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### Stonehenge: Facts and Theories

In the southern British countryside, surrounded by pastures and fields, stands a circle of massive stones. The megalithic monument, called Stonehenge, is surrounded by mysteries. No one has been able to determine the logistics of how it could have been constructed with the primitive tools available at the time of its creation have baffled people for hundreds of years. Even more mysterious than the construction of the monument is the purpose for which it was built. The stones of Stonehenge have stood in silence for millennia, capturing the minds of scholars and archaeologists for generations.

The construction of Stonehenge began around 5000 years ago, and continued for hundreds of years, possibly until 1600 BCE. It began with the creation of a circular ditch, then a pattern of large timber posts.<sup>1</sup> The first stones added at the site were 80 dolerite stones, referred to as bluestones. These stones were rearranged multiple times over the years. They now lie on the inside of the circle of Stonehenge. The outside of the circle

was later formed by massive sandstone blocks. These blocks, arranged in a post-and-lintel fashion around the monument, form Stonehenge's iconic shape.

The creation of Stonehenge was certainly a monumental effort. In contrast to many large monuments and structures of ancient history, such as the Pyramids of Egypt, its construction was unlikely to have involved slave labor. Instead, it was seen as something to be constructed and used by many. The work done to construct the monument was estimated to be around 1,500,000 man-days, not counting the work involved in planning the work or other administrative tasks.<sup>2</sup> This estimation was done by the archaeologist Gerald Hawkins, who also developed the theory of Stonehenge as an astronomical observatory. The engineering of the structure, though seemingly primitive today, was very sophisticated at the time. Hawkins also compares the effort placed by the British people in the construction of Stonehenge to the effort placed in the U.S. Space program of the 1980s. He asserts that the monument was in fact more laborious and meaningful to the people at the time than the U.S. Space program was.

The sandstone blocks of Stonehenge's outer circle were quarried about 19 miles away from the site and transported to Salisbury Plain, where Stonehenge was built. They each weigh

around 25 tons, though their weights vary up to a weight of 40 tons. The stones range in height from 20 to 24 feet. These sandstone blocks are also referred to as sarsens, a term which is not only used for the blocks at Stonehenge but also other sandstone blocks used in megalithic monuments. The smaller bluestones create a large portion of the mystery surrounding the monument. The stones were not from the much closer quarry which sourced the sarsens, but rather from near Wales, around 200 miles away. Even these smaller stones weigh up to 4 tons, which is why their use continues to perplex researchers.<sup>3</sup>

Many theories have emerged about the transportation of the stones at Stonehenge. The sarsens are more easily explained. They were most likely simply moved with the help of ropes, sledges, and manual labor. The bluestones are the more mysterious ones. The primitive tools and engineering of the Neolithic period seem incapable of the huge feat of moving these massive stones for such long distances. Many theories have been created on how the stones were moved.

The first ideas on Stonehenge's construction were rooted in legends and magical powers. The transportation and placement of the stones was first attributed to the legendary wizard Merlin in 1135 by Geoffrey of Monmouth. According to Geoffrey, Merlin was commanded by the king at the time to construct a war

monument. Merlin had the idea to use massive stones, which he sourced from a monument in Ireland called the Giant's Ring. The Giant's Ring was thought to have healing properties. Using magic, he was said to have relocated and re-erected the Giant's Ring to Salisbury plane for the monument.<sup>4</sup> This theory, though it is of course no longer regarded as possible, was the accepted one for some time. It changed over time, but the basic involvement of Merlin and his magic remained the popular theory until around the 1600s, when scholarly research into the monument began once more.

More modern theories on Stonehenge's construction and the transportation of its blocks tend to be more realistic, if less colorful. Modern theories on the movement of the bluestones may or may not involve human labor in moving the stones. Theories that include human labor focus on the mechanisms used to move the bluestones. One such popular theory is that sledges were rolled on tree trunks to move the stones to the Avon River, upon which they were then floated to Salisbury Plain.<sup>5</sup> Another theory states that aurochs, a now extinct type relative of oxen, were used to pull the stones. These aurochs may have reduced the human labor necessary to construct Stonehenge.<sup>6</sup>

A newer, very plausible theory on the movement of the bluestones further removes human involvement. This theory

asserts that the bluestones were not moved by humans at all, but instead by glaciation, which is the process of glaciers advancing and covering ground. It is possible that glaciation which occurred during the Pliocene Epoch's<sup>7</sup> ice ages was responsible for the relocation of the bluestones from Wales to Salisbury Plain, a rather short distance geologically. The bluestones were possibly deposited just a few miles from the site where Stonehenge was placed.<sup>8</sup> These stones could then have been moved with relative ease by techniques similar to those used for the sarsens.

The purpose of Stonehenge has continually mystified researchers. Many theories have been developed to attempt to explain the enigmatic structure. The first modern theory on Stonehenge supposed that it served as a temple where ancient druids worshipped. This theory was created with a comparison of the site to Greek and Roman temples. However, the scholars who developed it were not aware that Stonehenge was created long before Romans arrived in Britain.<sup>9</sup>

Later, it was hypothesized by astronomer and archaeologist Gerald Hawkins that the circle acted as an astronomical calendar. The stones are arranged in such a way that they have points corresponding to various astronomical events. This theory has become popular but is not wholly accepted due to the

probability that the builders of Stonehenge did not have the advanced knowledge necessary to predict astronomical phenomena.<sup>10</sup>

A popular and much newer hypothesis on the purpose of Stonehenge is that it was intended as a site for healing. This hypothesis, developed by Tim Darvill, states that the monument was used as a hospital of sorts. This theory starts with the writings of Geoffery of Monmouth, who said that the bluestones had healing properties. This belief may have been what prompted the transport and placement of said stones. The theory is further supported by the association of dolerite with healing during the Medieval period. Finally, remains unearthed from burial sites near Stonehenge often exhibit signs of illness or injuries.<sup>11</sup> For example, one had a knee infection and others had underwent trepanation, a now obsolete practice of drilling holes into the skulls of those affected by health issues. These pieces of evidence make a strong case for the healing hypothesis.

Stonehenge will likely never be fully explained by historians. The monument is surrounded by mysteries, and many theories are only able to answer some of the questions about the site. No matter how uncertain the origins or purpose of Stonehenge remain, however, it will always be an iconic monument to the achievements of civilizations past.

Endnotes

1. These timber posts were likely used as part of the planning process and were later removed. Owens.
2. Hawkins includes a breakdown of how many days were needed for specific tasks in his book. The tasks which used the most days were transporting the sarsens and bluestones. Hawkins 73.
3. History.com.
4. Balfour 12.
5. Other theories involve ideas such as massive wicker baskets or the use of ball bearings and planks. The wheel was not in use in Britain at this time. History.com.
6. Schroeder 69.
7. The Pliocene Epoch was a period of global cooling that occurred 5.3 million to 2.6 million years ago. The Editors of Encyclopaedia Britannica.
8. Burl 19.
9. Pearson.
10. History.com.
11. Pearson.