

The Callanish Connection

by

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Since writing the paper titled “Mistaken Identity: Have the Swedes ‘Short-Changed’ the Megaliths?” in which I traced the advance of the Megalithic astronomical tradition northward around the Atlantic fringes of Europe into Scandinavia, I have had occasion to re-read “Stonehenge Decoded” by the late Gerald S. Hawkins, and have focused special attention on Appendix C, which he sub-titled “Callanish: A Scottish Stonehenge”. (The latter was a reprint of a paper by Hawkins that originally appeared in Science, Vol. 147, No. 3654, January 8, 1965, pp. 127-130.) Although I had personally examined the site of Callanish in the late 1990’s, it took a review of Hawkins’ work to appreciate the special role that it appears to have played in the thinking of its Megalithic builders as they reached the northern reaches of their cultural diffusion.

While the location of Callanish did not at first glance appear to fit the latitudinal constraints imposed on such sites as Carnac in France, Stonehenge in England, or Ales Stenar in Sweden -- where a right-angle arc exists between the rising and setting points of the moon and/or the sun -- it did provide an anticipatory clue to the location of the massive and enigmatic site of Askeberga, or Ranstena, in the western interior of the latter country.

It is clear from Hawkins’ discussion that he was uncertain whether Callanish pre-dated Stonehenge or if the opposite were true. To a cultural geographer, however, who regularly employs the notion of ‘diffusion’, it seems readily apparent that any wave of innovation emanating from the Mediterranean – as the measurement of angles surely did – would have to have reached Stonehenge first, and Callanish only sometime later.

Hawkins’ discussion also raised the likelihood that the site of Callanish was chosen because it was oriented to Mount Clisham (elevation



Figure 1. The location of Callanish relative to the highest mountains on the Isle of Lewis, Mount Clisham (2622 ft.--799 m) and Tirga Mor (2227 ft.-- 679 m) (BIG Road Atlas, BRITAIN, Automobile Association, P. 64, 1961.)

2622 ft. or 799 m) -- the highest mountain on the Isle of Lewis), that he identified as the setting point of the midsummer sun. For this contention, he cited as his evidence a linear arrangement of stones on the southern margins of Callanish that appeared to be angled in the mountain's direction, but concluded that only a re-survey of the site would conclusively establish such a relationship.

Describing the specific latitude of Callanish (58.2° N.), Hawkins made the point that “it is near the Arctic Circle for the moon, the latitude where the moon at its extreme declination remains hidden just below the southern horizon”. He added that “Callanish is 1.3° south of this critical latitude, and there the full moon at midsummer stands about 1° above the southern horizon every 18 or 19 years.” (Hawkins, 1965, p. 185.)



Figure 2. Large scale Ordnance Survey map of the site of the Standing Stones of Callanish (Gaelic Calanais).

When we examine the most recent Ordnance Survey map of the Isle of Lewis, we find that Mount Clisham lies at an azimuth of 194°, or 14° west of south, as seen from Callanish. However, by enlisting a computer program such as “Voyager” (a product of Carina Software, San Leandro, California), we also learn that the full moon at midsummer never sets nearer to this azimuth than about 12-13°, that is, at about azimuth 206-207°. On the other hand, when the moon is at its minimum declination – as it was, for example, in 1989 – it passed the azimuth of 194° in that year at an elevation of only

1°59'. Inasmuch as Mount Clisham subtends an arc of 1°08' as seen from Callanish, this means that the moon's height above the mountain measured only 51', Nineteen years later, in 2008, when the moon again reached its minimum declination, it passed the azimuth of 194° at an elevation of 2°24', so in that year, it skimmed the mountain some 25' higher than on the previous occasion. Nevertheless, on both occasions it nicely reinforced Hawkins' contention that the location of Callanish had probably been chosen because it marked the last visibility of the setting midsummer moon at its extreme southerly latitude – despite the fact that the moon does not actually set over the mountain itself.



Figure 3. Photograph of the Callanish Standing Stones (Courtesy of Google.)

What also emerged from our map study was the fact that, while Callanish is *not* oriented to a setting position of the moon over Mount Clisham, it is directly in line with the second-highest peak on the isle of Lewis (Tirga Mor, elevation 2227 ft., or 679 m) at sunset on the winter solstice. Indeed, this would appear to have been the first occasion since leaving the Mediterranean basin that the Megalithic sky-watchers were able to employ a topographic feature of any consequence as a critical astronomical marker, for certainly neither Carnac on the peninsula of Brittany nor Stonehenge in Lowland Britain provided such an opportunity. Thus, from the site of Callanish it was possible to witness the setting positions of both the moon and the sun at their farthest southerly remove. Indeed, at this latitude, it must have seemed to the Megalithic sky-watchers that they had reached the very northern limit of the *oekumene*, or the

“habitable world” as they knew it, for surely a region lacking the light of the full moon must lie beyond the pale of civilization itself. To them, the location of Callanish must have represented “Ultima Thule”, as daunting a northerly outpost as that which Greek explorers were later to describe in yet more dramatic terms.

The fact that Tirga Mor was selected as a topographical marker for the setting sun on the winter solstice is also interesting because the site of Callanish itself lies at the inner end of a fjord or firth that penetrates Lewis from the northwest (East Loch Roag). This strongly suggests that the Megalithic seafarers, once they had completed their northward advance between the islands of Britain and Ireland, appear to have approached the Isle of Lewis from its outside edge, rather than through the more protected inner channel known as The Minch. If this observation is sound, then it would also suggest that sailing conditions in these northern waters were probably far more congenial during the middle of the second millennium BCE than they have been in more recent times.

While it seems quite clear that the specific location of Callanish was selected due to its solstitial relationship to Tirga Mor, it is not impossible that its builders also visualized it as something of a ‘replica’ of Stonehenge. Here at latitude 58.2° North we find that an angle closely approximating 90° may be measured between the solstitial rising and setting positions of the sun vis a vis the *minimum* rising and setting positions of the moon, rather than the *maximum* rising and setting limits of the moon as at Stonehenge. Only if we allow for about a 3.5° difference in accuracy, attributable to the more rugged terrain in which the measurements were made, might we agree that Hawkins’ characterization of the site as a “Scottish Stonehenge” was more accurate than he might ever have imagined.

Once around the austere Hebrides, the Megalithic advance continued through the Orkneys, Shetland, and the outer coastal fringes of the Scottish mainland, where there were likewise few areas of premium soil and climate to entice an agricultural people to settle. Crossing the North Sea brought them to the shores of Norway, whose rocky coasts again held little promise of productive cultivation, and were all but by-passed in the process. Although it is unlikely that any Norwegian archaeological site demonstrates a Megalithic agricultural origin -- even in the more gentle, rolling countryside of Østfold county on the east side of Oslo Fjord -- it is nevertheless interesting that, near Kongsberg, a town in Buskerud county on the west side

of Oslo Fjord, famous for its silver mines, an inscription in the Linear A script of Crete was identified in 1994. (Jarnaes, 1999, p.6) Such evidence, coupled with the Phoenician tin mining pits found both in the Scilly Islands and Cornwall in southwestern Britain reveal that sea contacts between the North of Europe and the Mediterranean that had begun in the Stone Age were still actively in use during the Age of Metal.

Unfortunately, the granite skerries and narrow fault valleys of Bohuslän that marked the Megalithic seafarers landfall in western Sweden, were scarcely more welcoming than were the sandy outwash plains of Jutland in western Denmark. It was not until they had penetrated the interior of Sweden's West Gothic plain and reached the deep lime-rich plains of eastern Denmark and Skåne in southernmost Sweden that they found lands as attractive as those their forbearers had first encountered both in France and Lowland Britain. However, by the time they reached the area of the southern Baltic, the tide of Megalithic advance had subsided, leaving its most distant northeastern outliers on the Swedish island of Öland. But before this remarkable expansion of Megalithic culture had ended, it had established its final great astronomical monument on a high bluff in southernmost Sweden overlooking the Baltic at a place called Kåseberga. There a giant ship-like construction some 67 meters (220 ft.) in length known as Ales Stenar, or "the stones of Ale", marked the exact latitude at which a right angle can be measured between the sun's rising and setting points at the solstices – a solar version of the earlier lunar monuments at Carnac and the hybrid lunar-solar monuments at Stonehenge and Callanish.

But, before the Megalithic peoples dragged over two hundred tons of stone to the top of the moraine overlooking the southern Baltic, they had erected an even more prodigious monument near the northern edge of Sweden's West Gothic plain. Like Callanish, it was a monument whose latitudinal location very closely duplicated that of Callanish in that it was constructed within 25 miles (40 km) of its same parallel and it was also oriented to a mountain (this one named Billingen, within a few meters of being the highest in western Sweden) at sunset on the winter solstice. Clearly this choice of a common latitude and a distinctive orientation can only have been made by a people who were responsible for the erection of both the Stone Circle of Callanish and the so-called 'ship setting' of Askeberga (Swedish for 'Ash (tree) Ridge'). The latter is comprised of 24 immense stones, each of them weighing between 20 and 30 tons, arranged in the form of an open-ended ship some 55 meters (180 ft.) in length. Thus, not

only the sheer size of the monument itself, but also its similarities in geographic setting and astronomical function to an earlier site of proven Megalithic origin totally rule out its likelihood of being an “Iron Age” artifact, as the prevailing archaeological explanation in Sweden would have us believe.

The monument is also known by a second name, “Ranstena”, (Swedish for “the stones of Rane”), the latter being the name of a legendary king who was supposedly responsible for its construction. Lying directly in line between Ranstena and Billingen, is a Bronze Age tumulus which bears the name “Raneshög”, or “the mound of Rane”, which local legend has identified as the King’s burial site. (Editor’s Note: How an “Iron Age” ruler can be buried in a “Bronze Age” tumulus isn’t easily explained.) But there is also a third place with a possessive form of Rane’s name prefixed to the Swedish word for “mountain”, namely Ransberg, located just 20 km (12 mi.) to the southeast of Ranstena on exactly the azimuth of the rising moon at its mid-summer’s extreme minimum. Might this commemorate Rane’s attempt to mark a right-angle relationship between the rising and setting points of the sun and the *minimum* rising and setting positions of the moon, which seems likely to have been attempted earlier at Callanish as well? If it doesn’t, at least the resulting ‘coincidence’ in azimuths is a provocative one.

Although both Callanish and Askeberga are situated at the northernmost latitude at which the full moon remains visible at its minimum declination, both sites lie within four and a half degrees of the latitude where the moon becomes “circumpolar” at its maximum declination. However, the fact that no megalithic settlements have ever been confirmed that far north means that the prospect of losing sight of the moon at its lowest point in the sky was more unthinkable for the Megalithic peoples than being able to watch it circle the heavens for a brief period each time it reached its highest point in the sky. The latter experience remained for the Dutch navigator Willem Barentsz to record for the first time in western civilization when he rounded the North Cape of Norway in 1596.

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