The Thirteen Stones Hill Ring

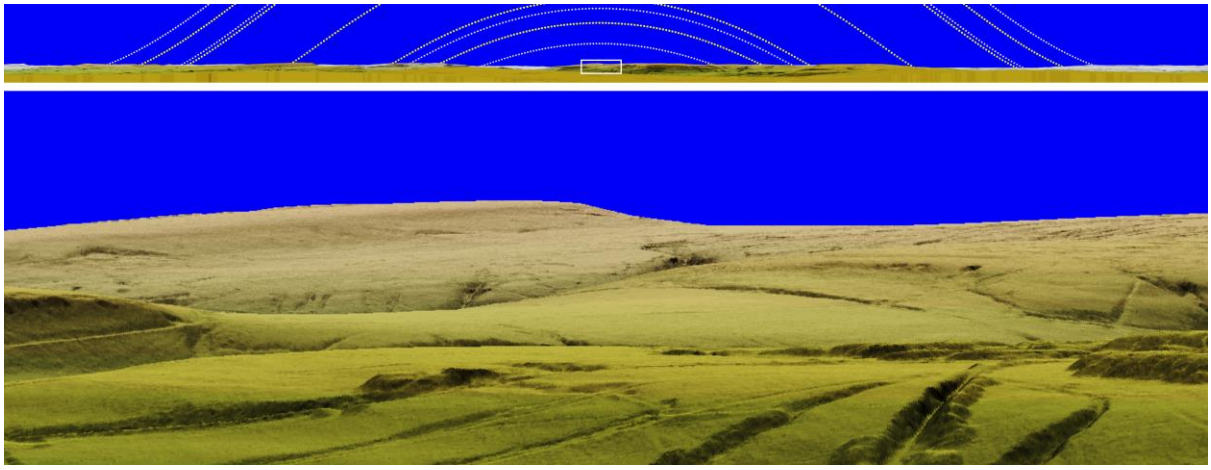
A Reassessment.

John R. Hoyle

In the town of Haslingden in East Lancashire there is a hill named Thirteen Stones Hill. It was commonly assumed that it had once had a stone circle somewhere on the top, but no one knew anything about it. No records or comments seem to have been found concerning the name of this hill. This changed when local historian Chris Aspin and friends went to the hill top and began a search for possible stone holes. In this they were successful and found thirteen of them in a rough ring. Later they returned and made an accurate survey of the depressions. A copy of this was placed in the Public Library in Haslingden. It was much later that I heard of this survey and as I knew Chris. I asked him for a copy and he duly sent me one. Previously he had contacted Professor Alexander Thom and gave him details of the ring. Thom replied and told him that the extreme southerly moonset was indicated by a local hill called Hog Lowe Pike and that the midsummer Sun set over the Bleasdale hills. This showed that the ring had astronomical uses, but I have found that this was only a small fraction of the astronomical properties of this remarkable ring.

My son David has produced a website, standingstones.org, which very accurately reconstructs the skylines as seen from thousands of standing stones and stone rings, not only in Britain, but many continental countries as well. The calculations involved would have taken a person many lifetimes to perform. Superimposed on the sky are the tracks of the Sun and Moon at important times, such as the Sun at midwinter and midsummer, as well as at the equinox, so it is a simple matter to see where they would rise or set at these times. It is sometimes more difficult to see if there is anything on the skyline that could act as a foresight, as the human eye is better at picking up details from an actual scene than from the reconstruction. The total horizon profile is shown below, with Bull Hill, the highest point in Haslingden, shown due south of the ring. The small white rectangle can be moved to any part of the top section of the upper part of the illustration and also changed in size. This changes the area selected and the magnification of the lower picture. Where land is steep, it is shown in a darker tone and this throws up many of the features of the landscape. As the reconstruction is based on the heights of the land surface, trees and wooded areas do not show up.

Bull Hill, as seen from the Thirteen Stones Hill Ring,



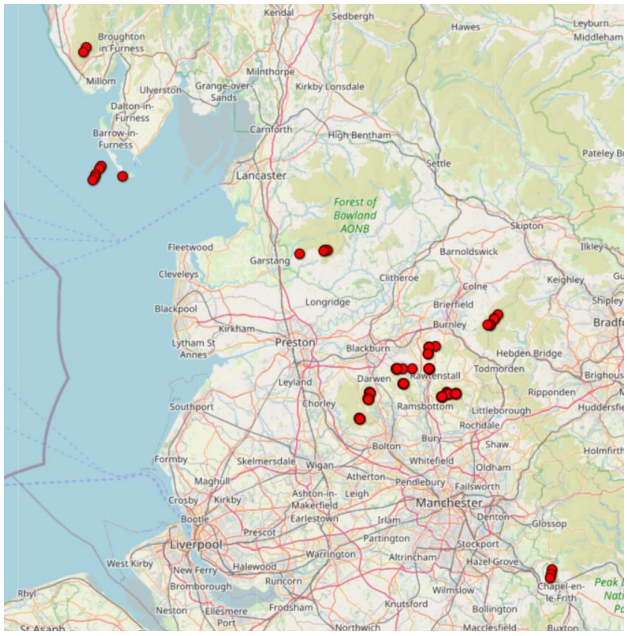
The website also provides two valuable tools which help enormously. On the horizon viewer there is a heading “HORIZON MAP”. By selecting this, a map comes up showing the limits of visibility and enables everything on the horizon to be identified.

Horizon Map.

This shows the limits of visibility as seen from Thirteen Stones Hill.

The greatest distance that can be seen is 49.5 miles. At that distance any hills will not appear to be at all large and are not obvious on the reconstructed skyline. They would however be visible to the naked eye if the atmosphere was clear

Selecting the single word “MAP” results in a map that has small red discs on it. These give the positions of the selected ring and the rising and setting points of the Sun and Moon indicated on the viewer. These maps tend to be slow to respond so it pays to be patient.



Map

This shows the rising and setting points for the Sun and Moon shown on the Viewer, as seen from Thirteen Stones Hill

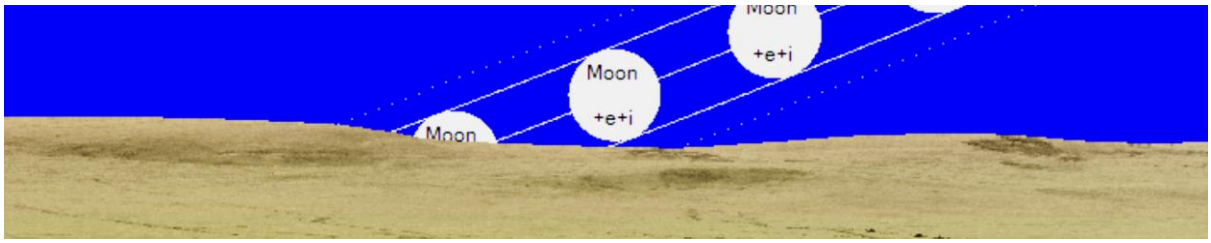
Many different types of map can be selected from a drop down box near the top right of the viewer screen.

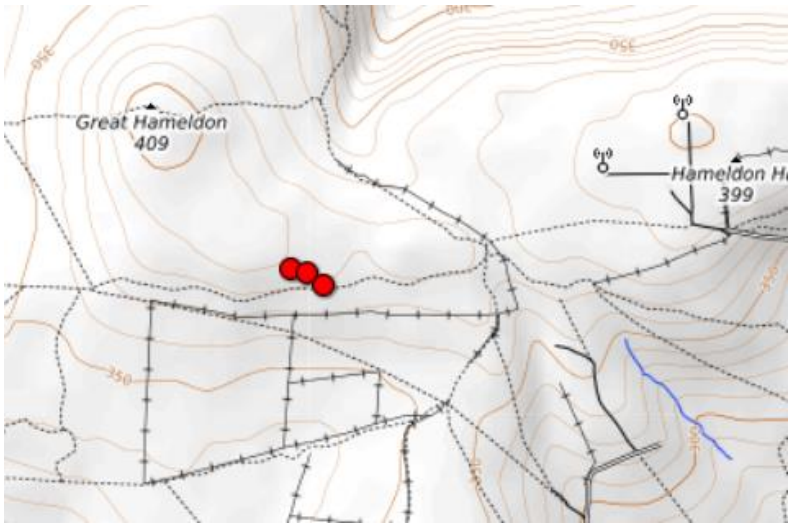
Pointing to a red spot on the map will show the details of the risings or settings.

An examination of the rising and setting points shown on the above map.

All the points are examined, starting at north and moving round clockwise.

Most northerly moonrise. (+e+i)





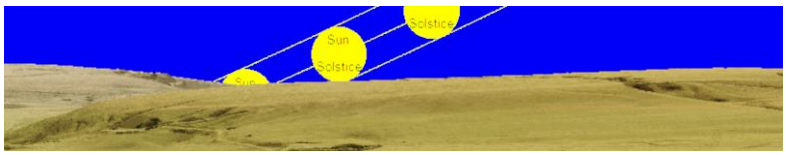
Moonrise (+e+i)

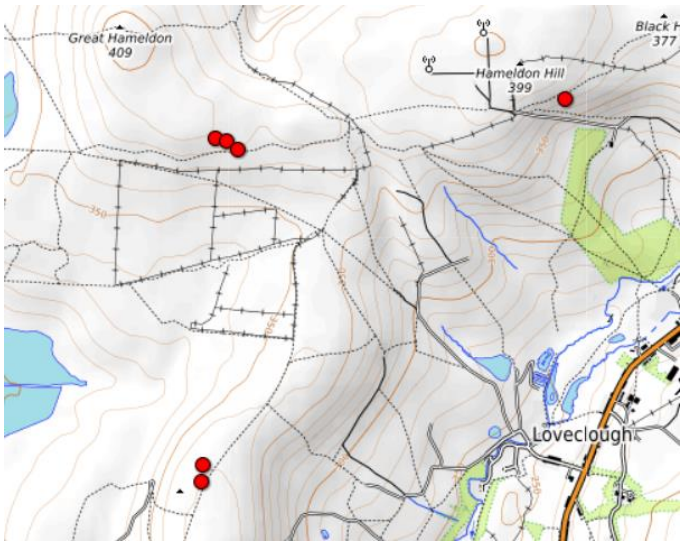
This is seen between Great Hameldon and Hameldon Hill.

A skilled observer would be able to make an approximate assessment of the Moon's position as the slope of Great Hameldon overlaps the slope of Hameldon Hill close to the lower limb setting point.

Unless cairns had been built, it would not have been satisfactory foresight.

Summer Solstice Sunrise.





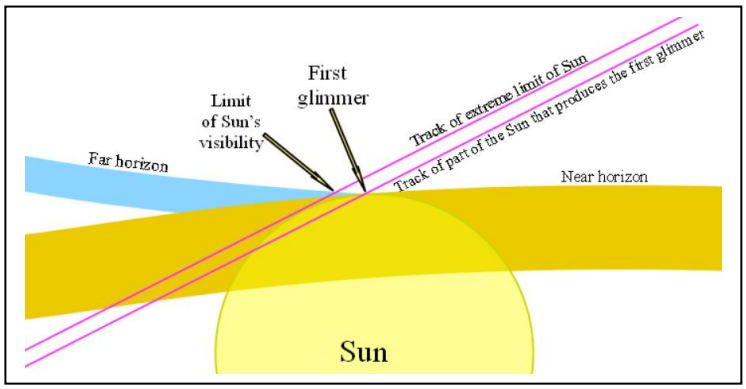
Summer Solstice Sunrise. (+e)

The two rings in the lower left mark the rising points of the lower limb and centre of the Sun and the single ring in the top right marks the rising point of the upper limb. The latter is not the same as the apparent top of the Sun.

Viewing the rising Sun can present a problem for the observer, as the Sun can often be so bright that nothing else in the vicinity can be seen. It can also cause blindness.

One way round the problem is for the observer to be by the standing stones and watch for the first glimmer of the Sun as it rises above the horizon. If this is seen where slope of Hameldon Hill – top right - dips below the flattish top of the nearer skyline – bottom left - then the Sun will be at its most extreme rising point.

The above suggested a method of observing the Sunrise that differs from other proposed methods. Usually the foresight is a notch, or a hill slope, but in the Pennines where hills are often fairly flat topped, these tend to be rare and other foresights have to be used. The above example is one where a gentle slope disappears behind a flattish hill top. This position is easily seen in real life, but is not obvious in a reconstruction and can easily be missed. It also shows that the prehistoric observers were very competent and much more able than many archaeologists like to believe.



The position indicated by the arrow for the limit of the Sun's visibility is the point where the red disc is shown on the map. On the diagram, the angle between the far horizon and the near horizon is quite small. This will indicate the position of the rising Sun more accurately than would be the case with a large intersection angle.

Northerly Cross Quarter Sunrise. No indications discernible.

Northern Moonrise at the Minor Standstill. No indications discernible.

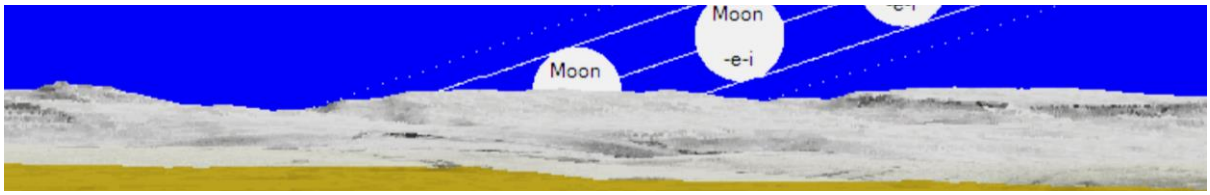
Equinoctial Sunrise. No indications discernible.

Southerly Cross Quarter Sunrise. No indications discernible.

Southerly Moonrise at the Minor Standstill. No indications discernible.

Winter Solstice Sunrise. No indications discernible.

Most Southerly Moonrise (-e-i).



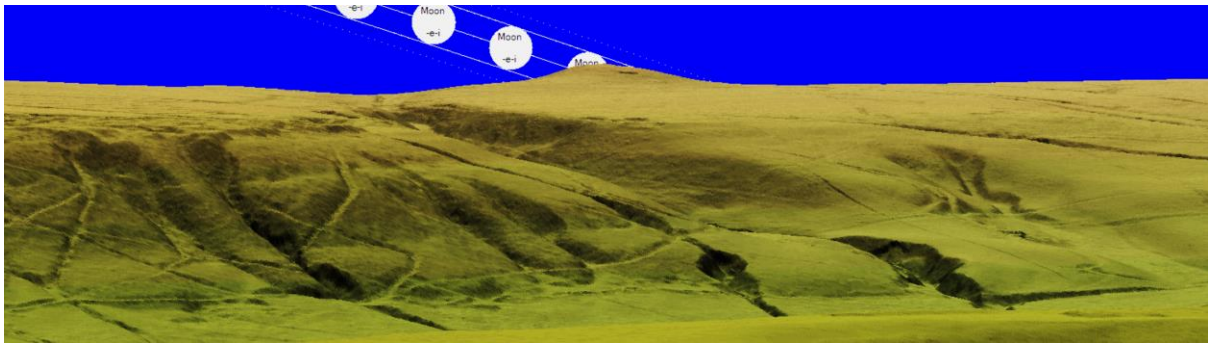
Most Southerly Moonrise (-e-i).

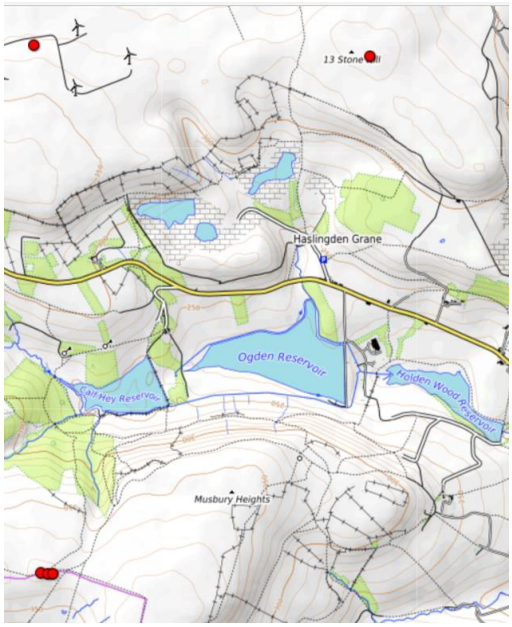
46.8km. 29.1 miles.

It is only by consulting the map that it can be realised that this is an important sightline. The three markers straddle the length of the ridge of Chinley Churn. In addition, the variations in the position of the Moon, as indicated by the lines of dots, are both indicated by short slopes in the skyline.

This is indeed a very remarkable set of foresights.

Most Southerly Moonset at Major Standstill. (-e-i)





Most Southerly Moonset.

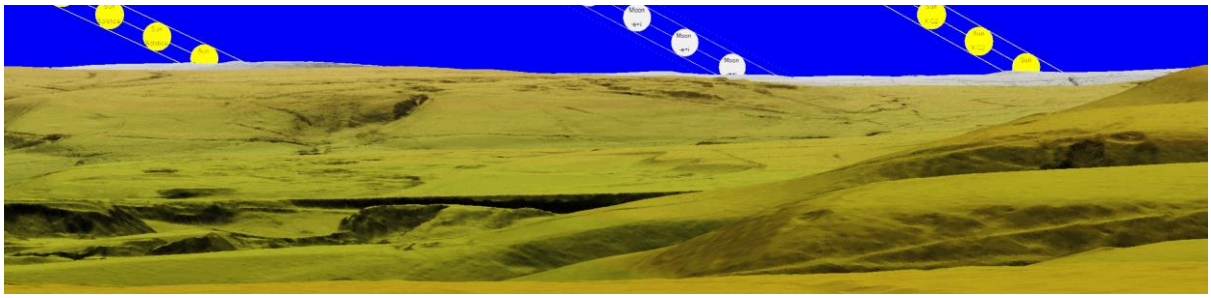
This takes place over Hog Lowe Pike shown in the bottom left of the map. The ring is shown in the top right of the map.

The distance between them is 3.43 km. or 2.13 miles.

This is the most obvious sightline that can be seen from the ring.

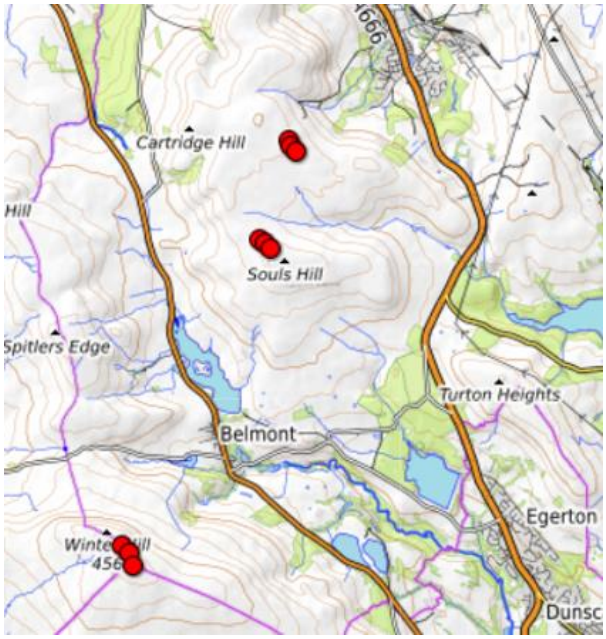
The large number of tracks that can be seen once connected the farms and in one or more of them illicit whiskey was distilled to satisfy the local quarrymen. The building of the reservoirs resulted in their closure.

Winter Solstice Sunset. (-e)	Over Winter Hill.
Southerly Moonset at the Minor Standstill. (-e+i)	0ver Souls Hill**.**
Southerly Cross Quarter Sunset.	Over Cartridge Hill.



Settings. Winter Hill. Souls Hill. Cartridge Hill

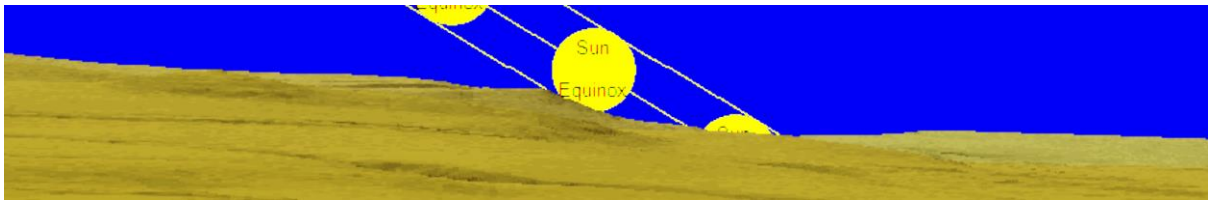
None of these appear to have satisfactory foresights. If cairns had been built on the skyline, they could have been used, but I have found no evidence for any.



The distances from Thirteen Stones Hill vary from 9.5 km. to 14.2 km.
Or 5.9miles to 8.8miles.

At those distances large cairns would be visible.

Equinoctial Sunset.

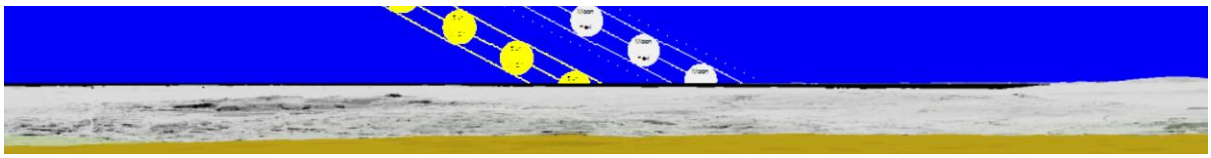


Centre. *Bottom.* *Top.* *Position of Ring.*

This provides a reasonable foresight, as the lowest part of the Sun slides down the steepest part of the hillside. Near the equinox, the daily changes in the setting points of the Sun, move by more than the diameter of the Sun, so the accuracy is quite adequate.

Northerly Cross Quarter Sunset. Over the sea.

Minor Standstill Lunar Setting. Over the sea.

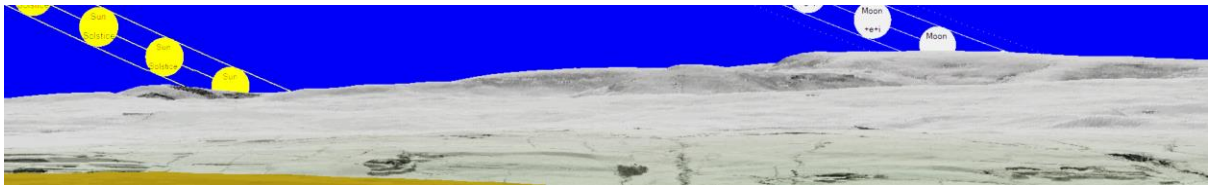


Summer Solstice Sunset (+e).

The Sun is seen to slide down the slope of Black Combe (600m high), in the southwest Lake district at a distance of 80.2 km. (54.8miles). The top of the Sun disappears behind the southwest Bowland fells at a distance of 30.9km. (19.2 miles), to the east of Garstang. The problem of being dazzled by the Sun as it sets is reduced by the long distances that the light has got to travel through the atmosphere when setting over these distant hills and mountains. This does not apply to the summer solstice sunrise, as that skyline is considerably nearer and the Sun is not so low.

Northerly Moonset at the Major Standstill. (+e+i).

The setting points cluster around the top of Fair Snape Fell at a height of 520 metres and at a distance of 30.9km. (19.2 miles). Unless there had been large cairns on the top, it would only have given a rough idea of the extreme setting points of the Moon at the major standstill.



Summer Solstice Sunset. (+e) *Northerly Moonset at the Major Standstill. (+e+i)*

Summary of suitable rising and setting sightlines.

Major standstill northerly moonrise.	Approximate.
Summer solstice sunrise.	Very good.
Major standstill southerly moonrise.	Excellent and highly accurate.
Major standstill southerly moonset.	Excellent and accurate.
Equinoctial sunset.	Good.
Summer solstice sunset.	Very good.
Major standstill northerly moonset.	Approximate.

The four sightlines underlined stand out, particularly the major standstill moonrise, which is exceptional. Another three are fair to good. A few of the others give rough indications of celestial events, but are of very limited accuracy, unless the foresights had been marked by large cairns or other means.

Professor Alexander Thom only noted two of the above, the moonset over Hog Lowe Pike and the most northerly setting of the Moon over Bleasdale fell and missed the two with the longest sightlines, namely the most southerly major standstill moonrise and the summer solstice sunset. This is not unexpected, as the sightlines are very long, nearly thirty miles and almost fiftyfive miles respectively. Using only maps, it would be most unlikely that anyone would follow the directions to

such distances. However, in Scotland such long sightlines are not uncommon, particularly amongst the Western Isles. The advantage of using this website is that the ***horizon map*** reaches out to the far reaches of all that is visible from the chosen site and for the distant parts of the horizon to be identified.

The Thirteen Stone Hill ring was remarkable in that its position had been so carefully chosen that seven of the eighteen rising and setting points were indicated by satisfactory sight lines and four of these by highly accurate ones. Such a site must have been very important to the builders of it and it is highly likely that there are other prehistoric remains in the area. Stephen Oldfield has carefully examined the site of this ring and the surrounding area using aerial photography and lidar data, as well as visiting the site. What he found appears to show an extensive complex of prehistoric remains, which he describes more fully in his book "*The Mystical Moors*", on page 105.

When was the Thirteen Stones Hill Ring destroyed?

In my book ***Megalithic Matters***, I suggested that the ring was probably destroyed during the Industrial revolution, when Haslingden was expanding rapidly and there was a great demand for stone. On consideration I now think it was destroyed much earlier. The basic reason for this change is that no one seems to have found any record of such destruction, or of the existence of the ring, apart from the name of the hill. Local historians, such as Chris Aspin, who discovered the stone holes, would certainly have come across stories, or hints about the destruction, if the destruction of it had occurred within the last few hundred years. Local memories of such events tend to be long, but there appears to be a complete blank on this matter.

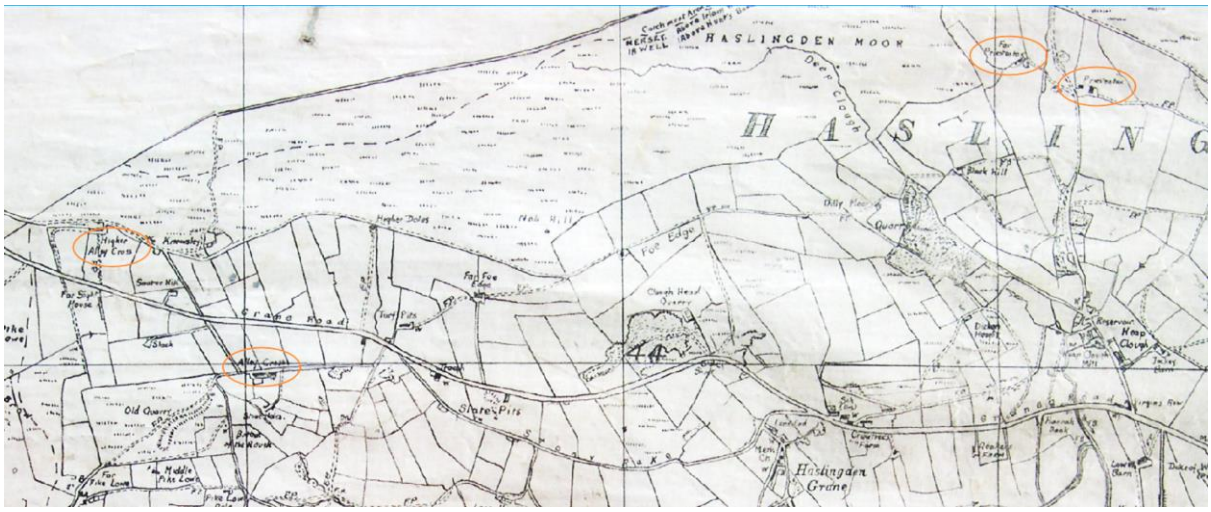
I now think that it is more likely that the ring was destroyed in Medieval times, or perhaps even earlier. It is not unlikely that the ring and associated remains had a following that the early Church wished to counter and its destruction was regarded as necessary.

In parts of Ireland, it seems that people still go to the stones to be healed, as I probably observed in 1993. In August of that year, my wife and I were camping and booked in at a campsite near the Drumbeg stone circle. The man in the campsite office had a very bad boil on his face and was obviously in considerable pain, but he booked us in and we set up out tent and had a meal. As it was still some time to sunset, we then went to see the stone ring. About fifty yards from the ring we came across the man who had booked us in. He was loitering around on the edge of a wood and was clearly trying to look inconspicuous, though not succeeding. We then looked at the ring, which was in a remarkably good state of preservation. As the Sun was then setting, we and other viewers,

started to leave and we again passed the man from the office, who was more or less in the same place. The most likely explanation that we could think of for his unusual behaviour, was that he was waiting for everyone to leave the ring before going to it and invoking the healing powers of the stones to cure his very painful boil. If that interpretation is correct, it would indicate that even in modern times the stones still have a following. It also may have helped him, as the process would do no harm and doing something rather than nothing would take his mind off the pain.

The people of Grane, to the west of Haslingden, having no local church till the early nineteenth century, may well have resorted to using the stones for curative and other purposes and thus be seen as a threat to the established Church. There is an indication that the Church took an interest in the area, as old maps have names which are somewhat curious. Four such names that I found are Alley Cross, Higher Alley Cross, Priestentax and Far Priestentax. The general belief in the area is that Alley Cross is derived from Holy Cross and that pilgrims would stop there to pray, or have a service perhaps whilst on the way to Whalley Abbey. It is strange then that there should be two Holy Crosses within about five minutes walk of each other. There is another possible explanation and that is that one of the Holy Crosses was the site of a prehistoric standing stone and by having services there, the original purpose of the standing stone would eventually be forgotten. If this explanation is correct, then it would make sense to have a priest, or priests in the area who could conduct services and report back. Hence the names of the farm ruins of Priestentax and Far Priestentax which could have been the residences. It is also likely that if one of the sites had been where there had been a standing stone, then that position would have had some astronomical significance. It is this last possibility that can be investigated using the Horizon program.

The following map shows the positions of the four sites listed above, ringed in red. The map is taken from one used in the Second Word War by the Haslingden Home Guard. Rather than seeing the maps binned at the end of the war, my father, who was the Intelligence Sergeant, brought them home, where I still have them.

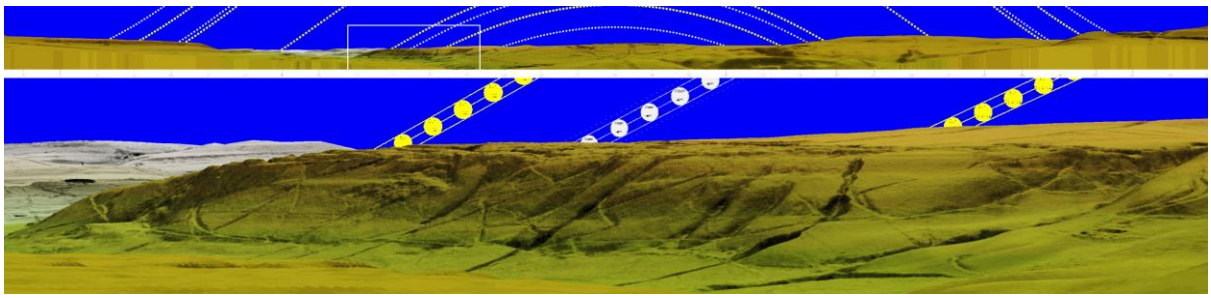


Map showing the positions of the four places mentioned above. They are ringed in red.

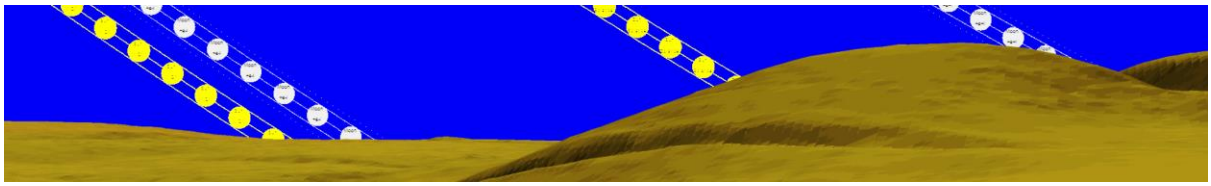
Possible Astronomical significance of Alley Cross and Higher Alley Cross.

Alley Cross.

With the possible exceptions of the autumn cross quarter sunrise and the major standstill northerly moonset, there are no effective astronomical alignments and these two are not very convincing, as the skylines are too close.



The autumn cross quarter sunrise.



Major standstill northerly moonset.

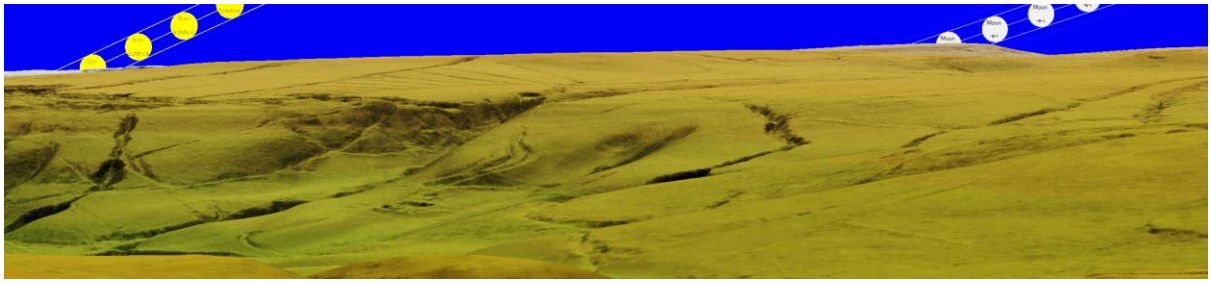
Map showing all the rising and setting points. Most are too close for accuracy and the equinoctial sunrise positions to the east take place over a featureless, level hilltop.

Higher Alley Cross.

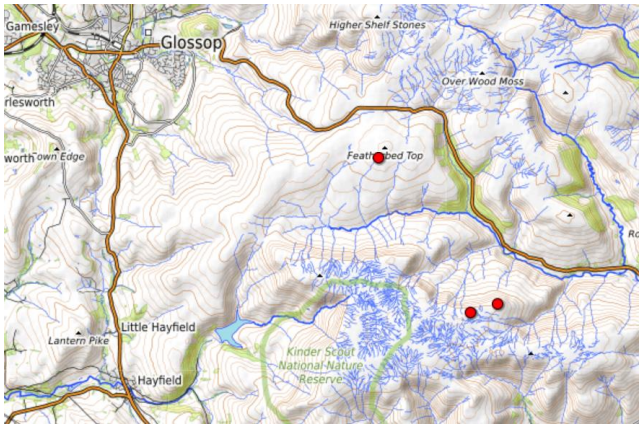
This site is about one quarter of a mile higher up the hillside and has extensive views to the southeast. There are two good sightlines from this position. The rising point of the midwinter Sun and the rising of the Moon at southerly major standstill.

The **midwinter sunrise** is interesting as it takes place over the northeast side of **Kinder Scout** at a distance of 52 km. or 32 miles. This is a very long sightline and the Sun on rising would probably not be too bright to view easily.

The **extreme southerly moonrise** takes place over **Bull Hill**, the highest point in Haslingden. It is this sightline that makes me think that this position could have been known to neolithic astronomers and perhaps marked with a standing stone.



Midwinter sunrise. *(-e-i) Southerly Moonrise over Bullhill.*



Map of midwinter sunrise positions.

Midwinter Sunrise.

The top and centre of the Sun rise over the northeast edge of Kinder Scout (52km. or 32miles.) and the top of the sun rises over the summit of Featherbed Top.

Of the two good sightlines, it is the extreme rising point of the Moon that stand out most clearly. In many other rings and groups of rings throughout Britain the same seems to be true. Other religions, even today, single out the Moon for special treatment, so these ideas perhaps go back five or more thousand years.

Possible date for the destruction of the Ring.

It is probably impossible to determine an accurate date for the destruction of The Thirteen Stones Hill ring. However, there is one possible scenario. In 1279AD Stanlaw Abbey was flooded by water from the Mersey and in 1287AD the tower collapsed during a fierce storm and parts of the Abbey were destroyed by fire. The Monks appealed to the Pope to allow them to move to a more sheltered site. This resulted in them moving to Whalley in Lancashire, where they built Whalley Abbey. This is only about nine miles north of Thirteen Stones Hill and if the stone ring and associated structures still had a following there would have been an uneasy relationship between the Monks and the Druids, if that is what they were still called.

The move took place in 1296AD, so if there is any truth in the above, the probable date for the ring's destruction would be sometime after 1300AD. The Monks would have to have enough time to

consolidate their position and gain the confidence to take on a belief system that had existed for thousands of years. It is possible that the ring was destroyed earlier when Christianity first arrived In the area, but the founding of Whalley Abbey probably saw the first influx of a large group powerful enough to make the belief changes.

Having destroyed the ring, it would have been necessary to re-educate the people and prevent a slide back to Paganism. This task would naturally be assigned to Monks or Priests who would live in the area, praying with the local population and teaching until the old ways had been forgotten. This idea would fit in with the very sparce facts and is reasonably feasible, but may be far from the truth. The hope is that these ideas will stimulate others to search for more evidence.