souls.

There was the belief that the mead consumed by human beings – which could have an inspiring effect – was the earthly counterpart of the Sun God's blood or Odin's spittle. The cup or horn dipped into the mead vat, like Odin the Eagle, was symbolic of the sun taking light away from the Moon. The Sun and Moon are not only divine, but eternal. Men who partake of the Sun's light as it is found in the lunar vat become One with the celestial bodies. Such Oneness confers a species of immortality [105].

Fig 85: Icelandic illustration from the 1700s. The pursuit of Odin by Suttung, the two celestial birds of the Milky Way with the starry stream, the spewing-out of mead seen falling to earth. © Wikimedia Creative Commons.

GOLDEN GATES

The Milky Way is crossed by the path of the sun, the ecliptic, two times a year, at the Summer Solstice and the Winter Solstice. At each crossing point, a pair of zodiacal constellations sits on either side of the Milky Way, effectively forming the pillars of two 'celestial gates' through which the Milky Way passes, these are Gemini and Taurus in the North and Scorpio and Sagittarius in the South.

"The relationship of these two pairs of zodiacal constellations to the Milky Way is not affected by precession and never changes" [1]. Gemini and Taurus will always mark the Northern gate, with the sun currently housed in Gemini at the time of the Summer Solstice and Sagittarius and Scorpio will always mark the Southern gate of the Milky Way, with the sun in Sagittarius currently at the time of the Winter Solstice.

Incredibly, there is evidence that these 'golden gates', the constellations which bracketed the sun's path in the Milky Way were known to hunter-gatherers from the Palaeolithic era, some 21,000 years ago [2]. Indo European cultures that assign mythic attribution to the heavenly bodies continued with this fixed unchangeable truth and cosmic reality regarding these celestial portals, for it was at these heavenly gates, on these celestial crossroads that the descent and ascent of souls occurred [3, 4]. In ancient Babylon (1,300 B.C.) during the myth of Adapa, he encounters Ea who advises him to flatter the guardians of these celestial gates, Tammuz and Gishida [5]. From Greek poetry 600 B.C. through to the early 5th Century where Macrobius in his *Commentary on Cicero's Dream of Scipio* records the twin stars of Gemini, the Dioscuri standing guard at the intersection in the heavens where the path of the planets and the zodiac cross the Milky Way, this enduring myth governing mortality remained [6]. Silver coins of the Roman republic from 136 B.C. - 312 A.D. depict these cosmic intersections with the divine twins standing guard, holding knowledge of these celestial portals. In one of these, a denarius of C. Servilius (136 B.C.) divine twins astride prancing horses and behind them the spears that they are holding cross in a peculiar, symbolic manner. This crossing of spears is also represented in the divine twin imagery of the Sutton Hoo helmet in the dancing warrior plaques, only in this instance it would appear that the spears are laying on the ground behind the figures. It is curious to note that the angles of the spears relate exactly to the Midsummer sunrise, Winter Solstice sunset 50 degrees and Winter Solstice sunrise Summer Solstice sunset 130 degrees cross axis.

This same plaque may also contain symbolic reference to the full solar orb at the time of the solstice created by the space made between the two arching curved horns on top of the helmets, who both possess twin solstice bird head imagery at their terminus (see Fig 87).

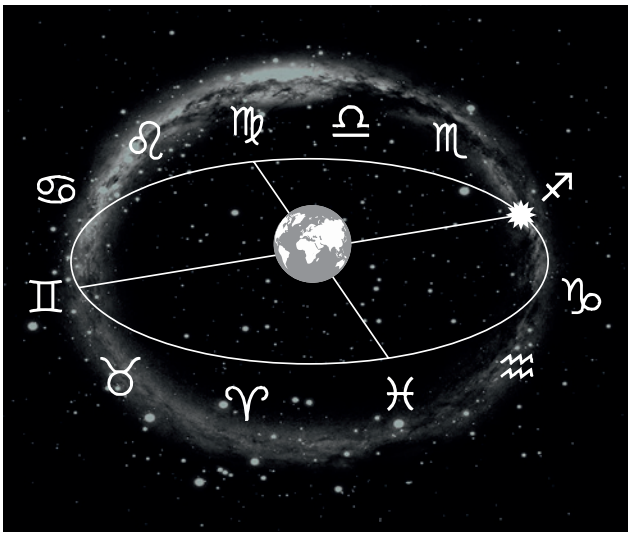


Fig 86: The celestial gateways: Sagittarius/Scorpio at right, with the sun presently housed by Sagittarius at the Winter Solstice; and Gemini/Taurus at left with the sun presently housed by Gemini at the Summer Solstice. After: Hancock, G (2015).

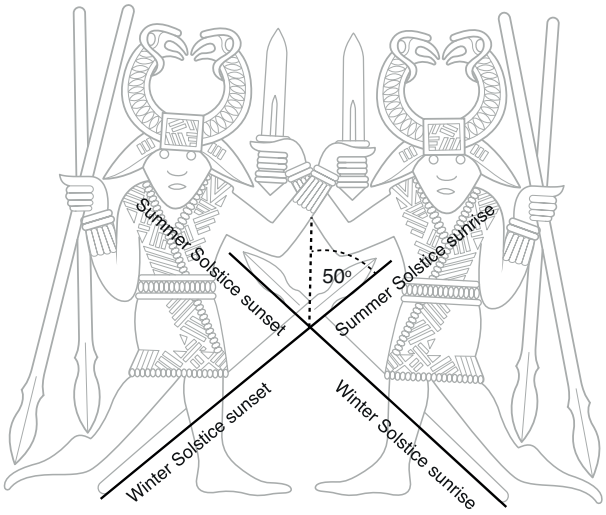


Fig 87: The angles of the spears mirror the Midsummer sunrise, Winter Solstice sunset 50 degree and Winter Solstice sunrise, Summer Solstice sunset 130 degree axis.

Mörner and Lind in their '*Ales Stones in Southern Sweden: A Remarkable Monument of the Sun Cult and Advanced Astronomy in the Bronze Age*' [7] refer to the extensive rock-carvings at the site Jarrestad, Sweden that is dominated by artistic representations of feet and foot soles [8]. All of the images present have been shown to exhibit strict solar alignments [9]. The 'Dancer' a central figure is orientated standing facing the South East i.e. the alignment of the sunrise at Winter Solstice. The return of light, return of the sun at the "Winter Solstice was a key event for the people living in Southern Sweden in the Bronze Age. The Järrestad rock-carvings show an important manifestation of this: "the Dancer" faces the sunrise and 84% of all 144 feet and shoes are watching the event in the same alignment"[10].

We have already seen previously how the symbol of the ship has long been associated with the passage of the sun throughout the day and night. At Jarrestad it would appear that symbols denoting this "significant relationship" transcended the more conventional drawings of ships in favour of foot soles and footprints with "the position of the sun which played an important role in the belief system of the Nordic Bronze Age" with 77 foot soles, 92 footprints and 29 ships present [11]. Is it possible that the curious positions of the warriors feet in the helmet plaque does not relate to 'dancing' but may instead relate somehow to this artistic motif, that once denoted this "significant relationship" with the sun?

As mentioned earlier, Bede records his knowledge of this in 725 A.D., observing that the zodiac touches "the Milky Way in Sagittarius and Gemini", at the time of the Summer and Winter Solstices, both of which he records the Angles knew [12]. **According to Ogier,[13] the evidence suggests that over time, the two points where the ecliptic and the Milky Way met, the constellations associated with Gemini and Scorpio became increasingly associated with the solstices "overwhelmingly the symbols of solstice duality involve birds (Summer Solstice/Gemini) and serpents (Winter Solstice/Scorpio).**

Odin's associations with crossroads has been understood to solely relate to these golden gates, these celestial cross roads, of the ecliptic and Milky Way, that are associated with the solstices, and not mere terrestrial crossroads where different ways meet.*

Milky Way: the afterlife - Wil and Wan, the wolfs great jaws and the dark rift

Our final exploration for meaning behind the Sutton Hoo grave goods concerns the figure flanked by two animals on the purse lid at Sutton Hoo which has been prone to much speculation over time. Traditionally, this has been described as being the story of Tiw and the wolf's binding [14] who, in legend, lost his hand to the wolf Fenrir and as explained above recent research proposes one eye has been deliberately struck out re-enacting the myth of Odin / Woden plucking out his eye at Mimir's Well which became the Sun (see Fig 49). There is also a wolf in the Prose Edda, referred to a Managarm that will swallow the heavenly bodies and cause the Sun to lose its shine [15].

An interpretation that the authors favour builds on the work of Otto Reuter and the above work cited [16]. In 1934, Reuter published his Skylore of the North and is perhaps the oldest and most detailed work, which relates the Norse myths with celestial phenomena. Reuter describes in Norse cosmology the Milky Way, calling it Iring's Way and how within the Milky Way it contained and symbolised two streams of saliva falling from the Wolf's Jaw's, these strands being called Wan and Wil. This same region is also the great dark rift in the Milky Way, described as the 'path of souls', which in Norse mythology is the shimmering road to Asgard, home of Valhalla [17].

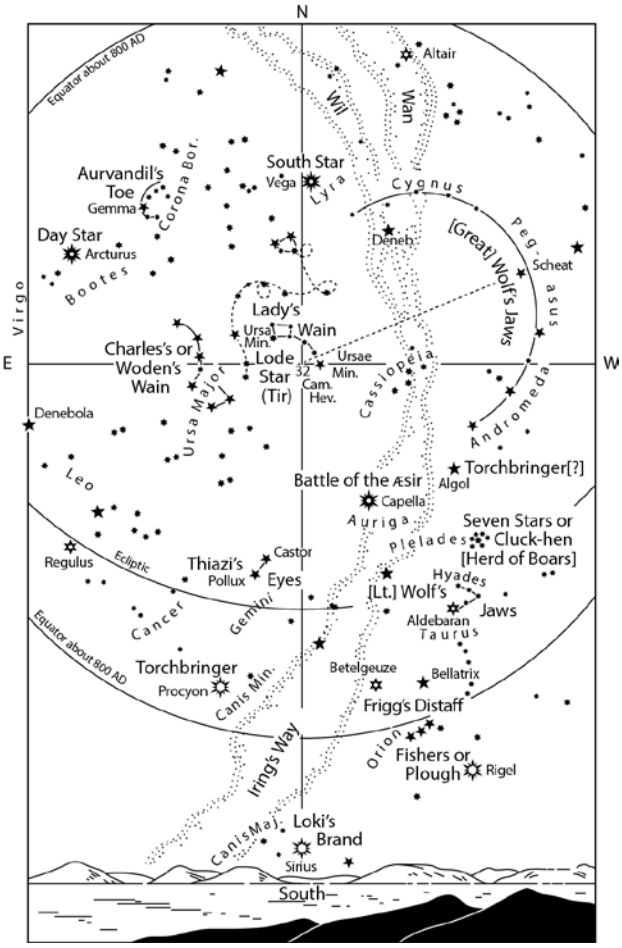


Fig 88: The great rift or Cygnus rift in the Milky Way divides into two, portrayed here as two streams of saliva: Wil and Wan, falling from the great wolf jaws constellation. Germanic constellations 800 A.D. After: Reuter, O.S (1934).

A defining characteristic of pre-Christian Anglo-Saxon culture is the notion of an otherworld or, indeed, otherworlds – abodes of gods, supernatural creatures and souls of the dead. We can speculate on the reasons why interaction with these realms was necessary: ensuring the safe transport of dead souls; obtaining divinatory wisdom; conversing with ancestors, or appeasement of and approval from powerful otherworldly beings. In Norse and early Anglo-Saxon cosmology, two of these otherworlds were located above and below the human realm of Middangeard: the realm of the heavens and the chthonic underworld. We see the central figure on the purse lid as Odin / Woden, being consumed by the great wolf jaws, the constellation that marks the crossroads at the great rift in the Milky Way. From here one's soul would either take one of two available paths, death or ultimate glory, the left or right hand path, Wil or Wan, symbolically represented by the twin wolf imagery either side of the radiate headed sun-god.

In Egyptian mythology, the same great rift, beside the constellation of Cygnus is the womb of the sky goddess Nut. In the creation myth we hear how Nut arches over the vault of the heavens and from the darkness becomes pregnant after the sun enters her mouth. Again we see the same motifs of birds, the sun and East and West directions, sunrise and sunset.

> *The uniform darkness, fount of the gods,*
> *The place from which birds come...*
> *Open to the Duatt that is on her Northern side,*
> *With her rear in the East and her head in the West* [18].

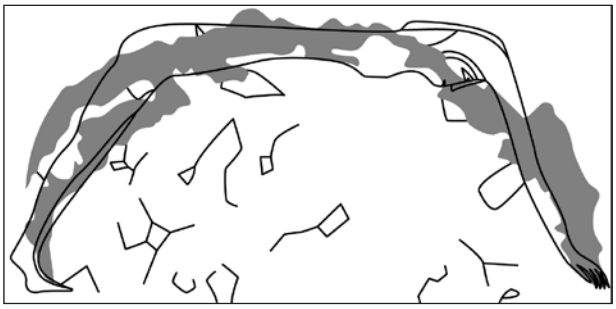


Fig 89: The Mythology of Nut and the Birth of Ra.
Based on the Greenfield Papyrus 950 B.C. After: Wells, R.A. (1992).

The night sky over the 'solstice line'

It is not difficult to understand why the early Anglo-Saxons' agrarian society was fixated on the annual movements of the sun. At its simplest level, the sun fructified the land and ensured a good harvest, but this depended on the predictable cycle of the seasons and movements of the sun within an ordered universe. Life was, therefore, structured according to a ritual calendar, enabling specific solar-oriented rites and observations to occur. In early Anglo-Saxon cosmologies, these would likely have focused on ensuring the sun remained vigorous in the 'light' half of the year and strong enough to be able to survive the 'dark' half in a dual seasoned annual division. Midsummer and midwinter are diametrically opposed in every sense: astronomically, seasonally, symbolically, and mythically. One is, in effect, an inversion of the other. The long daylight hours of midsummer were a time for human activities, life and communal celebration. The dark hours of midwinter, in contrast, were a time for the gods – their movements were visible in the heavens throughout the long night. In some respects, this can be seen as a form of occupation: humans and light occupied one end of the year, darkness and otherworldly activity the other. During midwinter, Odin and his entourage would swoop down out of the mountainous North to visit homes. Gods were fundamentally dominant at this time [19].

Bearing all this in mind, let us turn our attention to the movement of constellations over Sutton Hoo in midwinter and midsummer 625A.D. – the approximate date of the ship burial at Mound 1.

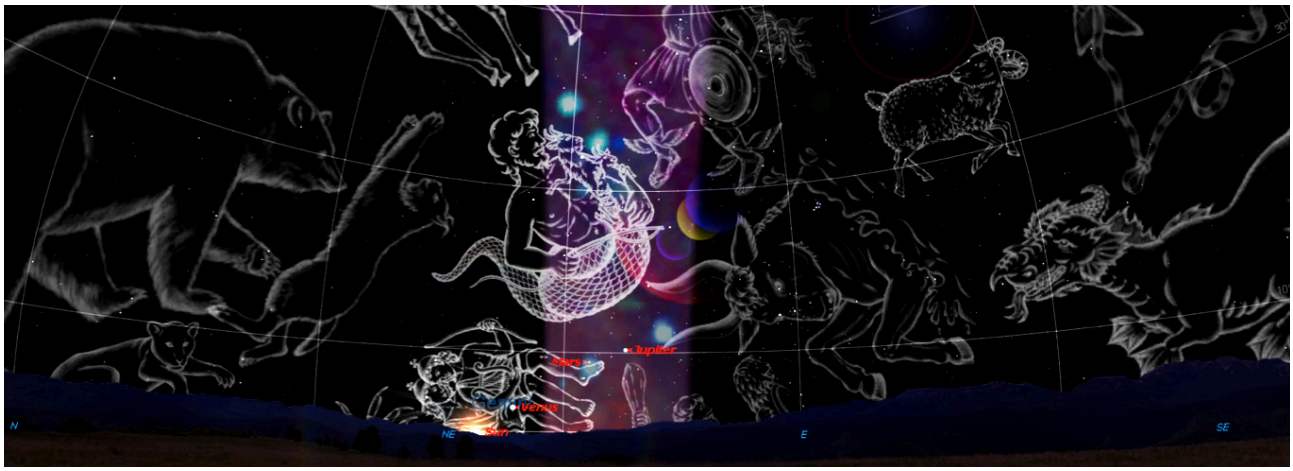


Fig 90: The Summer Solstice sunrise sky 625 A.D. at Sutton Hoo. The sun, rising beside the celestial twins with Venus, Mars and Jupiter.

Midsummer

On a clear night, in the few short hours before midsummer sunrise, a liminal, ambiguous in-between time particularly charged with magical potential [20] the Milky Way would be clearly seen arcing directly overhead. Cygnus, one of the constellations that follows the path of the Milky Way, moves directly overhead and points towards the earth; Aquila – the eagle – faces upwards towards Cygnus. On the morning of the Summer Solstice, at astronomical twilight, when the sun is just below the horizon and does not illuminate the night sky; this is the last period of the night when stars can still be seen. At this liminal time, the South-Western end of the Milky Way is aligned to the solstice line facing away from the rising sun. Thus, the Milky Way would be seen to sink into the River Deben, close to the fork of Martlesham Creek.

Cygnus and Aquila would also hang and move directly over this 'solstice line', the bright stars of Altair in Aquila, Vega in Lyra and Deneb in Cygnus (one of the brightest in the night sky) forming what we know today as the Summer Triangle. The effect of the three stars in these three constellations, hovering over the Deben just before dawn, would have been extraordinary. The Milky Way would appear to flow into its terrestrial counterpart, creating a bridge between worlds; perhaps even the Summer Triangle was seen as a gateway to heaven [21]. In the North-East, with Cygnus behind, over the Villa Regia of Rendlesham, Jupiter, Mars and Venus precede the sun – Thor, Tyr and Frigg [22] – are just visible on the horizon, heralding the rising sun (Fig 90). The Milky Way rises vertically between Gemini and the horns of Taurus, Hyades and rises with the sun. At sunset looking towards Rendlesham, the Milky Way creates a spectacular cosmic arch, celestial river with Cygnus, the Eagle chasing the serpent Scorpio into the underworld.

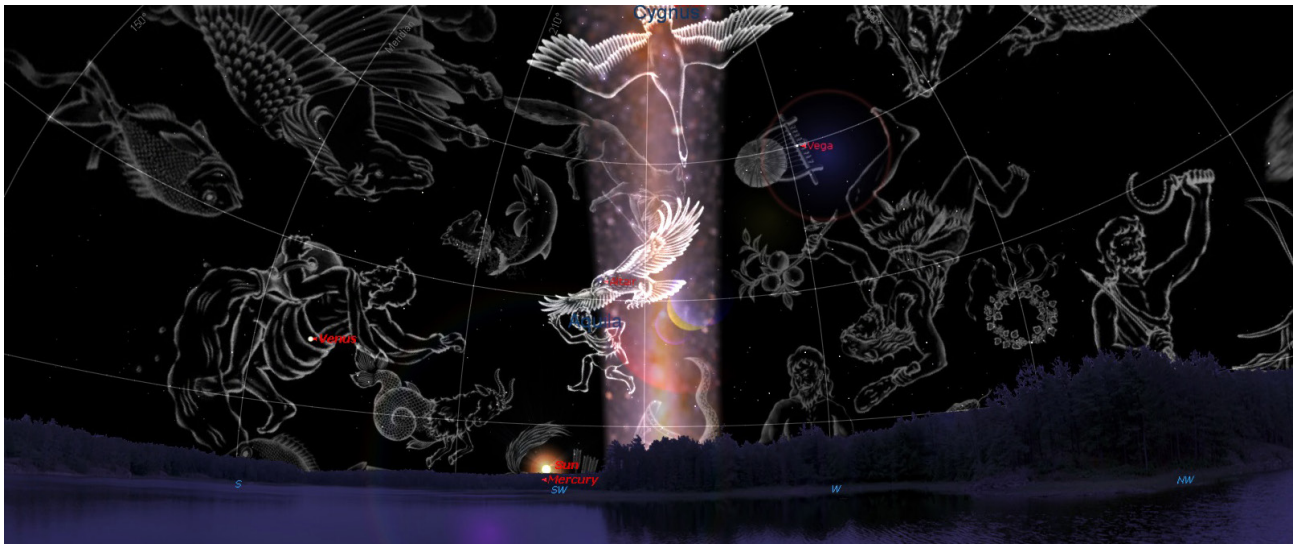


Fig 91: The sky at the Winter Solstice sunset 625 A.D. at Sutton Hoo. Mercury/Woden setting beside the sun with the Milky Way in tree aspect.

Midwinter

At the other end of the year, a freezing midwinter sunset looking towards the South West over Martlesham Creek we would see Venus / Freya follow the setting sun, aligning with the solstice line as it progresses forward, grazing the horizon. In the middle of the night, Jupiter / Thor and Gemini pass through the solstice line in a South-West orientation, still high in the sky; in contrast to midsummer, the divine twins and Jupiter / Thor are at the opposite half of the sky to the sun, which rises in the South-east as they drop below the horizon in the North-West. Cygnus hangs low in the night sky at first, but drops to the North-West. Aquila sets but Cygnus does not; at least, not quite. The bright star Deneb traces the line of the horizon, then Cygnus rises as it passes through the solstice line towards the North-East. Cygnus follows this path because, over the long cold night, the Milky Way 'lies down' in its 'river aspect' to meet the horizon in the West (Fig 92).

This phenomenon of the tilting of the Milky Way / Bifrost towards the horizon during winter months could perhaps be understood by Wuffinga culture as a precursor to Ragnarok, when the Sons of Muspel break the trembling bridge to Asgard. Alternatively, it could signal the coming-to-earth of the gods – this is more in line with an interpretation of midwinter as a time dominated by otherwordly beings when the bridge shatters and collapses, further heightening the significance of the Winter Solstice rites would therefore take on added gravitas.

When the sun rises in the South-East, it is accompanied by Mercury / Woden and at the Midwinter Solstice sunset, when the sun god dies, Mercury is right beside the sun with the Milky Way in its 'tree aspect' to the right (Fig 91). Of all the Gods, according to Tacitus, "Mercury is the deity whom they chiefly worship" [23]

What can we say about these zodiacal events? The first obvious connection is between the constellation Gemini and the divine twins and the second relates to the eagle Aquila and the swan Cygnus. On Earth, birds represent transcendent creatures and divine messengers in Norse cosmologies. Birds were also human souls, of the dead and the journeying shaman-sorcerer; both traversed the world tree to reach the realms of the gods. The eagle is symbolic of Odin / Woden, but also of kingship, life and wisdom. The swan is an enigmatic bird, associated with shamanism, sorcery and the transport of dead souls. We may, therefore, see Cygnus and Aquila, both constellations that follow the path of the Milky Way, as bearers of souls between worlds. The significance of Cygnus and Aquila at midsummer, hanging over the River Deben, is reflected in grave goods, such as the purse and the helmet. The transport of dead souls is explicit in the presence of key burials on the 'solstice alignment'. In this configuration, we can envisage a scenario whereby the dead king, buried with his ship and possessions beneath Mound 1 at Sutton Hoo, was spiritually transported to (and from) the otherworld at midsummer, when the earthly axis was aligned with the Milky Way. His boat would provide transit along the terrestrial river (the Deben) and into its celestial counterpart the Milky Way, known in Germanic cultures as ***Vetrarbraut*** - the winters path or path of the spirits [24] and also described as a river, a bridge, a road or a street [25].

There is the potential for the swan and eagle, the zoomorphic designs on the front of the helmet, to mirror the position of the constellations Cygnus (the swan) and Aquila (the eagle) at astronomical twilight on midsummer sunrise. At this point, the constellations hang directly over the solstice line, and the Milky Way and River Deben join to form a bridge between the human and celestial worlds.

The solstice alignment at Sutton Hoo, and the symbolism of the grave goods found in Mound 1 reflect this cosmology. We propose three key functions of the solstice line within early Wuffinga society:

- As a means of honouring / energising the sun during the solstices
- As a means of confirming the sacral king's power, influence and rightful rule
- As a conduit for souls, both dead and alive, to traverse the otherworlds

A landscape axis aligned to the solstices would have enabled the entire community to participate in these solar rites, the line giving the illusion of 'connecting' with the sun when it touched the horizon at sunrise or sunset. The benefit would be reciprocal: the sun's straight rays could be received along the line's 'channel' to fructify the earthly 'nodes' upon it at midsummer. At midwinter, an energetic charge could be sent by the community to the sun in order to assist in its struggle to grow strong once more as it rose out of the underworld. These rites were perhaps not so dissimilar to those recorded even in the 20th Century [26].

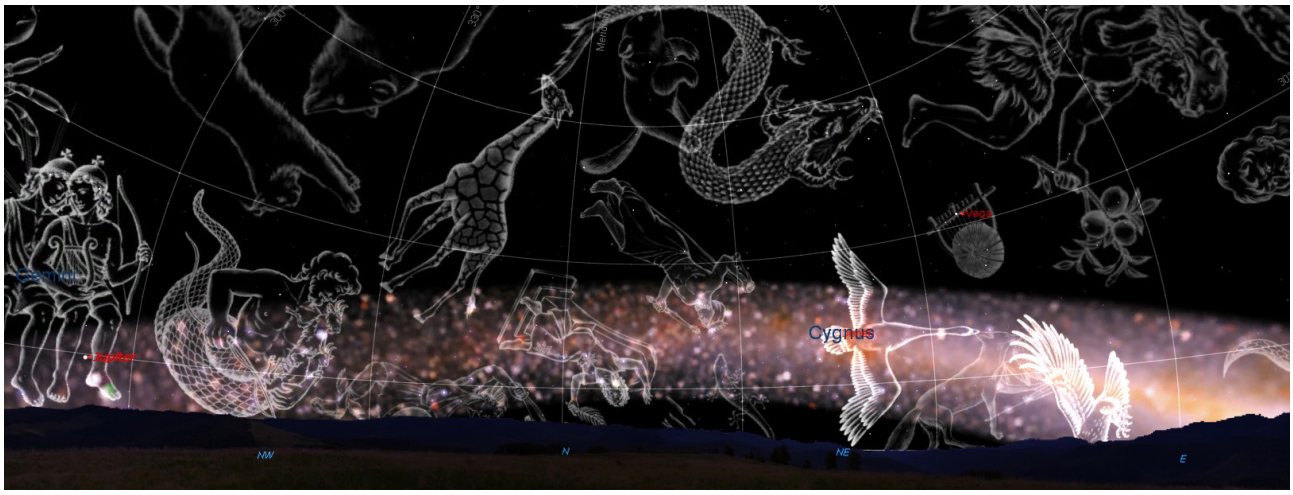


Fig 92: The sky at dawn before the Winter Solstice sunrise 625 A.D. Sutton Hoo. The Milky Way in river aspect.

Footnote: *Private correspondence with a retired Professor of German and Linguistics.

THEORIES

"...the assumption that pagan faiths were fixed, simple and coherent is very slow to die." [1]

The sacral king was the binding link between Earth and Sun, upper and lower worlds and leader of the annual rites that ensured prosperity for the community, potentially representing the *terra mater's* consort [2].

Through the binding injunctions of kingship, his rightful judgment ensured the beneficent action of the elements and, in turn, the flourishing of nature and community; a legitimate and truth-speaking king received his power and wisdom from the sun [3]. It was also likely that the king or regent played a primary role in midwinter and midsummer ceremonies. The relationship, however, between Anglo-Saxon sacral kingship and landscape alignments ***may*** have been developed as a result of regal interest in the formal articulation of an axis mundi on the landscape, expressed in the alignment of buildings and ritual foci designed to construct a sacred geomantic landscape as a centre of a symbolic cosmos [4]. After all, kings were expected to deliver straight and true judgments, so the land was reworked to suit both the theatricalities of royal power, funerary architecture and to fulfill the duties of sacral kingship.

As cited above, this would also be in keeping with findings in the Dutch landscape and the medieval deathroads 'Doodwegen' in North Holland where evidence is strong for an association between, death, straightness and Kingship with a Koninsweg 'royal route' passing near a ruined dolmen [5]. The orientation of an axis or entrance of a monument upon an astronomical event at, or near the horizon clearly mattered [6]. This was because astronomical alignment helped 'harmonise the monument, or the place where it was located, with the cosmos' [7] affirming it as being 'the centre of the world' [8]. The ritual landscape, mirroring a heavenly inversion at the time of the solstices, was the ultimate expression of an ordered landscape within the king's estates, even in his absence; forming a grammar of display to transmit information about the regent's authority, celestial rule and right judgment. It was also a tool by which the king, during his ritualised seasonal movements around the kingdom, could continue to perform the proper midsummer and midwinter (and equinoctial) rites associated with his station, at 'nodes' of magico-religious activities [9].

We propose that the idea of the sacral king was a binding link between earth and sun, upper and lower worlds, deity and community, restoring harmony and balance between the living and the dead, governing the ascension of souls via the path of Milky Way. Ahead of his journey, he would be supported by his possessions (his grave goods) for they confirm the wearer as a metaphorical and actual ***axis mundi***: a focal-point in the kingdom for the continual negotiation between this world and the otherworld: the helmet-as-cosmos, the shield as cosmological map.

The key Sutton Hoo and Snape grave goods contain a wealth of symbolism relating to:

- Birds as agents of the otherworld
- Eagles as psychopomps, regal soul-carriers and embodiments of divine will, specifically Woden / Odin
- Swans as otherworldly creatures, shape-shifters, bearers of souls to the afterlife and representatives of the sun
- Ocular symbols as eyes into the otherworld
- Stag - a solar symbol whose antlers depict the sun's rays
- Standards – gromatic surveying device
- Boat / part of boat burials – as vessels of transport to the underworld
- Horse burials – divine twins, brothers of the Sun Maiden having an astral nature
- Serpents as guardians to the underworld, the Milky Way
- Divine warrior-twins who assist the sun at its rising and setting

- Depictions of Woden / Odin – a shape-changing shamanic deity and progenitor of Anglo-Saxon kings whose horse is the Milky Way
- Depictions of wolves in pairs possibly relating to the twin streams of saliva Wil and Wan from the great wolf jaws constellation in the Milky Way
- Depictions of swastikas and wheel-crosses as sun symbols
- Drinking vessels hinting at pseudo-shamanic rituals concerned with acquiring the language of birds – an aristocratic skill
- A Woden-centric warrior cult

The decoration shows an undoubted preoccupation with the sun and magico-religious ideas core to shamanic traditions. And far from being a fixed known art, symbolic decoration appears to have been multiplicitous and fluid. A bird could mean a swan, eagle, duck or goose, where such zoomporphic decoration was a symbolic display to the uninitiated, where 'badges' denoted shamanic and priestly knowledge [10]. A number can also be linked stylistically to Vendel-era and Celtic culture where, in both cases, material culture and monument building show veneration of the Sun, latterly in the form of monuments aligned to solstitial events.

An aspect previously mentioned, and worthy of repetition, is the fact that over time, the two points where the ecliptic and the Milky Way met, the constellations associated with Gemini and Scorpio became increasingly more associated with the solstices, becoming "the symbols of solstice duality" involving birds (Summer Solstice/Gemini) and serpents (Winter Solstice/Scorpio) [11]. These celestial portals were guarded by the divine twins at the intersection between the path of the planets and the zodiac as they cross the Milky Way. Cygnus as the celestial bird also marked the gateway and hole into the sky-world [12] denoting these "X" gates, portals for the souls journey. And it was at the time of the Winter Solstice that the band of our galaxy, the Milky Way, can be seen descending to earth, falling like a silver waterfall, though standing firm and rooted. This celestial world tree, Odin's steed, meets the horizon in its tree aspect, with the dual birds of the constellations Aquila and Cygnus aloft.

The Sutton Hoo grave goods also mirror, in their symbolism, the movement and position of major constellations at midsummer and midwinter, specifically:

- Gemini, depicted as divine warrior twins
- Aquila, depicted as an eagle
- Cygnus, depicted as a swan
- The serpent as Scorpio
- The sun, depicted as fibula and wheel-crosses

During the solstices, these constellations are exactly oriented to the Sutton Hoo line and occur at liminal points during the day: dawn, dusk, sunset and sunrise.

The configuration of these heavenly bodies at midsummer and midwinter with landscape features around Sutton Hoo describe major cosmological events:

- The rising of the sun at its most powerful, aided by divine twins and the gods
- The setting of the sun at its weakest, unaided by any divine agency and devoured by the underworld serpent, Scorpio
- At Midsummer, the transport of souls from the River Deben to Bifrost – the Milky Way – via Aquila the eagle psychopomp and Cygnus the otherwordly valkyrie and herald of the sun
- At Midwinter, the coming-to-earth of Bifrost, Woden / Odin and otherworldly beings – and their subsequent dominion at this time of the year

All in all, we can see clear indications of an active shamanic solar cult at Sutton Hoo. At these especially liminal and propitious times of the year, we can imagine that shamanic rituals would have been conducted to:

- Obtain ancestor, bird and divine wisdom from the otherworld
- Charge the sun with vitality and, in turn, reinvigorate the land
- Confirm the divine authority of the sacral king
- Appease the gods
- Ensure the transport of dead souls to the afterlife

These goals may have been obtained via drinking rites and the imbibing of intoxicating drink, enabling shamanic flight to otherworldly realms. Whilst certain scholars have argued for a shamanic view of early Anglo-Saxon society, where animals functioned as active mediators between the mundane world and the otherworld, as part of an ideology of transformation [13] we need to add the solsticial element onto this symbolism. In Sami pre-Christian beliefs, images of suns and sun wheels adorned the reverse side of Shamanic drums where it is thought they may have played a role in cosmic navigation, in helping the shaman traverse the different astral and underworld realms [14]. That the concept of souls of the dead transitioning into another realm, and continuing to exist in some form, to the extent that earthly objects retained some usefulness, was commonplace. The sun is the eye that cannot be escaped and at night it did not simply set into 'nothing' "it actually went ***into*** something, ***into*** the land or ***into*** the water" [15].

Boat inhumations have been described as a theatrical performance enshrining both heroic and mythological components through ritual practice by becoming an important canvas to explore 'the power of place' with the power of the funeral creating identities in relation to perceived history and cosmology [16]. We saw how the the Viking Age ship burials at Salme, Estonia (650-750 A.D.) formed part of a sacralised landscape, and were aligned on the North-East - South West solsticial axis, orientating the "ship of the dead" with the "the Milky Way, the way of souls." [17]. The landscape can be seen to not only provide a back drop to this mortuary performance, but becomes "an integral component" [18]. In 'the landscape of a Swedish boat-grave cemetery' this argument is further enhanced where the authors demonstrate how its precise location at Skamby in Sweden was understood "in relation to the demands of mortuary theatre and its underlying cosmological principles rooted in cultural memory". Its location specifically enhanced the inherited connections to imagined pasts and myths through the medium of landscape [19]. There is no doubt that the landscape around Rendlesham and Woodbridge may have been chosen because of its sacred 'otherworldliness' enhanced by its proximity to the river, the sea, the underworld and the ancient burial grounds of the Neolithic people relating the site to 'liminality' [20]. We can imagine the people around Woodbridge acting similarly to those in Norway, described in folk culture during the two calendrical rites of Jul (Midwinter) and Midsommer, opposites in Norse conceptions of symbolic space and time [21]. At Jul, Odin and his entourage would be perceived to rise up out of the North and swoop down on individual farms where its human inhabitants would have vacated their dwellings having set a table for the occupying spirits. "The collective gods were clearly dominant over the individual farm and family. The opposite calendrical ritual and social effect occurred at Midsommer when the community would journey to the collective natural site". This encroachment of the supernatural in the natural world [22] *'inverted order and produced a wild and forceful energy-field, where people lost control and weird events could take place'*.

The natural world was indeed powerful; however, there is more to the location of the Sutton Hoo burial site with its close proximity to the royal town of Rendlesham than simply an affinity with the liminal banks of the Deben river. **In answering the question why was the royal boat burial at Sutton Hoo, in this particular place, 'rather than five or ten kilometres to the North, East or West' [23] or with regards to the royal boat burial at Snape surely having "more to the choice of site than simply the presence of an existing burial mound" [24] we propose that allegiance to a midsummer, midwinter solstice axis across the Sandlings underpinned the Anglo-Saxon boat burial ritual.**

Furthermore, could it be that instead of this proposal, or perhaps even as well as, that the practices at Sutton Hoo and Snape were because of the exceptional Celtic alignment system that centred on Oxford and emanated out from Witham through Colchester and beyond? (Fig 35) [25] If not, then the conclusion must be that it is a complete coincidence with these two exceptional boat burial locations just happening to be located on what appears to be 'an elaborate network of

solar alignments' and 'archaic observation posts and bearing lines'? [26] We have seen how the Milky Way has been viewed as Odin's steed and how it is wedded to the two solstice constellations. Did the ritual landscape of East Anglia, that so exemplified this cosmographic expression attract the rare practice of bronze cremation vessels, with two thirds of all known examples discovered in this region occur because the landscape contained a solstice alignment, described as being 'perhaps the finest example in Great Britain'? [27] And did it help facilitate the annual mythic ritual of the hero enacting victory over the serpent that formed part of the mythic cycle in Indo-European societies at the time of the Winter Solstice? [28] And finally, were the golden funerary vessels part of 'mortuary theatre' (or a theatrical mortuary display?) within the ritual landscape, designed to capture Odin's spewed mead, the Milky Way, in the journey in the afterlife? As explored earlier in the myth of the pursuit of Odin by Suttung, whilst in the form of an eagle (a bird strongly associated with the Milky Way) not all of the mead Odin spewed out from Asgard was captured by the kettle and jars (bowls? - Fig 85). Did this contribute to why East Anglia ranks as the area with the greatest number of bronze and copper hanging bowls, whose use we know remains uncertain?

Whatever the case, it is patently clear that the Anglo-Saxons identity was anything but rigid or fixed, as demonstrated by Davidson in her quote at the opening of this section. As well as ***trying to look Roman***, they were surely influenced by Celtic, Christian, Scandinavian and Germanic traditions as well as trying to carve out their unique identify amidst a turbulent time. Whatever their story, it continues to this day in being re-written.

"Woden has been quietened, diminished in stature, overcome as a person, by the successful white magic of the Church." [29]

Footnote: *Whether sacral and divine kingship existed as a genuine Anglo-Saxon institution has been hotly debated. It appeared to be a facet of Norse culture, as described in Ynglingatal [30] and Sigurðardrápa [31] and, most notoriously, the ritual slaying of Swedish King Dómaldi, it should be noted that most examples of Norse sacral kingship relate to the Ynglings dynasty, of which the Wuffingas were a possible offshoot. Additionally, in a recent examination of Anglo-Saxon kingship, the sacral nature of that station is further asserted [32].

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25. This spiritual journey of inhumed souls is not so dissimilar from the cremation rites proposed in Ynglinga Saga: Odin set in his land the laws… thus, he bade that they burn all the dead and bear their possessions on to the firebale with them. He said that every man should come to Valhall with such riches as he had with him on the firebale and that each should use what he himself had buried in the earth. They should bear the ashes out on the sea or bury them down in the earth; for a renowned man they should build a howe as a mark of remembrance, and for all men in whom there was some manliness they should raise standing-stones, and this custom held good for a long time after.

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