Stonehenge

Located on England's Salisbury Plain, 80 miles southwest of London is a massive stone monument featuring the remains of a circle of huge standing stones. Scientists and researchers show that the site has continuously evolved over a period of about 10,000 years. The structure called "Stonehenge" was built between roughly 5,000 and 4,000 years ago and was one part of a larger sacred landscape. It was built in several stages; the first monument was an early henge (prehistoric) monument, built about 5,000 years ago. The unique stone circle was erected in the late Neolithic period about 2500 BC. In the early Bronze age, (2000 BC) many burial mounds were built nearby.

From what scientists can tell, Salisbury Plain was considered to be a sacred area long before Stonehenge itself was constructed. As early as 10,500 year ago, three large pine posts, which were totem poles of sorts, were erected at this sight. Hunting played an important role in the area. Researchers have uncovered roughly 350 animal bones and 12,500 flint tools or fragments, just a mile away from Stonehenge. The find dates from 7500 BC to 4700 BC. The presence of abundant game may have led people to consider the area sacred.

Dozens of burial mounds have been discovered near Stonehenge, indicating that hundreds, if not thousands, of people were buried there in ancient times. At least 17 shrines, some in the shape of a circle, have also been discovered near Stonehenge.
Stonehenge Was Built in Phases

**Phase One:**
Radiocarbon-dating puts this period dated to 2900 BC. Stonehenge was a circular ditch with an internal bank. The circle, 320 feet in diameter, had a single entrance, 56 mysterious holes, called Aubrey holes, around its perimeter containing remains of human cremations. In the middle was a wooden sanctuary. The circle was aligned with the midsummer sunrise, the midwinter sunset, and the most southerly rising and northerly setting of the moon.

**Phase Two:**
In 2500 BC, Stonehenge underwent a renovation. A transportation of volcanic stones called bluestones was organized from the Prescilli Mountains in South Wales. The bluestones replaced the wooden sanctuary and were placed in two circles inside the large circular ditch. There are eighty in number and each weighing as much as four tons. It is unknown how these ancient people were able to move these massive stones from the mountains to the river. The wheel had not been invented yet. A theory is that the ancients built a machine out of huge logs and rope and rolled the stones down to the river.

**Phase Three:**
2400 BC, the bluestones had only been erected for 100 years when they were dug up and repositioned. From an area 18 miles from the Stonehenge site, the transport of thirty massive stones was commenced. These stones, called Sarsen stones, were 16–24 feet tall and weighed over 35 tons. The stones were erected concentrically inside of the original ditch. Atop the Sarsen stones, 30 lintels were connected using a mortise and tenon joinery. The lintels were sculpted into a curve to match the shape of the arc of the circle.
Phase Four:
After the Sarsen Circle was formed, the Trilithon Horseshoe was built. The Trilithon Horseshoe is five sets of stones arranged in a horseshoe shaped pattern. Two erected stones with a lintel top makeup a Trilithon set. These sets vary in height and weight. The largest set of stones is located in the center of the horseshoe, then the sets move out in descending order according to height. The Trilithon stones are the largest and heaviest of all the Stonehenge stones. The largest Trilithon stone weighs 50 tons and is topped with a 10 ton lintel. The bluestones that were originally in the center of the Sarsen Circle were dug up and rearranged to form a circle around the Trilithon Horseshoe. Later more bluestones were added to form an oval inside of the Trilithon Horseshoe.

Phase Five:
Next, four Station stones were erected within the circle of the Aubrey Holes. Ditches surround two of these Station stones. The ditches are called burial barrows, but there is no evidence that burials ever took place. In the northeast section of the monument is a large Slaughter Stone. This is regarded as the entrance to Stonehenge. At this time, a parallel set of ditches was also built. The ditches are called the Avenue. It runs northeast. Along the Avenue, the Heel Stone is located. A ditch similar to the ones surrounding the station Stones surrounds the Heel Stone. Although the Heel Stone is not completely upright, it is thought that it is used to stand fully erect and was one part of a pair. The last notable stone is called the Alter Stone. It is made of sandstone and is located inside the Trilithon Horseshoe.

How long do you think it took to make Stonehenge?
How do you think they made and shaped the stones?
Why do you think they placed the stones in such a patterned circle?
WHAT IS THE ORIGIN OF THE STONES?

Stonehenge’s Sarsens, of which the largest weighs more than 40 tons and rises 24 feet, were likely sourced from quarries 25 miles north of Salsbury Plain and transported with the help of sledges and ropes. They may have already been scattered in the immediate vicinity when the first Neolithic architects first broke ground. The smaller bluestones, on the other hand, have been traced all the way to the Preseli Hills in Wales, some 200 miles away from Stonehenge.

How do you think the prehistoric builders without the sophisticated tools or engineering hauled these boulders, which weigh up to 4 tons, over such a great distance?
Who Built Stonehenge?

There are probably hundreds of myths and legends about Stonehenge. Various people have attributed the building of this great megalith to the Danes, Romans, Saxons, Greeks, Atlanteans, Egyptians, Phoenicians Celt, King Aurelius Ambrosious, Merlin and even Aliens! One of the most popular beliefs was that Stonehenge was built by the Druids. These high priests of the Celts, constructed it for sacrificial ceremonies. But researches have proven this age-old theory impossible. Through modern radio-carbon dating techniques, scientists have discovered that its builders completed Stonehenge over a thousand years before the Celts even inhabited this region. It was found that they did use Stonehenge on occasion as a temple of worship and sacrifice when they did move into the region.

Most scientists agree on the modern theory that three tribes built Stonehenge at three separate times. In 3000 B.C. it is believed the first people to work on the site were Neolithic Agrarians. Archaeologists named them the Windmill Hill people after one of their earthworks on Windmill Hill, which is near Stonehenge. These people were a blend of the local peoples and Neolithic tribe members from Eastern England. They were one of the first semi-nomadic hunting and gathering groups with the agricultural economy. They contained a strong reverence for circles and symmetry. They raised cattle, sheep, goats, pigs and grew wheat and mined flint.

The Beaker people, or Beaker Folk, came from Europe at the end of the Neolithic Period and invaded Salisbury Plain around 2000 B.C. Their name comes from one of their ancient traditions in which they would bury beakers, or pottery drinking cups, with their dead. It is assumed that the Beaker People were more warlike in nature because they buried their dead with more weapons such as daggers and battle axes. They were mathematically sophisticated and it is believed they were sun worshipers who aligned Stonehenge more exactly with certain important sun events, such as midsummer and winter solstices.

Who do you think is responsible for building Stonehenge?
Who Built Stonehenge?

The Wessex Peoples are considered the third and final people to work on the Stonehenge site. They arrived around 1500 B.C. at the height of the Bronze Age. They were by far one of the most advanced cultures outside the Mediterranean during this period. Since their tribal base were located where ridgeways, or ancient roads met, they became skillful and well-organized traders controlling trade routes throughout Southern Britian. These people are thought to have been responsible for the bronze dagger carving found on one of the large Sarsen Stones within Stonehenge. They were a very smart culture, wealthy and used greater precision in their calculations and construction. It is felt they used these talents in finalizing Stonehenge into what we see today.

Most of the one million visitors who visit Stonehenge every year believe they are looking at untouched 4,000 year-old remains. But nearly every stone was re-erected, straightened or embedded in concrete between 1901 and 1964. The first restoration project took place in 1901 when a leaning stone was straightened and set in concrete to prevent it from falling. Further renovations were carried out in the 1920's when six stones were moved and re-erected. In 1958 cranes were used to reposition three more stones and one giant fallen lintel, the cross stone was replaced. Then in 1964 another four stones were repositioned to prevent them from falling. The current appearance of Stonehenge is reminiscent of what the site might have looked like thousands of years ago.

Do you think the scientists should have left the stones where they had fallen?
Do you think they could have put them together wrong?
Theories of Stonehenge?

Wild theories about Stonehenge have persisted since the Middle Ages, with 12th-century myths crediting the wizard Merlin with constructing the site. More recently, UFO believers have spun theories about ancient aliens and spacecraft landing pads. But Stonehenge has inspired a fair number of scientifically reasonable theories as well.

There are five major reasons Stonehenge might exist.

Why do you think Stonehenge was built?  How was Stonehenge used?

1. A place for burial
Stonehenge may have originally been a cemetery for the elite, according to a new study. Bone fragments were first exhumed from Stonehenge site more than a century ago, but archaeologists at the time thought the remains were unimportant and reburied them. Now, British researchers have re-exhumed more than 50,000 cremated bone fragments from where they were discarded, representing 63 separate individuals. The burials at the site were men and women in equal proportions, with some children as well. The burials occurred in about 3000 B.C. and the very stones were brought from Wales at that time to mark the graves. The archaeologists also found a mace head (club head) and a bowl possibly used to burn incense, suggesting the people buried in the graves may have been religious or political elite.

2. A place for healing
Another theory suggests that Stone Age people saw Stonehenge as a place with healing properties. In 2008, archaeologists reported that a large number of skeletons recovered from around Stonehenge showed signs of illness or injury. The archaeologist also reported discovering fragments of the Stonehenge bluestones – the first stones erected at the site – that had been chipped away by ancient people, perhaps to use as talismans for protective or healing purposes.
Who Built Stonehenge?

3. A soundscape
Stonehenge’s circular construction was created to mimic a sound illusion. A researcher in archaeoaoustics states that if two pipers were to play their instruments in a field, a listener would notice a strange effect. In certain spots, the sound waves from the dual pipes would cancel each other out, creating quiet spots. The stones of Stonehenge create a similar effect, except with stones, rather than competing sound waves, blocking sound. The prehistoric circles are traditionally known as "piper stones." Stonehenge had amazing acoustics. The circle would have caused sound reverberations similar to those in a modern-day cathedral or concert hall.

4. A celestial observatory
No matter why it was built, Stonehenge may have been constructed with the sun in mind. One avenue connecting the monument with the nearby River Aven aligns with the sun on the winter solstice. Archaeological evidence reveals that pigs were slaughtered at Stonehenge in December and January, suggesting possible celebrations or rituals at the monument around the winter solstice. The site also faces the summer solstice sunrise, and both summer and winter solstices are still celebrated there today.

5. A gathering place
The beginning of the site's construction coincides with a time of increased unity among Neolithic people of Britian. Perhaps inspired by the natural flow of the landscape, which seems to connect summer solstice sunrise and winter solstice sunset, these ancient people may have banded together to build the monument. Stonehenge was a massive undertaking, requiring the labor of thousands to move stones from as far away as west Wales, shaping them and erecting them. Just the work itself, requiring everyone literally to pull together, would have been an act of unification.

Which theory make the most sense for the reason Stonehenge was created?
Interesting Facts!

Darwin studied worms at Stonehenge!
In 1877, naturalist Charles Darwin traveled to Stonehenge to conduct research on a subject that had long fascinated him: earthworms! During his visit, Darwin, who was interested in the impact that worms had on objects in the soil over time, observed how a fallen stone at the ancient monument had sunk deeper into the ground as a result of the activities of the lowly creatures.

Stonehenge once was put up for auction!
Starting in the middle ages and for centuries afterward, Stonehenge was privately owned. By the last 1800's crowds of visitors had taken a toll on the site. Sir Edmund Antrobus, owner of the land on which Stonehenge is situated, resisted calls from preservationists to sell the property to the British government. In the 1900's, Antrobus's son put up a fence around the monument and charged visitors an admission fee. In 1913, the passing of the Ancient Monuments Consolidation and Amendment Act protected Stonehenge from being demolished. In 1915, the Antrobus family heir was killed during World War I. Stonehenge went up on the auction block where a local resident Cecil Chubb bid on the site. Three years later, Chubb donated Stonehenge to the national government.

Engaging Questions!

1. Why do scientists want to discover the meaning of Stonehenge?
2. Would you travel to Stonehenge the monument?
3. Do you think there are other ancient remains like Stonehenge?
4. How do you think they lifted the 40 ton rocks into place?
5. Who do you think the people were that are buried in Stonehenge?
6. Do you think the people that built Stonehenge were forced to build it, or was it seen as a community goal?