Bones found at Stonehenge belonged to people from Wales

Tests show 5,000-year-old remains found at the world heritage site came from more than 100 miles away in west Wales

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The bones of people buried at Stonehenge, who died and were cremated about 5,000 years ago, have given up their secrets: like the bluestones, which form part of the famous prehistoric monument, they came from west Wales, near the Preseli Hills where the stones were quarried.

The remains of at least 10 of 25 individuals, whose brittle charred bones were buried at the monument, showed that they did not spend their lives on the Wessex chalk downland, but came from more than 100 miles away. Examination of the remains showed they were consistent with a region that includes west Wales, the most likely origin of at least some of these people.

Although the team, led by scientists from the University of Oxford with colleagues in Paris and Brussels, cannot prove that the remains are of people who actually built the monument, the earliest cremation dates are described as “tantalisingly” close to the date when the bluestones were brought into the earlier ditch and bank monument to form the first stone
More attention has been paid to how and when Stonehenge was built – from the earliest earth works and totem pole-like timber posts to the final creation of the famous silhouette of the post and lintel circle of the gigantic sarsen stones – than to the people who built it. This is partly due to the difficulty in extracting evidence from the early human remains.

The new discovery, published in the journal Nature Scientific Reports, is the result of success in extracting strontium isotopes - which can reveal where the individuals spent the last years of their lives - from cremated bone, something which had until recently been thought impossible.

Christophe Snoeck, who led the team while studying for his doctorate at Oxford, revealed the experiments followed a test pyre built in a college backyard using a pig foot and a pig shoulder begged from a local butcher. The tests on the late Neolithic bones followed, and the results bore out Snoeck's conviction that although so much was destroyed or altered by cremation, including the tooth enamel usually used for isotope tests, the heat of a pyre that could reach 1000°C could also crystallise the bone, sealing in the isotopes.

"As a chemical engineer in love with archaeology, this looked like the perfect challenge," Snoeck told the Guardian, speaking from a conference in Chile. "Cremation indeed destroys all organic matter including DNA, but the inorganic matter survives."

"Clearly when it comes to light chemical elements such as carbon and oxygen these are heavily altered, but for heavier elements such as strontium - about seven times heavier than carbon - no alteration was observed. On the contrary, thanks to the high temperatures reached, the structure of the bone is modified, making the bone resistant to post-mortem exchanges with the burial soil."

It was known that Stonehenge was used as an early cremation cemetery, but not who was buried there. The tests were all on tiny pieces of skulls which were buried in the "Aubrey holes" (named for the 17th-century naturalist John Aubrey who first spotted them), a circle of 56 pits outside the stone circle now showing only as marks in the turf. It used to be thought that the pits held timber posts, but recent excavations have found bluestone chips suggesting they may have held the first circle of the bluestones which were then repeatedly...
rearranged for centuries.

The bones were excavated in the 1920s by Colonel William Hawley, who re-identified the Aubrey holes, but to the chagrin of generations of later scientists he reburied them in one of the pits instead of depositing them in a museum. They were re-excavated in 2008.

The earliest bones have been dated to about 3000 BC, and then cover a range of around 500 years. John Pouncett, a lead author of the study, said: “The earliest dates are tantalisingly close to the date we believe the bluestones arrived, and though we cannot prove they are the bones of the people who brought them, there must at least be a relationship. The range of dates raises the possibility that for centuries people could have been brought to Stonehenge for burial with the stones.”

The revelation sheds new light on the people who built Stonehenge and regarded it as a special place in its earliest centuries. The huge sarsen stones were comparatively easy to deliver to Stonehenge, merely having to be dragged 20 miles across Salisbury plain. It’s known that the bluestones came from Preseli, but arguments have raged over how. Were they dragged overland, shipped around the coast, swept east by glaciers, or flown by Merlin the magician as the medieval historian Geoffrey of Monmouth insisted?

The glacier theory was abandoned when the actual quarry sites were discovered in 2015, complete with traces of the stonemasons’ cooking fires. However, the discovery added a further mystery to the already layered history of Stonehenge: the stones were quarried centuries before they arrived at Stonehenge, leading some to believe that they originally formed a monument in Wales which was then moved more than 100 miles east, with stupendous effort and for unguessable reasons.

The new discovery would have brought joy to the heart of Prof Geoffrey Wainwright, former chief archaeologist of English Heritage and a passionately patriotic Welshman, who died last year after a lifetime trying to prove that his countrymen created the monument as well as providing the stones.

In 2008 he and Prof Tim Darvill made worldwide headlines when they announced their conviction that the bluestones – spotted dolerite, blue and sparkling with quartz stars when freshly quarried – were regarded by some to this day as having healing powers and that Stonehenge therefore functioned as “the Lourdes of prehistoric Europe”.

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