

Stone Age Surveys

Archaeoastronomy
Research

THOM IN EAST ANGLIA

by PATRICK TAYLOR

Introduction

As an architectural student in the 1970's with a background in the sciences, I was quite taken with the theories of Professor Alexander Thom, based on his extensive research into Scottish stone circles, their geometric setting out and potential celestial alignments. The idea that our ancestors in these islands were not just dumb brutes, awaiting the arrival of ideas and civilisation from the east, struck a chord particularly as it helped explain these curious circles of stone set in the mainly western landscape.



The Merry Maidens, Cornwall

At the time I remember visiting the several stone circles in West Penwith, but coming to no useful conclusion; the Merry Maidens or 'Dawns Mên' - *dance of the stones* in Cornish - were of particular interest with their two large standing stones 'The Pipers' appropriately to the north-east - in the direction of midsummer sunrise. However, they are not visible from the circle; a puzzle there, and another puzzle on the Isles of Scilly, where there are three surviving standing stones but apparently no surviving circle at all.

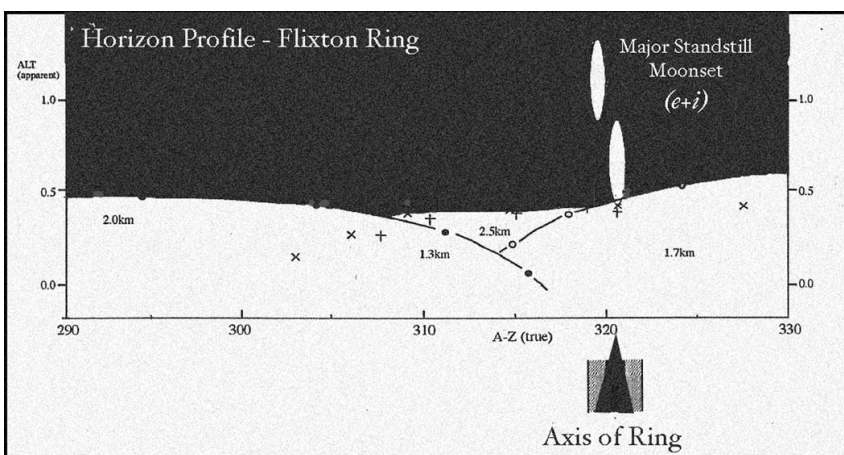
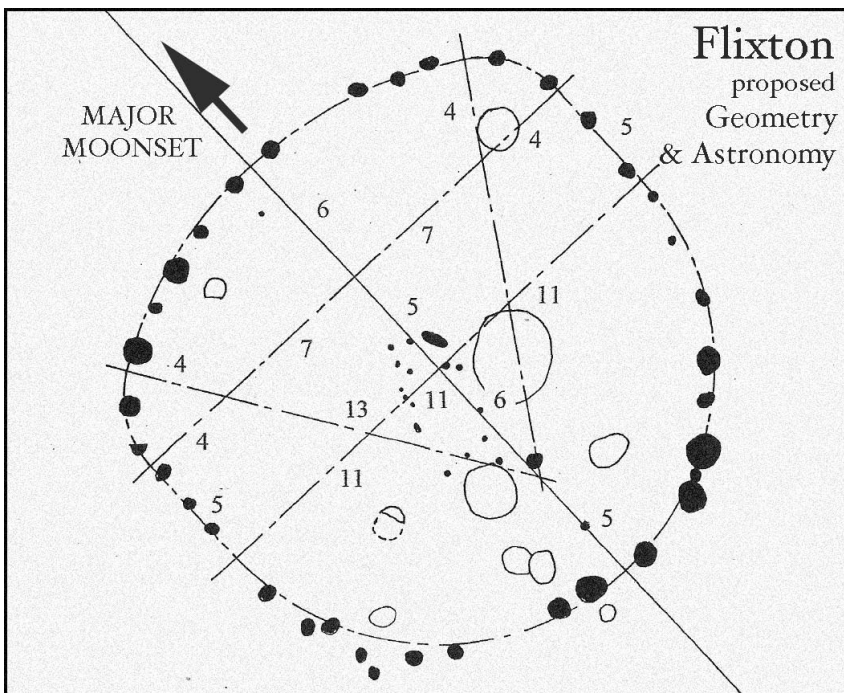
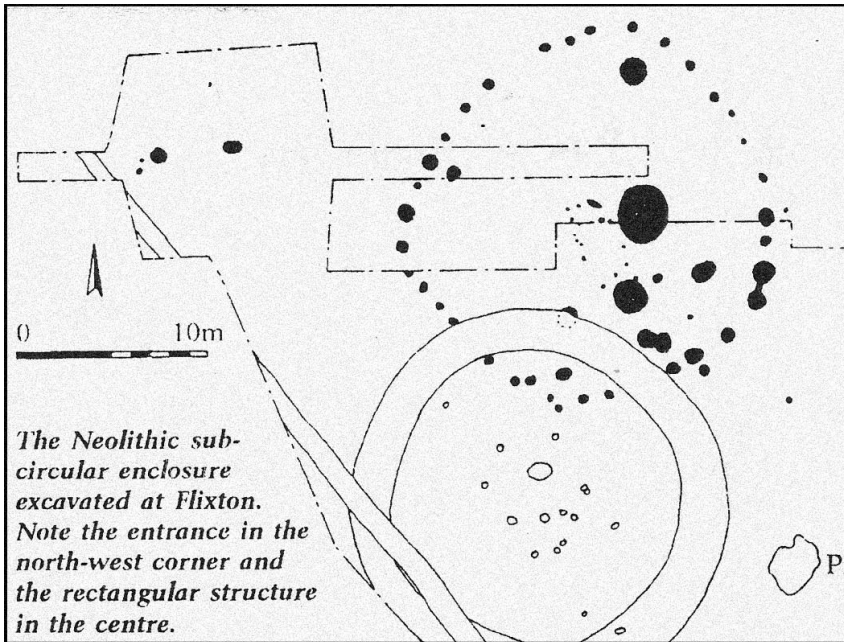
The recession of the early 1980's saw my architectural career move eastwards from Cornwall to Suffolk and then that of the 1990's into the parallel realm of Building Conservation. In my new capacity, in an annual archaeological report, I came across the plan of a 'sub-circular enclosure', which Suffolk Archaeology Unit had excavated at Flixton in the north of the county. Thom's work had been restricted mainly to the stone circles of Scotland and the west of Britain and I was intrigued at the prospect of there having been similar monuments built of timber which he would not have known about.

The Flixton Site

The plan of the Flixton circle leapt out of the page at me, its strikingly symmetrical flattened circular layout indicating a well defined axis to the north-west. After dusting down Thom's books from my shelves and undertaking some rapid revision, I gave the 'timber circle' a thorough investigation. Using Thom's megalithic yard (0.829m or 2.72 feet) as a unit of measurement I found a possible setting out of the monument using a pair of quasi-pythagorean triangles (7,11,13) as the basis, with arcs of radius 4, 11 and 17 units making up a stretched version of Thom's type B flattened circle plan.

Most surprising, however was the axis of symmetry of the monument, which was found to point, when taken in its landscape context using Thom's tables, to within $\frac{1}{4}$ degree of the moon's setting point at its maximum declination. My term for this was 'lunar observatory' and I wrote up my findings accordingly and presented them at a 'Circles and Henges' CBA conference in 1999. I also submitted them as a paper for publication to the local archaeological society and provided the Archaeology Unit with copies for inclusion in their reports.

To date the paper remains unpublished by the official archaeological bodies other than in an interim archaeological report. The site continues to be dug year on year and nothing will appear until it is all finished.

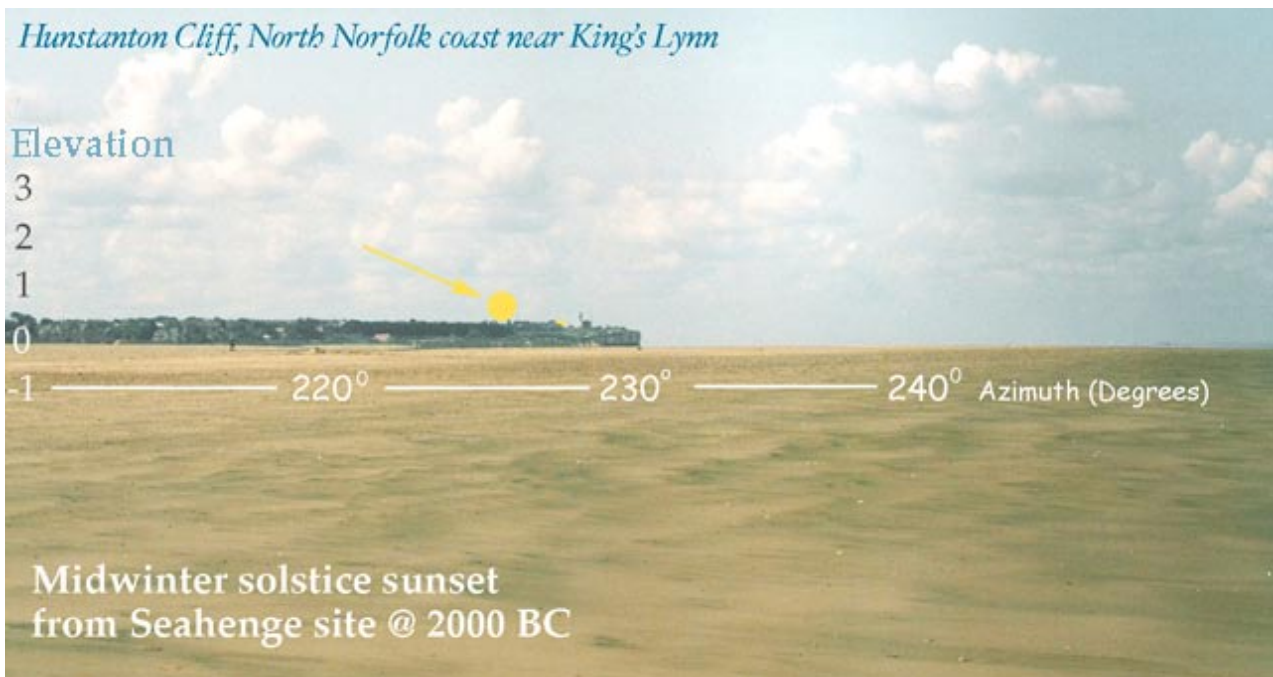


The Discovery of Seahenge (aka Holme I)

At about the same time, in 1998, the smaller and later circle at Holme next the Sea, on the north Norfolk coast, hit the headlines, first as Holme I, then as the press soon dubbed it, as 'Seahenge' and I ventured forth into a similar investigation, which was a little less rewarding. Again there appeared to be an axis of symmetry to the monument, but this ran south-south-east, too far to the south for either the sun or moon to be on the horizon, but nevertheless over a hilltop where cropmarks indicate the possibility of something connected to the monument hidden there.



The landscape setting at Holme was of more interest, for the line of the sun's maximum southwards setting at the midwinter solstice lies close to the edge of the cliffs at Hunstanton, a very noticeable landmark pointer when seen from the beach. It appeared that the monument had been positioned such that for several days each year around the winter solstice the sun would set into landmass, rather than into the sea of The Wash. About two weeks before and two weeks following the solstice the sun would have set into the cliff top edge, a little further to the west, and then would reappear briefly at the foot of the cliff in a very conspicuous 'last flash' before disappearing into the sea. This would provide a memorable marker for the turning of the year, defining a 'midwinter month' and was pointed to by the only unsplit timbers in the monument, one on the north east side, the other two forming the forked entrance on the south-west side. The axis of 'Seahenge' is aligned very closely to the angle (see graphic below).

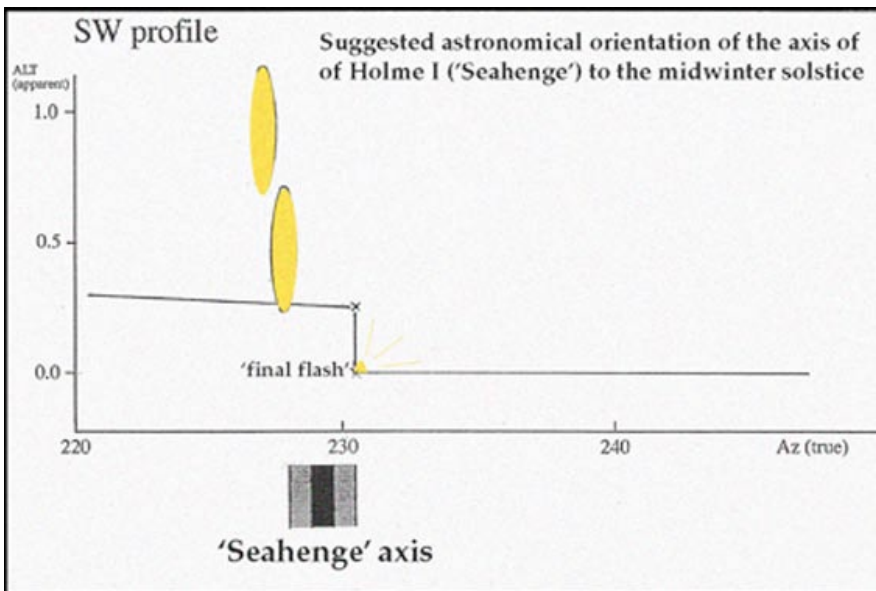




I drafted another paper to show my findings on the Seahenge site, but this proved of less interest to the Norfolk archaeologists. However a visit at the right time of year in December 2008 captured on film the sunset into the cliff and I resolved to publish my findings on both this and on the Flixton circle in a pair of short booklets based on my papers, which otherwise would have remained unpublished and unavailable for others

to study (*details below*). In the meantime, at the request of the Suffolk archaeologists, my Flixton work had been examined by Professor Ruggles, who agreed about the axis and its connection to the moon's motions, but disagreed with the term 'lunar observatory'.

Other Work



Since that time I have investigated two further eastern timber circles, both of which yield results when given the Thom treatment. The site at Lawford, on the Essex - Suffolk border, proved to be very similar to the Flixton site, and again aligned with a lunar maximum alignment, this time for moonrise. It also proved to have a classic Thom type A flattened circle geometry with a radius of 13 megalithic yards. My work at this site has now been published (*see below*). A

larger henge at Arminghall near Norwich appears from initial survey work to be a solar site and my results will appear in a further small booklet in due course.



Patrick Taylor was born and brought up in Truro, Cornwall. Educated at Truro School, he went on to study Physics at University College London and then Architecture at the Architectural Association. More recently he has taken a Masters in Conservation Studies at York and obtained a first degree in Mathematics with the OU. He has previously published a series of books on polyhedron geometry: 'The Complete? Polyhedra' in seven parts, and currently writes on turnpike history: 'The Toll-houses of Cornwall' with similar volumes on Devon, Suffolk, Norfolk and Essex to date. He works as a Conservation Architect, based in Ipswich, Suffolk.

SEAHENGE SITE to HUNSTANTON CLIFF EDGE

STONE AGE SURVEYS
THIS IS QUICKAZ, FINDS AZIMUTHS IN A FLASH!

This calculation is for solstitial sunset at Seahenge

The proposed sunset lies in the SW quadrant.
Epoch 2000BC
Declination = -23,93*
Latitude = 52.97639*
Horizon Altitude = .5*
Correction for Earth's Curvature = .0214992*
Parallax Correction = .002*
Refraction Correction = 0.45*
Cos Azimuth = .6748302. Apparent Altitude = - 0.222*

^ ^ ^

*****- horizon -*****^*****^*****^*****

Disc on Horizon (first touch) = 226.6515 degrees
Disc half set = 227.1078 degrees
Last Flash 227.559 degrees

Additional Data

Seahenge TF 711452

Longitude of Seahenge 0°32'56"E

Latitude of Seahenge 52°58'35"N

Hunstanton cliff TF 675420

Longitude of cliff 0°29'37"E

Latitude of cliff 52°56'56"N

The above calculations are based on data supplied by the author, and were produced using **QuickAz**, a computer program devised and written by Robin Heath, for *Stone Age Surveys* (© SAS, 1997)

The following booklets which elaborate the information found in this article are available for purchase. Please contact Patrick directly at polystar@ntlworld.com

