

Mistaken Identity: Have the Swedes “Short-Changed” the “Megaliths”?

by

Vincent H. Malmström
Professor Emeritus of Geography
Dartmouth College
Hanover, NH 03755 USA

Sweden boasts two of the largest prehistoric monuments in continental Europe, both of which local archaeologists date to the “Late Iron Age”, i.e. ca 400-1100 AD. (It should be noted that the Late Iron Age was a period of widespread upheaval that in its earlier years was characterized by the dispersal of Germanic tribes toward the west – the so-called “Völkerwanderungen”, or “migration of peoples” -- and, during its later years, was marked by the overseas expansion of the Vikings.) Because neither monument has a grave-site associated with it (a common characteristic of most such Late Iron Age features) and only questionable radiocarbon evidence that supports such a time frame (see reference 5), the conclusion the archaeologists have reached is essentially based on a “stylistic” characteristic, namely “a wider spacing of the stones” that comprise them. It is likewise interesting that in a major two-volume work titled “Arkeologi i Norden” (Archaeology in Northern Europe) published in 1999, only two pages are devoted to the smaller of the two monuments (generally known as Ales Stenar, or Kåseberga), whereas the larger (which is called Ranstena, or Askeberga) is not mentioned with a single word.

Ironically, in the same publication the editor notes that, unlike Megalithic sites elsewhere in Western Europe, to date none have been identified in Scandinavia that show any association with “advanced astronomic observations” (volume 1, page 315). However, in an article published in the Swedish science magazine Forskning och Framsteg in late 1979 the present author identified two sites in southernmost Sweden that both demonstrate solar alignments. One of these was Ales Stenar and the other is known as Trollkistan, which has since been conclusively shown to be of Megalithic origin. In the same issue of the magazine, a companion article by a Swedish astronomer elaborated on the intriguing mathematical sophistication of Ales Stenar, and although his article is cited in the two-page summary found in the Archaeology volumes, it is not included in their bibliography. Also of interest is the fact that, although the two articles appeared side by side in the same magazine, it was only that of the Swedish contributor that was cited, clearly suggesting that the lead article was not just inadvertently overlooked but rather that it was consciously ignored instead.

It was also in the year 1979 that the present author, while conducting field work under the auspices of a fellowship from the Swedish Institute, discovered that the most monstrous prehistoric human artifact ever identified in Sweden – the feature called Ranstena that totally escaped mention in the Archaeology volumes -- likewise

has a solar orientation. Because the author has yet to publish on this site, the Swedish archaeologists can't be accused of having ignored his findings in this instance, but inasmuch as they don't mention it with a word, at least we can conclude that (1) either they haven't yet discovered it on their own, or (2) if they have, they have already discounted it as well.

In any event, in an exchange of correspondence with the editor of the archaeology volumes, the present author was informed that, although astronomy was an important facet of Megalithic culture during its peak period (ca. 3500 to 3000 BC), following the introduction of metals about 2800 BC, "the astronomical focus disappeared among the Nordic peoples and was never again revived". Numerous Bronze Age stone-ship burials have been discovered which date to between 900 and 600 BC, but this custom likewise disappeared around 500 BC. Then, in AD 550, for some reason the practice reappeared, but "the ship-settings were few in number, larger in size, and the stones that comprised them were placed farther apart". Because both Ales Stenar and Ranstena demonstrate the "very typical morphology of the Late Iron Age", their origins have been ascribed to that period by Swedish archaeologists (private communication).

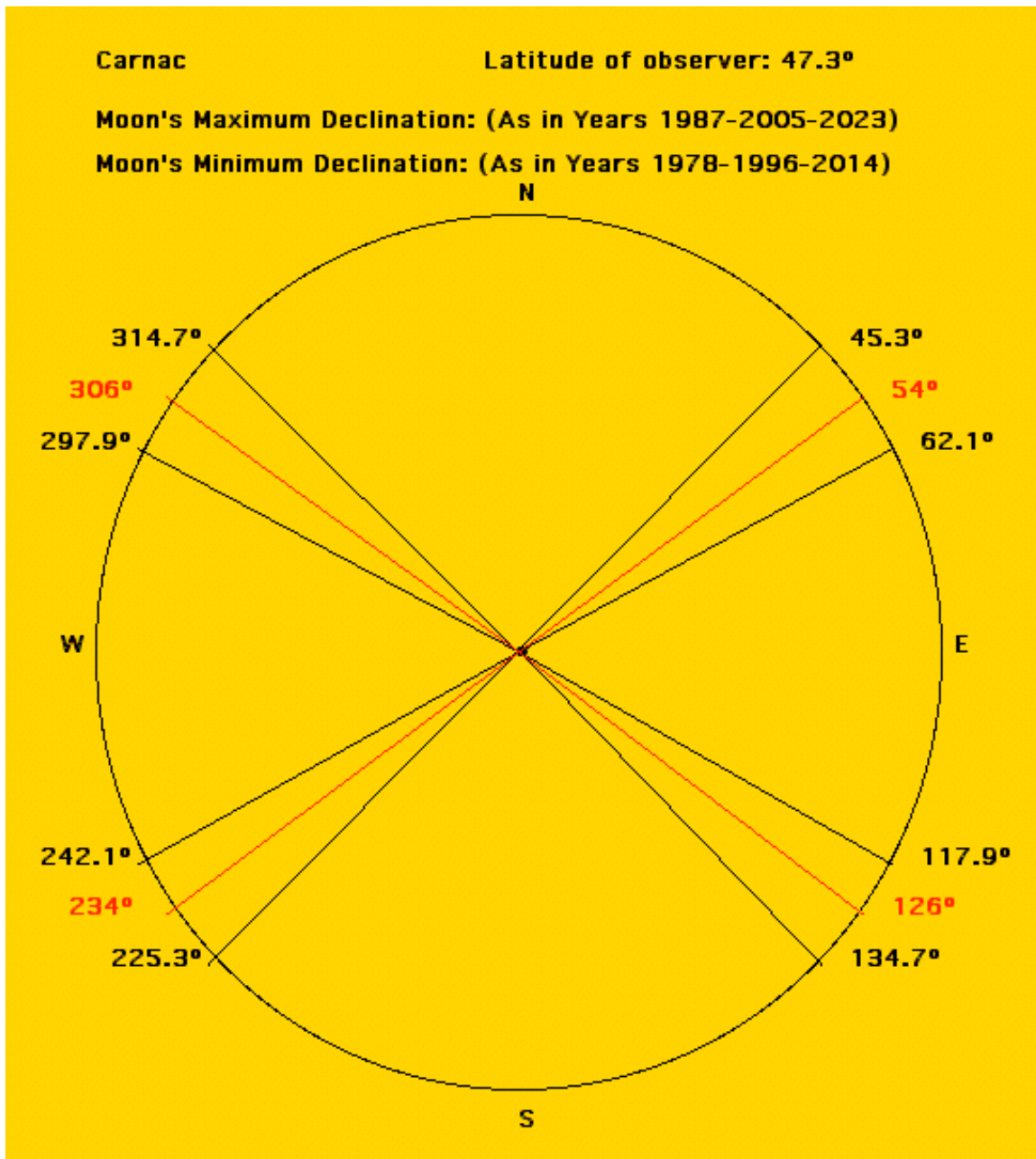
Of course, if the synthesis outlined above is accurate, then it is all the more imperative to ask why, if both of the sites in question are of Late Iron Age vintage, do they both have demonstrable astronomical associations, given the fact that the "astronomical focus" of the Nordic peoples had supposedly disappeared more than three millennia earlier? Certainly the fact that neither of them has a burial associated with it would clearly seem to rule out a Bronze Age origin. However, it doesn't explain why either migrating Germanic tribes about 400 AD or rampaging Vikings some five centuries later would be motivated to pull more than 200 tons of stone to the top of a ridge overlooking the Baltic Sea to mark the solstices, as was done in the case of Ales Stenar, or why peoples of either of these cultures would align more than 600 tons of stone with the top of the highest mountain in the west of Sweden to mark the shortest day of the year, as occurred at Ranstena. Moreover, how can we explain why the precise geographic location of Ales Stenar so closely replicates that of two of the most spectacular Megalithic sites in all of Western Europe if it was not for the fact that it had been chosen by peoples of the same cultural tradition? Short of being a striking coincidence, it is inconceivable that the knowledge of this key geographic relationship could have been preserved for over three millennia and then re-introduced at just this one place, especially since any "astronomical purpose" supposedly would have been long since been abandoned by the Nordic peoples. With so many questions still unanswered, I think it's time to re-examine the evidence.



Rock art such as this found in Sweden and dating from the early Bronze Age combines a number of symbols including a warrior carrying a war axe (on the lower left). However, the most frequent symbols in this photograph are circles, most of which are divided into four 90° quadrants but occasionally into eight 45° sections (as is that in the middle of the picture). Whether these were meant to represent the “sun wheel” or a more general “sky quadrant” is not clear, but what we do know is that the “right angle” must have had a special astronomical significance to the sky-watchers of the Megalithic culture. At Carnac a right angle exists between the extremes of moonrise and moonset, at Stonehenge it is found between the extremes of sunrise and moonset or conversely between the extremes of moonrise and sunset, whereas at Ales Stenar it occurs between extreme sunrise and sunset positions. Thus, each of these places is located at the only latitude in the northern hemisphere where the symbolic “right-angle” serves as a characteristic feature of the local astronomy. (Photo by author 1978.)



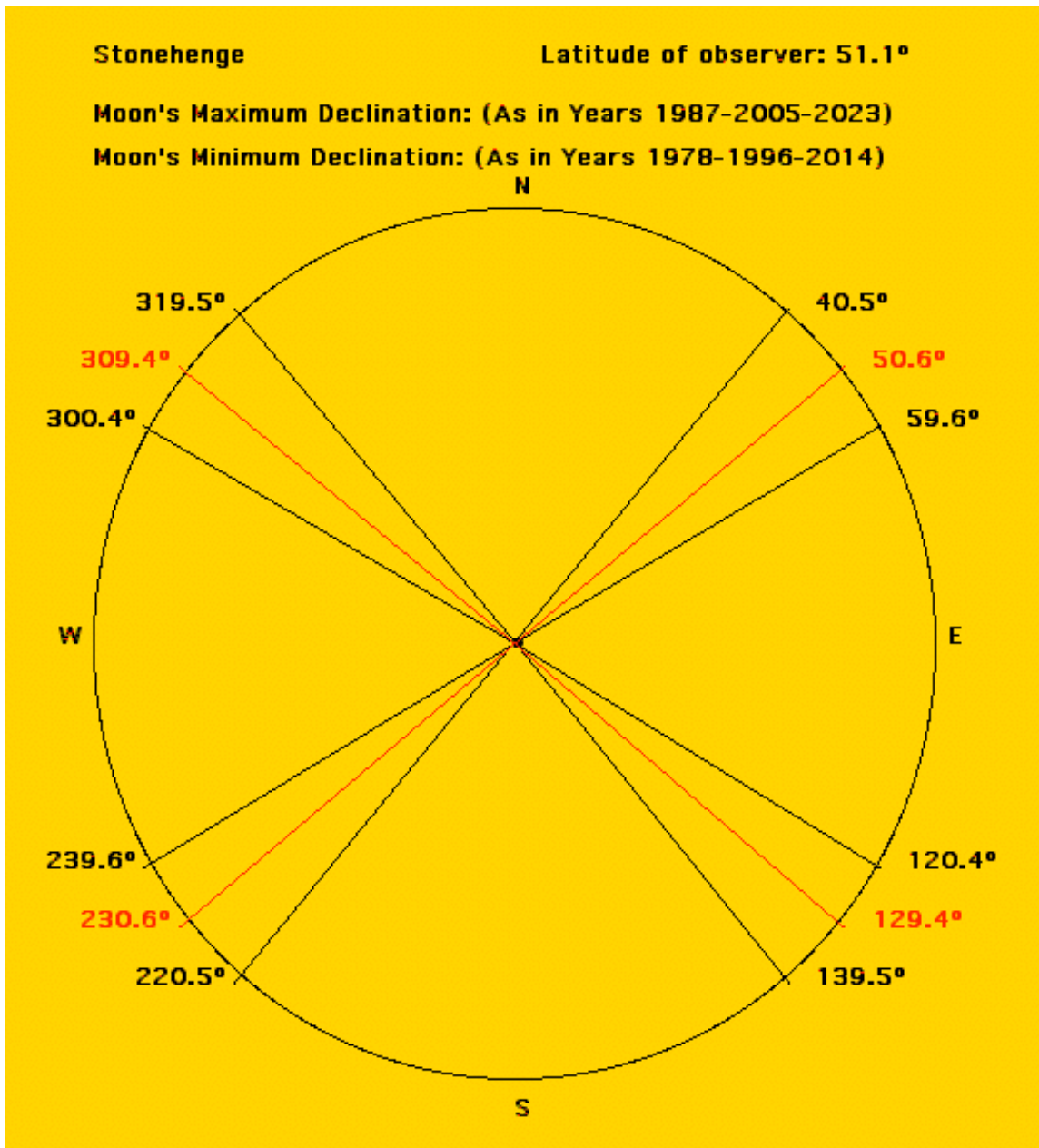
The alignments at Carnac are composed of over a thousand stones arranged in rows stretching inland from the coast. Because the average weight of the stones is in the range of two to three tons, this massive undertaking must have conservatively involved the movement and erection of no less than two thousand five hundred tons of stone. Even if most of the stones were found reasonably close to Carnac, the man-hours expended in creating this “monument” must truly have been “astronomical”. (Photo by author 1967.)



At the latitude of Carnac, on the south coast of Brittany in France, the moon sets at its northern and southern extremes within 0.6 of a degree of a right angle from where it rises on the same day. To the Megalithic sky-watcher, could this have represented a lunar “incarnation” on Earth of the “right-angle” or “sky quadrant” which figured so importantly in their symbolism depicted in rock-art? Lunar extremes on this and the following diagrams are shown in black, while solar extremes are shown in red.



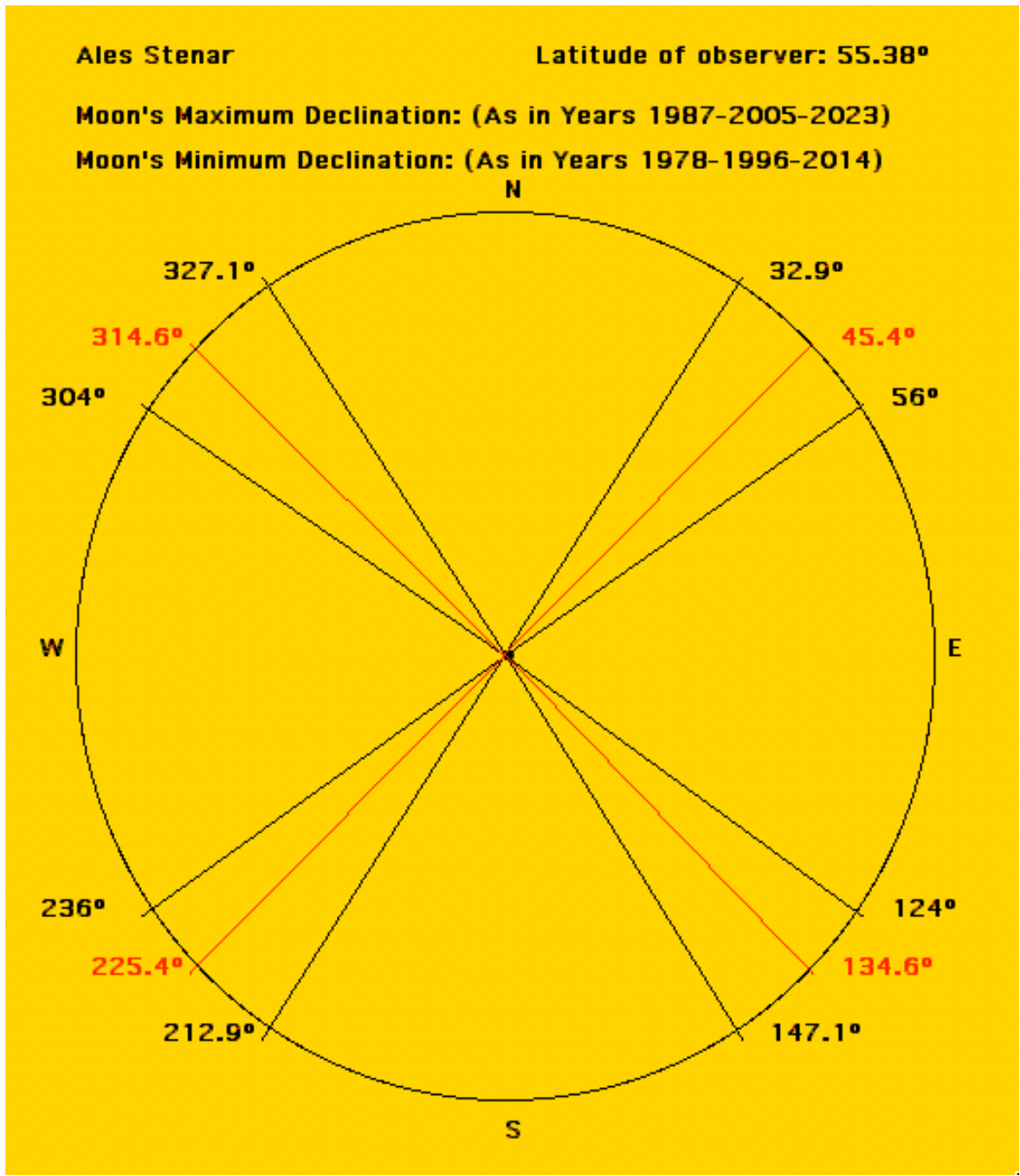
In the case of Stonehenge, the larger stones that form its outer “ring” were brought to Salisbury Plain from the southwestern coast of Wales, a distance of more than 90 miles or 145 kilometers. Again, the movement and erection of stones weighing upwards of 10 to 12 tons each obviously entailed an enormous input of time and labor. That Salisbury Plain was chosen as its building site was most likely because the extreme positions of sunrise and moonset only form a right angle at this latitude in the Northern Hemisphere, a fact that may have been useful in predicting eclipses. (Photo by author 1954.)



At the latitude of Stonehenge, located on Salisbury Plain at the convergence of the North and South Downs in England, the sun rises at the summer solstice within 1.1 degrees from where the moon sets at its northernmost extreme, and at the winter solstice by exactly the same amount from where the moon sets at its southernmost extreme. Conversely, moonrise and sunset also occur almost exactly 90 degrees apart, so at this latitude both celestial bodies are involved in re-creating the “sky quadrant” symbolism so characteristic of Megalithic rock-art.



Ales Stenar stands on a 30 meter (100 ft). high ridge overlooking the Baltic Sea above the present little fishing port of Kåseberga in southernmost Sweden. Shaped like a ship over 67 meters (200 ft.) in length, its gunwales are composed chiefly of blocks of reddish granite that average in weight two to three tons apiece. The more angular stones that comprise its bow, stern, and rudder are of beige quartzite that was quarried on the coast about 30 kilometers (20 miles) to the east. Altogether the 59 stones that constitute Ales Stenar have a weight of more than 200 tons. A motive for its construction can scarcely be imagined for either Germanic tribes fleeing westward during the early centuries of the Late Iron Age (400-1100 AD, or for Vikings setting off on their forays into Eastern and Central Europe half a millennium later. (Photo by author 1978.)



At the latitude of Ales Stenar on the coast of Skåne, the southernmost county in Sweden, a right angle (90.8°) can be measured between where the sun rises and sets on both the summer and winter solstices. Here the symbolism of the Megalithic “sky quadrant” is limited to the extremes set by the sun rather than by those set by the moon, as they were at the latitude of Carnac, or by a combination of solar and lunar extremes as they were at Stonehenge. The specific locations of all three prehistoric sites were obviously chosen with great care by practitioners of the same cultural tradition.

However, even if modern archaeology eschews the notion of diffusion, we are told that a lively contact was maintained between the Megalithic settlements that were spread throughout Western Europe (Burenhult, vol. 1, pp. 312-313). Therefore, it is likely that the search for geographic locations that provided the requisite “right-angle” relationship between lunar and solar rising and setting points on the horizon was a common endeavor that resulted in the recognition of the special astronomical significance of not only Carnac and Stonehenge but also of Ales Stenar.

Finally, let us turn our attention to the other large-scale Swedish monument that is known as Ranstena. Although it was not mentioned in the Archaeology volumes, it is generally regarded as being second in size to Ales Stenar, because it measures some 53 meters in length as compared to the latter’s length of 67 meters. However, because Ales Stenar’s 59 stones together do not total much over 200 tons in weight, Ranstena definitely merits first-place ranking when the two are compared by sheer tonnage. Though Ranstena consists of no more than 24 stones, each of them weigh between 20 and 30 tons, so its construction involved the movement and arrangement of more than 600 tons of rock, or three times the weight of Ales Stenar.

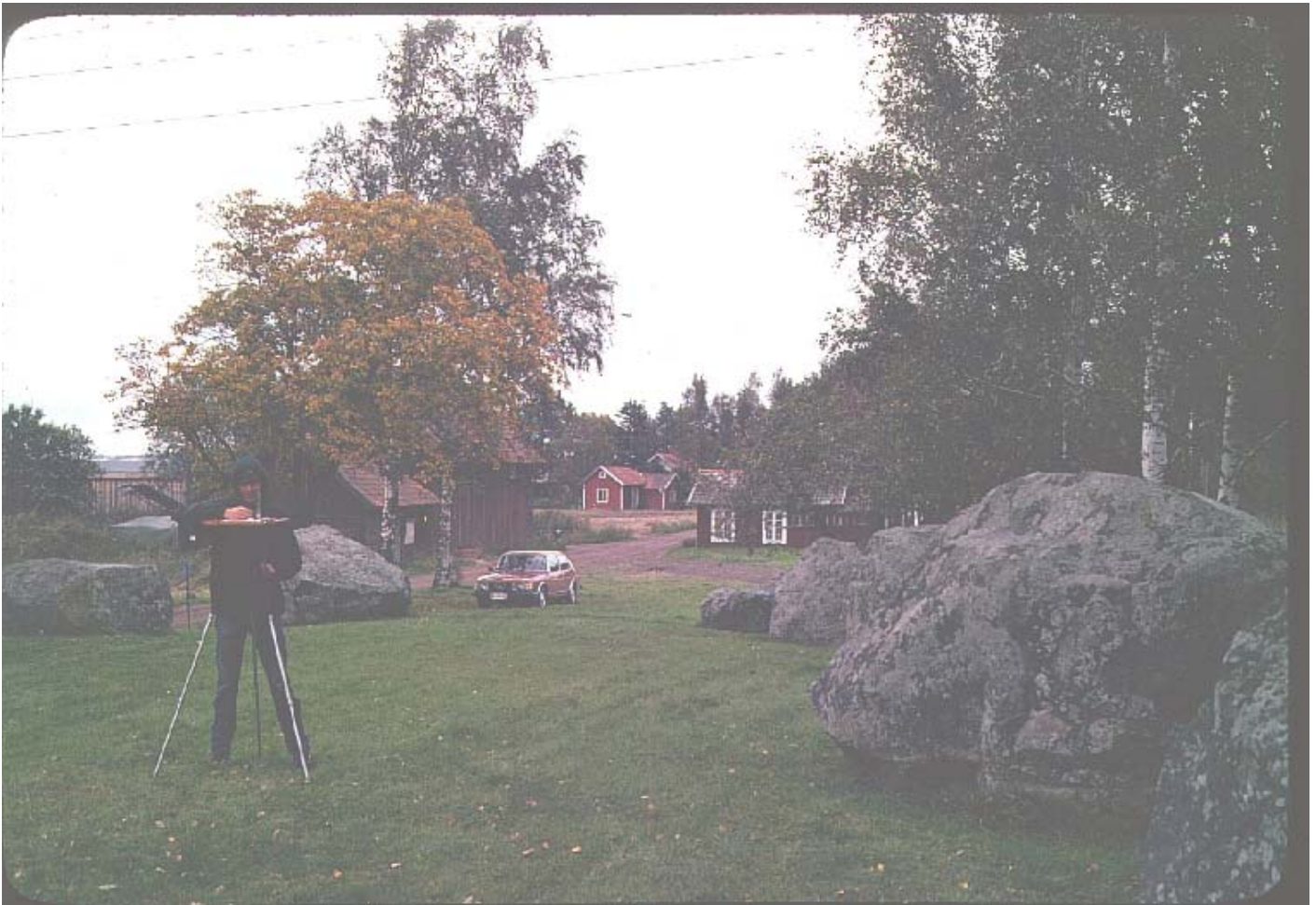
None of the monuments previously discussed utilized individual stones of such huge dimensions as Ranstena, so it tops even the largest of the sites that are currently recognized as being of Megalithic origin. However, why any Late Iron Age people would have engaged in the movement of such immense blocks of stone, especially since they supposedly had no astronomical motive for doing so, defies all reason. Even more questionable is how a venture of such magnitude could have been carried out at so inauspicious a time, either by fleeing Germanic tribes or rampaging Vikings. A more meaningless effort being carried out at this juncture in history is difficult to imagine. It is, therefore, only when we recognize Ranstena for what it is -- a Megalithic construction with a definite astronomic motive behind it – that it makes any sense at all.

But what astronomical purpose could have motivated such a vast and time-consuming endeavor? Once again, the specific geographic location of the monument provides us with an answer. It is situated at the northern extremity of the West Gothic plain -- the locus of one of the largest collections of Megalithic constructions in all of Sweden. No fewer that 290 out of a total of the 330 passage graves that have been identified in Sweden are dotted across the area just to the south of it. Ranstena is situated within a kilometer of where the river Tidan debouches onto the plain on its way down into Vänern, Sweden’s largest lake, and is oriented toward Billingen, a basalt-topped table-mountain that reaches a height of 304 meters, or 997 feet. In doing so, it marks the point on the horizon where the sun sets on December 22nd, the shortest day of the year. Perhaps the reasoning back of this monstrous monument having been constructed precisely where it is mirrors the thinking behind the location

of a place like Teotihuacán, Mesoamerica's largest prehistoric urban center, whose orientation was to the sunrise position on the same date over Orizaba, the highest mountain in Mexico. Might such an endeavor have served as a permanent "petition" to the gods to ensure the sun's return from its farthest southerly remove, thereby guaranteeing the annual renewal not only of light and warmth but also of life itself? Surely, to anyone living at latitude 58.5° degrees North, such a concern could well have been real enough to muster a labor force capable of building the most monstrous of all the astronomic monuments in the Megalithic world. If such a notion is realistic, perhaps it also helps to explain why a Bronze Age mound that lies along the same azimuth between Ranstena and Billingen has been identified by tradition as the burial place of Rane, the regional king who supposedly oversaw the building of the monument that bears his name. But, if he were a person who lived in the Late Iron Age, again one is left with the question of how he came to be buried in a tumulus that was erected more than a millennium earlier?



The 24 massive stones which comprise Ranstena, or Askeberga, are arranged in two slightly bowed rows each containing 12. The central axis of the monument is oriented to the point on Billingen (mountain) where the sun sets on the winter solstice. Unfortunately, this photograph does not convey the monstrous size of these boulders, all of which weigh between 20 and 30 tons each. (Photo by author 1979.)



In this photograph, the true dimensions of the boulders are more obvious. That in the left background is larger than the SAAB automobile parked next to it, while those in the right foreground are almost half as large as the small house in the distance. (Photo by author 1979.)



The explanatory placard that has been erected at the site by the Kingdom's Antiquities Office describes it both as a "ship setting" and a "grave", though no burial has ever been found here. Its age is given as "Iron Age" (i.e. from 500 BC to 1050 AD) and the observation is made that "even during the Iron Age people could move these mighty stones, perhaps long distances over the flat, clayey plain". Because all of the stones are derived from a geologic formation to the east, rather than from a very different rock type to the west, it seems more likely that they were rafted down the

Tidan river to within a kilometer of where they presently stand instead of being dragged or skidded any great distance across the clayey plain. (Photo by author 1979.)



Directly in line between Ranstena and the setting point of the winter solstice sun over Billingen (mountain) is this Bronze Age tumulus (the grass-covered mound on the left) that is known as King Rane's Mound, and is purportedly the resting place of the regional king who engineered the erection of the massive stone ship. With the advent of Christianity in the Late Iron Age, a church was erected adjacent to the mound, in recognition of its religious-political importance. Ranstena itself served as an assembly site for the local populace and in the year 1190 became the place where the institution of the tithe was formally introduced to Sweden. (Photo by author 1979.)

References

1. Burenhult, Göran. (ed.) *Arkeologi i Norden*, 1-2. Stockholm: Bokförlaget Natur och Kultur, 1999.

(Note that in Figure 329, Vol.2, p. 449, the Kåseberga ship-setting, or Ales Stenar, is identified as dating to Viking times.)

_____. Personal communication. July 2008.

2. Harter, James T. and Malmström, Vincent H. "Stenålderskalendar i Sverige?", *Forskning och Framsteg*, 1979, vol. 5. Pp. 1-5.

3. Jörälv, Lennart. *Sällsamheter i Västergötland*. Del 1. Utgiven i samarbete med Svenska turistföreningen. Stockholm: Rabén och Sjögren, 1981.

4. Roslund, Curt. "Ale – forntidsmatematiker och astronom?" *Forskning och Framsteg*, 1979, vol. 5. Pp. 6-11.

5. Strömberg, Märta. "Ales Stenar", *Arkeologi i Norden*, Vol. 2, pp. 468-469. (The present author has italicized those of her comments that he feels weaken the conclusions she has drawn.)

---"About Ales stenar one has, as a rule, had the notion that it represents a ship-setting from Viking times or shortly before. *It doesn't seem to correspond to Bronze Age forms of stone-ships. But due to the development of archaeoastronomy and research concerning Stonehenge, one has come to direct attention even to ancient Nordic sites.*

---"In the magazine *Forskning och Framsteg* 1979, and even later, the possible function of Ales stenar as a calendar has been discussed *primarily* by Curt Roslund."

---"*The height of the trees* against the horizon was critical to his dating (of the site) to the pre-Roman Iron Age or Roman times."

---"During archeological and geological study one has been able to demonstrate the presence of skålgropar (cupules, or circular pits) on different places on the blocks, in some cases produced on the stones' base in such a way that *it seems likely that the block has had a different placement in a much earlier construction, before it was moved to its present location.*"

---"With the C-14 method one has made several datings, all of which lie within the early Iron Age. *The oldest indicate that even before the ship-setting was built there had been constructions on the site.*"