



SILBURY HILL

Information for teachers



Silbury Hill is the largest man-made mound in Europe, comparable in height to some of the Egyptian pyramids. Unlike them, however, it seems to contain no shrine or burial and no one knows why it was built.

For hundreds of years people have been intrigued by the monument and archaeologists from the eighteenth century onwards have dug into the Hill. In May 2000 a deep hole appeared at the top. This was caused by the collapse of a shaft dug in 1776. The nineteenth and twentieth century horizontal tunnels were unsound too.

So in 2007 a major project was launched, involving engineers and archaeologists. Their aim was to dig out and repack the subsiding tunnels to stop the Hill from collapsing. It was also an opportunity to carry out archaeological investigations while the rescue work was going on.



Flint, antler and butchered bone recovered during restoration work in the tunnel in 2007



A helicopter airlifts chalk to fill the deep hole at the top of the hill

When was Silbury built?

Radiocarbon dating from the latest research in 2007 shows that building Silbury began at some time around 2400 BC. This puts it towards the end of the Neolithic period (4000BC – 2200 BC). By that time the other major monuments at Avebury: Windmill Hill, the Avebury henge and West Kennet Long Barrow, had already been built.

How long did it take to build it?

There are different opinions about the length of time it took to build. The radiocarbon dating results available at the moment give two possible time spans for the construction of the Hill – less than 115 years, or between 140 and 435 years. One estimate of the labour involved suggests it would have taken the equivalent of 500 workers toiling every day for 10 years to construct the hill.

How was it built?

Silbury Hill was built from around 500,000 tonnes of locally quarried chalk blocks and rubble. Scaffolding would probably have been needed – trees must have been felled for miles around.



An artist's impression of Silbury Hill under construction

There are various theories about the way the hill was constructed. Although this illustration shows a circular construction, recent research has shown that each level of the mound is, in fact, a polyhedron with a number of straight sides - as many as nine at the base, possibly fewer towards the summit. It used to be thought that the hill was raised in tiers, but a more recent theory is that it was built with a spiral path all the way from the base to the summit. This would have helped workers get material up the mound as it was being built, and provided a processional path to the top when it was completed. We cannot be certain which theory is right.

What were the stages of construction?

We can be more certain about the sequence of building.

1. The grassland on the site of Silbury Hill was used for grazing.
2. Builders brought gravel to make a small circular mound, covered it with turfs and edged it with stakes.
3. Chalk and soil were added, making it 35m across and 5m high.
4. More chalk was dug from a ditch beside the mound, covering the earlier work, and making the hill about 75m wide, and possibly half its final height.
5. More chalk was added from the great ditch still visible beside the hill.

Originally steps may have gone all the way down, but they were filled in with chalky silt and rubble

When completed Silbury Hill stood 40m above the valley floor and would have shown up a startling white against the surrounding grassland.

What can we learn from environmental evidence?

Specialists have analysed soil from the old ground surface and the turfs that were laid on it to form the first stage of the mound. Remains of plants and insects have survived because very little oxygen reached them, preventing the normal decay by fungi and bacteria. From the types of mosses, beetles, ants, seeds and snail shells, specialists can tell that the landscape was grazed chalk grassland when the hill was constructed.

Archaeologists are taking new samples of organic material from the top and bottom of the Hill as part of the 2007 research programme. These should allow us to establish the length of time it took to construct the Hill more accurately.



The modern click-beetle (left) closely resembles this 4000 year old specimen from Silbury



Moss recovered from a core sample taken at Silbury Hill in 2003

What happened later at Silbury Hill?

As time passed, the traditional ceremonies of the Neolithic period no longer took place at Silbury Hill and the area may have become overgrown and neglected. People still lived in the area in the Iron Age, but the main foci of activity were the hill forts built on higher ground, where rival tribes defended their territories.

In the Roman period there was a substantial settlement nearby and at least one burial at Silbury Hill itself. The Roman Road passed the foot of the hill and Roman engineers probably surveyed the road from the top of the hill.

In the Saxon period the top of the hill was used as a lookout and stronghold. Archaeologists in the 1960s found Saxon pottery, iron nails, a spearhead and silver coin when they excavated the Hill.

To find out more visit:

www.english-heritage.org.uk/silburyhill and for the National Monuments Record www.english-heritage.org.uk/nmr
Phone number for the NMR is 01793 414600 or email nmrinfo@english-heritage.org.uk

Investigate Silbury Hill

Supporting Notes

Most of the questions on the sheet are open ended, to encourage discussion during and after your visit.

Answers to some of the questions in sections 4 and 6:

4. The 1968 tunnel went to the centre of the hill – 80 metres. People started to build Silbury Hill about 2400BC. That's 4,400 years ago.
6. The flint tools could have been used to cut timber for scaffolding or ladders. Antler picks would break after prolonged use, leaving broken bits of antler in the hill. A scapula (shoulder blade) from a cow, horse or pig, made a good shovel. The flat 'shovel' end of this one has broken off.

Suggestions for follow-up activities

Maths

- The hill is cone shaped. It is 40m high and 160m diameter at the base. Use card to make a scale model of the hill.
- It weighs about 500,000 tonnes. Use plasticine to make a scale model which reflects its weight.

English

- Ask pupils to 'collect' words on their site visit. It will make it easier for them to do written work afterwards. Later they could write their own guidebook, the script for an audio guide, a piece of poetry or a diary entry by one of the workers who built the hill.
- There is a legend that King Zel (or Sil) was buried at Silbury, sitting on his horse in golden armour. The legend says that the Hill was raised around him in the time it took to heat a 'posset' (spiced drink) of milk. Pupils could make up a new story to explain why and how the hill was built.
- Ask pupils to imagine they are going to bury a time capsule in the hill for archaeologists of the future to discover. What would pupils choose to put in it, to show people in the future what life is like today?

Art

- Pupils could draw a picture to show people visiting Silbury Hill when it had just been finished.



Silbury Hill today