

Twmbarlwm and associated environs:- Part 2

Additional connections to the Pleiades layout in South Gwent

The theme in this article is connection and continuity. We have seen the use of the Pleiades and standing stones in conjunction with the hills Twmbarlwm and Gray Hill in part 1 which we have dated to circa 2500BC. Here we extend the associations.

Gray Hill

The line of vision of Pleiades rise from Twmbarlwm passes beyond the western end of Gray Hill where, at the top of the steep slope to the reservoir, a cairn or at least a large mound was erected, almost certainly in conjunction with this Pleiades set up whether used for burial or not. Further along this line is found the precisely placed top stone of a solar arrangement. The lowest stone here is adjacent to what is marked on the OS maps as a stone circle but which appears to be the remnants of a kerbed cairn with its internal diameter being 11 of Alexander Thom's megalithic yards and its external diameter 12 of the same units. Kerb thickness is therefore seen as approximately 1.36 feet.

Dating here is problematic; however, the relevant top stone of the alignment is exactly on the line to Twmbarlwm, the Pleiades line of 2500 BC. This is very unlikely to be coincidence. Again, the Pleiades alignment from Twmbarlwm gives the elevation of the stone on the hill side but this stone is not dependent upon the Pleiades line for its lateral position along the hill. It is nonetheless intriguing that the lower stone of this alignment is due east of the southern edge of the cairn or mound at the top of the western end of the hill and this may have denoted the position of the alignment when seen in conjunction with the top stone and the Pleiades line. This may also have given the position of the small cairn or circle adjacent to the lower stone of this alignment. This lower stone is square and set to the cardinal points.

Along the alignment and 72 feet from the lowest stone lies what was probably a mid stone, now prone on the ground and directly alongside the relevant line. Overall length of the alignment is circa 72 megalithic yards. If the measure is significant here then a combination of Pleiades alignment, a due east position from the southern edge of the large cairn and the measure would effectively give the locations here quite accurately.

From the above information it seems possible that the large cairn on the western end of the hill may have been set up not as a burial chamber but as an astronomical marker, primarily for the Pleiades and the positions of the solar alignment and smaller cairn may have been denoted by this, the Pleiades line and measure.

The methodology of the top stone of this alignment complies with the methodology of the stones of Trellech, the Harold Stones. The Trellech stones have been very loosely dated to 1400-1500 BC by archaeologists but this is no more than speculation, no archaeological investigation has been conducted to search for datable material and hence the date is, in fact, meaningless, it is no more than a guess. This date was applied earlier by the author to the Gray Hill stones as the similarity in style was apparent but the interjection of the Pleiades at Gray Hill casts doubt upon this idea and it now seems more likely that the 2500BC date would apply to both sites. What can be stated firmly is that the top stone of the solar alignment aligns via the Pleiades alignment of 2500BC to the western end of Gray Hill and ultimately to the top of Twmbarlwm.



Gray Hill at 1:25000. Note the steep slope indicated by the contours at the West end of the ridge beneath the Cairn or mound



Large cairn or mound remains at west end of Gray Hill



Gray Hill from the south.

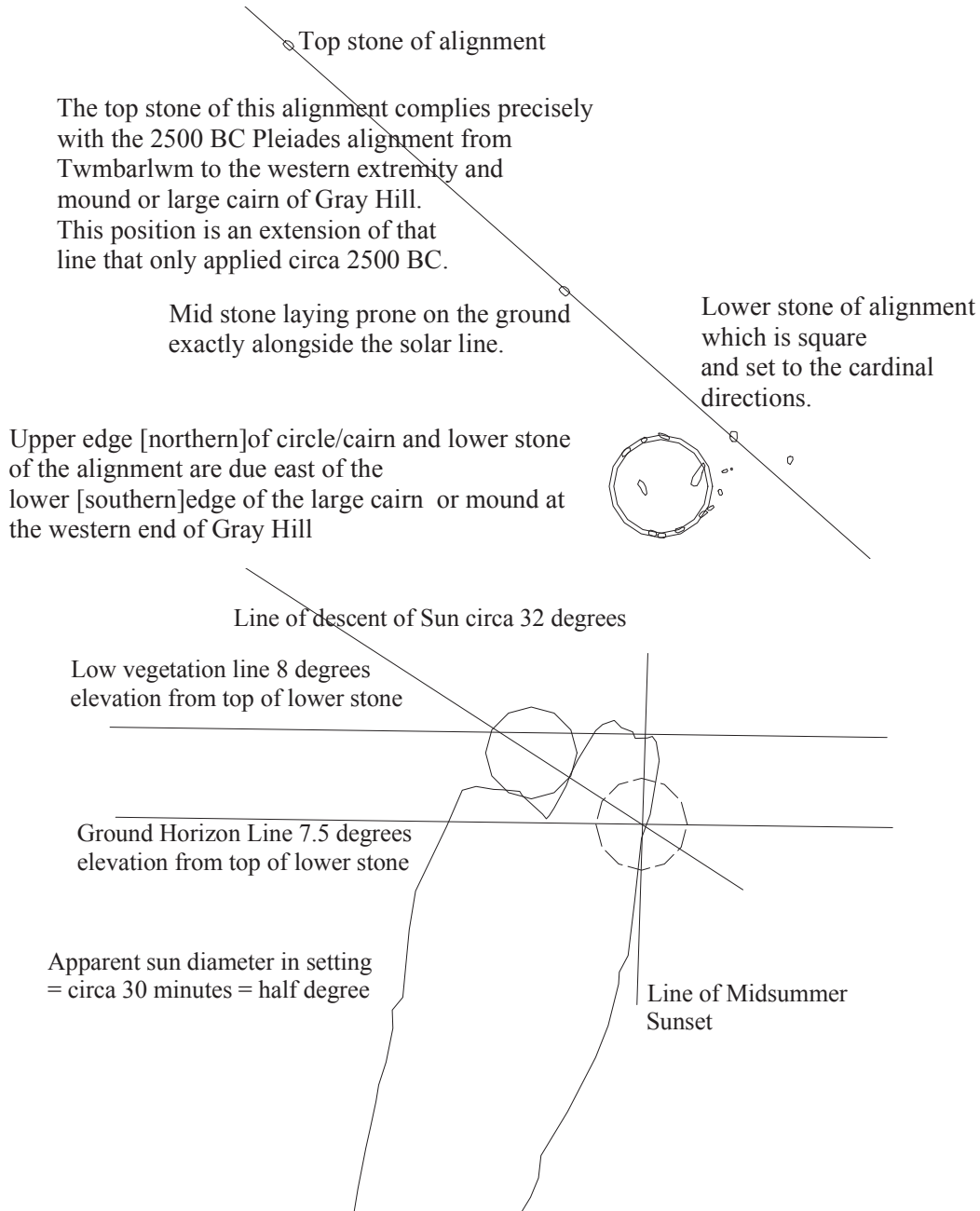


Top stone of solar alignment [OS ref 343758, 193576] [ST 43758, 93576] viewed from part way [to one side] along the alignment. [Photograph Harry Sivertsen]

Given a commonality of methodology it would appear that the stones of Trellech would date to the same era as those of Gray Hill. They may have been copied of course but this seems unlikely and most stones were probably erected at roughly the same time. Trellech is only some eight miles from Gray Hill in a straight line. It has been stated by some archaeologists that these stones have leaned from their original perpendicular alignment; this is definitely not the case. They are seen today as intended and work almost exactly as they did originally, if the natural horizon was visible this would be quite obvious. So here we have two sets of stones; one seemingly directed connected to Twmbarlwm and the other indirectly connected via the first set. The second set of

stones displays a very similar methodology to the first set, implying the same artisans were involved, or at least the same school of thought applied.

So firstly we shall further examine Gray Hill, the solar alignment. The illustrations here show how this worked when originally set up. Today the sun still sets over the stone but the recess does not work as originally intended due to the alteration over time of the apparent solar setting position.



Drawings by Harry Sivertsen after survey by Gillian and Harry Sivertsen. Note that the top of the upper stone at the midsummer sunset displays a neat piece of orb catching in that the sun sinks into the recess formed in the stone. The low vegetation is the top level of bracken etc.

Given that the top stone elevation up the hill was seemingly denoted by the Pleiades line of 2500 BC [the stone could be longer or shorter or placed further up or lower down the hill and still catch both the horizon and sun] it is now thought probable that this arrangement was set up at the

same time as the Pleiades alignments previously seen. Certainly this is spatially related to the Pleiades alignment.



Apparent cairn remains at Gray Hill [according to some archaeologists] but in fact the remains of surface quarrying of the early 20th century. Photograph by Gillian Sivertsen

It has been suggested that at the top of the hill where this alignment stands there were other cairns and that the alignment was some obscure form of 'processional way'. There is no evidence to support this suggestion. In fact what have been taken to be the remains of cairns are the remnants of quarrying activities just below the ridge of the hill that took place in 1917 for stone to build Llanfair Discoed School. Here outcroppings of stones of a convenient size for building were discovered, some of which are still visible today. Gillian has an elderly acquaintance living in the village who not only attended the school as a child, but was told of this quarrying by one of the men who worked on the hill, bringing stone to the village from this specific location with a horse and cart. This man was a neighbour to Gillian's acquaintance. As the location is less than a mile from the village where he has lived most of his life and as a child he played on Gray Hill, very shortly after the said small scale quarrying, Gillian's friend was very familiar with the area. The remnants of the diggings were pointed out when on a group walk. If these were cairns then the stone solar alignment would not have been constructed as the cairns would have blocked the view and stones such as those of the alignment would not be necessary for any sort of 'processional way' as the destination would be very clearly in view and such a guide be totally unnecessary. The only alternative is if the suggested cairns were set each side of the alignment which does not appear to be the case, or if they were flattened before the solar alignment was built but again that seems extremely unlikely.

Consequently here we have the most logical answer to the stones of Gray Hill, not as many have stated, aligned to midwinter sunrise, that makes no sense as the bottom stone is then below the horizon and does nothing, and not as Children and Nash in *Prehistoric Sites of Monmouthshire* suggested, a Processional Way, to the supposed cairns at the top of the alignment but to the midsummer sunset. It is a pity that a grove of birch trees now nearly obscure the view of the sunset but nevertheless, it is still vaguely apparent through the leaves of the trees. As they grow taller the horizon will eventually be clearly visible once more beneath their branches.

The methodology seen here, with the stone 'catching' the sun is interesting and shows much forethought and is not merely a stone marking the sunset position. This rock was shaped to 'catch' the sun in its setting motion. The same type of methodology applied to Trellech at sunrise and given the commonality of the set up at both sites it is almost certain that the same group of artisans were responsible for both sites and therefore they are comparable in date.

Harold stones Trellech

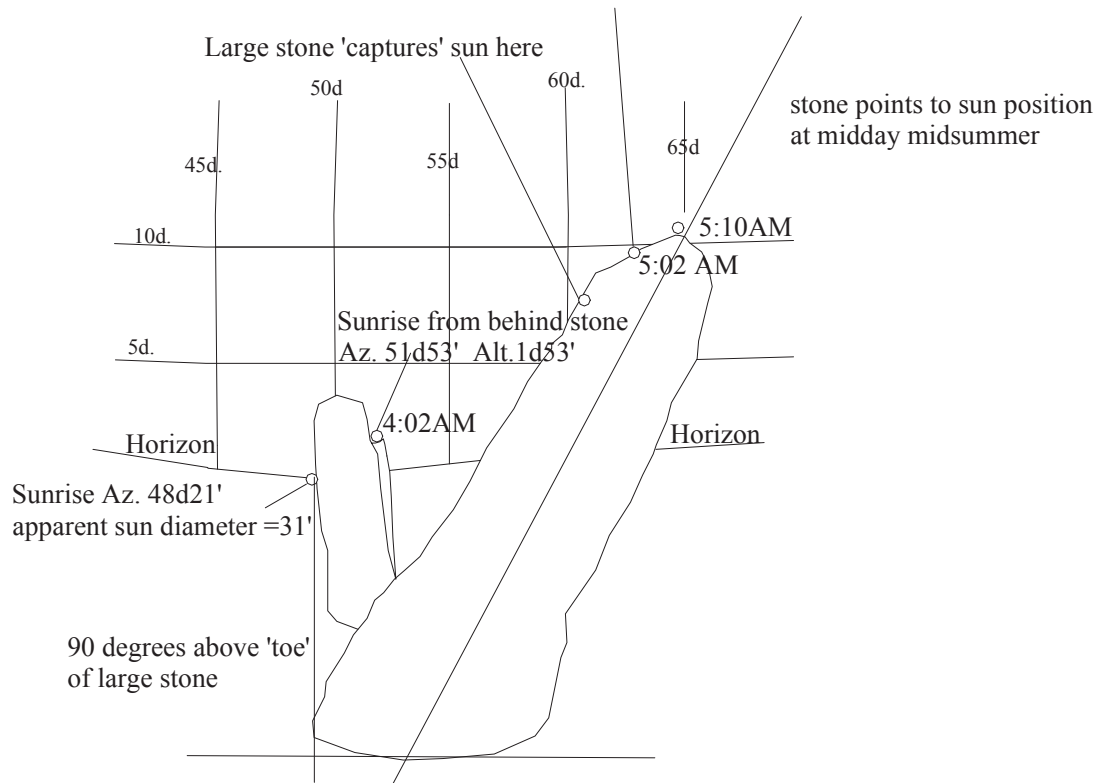
Given the great similarity in applied methods it appears highly probable that whatever date applies to Gray Hill almost certainly also applies to Trellech and is liable to be related to the same cultural movement that gave us the Pleiades set up intimately linked to Twmbarlwm...and 2500 BC.



Critical view of the Harold Stones of Trellech from the South West.

The Harold Stones of Trellech are set two in a row one behind the other with the far one to the north east being shorter with its top protruding a little...protruding half a degree in fact...yes that is a clue to the purpose! Apparent solar diameter = circa 30 minutes or half a degree. The larger third stone gives a position for sighting and gives other related information but the two slimmer stones denote sunrise midsummer.

Large stone begins release of sun at 1 hour
 [15 degrees of arc movement in the sky] after
 sunrise from behind smaller stones sun here
 Az. 63d 11'40" Alt. 9d30'
 This timing is almost certainly coincidental
 but cannot be discounted.



Drawing by Harry Sivertsen

How the stones of Stones of Trellech work to give midsummer sunrise and sun position at midday. The large stone has a slight twist that points it in approximately the direction of midwinter sunrise. This means that at midday midsummer there is a slight shadow to one side that otherwise would not occur.

The drawing was developed in conjunction with the photograph. This is very similar to the 'sun catching' at Gray Hill which was associated with the Pleiades arrangement. It appears that the same people would have been involved as a similar technology has been applied to both sites. Hence the stones of Trellech have indirect connection to the Pleiades arrangement that would not exist without Twmbarlwm. Here at Trellech we have the sunrise and at Gray Hill we have stones catching the sun while it sets.

The horizon cannot be seen to day due to various hedges as seen in the photograph but here has been reconstructed from a study of maps and other photographs etc.

Caerwent and Twmbarlwm: the indirect associations.

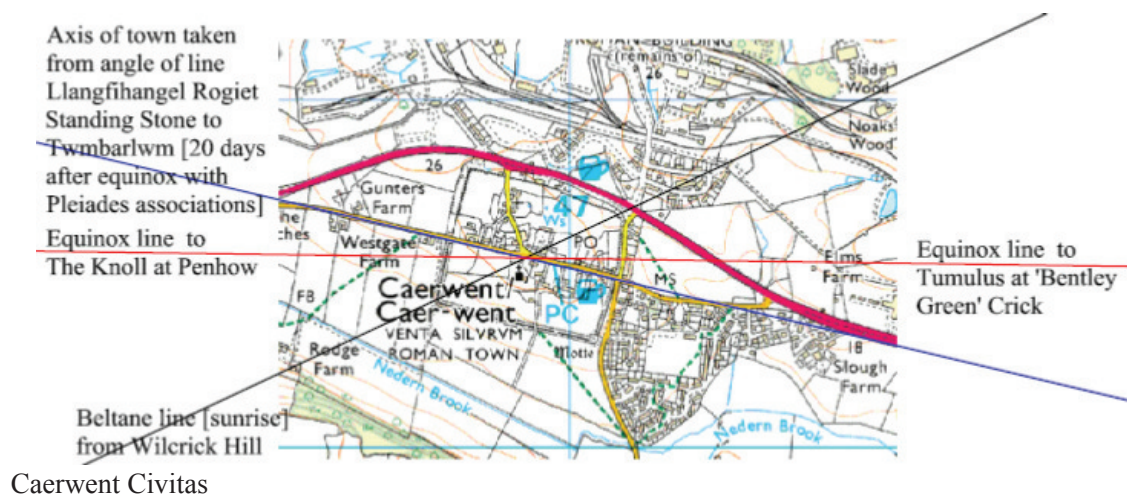
Let us here look back to the Pleiades relationships of South Gwent. The area of Gray Hill here is especially important as is Bentley Green.

A line through the West Gate of *Venta Silvrym* or Caerwent extended to the western end of Gray Hill and the large cairn that stood there, accurately denoted the midsummer sunset. The solar alignment on Gray Hill extended to Caerwent approximated the North Gate and East Gate. We can add to this that there is a calendrical element to take into account, the Beltane sunrise as seen from Wilcrick Hill. This line passes corner to corner through the 'as built' town of Caerwent and in fact bisects the south western corner and denotes a geometrically correct north east corner. The sighting point for the Pleiades over Twmbarlwm at Bentley Green is precisely due east of the centre of Caerwent. After the short period around 2500 BC when the Bentley Green mound was operative it had no significance whatsoever, except perhaps of memory. However, the Pleiades line from Bentley Green to Twmbarlwm gives a close approximation to a more regularly shaped north east corner to the town where the Beltane line alignment from Wilcrick cuts across the site.

The axis of this Roman designed settlement was precisely that of the sunset 20 days after the vernal equinox of 2500BC as seen from Llanfihangel Rogiet Standing Stone. This carefully constructed line was utilised by the Romans at Caerwent ...2700 years after it was first evaluated by local Bronze Age artisans. The line was transferred to Caerwent. But there was nothing of any great value in this alignment at 200AD, just a sunset over Twmbarlwm when seen from the standing stone at Llanfihangel Rogiet, and from the region of Caerwent there was nothing at all of any import...yet that very precise angle was utilised for the axis of the Roman built Civitas. We can only assume that the Romans were utilising something that was of importance to the locals in a placating exercise. The Beltane sun was an important feature of the pre Christian Celtic peoples and therefore accommodating this may have been a consideration. We should note that *Twmbarlwm cannot be seen from Caerwent*, the town it is too low in elevation which is why the higher land at Bentley Green was used for sighting purposes; hence a vision of Twmbarlwm was not important to the builders of this town. Yet it seems clear that an association with that vision as seen from Llanfihangel Rogiet Standing Stone was important enough to have the relevant angle utilised as the axis for the Roman built Civitas.

In addition to the above, we find that the Roman Amphitheatre at Caerleon has its southern edge touching the line from Llanfihangel Rogiet Standing Stone to Twmbarlwm. Coincidence? Perhaps...but the later Normans also utilised this line...and built a motte and bailey at Langstone Court directly on the line, a motte and bailey that were in a very impractical position for defence so why choose that position? Again we see associations with an invisible line across the landscape that was initially set up thousands of years previously and here there is no logical reason for this position for a motte and bailey, it is overlooked by a hill making defence a problem.

Does it not appear strange that these ephemeral lines across the landscape, that in a physical form do not exist, give the positions of a number of structures from various ages? They appear to have reused the same criterion, why? However, combined with measure such lines are even more interesting and revealing as we shall reveal in a further essay...



Here we see Caerwent Roman town or *Venta Silvrym* denoted by alignments to the sun. Much more could be added to this such as the fact that the Mid summer sunset when viewed from the West Gate is directly over the large cairn at the west end of Gray Hill, that the Bentley Green Pleiades line accurately gives the north east corner of an idealised rectangle for the town. We could add that the solar alignment of stones at Gray Hill, when extended, approximates an entrance to Caerwent via the north gate and an exit via the east gate. However all this would clutter up the illustration so we just mention it in the course of our narrative.

Caerwent Civitas dimensions derived from map in terms of Roman units [foot = 0.9732096 British feet]

This is allowing for a rectangle. It appears, due to the line of the north wall that the road was in place prior to this township [Civitas] and there are numerous Roman settlement remains on the North side of the road to qualify this suggestion.

The east end of the town appears to be lengthened at its centre, possibly to gain the loss in area created by the shape at the Northern wall.

The length of the design rectangle appears to be 1539 feet or 1026 Roman cubits. Width is seen as 1296 feet or 864 cubits. Therefore a perimeter of 3780 cubits or 5760 Roman feet appears to have been the intention.

Location is determined via alignment but is virtually exactly 3 Roman miles from Penhow [The Knoll] Northern end to the centre of the Civitas where the line intersection occurs and 1.8 of the same miles to the tumulus at Bentley Green measured along the equinox line.

The South Western corner of Caerwent is exactly 2.112 miles from Llangfihangel Rogiet Standing Stone, a dimension later frequently seen between church locations as will be revealed in a further article.

Note: The equinoctial line utilised in these evaluations has been applied to both spring and autumn dates. In theory this is incorrect as the autumn is a day or so later than the spring. However, accurate equinox dating is also a variable with today the date being 19th or 20th of March and not a fixed day. Hence given this variable, the day difference between spring and autumn has been ignored as it is doubtful that it would have been taken into consideration when this Pleiades association was first set up.

The next article in this series deals with the spatial relationships between Norman castles and mottes and churches and how these link to what has already been revealed. A further case of connection and continuity.

The books from which the information for this article has been extracted can be found at

Measurements of the Gods

<http://www.completelynovel.com/books/77136>

Deluge From Genesis to Atlantis

<http://www.completelynovel.com/books/77135>