

'Oldest human brain' unearthed at Heslington East

By Holly Hyde

Saturday 13 December 2008

Global interest has been raised amongst the scientific and archaeological community after the discovery of what is believed to be Britain's oldest human brain at the Heslington East development site.

The Vice-Chancellor Brian Cantor described the finding as a "stunning discovery" and went on to comment, "its further study will provide us with incomparable insights into life in the Iron Age."

The brain was found within a skull that is believed to be at least 2,000 years old, and was unearthed at the university's Heslington East site during exploratory excavations. The university commissioned York Archaeological Trust to carry out the dig on the £500 million site consisting of prehistoric fields, trackways and buildings that are known to date back to 300BC.

Rachel Cubitt of the trust discovered the skull in a muddy pit. Upon cleaning its outer surface, Cubitt was surprised to discover a "yellow substance" which, she comments, "jogged my memory of a university lecture on the rare survival of ancient brain tissue... we gave the skull special conservation treatment as a result and sought expert medical opinion"

CT Scans performed at York Hospital have shown the substance to be brain-shaped with patterns and folds closely resembling a modern organ although it is approximately one-third of the size of a normal brain.

Phillip Duffey, consultant neurologist at the hospital said, "I'm amazed and excited that scanning has shown structures which appear to be unequivocally of brain origin." The mystery lies as to how brain tissue, which usually decays rapidly after death, could have been so well preserved and for such a long period of time.

"It will be very important to establish how these structures have survived, whether there are traces of biological material within them and, if not, what is their composition" Duffey added.

Dr Sonia O'Connor, Research Fellow in Archaeological Sciences at the University of Bradford added, "The survival of brain remains where no other soft tissues are preserved is extremely rare. This brain is particularly exciting because it is very well preserved, even though it is the oldest recorded find of this type in the UK, and one of the earliest worldwide."

In terms of identifying the skull Dr Richard Hall, director of archaeology at the York Archaeological Trust, said, 'From the size, it was probably an adult but we can't say whether it was a man or woman.' The skull was discovered alone bar a few vertebrae. No other remains from the skeleton have been found which suggests that the body was a victim of decapitation or that the head was removed soon after death. This has led experts to believe that it may have been part of a ritual offering enacted to appease gods or to ward off evil spirits.

This find follows a similar discovery at the Heslington East site where a team from the university's Department of Archaeology unearthed the skeleton of a man, thought to be one of Britain's earliest tuberculosis sufferers. The human remains were found in a shallow grave on the development site. Radiocarbon dating, suggested that skeleton originated from the fourth century, late-Roman period.

It is hoped that Radio carbon dating tests, to be performed next year, will help to accurately pinpoint the skull's age. Further testing using chemical analysis should reveal why it has survived so well.



4 comments

Laura Vitty

14 Dec '08 at 1:57 am

Can we get Tony Robinson? That would be awesome...

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Chris Northwood

14 Dec '08 at 2:24 am

Well it's causing quite a bit of interest, so maybe your wish will be granted Laura :P

It's even appeared on the front page of Slashdot, although they got both the name of the University and the expansion wrong claiming it was found on "Heslington Eastin". All the Slashdot comments did revolve around zombies though...

[Report](#)

Anon

14 Dec '08 at 3:46 pm

"CT Scans performed at York Hospital have shown the substance to be brain-shaped with patterns and folds closely resembling a modern organ"

Wow, we evolved from people with pianos in their heads :P

And yeah, this is awesome. If we have had two massive historical discoveries in a few months we could well get Time Team :P

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Rob

14 Dec '08 at 5:26 pm

Could this be the one George W. Bush has been looking for?

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