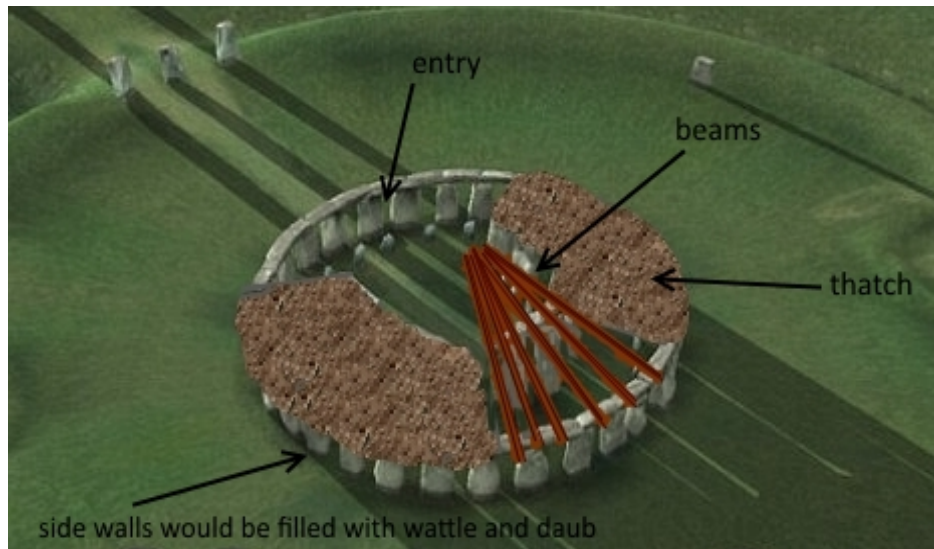


What was the purpose of Stonehenge?

A proposal by Michael Goormachtigh

Abstract: Stonehenge represents a typical neolithic roundhouse. The idea was to offer the god who was supposed to be responsible for a good harvest, a solid house on earth. People believed that his presence in that house would cause a plentiful harvest. The chosen material is partly stone, unlike the wooden roundhouses of the time, because stone is eternal and fits a god. The orientation is equally traditional, although executed with the greatest care: toward the winter solstice sunrise.



My idea how Stonehenge might have looked like just before the partial roof was finished. The rafters could have been longer and prolonged up to the middle of the horseshoe structure. The idea was to cover most of the structure, leaving an opening to the winter solstice sunrise hoping that the sun-god would see his temporary earthly house.

Around 2500 BC people believed that the gods regularly dwelt on earth. It explained so much things one could not explain otherwise. A good harvest was explained by the fact that the god of the sky, the weather, the sun, had stayed on earth for the whole season. A failed harvest meant that this god had been absent. So, if this god could be tempted to stay on earth for the cropping season, then people would not have to suffer from starvation.

The opening of the horseshoe is oriented to the dawn of the winter solstice. The roof is for a part open because it represented an invitation to the (weather) God who was responsible for the harvest, to come to earth and stay for the season. Everyone, god included one hoped, would clearly recognize the stone structure as the skeleton of a round house. Stone had been chosen as it is supposed to be eternal, just like the gods were supposed to be eternal.

During the rituals only one person remained in the 'house' and that was probably the king-priest himself. Him would stand inside close to the door, visible from outside. A selected number of royals, top aristocrats and priests - probably less than a dozen - would assemble outside, spread on each side and close to the door. Gifts in the form of expensive food would be present inside the monument. The farmers would remain respectful outside the monument, outside the bank and ditch. A few chosen ones, maybe people who needed the most help, maybe some middle-class farmers could be positioned between the monument and the outer circle. All would hail aloud the god during the ceremony and invite him to come over.

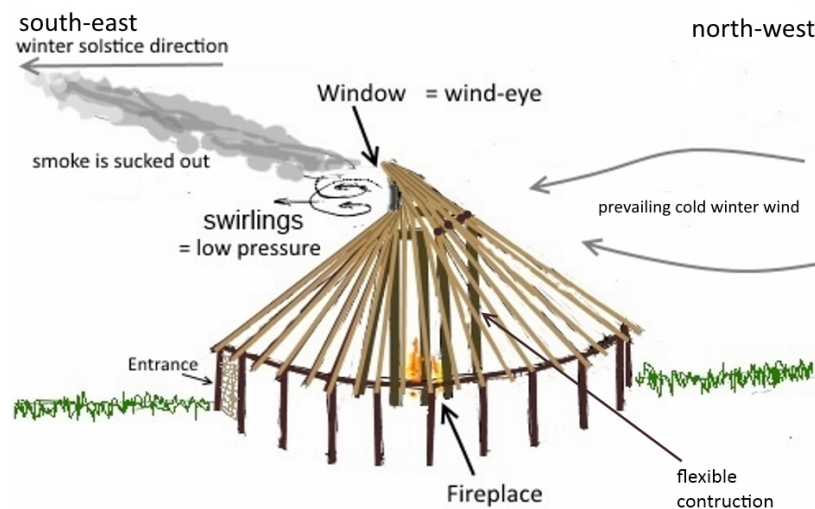
Stonehenge has nothing to do with the stone circles which were made way before. A stone circle had been made on the spot around 3000 BC, but by 2600 BC a new idea of who the gods were and behaved had been introduced in the region. The builders of Stonehenge just recuperated the place because it had some reputation as a sacred place and because of its position in the landscape.

The monument was build between 2600 and 2400 BC, a short period. The plans were ready from the beginning and executed as such. Although it took some time to build Stonehenge, it is clear that the

monument was not improvised in phases. It is not so that people first began to build the upright sarsen stones of the outer circle, that then some priest had the idea to connect them with a lentil to make a closed circle, and that eventually the next generation decided to build the trilithon stones in the middle with their respective lentils, leaving a gap so that the light of summer solstice can come in. That is NOT how it was built. As there was no paper, no plans could be drawn. Then how could the structure of the monument be transferred from one generation to another? The answer is that the monument had to represent an 'eternal' stone model of a round house. Such houses were commonly known. One had just to copy them in stone.

What puzzled me the most is the horseshoe construction. Why a horseshoe and not a complete inner circle? It seems to open itself to the god of the sky, although the sarsen ring on the spot is closed, which contradicts the opening hypothesis. The sarsen ring closed while the horseshoe is open? I eventually concluded that the horseshoe was no artificial opening where two pillars and a lentil were left out to create an opening. People would have immediately noticed that. They would have argued: why do we offer a unfinished house to our god? If he does not come, then it is because the house is not 'as it should be'. So, the horseshoe is not a coincidence, it is how it should be and it must have reflected a typical construction of the time. The middle trilithon stones consist of three stones, two pillars and one lentil (hence the name trilithon). They represent the middle poles of a house around the fireplace. We, modern people, would connect them all with lentil beams, like the outer sarsen circle, and complete the circle. But not so in Stonehenge. A possible answer is that inner poles were linked two by two in ordinary houses too and that the horseshoe construction was 'standard'.

Why this method? Why a horseshoe shape?



Skeleton view of a typical roundhouse.

- It can be it had something to do with the flexibility of the roof during a storm. It could have prevented the destruction of the roof better than if all central poles had been linked to each other.
- Or it had something to do with the evacuation of the smoke. This supposes a sort of vertical opening in the thatch. The opening of the horseshoe points in the opposite direction of the prevailing cold wind (from the west and north in Britain), that is east and south. When the northwest wind blows, the vertical opening of the thatch facing southeast creates a low pressure in front of it which sucks the smoke out the house. The advantage of such a construction is also that the floor of the house and the fireplace remain dry when it rains.
- Both solutions can be combined. If this can be proved scientifically, then we come closer to the final solution of the riddle of Stonehenge. A serious consequence is that the orientation of Stonehenge, supposedly to the rising sun, is coincidentally east. Had the prevailing wind come from the south, the orientation of the horseshoe could have been north. It is likely that 'dawn-at-winter-solstice' and 'average-wind-direction' were combined. It would be self-evident that such a costly construction was properly oriented. It is equally possible that ordinary houses were oriented east in a similar fashion, although not so precisely to the summer solstice point. The orientation had primarily a practical reason and only secondary a religious one, hence a precise alignment was not compulsory for ordinary houses.

Roundhouses are more energy efficient than rectangular longhouses. They offer more inner space for less

outer surface. The orientation and 'wind-suck-feature-in-the-roof' were standard for the time. They were the best way to build a house. Stonehenge might even have been a demonstration of how to build houses, an ideal godly house featuring the best technology of the time. Energy, say firewood, had to be saved because it was assiduous to chop with stone axes. When bronze axes became widely used, chopping wood became far more easier. Bigger but less energy-friendly longhouses were build as a consequence.

Changing perception of the Gods

How people perceived their gods changed over the centuries. The metabletica (teachings of the change) of the gods can be traced in the Greek mythology:

At the dawn of times, the gods were titans. The word titans is in my opinion the same word as teuton(s), dieten, deuten, Deutsch, etc., all meaning 'people'. The earliest gods were nature forces and were named 'the people' (clan or tribe). They could have been named after the northern (Germanic speaking) neolithic farming populations. They represent the early stage of agriculture, actually they were a remnant of the old hunter-gatherers gods: the earth (Gaia), the sky (Uranos), the world of spirits (Hades), etc. Note that there was no strong hierarchy. These old gods were pretty much equal, a reflection of the human society in those days. During 5000 years European farmers had plenty of space and could colonize Europe freely. If there was trouble in their neighbourhood they could simple move on. Such a situation is comparable with the freedom in the American Wild West, much later. Farmers were free. But then, gradually and as the new resources, new land, became more and more scarce, a new type of society was needed. That is the easiest shown in ancient Egypt. There one had bad years, with crop failure when the Nile did not flood, and one had good years. The Bible teaches us that the Pharaoh was supposed to store grain surplus of the good years to assure food during the bad years. Such a thing can only be achieved by a strong central authority. The environmental and technological situation in Britain also created the need for a strong central authority. For instance: it is difficult to convince (today: in the third world) farmers to plant trees which will be ripe, say chop-ready, in 200 years. Reality is that farmers do chop trees and rarely replant them in the third world. The situation in Europe in 3000 BC must have been similar: most forests were destroyed and no individual farmer had the courage to plant new ones for they would be chopped by neighbours on a short notice. Hence Europe also evolved to less individual freedom and more central authority.

Human society changed and became far more hierarchical. The rich grew richer and the poor poorer, became even landless not to say slaves. That evolution is reflected in the godly sequence of events: a new generation (Zeus, Apollo, Athena, Poseidon...) chased the Titans and took power. Zeus (or Jupiter) was clearly the new top dog in town. He was the king of the gods and commanded a hierarchical pyramid of other gods. The hereditary occupation of king was then a new notion for human society. At the same time a strict hierarchy within the divine family emerged. Being a member of a family did no longer provided equal rights. The lesser gods had to obey their upper-god just like the farmers had to obey their lords and landowners. Women and children had now to obey their husband and father. Zeus became the *pater familias* of the godly family and gathered most power in his hands. The new generation of gods quarrelled often with each other and this too was new. It reflects the fact that there was no longer an easy escape: new land to migrate to and exploit was no longer available.

On the other hand, humans were more and more in control of their living conditions as the agricultural technology progressed and they knew it. Gradually bigger and more rewarding animals such as cattle and horses were domesticated. This was projected in the new mythology. Were the old gods or Titans not easily appeased, vague to represent and difficult to reach, with the new generation things were easier. When a catastrophe happened, for example: Poseidon, god of the sea had flooded land, then two simultaneous actions could be taken: (1) appease Poseidon with sacrifices and (2) engage with gifts and sacrifices the god(s) with whom the supposed culprit god usually had quarrels. If you thought to have a problem with Apollo, then you could ask Athena to intervene in your favour. I refer here to the parts of the Iliad (Trojan war).

Humans farmers had now clearly the idea that they were in control and that the gods could be manipulated in a similar way nature could be handled, although some Greeks philosophers warned against that. The evolution of the Greek gods reflects the evolution of the human society in ancient Greece. In Stonehenge, the removal of the original circle of stones close to the bank and ditch, could be a good indication that a new religion had been installed: now gods could be influenced, if not guided.



The circle of Swinside.

I think that the older stone circles symbolized the horizon (bank and ditch in a circle), thus the sky and earth. It represented the environment of which all people were so dependent on. The upright stones probably represented the gods and spirits of the deceased who were supposed to look upon the earthlings. In those days most farmers still owned their land and a sort of democracy was the usual way to rule a region. Rituals in or around the circle aimed at remembering the population that the gods were looking constantly and that humans had to behave well, an ever recurring religious philosophy but very much needed at the time because central authority proved to be weak. Later, during the transition to a strong central authority, stones which represented the spirits of rich and powerful deceased ones were added, sometimes within the circle if one had a very powerful family, sometimes outside the circle if the family was less powerful or in opposition with the ruling royals.

The attitude toward the new generation of gods was very different. Gods were almost forced to do things, mainly to make sure that there was a good harvest. At a certain moment, possibly since 2600 BC, democracy fell away and was replaced by absolute dictatorship. The position of king had become hereditary and the king combined civil and religious power. Democracy would come back much later, at the beginning of the iron age together with the first wave of Celtic culture (Hallstatt), which came over from Germany around 800 BC.

Stonehenge reflects the beginning of new times. It is all about hierarchy and absolute power of the king. He was believed to have the power to generate a good harvest, providing he had good means to do so. The Egyptian Pharaoh had supposedly the same powers. The monument of Stonehenge is such a tool. One must know that the seed-sowing-factor was less than 1 for 2.5 which means that 1 kg of (wheat) seed brought on average 2.5 kg of crop - of which 1 kg for the next season had to be stored leaving just 1.5 kg to eat. Or, the quantity of sowing seed had to be 40% of the expected yield. Today that factor is 0.023 or 2.3% of the expected crop. One can imagine what starvation a failed harvest could provoke and why farmers could be convinced to build such a monument. So, although humans were already greatly in control, the latter remained insufficient so more serious leverage was needed. Stonehenge was such a lever.

The power of the priest-king was almost limitless and his equals were the gods. The idea that a man could be the equal of a god was perfectly well elaborated in Egypt when the pyramids were built. Egyptian pyramids were built as machines to transform the deceased Pharaoh into a immortal god. Once immortal the Pharaoh could talk as an equal with the gods. He had become the representative of the Egyptian people among the gods. The whole idea was meant to make sure that the Nile would flood every year and that the people would be preserved of famine. In Britain the priest-king could urge the upper-god, most likely the god responsible for the weather, to come to earth and do something about a better harvest. He could speak as an equal, even demand things. Stonehenge and the Egyptian pyramids were build for the same reason: to prevent starvation as much as possible.

Attending rituals were as usual not free for bystanders and brought money (means) to the organisers. This

raises a question: why was Stonehenge so quickly abandoned, because what brings money tends to last for a long time.

There is nowadays a sort of consensus among Israeli archaeologists that the temple of Salomon was build mainly as a source of income for the king. One solid argument in favour is that the Jews had always worshipped God without needing a picture, special place or statue, so why suddenly this need for a costly temple? Money is the answer.

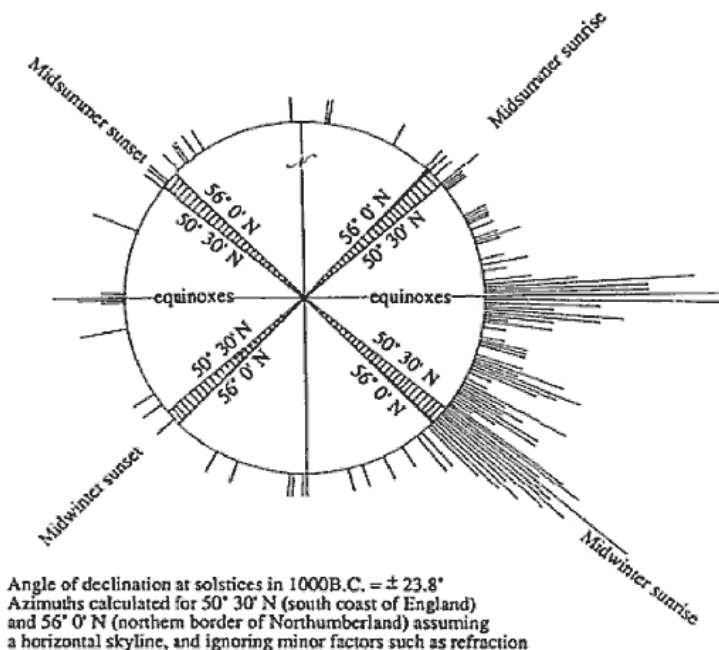
The hypothesis that attending rituals at Stonehenge were not free can explain the winter gatherings with lots of cattle, an annual feasting of which many traces, bones, have been found in the neighbourhood. Note that most bones were traced to regions to the west of Stonehenge -"from as far as southern Wales", said archaeologists - but none were traced to the eastern regions, although these more fertile regions should have dominated in theory (*as far as I know - the study is still going on*). Stonehenge was all about the hope that better weather would come if the priest-king had sufficient means (the monument + gifts) to communicate with the gods. That is why the king could convince his farmers to build the monument for him in the first place.

Stonehenge had three purposes:

- A politico-religious statement: "the king is equal to a god".
- An official and mainly religious purpose: "to invite the sun-god to the spot by offering him a temporary home", hence the shape of the temple: a stone house.
- A prestigious military statement. It had the same function as the temple of Abu Simbel : to bring the message to the enemy that "we are powerful, so stay out".

Answering the question why Stonehenge was used for such a short time (200 years) is most difficult. We used our churches much longer, some Italian ones were used for more then 1700 years. Egyptian temples were also used for thousands of years.

I see but two possible reasons: either a foreign occupation by people with a different mentality/religion or a conversion to a new religion. But, I already stated that the monument was build because of a conversion to a new set of gods. So, remains the foreign occupation, in this case probably coming from the east.



< The orientation (entrances) of most British roundhouses was statistically oriented toward the southeast (a Ph.D. thesis by Alistair Oswald).

Most doorways of Bronze Age and early Iron Age roundhouses are orientated to the southeast, the midwinter sunrise (Dec. 22). In their paper "[Architecture and Order: Spatial Representation and Archaeology](#)", Parker Pearson & Michael y Colin Richards tried to demonstrate that the roundhouse orientation was 'ritual'. I hope to have demonstrated otherwise: roundhouses had their entry doors oriented to the southeast for practical, energy saving reasons. Stonehenge reflects that. But I think that it is plausible that the motivation to the British farmers was religious. The chance that they would believe that and apply the orientation was higher than if the real technical reasons had to be explained. <<

(14/07/2015)