

Stonehenge: Background information for teachers

Stonehenge is unique. There are hundreds of stone circles in the British Isles, but none have lintels set across stones. Nor have the stones at other stone circles been smoothed to shape. Stonehenge has a long history, simplified here:

- **3000–2800 BC.** The ditch was dug, and cremation burials made. A ring of holes dug just inside the ditch may have originally held stones, possibly the 1–2-ton bluestones that derived from Mt Prescelly in Pembrokeshire 140 miles away.
- **2600–2400 BC.** The great sarsen stones were dragged 20 miles to the site from the Marlborough Downs near Avebury, where stones still lie across the land. They were set up as the five great archways (trilithons) and a circle with a ring of lintels.
- **2300–2000 BC.** The bluestones were set up inside the great sarsen circle.
- **2000–1500 BC.** More holes were dug around the sarsen circle but never used.

In order to avoid a confusing level of information, the PowerPoint presentation is centred purely on the period from 2600–2400 BC when the great sarsen structure was built. The presence of bluestones from south-west Wales is not mentioned, although it could be introduced in later discussion to further emphasise the exceptional nature of the Stonehenge project.

Focus of the work is placed on the mechanics of moving the stones (30 circle stones = 25 tons each; 30 lintels = 7 tons each; 10 great trilithon uprights = up to 45 tons each; 5 trilithon lintels = about 10 tons each).

Experiments have shown that simple tree trunk rollers fail to turn easily or bed into the ground, but that split trunk rails underneath make movement much easier. Using tallow (animal fat) to grease the rails, it was found that 130 people could drag a 40-ton stone in this way about 6 miles a day on flat land, and about half a mile up a 1 in 20 slope.

A possible method for erecting the stones have been shown in the PowerPoint, but they are difficult to replicate by modelling in the classroom.

Tools used in construction were: flint and stone axes to chop and shape wood; antler picks to dig holes; twisted rawhide or honeysuckle creepers to make ropes; football-sized lumps of rock to pound the great stones into shape.

The fact that the lintels are fixed to the uprights by mortice and tenon joints tells us that the builders were copying wooden prototypes. Although these don't survive above ground, at Woodhenge and **Durrington Walls** nearby postholes have been excavated that mark sites of closely similar plan to Stonehenge. Raising the huge timbers to make these wooden circles would have provided the experience necessary to undertake the Stonehenge project.

Trying to establish the purpose of Stonehenge is a far more difficult task than understanding how it was built. Nevertheless, reasoning from the evidence allows us to draw certain conclusions.

First, the lack of food refuse and flint tools means it could not have been used for feasting or living in; the lack of small post holes between the circle stones mean it did not have a wooden wall and roof attached to the great stones. It is not the skeleton of a grand house built for a great ruler.

Second, the structure was clearly deliberately aligned on midsummer sunrise on the longest day of the year (21st June) and midwinter sunset on the shortest day (21st December). This provides our best indication of the purpose of the site, but it could mean that it was an elaborate calendar or a temple. As a calendar it would have been massively overbuilt – a simple calendar to measure the passage of a year from sunrises only needed 5 or 6 posts or stones spaced in a line marking the 100 degrees between 21st June and 21st December sunrise points. Logical deduction therefore tells us that this was a very important religious site that was centred on the sun where ceremonies were carried out on the shortest and longest days of the year.

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The visitor centre at Stonehenge has replicas of houses found nearby (see also [Lesson 3: Skara Brae](#)) and a great stone ready for transportation to Stonehenge. There are excellent education facilities and a range of activity programmes available: <http://www.english-heritage.org.uk/visit/places/stonehenge/schools>

Further reading

Parker Pearson, M. 2015. *Stonehenge: Making sense of a prehistoric mystery*. York: Council for British Archaeology

Richards, J. 2010. *Stonehenge*. London: English Heritage

Burl, A. 2005. *Prehistoric Astronomy and Ritual*. 2nd edition. Princes Risborough: Shire Archaeology

Burl, A. 2006. *The Book of Stonehenge*. London: Little, Brown Book Group

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Date updated: 9/2017.