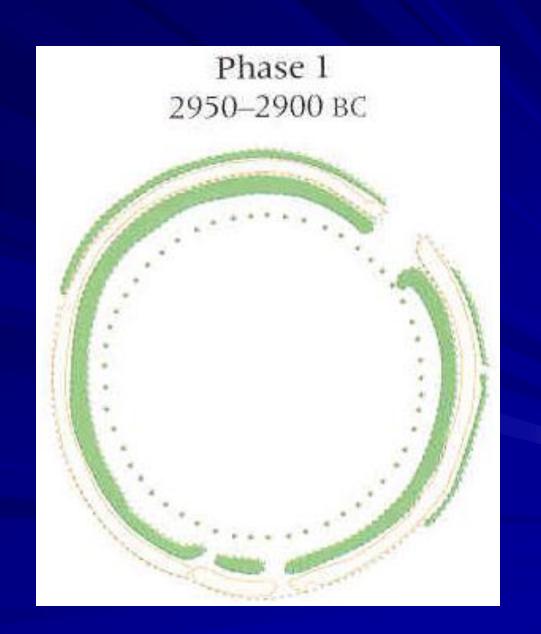
StoneHenge

(Neolithic-Period)

Stonehenge, England

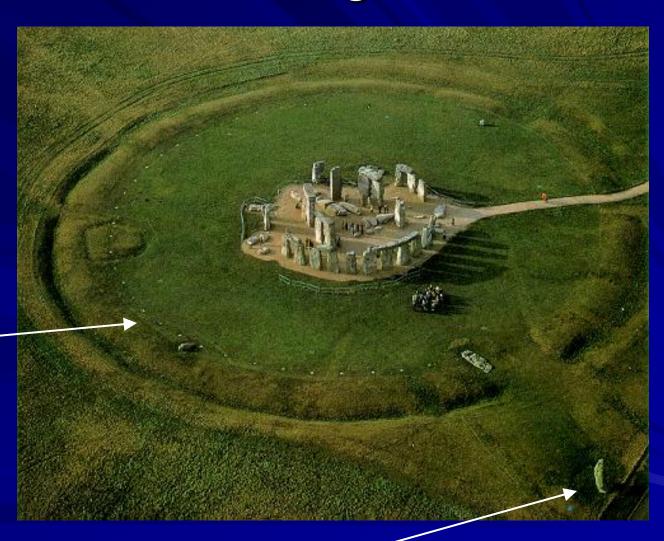
- Stonehenge, the most visited and well known of the British stone rings, is a composite structure built during three distinct periods.
- In Period I (radiocarbon-dated to 3100 BC), Stonehenge was a circular ditch with an internal bank.
- The circle, 320 feet in diameter, had a single entrance, 56 mysterious holes around its perimeter (with remains in them of human cremations), and a wooden sanctuary in the middle.
- The circle was aligned with the midsummer sunrise, the midwinter sunset, and the most southerly rising and northerly setting of the moon.

Period I



Stonehenge

The view includes the circular bank, ditch, and counterscarp bank. A number of the Aubrey holes are also visible.

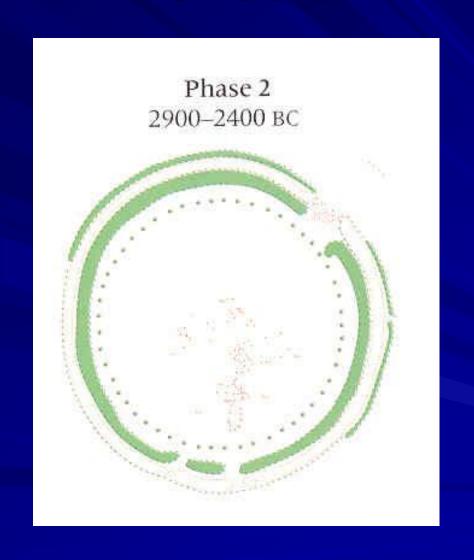


The Heel Stone can be seen in the lower right.

Stonehenge Period II

- Period II (2150 BC) saw the replacement of the wooden sanctuary with two circles of "bluestones" (dolerite stone with a bluish tint), the widening of the entrance, the construction of an entrance avenue marked by parallel ditches aligned to the midsummer sunrise, and the erection, outside the circle, of the thirty-five ton "Heel Stone".
- The eighty bluestones, some weighing as much as four tons, were transported from the Prescelly Mountains in Wales, 240 miles away.

Period II

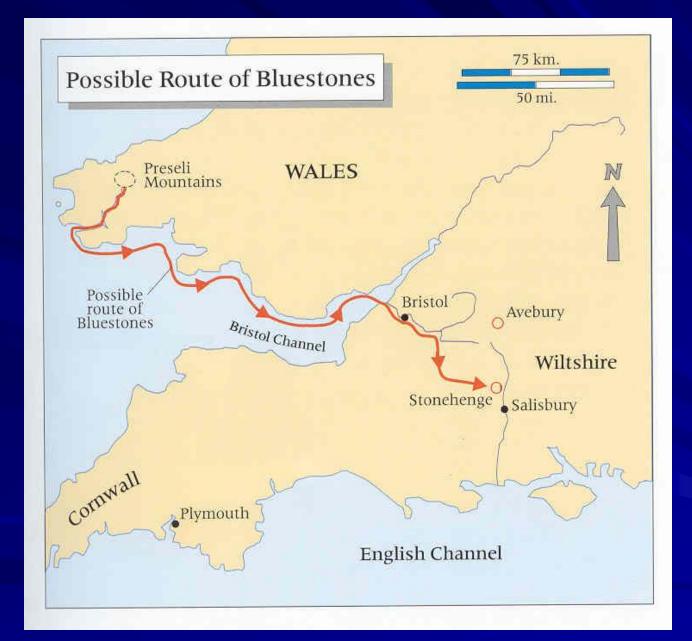


Bluestones & Sarsens



Bluestones

Sarsen lintel



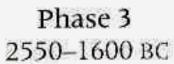
If the Bluestones were brought from the Preseli Mountains of Wales, it would have been difficult, if not impossible, to boat the stones on rafts down the Bristol Channel, as some archaeologists have suggested.

Dragging them on sleds over rough ground from the landing to the site would have been an even more demanding task.

Period III (2075-1100 BC)

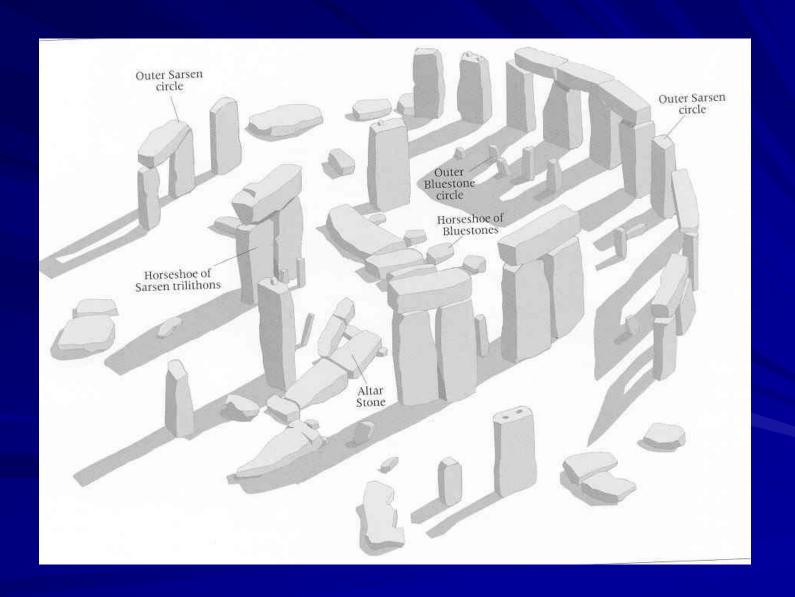
- During Period III (2075 BC), the bluestones were taken down and the enormous "sarsen" stones - which still stand today - were erected.
- These stones, averaging eighteen feet in height and weighing twenty-five tons, were transported from near the Avebury stone rings twenty miles to the north.
- Sometime between 1500 and 1100 BC, approximately sixty of the bluestones were reset in a circle immediately inside the sarsen circle, and another nineteen were placed in a horseshoe pattern, also inside the circle.
- It has been estimated that the three phases of the construction required more than thirty million hours of labor. It is unlikely that Stonehenge was functioning much after 1100 BC.

Period III





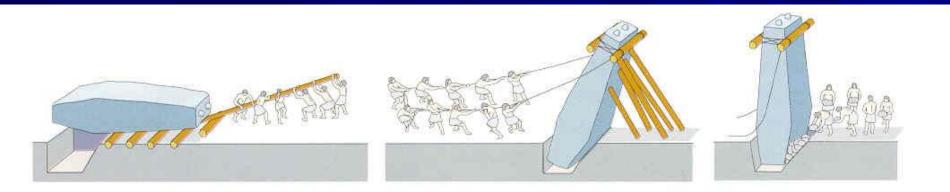
Period III



Building Stages

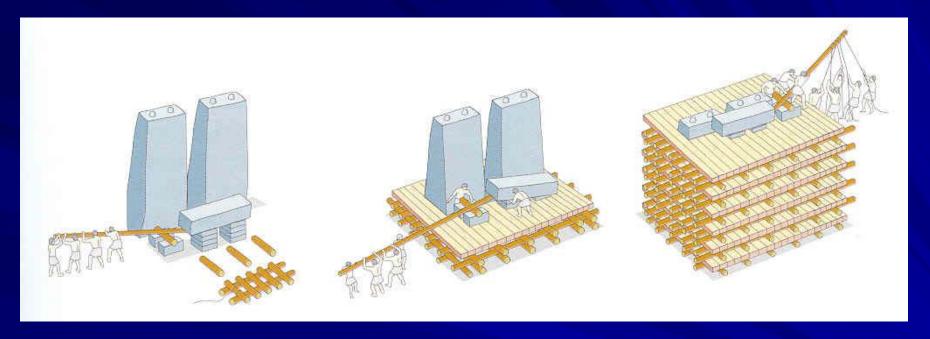
http://www.pbs.org/wnet/secrets/case_stonehenge/stonehenge_flash.html

Constructing the Monument



This drawing shows how a pit was dug with three straight sides and one angled. These stones were slid into place on rollers, and eventually rocks were put around the base to hold it firmly.

Placing the lintel



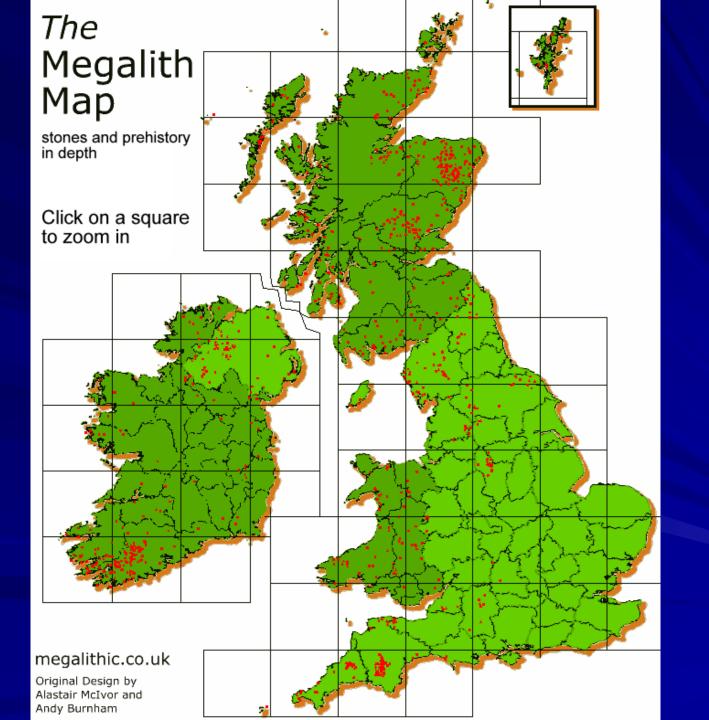
This illustration of the laborious process of raising and placing the lintel shows how the workers used platforms and crossed timbers to support the lintel as it was levered up inches at a time.

Meanings of the Stones

- Ancient Route Markers?
- Religious Centers?
- Astronomical Observatories?

Ancient Route Markers?

- Stones connected important sites across the landscape.
- Were used to signify territories and the areas occupied by "clans".
- The Ley lines. Leys are straight tracks or paths which connect up ancient and sacred sites in straight lines which cover the countryside.
- These lines had been totally forgotten, and were only rediscovered in the 20th century. After it had been accepted that megalithic sites could form short alignments, the idea was extended dramatically by a retired amateur antiquarian called Alfred Watkins, in the 1920s.



Religion?

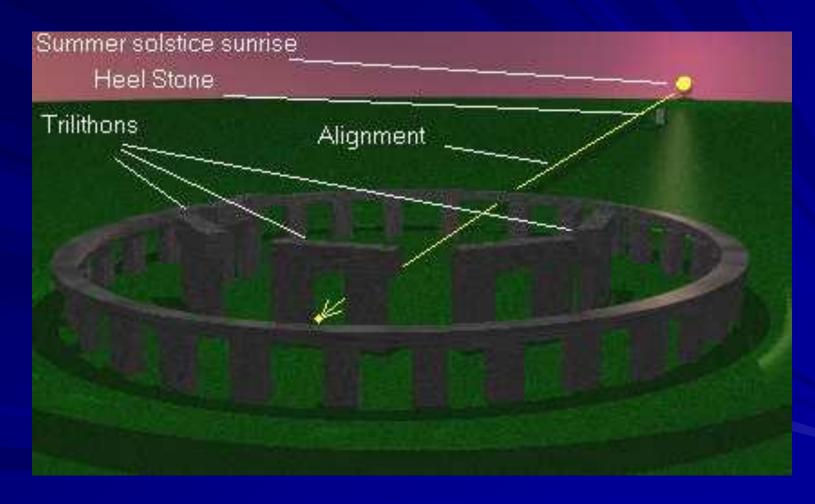
- Megalithic mounds such as Newgrange entered Irish mythology as sídhe or fairy mounds. Newgrange was said to be the home of Oenghus, the god of love.
- In the seventeenth century, well before the development of archaeological dating methods and accurate historical research, the antiquarian John Aubrey surmised that Stonehenge and other megalithic structures were constructed by the Druids.
- While this idea (and a whole collection of related fanciful notions) has become deeply ingrained in the uneducated minds of popular culture from the seventeenth century to the present age, it is a matter of certain knowledge that the Druids had nothing whatsoever to do with the construction of the stone rings.
- The Celtic society in which the Druid priesthood flourished came into existence in Britain only after 300 BC, more than 1500 years after the last stone rings were constructed.
- Regardless, the stones obviously had ritual significance given the extent of the building and human cremations found in association with them.



Astronomical Observatory?

- We do know that many of the structures have an astronomical alignment.
- Some are oriented towards the solstice points on the horizon (points where the Sun rises or sets on the summer or winter solstice).
- Some structures point to certain stars or the Moon's rising or setting on special days. Others point to Venus.
- Still others are aligned with the cardinal directions of north, south, east and west.
- The alignment of megalithic structures is of prime concern to those who study the structures.
- Because alignment can be so complicated, structures must be taken case by case.
- Some alignments point to social and religious beliefs of the community, other alignments seem to suggest deliberate sky observing and astronomical activity.

Alignment at Stonehenge



North Pole Equator To the Sun Ecliptic View from above View From Ground

Summer Solstice

A diagram showing how the Sun moves through the sky on the Summer solstice.

Summer solstice at Stonehenge



Stonehenge



From inner circle to heel stone.

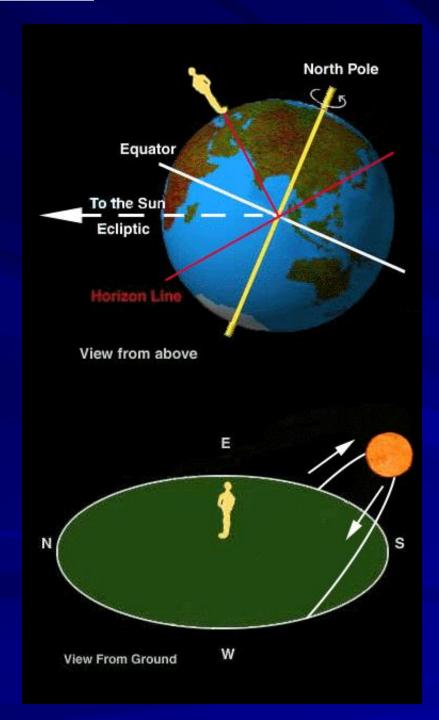


Photograph of the sun rising over the heel stone.

Astronomical Observations from Newgrange



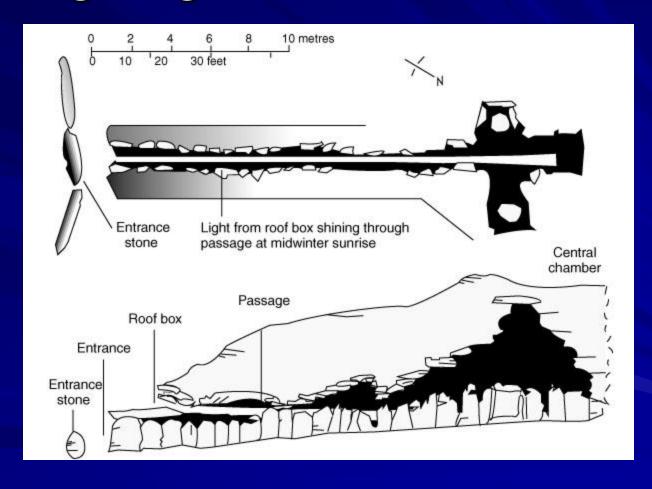
The winter solstice sunrise behind a standing stone, photographed from the entrance of the passage tomb at Newgrange.



Winter Solstice

A diagram showing how the Sun moves through the sky on the Winter solstice.

Light through the roof box at Newgrange at Winter Solstice



Thank You.....