

Archaeologists Crack Puzzle of Strange Skeleton With Bones From Seven Different People

Skeleton found in Belgium was assembled with 5,000-year-old Neolithic bones and a Roman-era skull, researchers find. Why was this done?

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Halloween may have come and gone, but archaeologists are keeping up that spooky spirit. They have discovered that a strange skeleton found in a Roman-period cemetery was in fact artificially composed by arranging the bones of at least seven different people.

Even more bizarrely, only the skull of this composite skeleton hails from Roman times. Most of the bones go back to Neolithic times, more than 5,000 years ago, the international team of archaeologists and geneticist reported in the journal [Antiquity](#) last month.

Researchers are still scratching their own skulls over who and why created this anatomically correct patchwork of human remains, although you can bet your Scooby snacks that they have some theories.

This strange tale begins in the 1970s, when archaeologists in Pommeroeul, near Belgium's border with France, excavated the cemetery of an adjacent Gallo-Roman settlement from the second-third century C.E. All the 77 burials unearthed contained cremated remains, except for one, which the archaeologists dubbed "Grave 26."

Grave 26 presented them with a buried skeleton of what looked like an individual lying on its right side with flexed legs. Paltry grave goods accompanied the skeleton, including a Roman bone pin, and three badger bones.

The find was puzzling because, as evidenced by the rest of the cemetery, cremation was the preferred mode of burial in the Roman period. Even when inhumation was used, bodies were generally entombed lying on their backs, not crouching on their side, a position more common in Late Neolithic and Bronze Age burials across Europe.

But the cemetery was clearly Roman, as was the bone pin found with the single skeleton, so the burial was associated with this period, and the remains from Grave 26 were boxed up and largely forgotten.

Fast forward a few decades, when Barbara Veselka, a professor of archaeological science at Vrije Universiteit Brussel, was participating in a study of cremated remains found at sites across Belgium.

"My boss said 'it's a skeleton, it's not cremated, so we are not going to analyze it'," Veselka recalls. "But we are still interested in knowing why some people in Roman times were inhumated and not cremated, so I said 'let's take a look at it'."

Seven big toes

Soon she realized the remains couldn't belong to a single individual, since the skeleton had multiple copies of the same

bones. For example, there were five adult right first metatarsals (the bone behind the right big toe) and two first proximal foot phalanges (the first bone in the toe) from two different children, suggesting that remains from at least seven individuals had been used to construct the skeleton, Veselka and colleagues report.

Then the radiocarbon dates came in, showing that the bones from Grave 26 were not only from a mix of people, but from a jumble of periods: most ranged wildly across the European Neolithic, with the oldest going back to around 3300 B.C.E. and the youngest to 2700 B.C.E. Even the badger was not a single animal, as the three bones ranged in date from the Mesolithic to the Late Neolithic. Only the human cranium could be linked to Roman times.

"We realized something else was going on here," Veselka tells Haaretz in a phone interview.

Composite burials, that is, bones taken from different individuals and assembled to create the impression of a single skeleton, are rare but not unheard of. A few were found at [Bronze Age sites in Scotland](#) and at least one [composite mummy](#) was buried at a Roman-era cemetery in Egypt.

But whatever ritual purposes these patchwork skeletons served, the Pommeroeul case stands out for its weird composition and its sheer chronological span of thousands of years. Who made it? Why? Was it created in one go or were different parts added at different times? Where did the bones come from? Where are the rest of the skeletons whose bones were harvested to create the individual in Grave 26?

To shed some light on these questions, the researchers successfully extracted ancient DNA from the Neolithic bones and the Roman skull.

"I was skeptical of the story at first," says Prof. David Reich a geneticist at Harvard University and one of the world's top experts in the study of ancient DNA. "It was such a surprising claim."

But indeed, Reich's team managed to reconstruct the genome of at least five individuals whose bones contributed to the skeleton in Grave 26. Given that DNA is pretty fragile, the number doesn't contradict the finding of at least seven individuals from the anatomical examination – it simply means that only some of the small samples taken from the remains returned enough high quality genetic material.

The bones displayed a mix of hunter-gatherer and early farmer ancestry that is typical for the Low Countries in the Neolithic period. Similarly, the skull, which belonged to a female, had a genome that linked this individual to the rest of the Gallic population in Roman times, Reich says.

In fact, by comparing this woman's DNA to a genetic database of previously sampled ancient remains, the researchers were able to virtually reunite her with her family. They found that two siblings, both children, who were buried at a second-third century C.E. cemetery at Tongeren, some 150 kilometers east of Pommeroeul, were genetic cousins (we don't know exactly to what degree) of the skull from Grave 26.

As for the Neolithic bones, the researchers compared the genomes and found that these individuals were not even remotely related to each other. Keep that in mind because it may offer an explanation as to why this weird skeleton was assembled.

A Roman add-on

So far, the researchers have come up with two possible scenarios for how the skeleton in Grave 26 came to be, Reich and Veselka

say. The first is that it was initially put together in the Neolithic, some time after 2,700 B.C.E. (the age of the youngest bones from that era).

Possibly, when the Gallo-Romans of Pommeroeul dug their cemetery they accidentally uncovered the grave. Perhaps there was no skull in the original skeleton or perhaps the skull was destroyed when the tomb was reopened. Whatever the case, the Gallo-Romans added the female skull and the bone pin, and closed up the whole thing. This may have been done out of respect for something that may have been interpreted as an ancestral grave, or out of fear that the deceased whose eternal rest had been disturbed might come back to haunt the living, Veselka speculates.

We may even have a clue as to where the rest of the Roman-era skeleton might be, she adds. The adjacent burial, Grave 25, contains the cremated remains of an individual, but no skull fragments were found amongst the ashes, as was the case for most of the other burials at Pommeroeul. The weight of this cremation deposit was also lower than average, suggesting that perhaps not all the remains were burned. And finally, this tomb contained Neolithic flint artifacts, possibly pointing at an exchange of grave goods with Grave 26, where the Roman bone pin was found.

We cannot rule out a second scenario, that for whatever reason someone in Roman times collected the Neolithic bones (and let's not forget the prehistoric badger) and set up the entire installation themselves, Reich says. However, this seems very unlikely because how would the Gallo-Romans know they had collected Neolithic bones and then correctly position the skeleton on its side, following burial practices from thousands of years earlier?

So the most likely case is that the skeleton was constructed in the Neolithic and the skull was added in Roman times.

Even without its composite nature, this is a strange burial for the Neolithic, Veselka says. While there are some single inhumations from the period, most burials were conducted in caves, where older bones would get jumbled up with later remains.

Furthermore, there is no known settlement from the era nearby, and the closest Neolithic burials are at least 20 kilometers away, she says.

The bones were likely brought from a different place, or possibly multiple locations, to create this isolated composite skeleton, she says. The initial removal of the bones must have happened some time after death, because there are no signs of cutting or butchering on the bones, indicating they were taken from their original burials after the flesh had decomposed.

Firstly, we can marvel at the anatomical knowledge of prehistoric people that allowed them to reconstruct a human skeleton that initially fooled even modern researchers into thinking they were looking at an actual individual.

"They might have had more knowledge [of anatomy] than a random person today," Veselka says. "That may have to do with the fact that back then death was seen more as a normal part of life and people were more exposed to dead bodies, while modern societies tend to remove death, we are less exposed to it. We have a lost the connection to death."

Manipulating dead bodies for ritual purposes was common in the Neolithic. Perhaps most famous is the phenomenon of "[plastered skulls](#)" found across the Levant, in which skulls were exhumed and decorated with plaster, possibly to represent deceased ancestors.

But that still leaves open the question of why the skeleton of Grave 26 was put together.

Fake grandma

The fact that the DNA analysis showed that the Neolithic individuals whose bones were used for the skeleton had no close common ancestor suggests that this was an effort that involved two or more different groups or tribes. Grave 26 may have been a symbolic ritual to cement some kind of unification or alliance among these people, Veselka hypothesizes.

"There is a sense of bringing people together," she says. "Why else would you combine body parts other than for joining something, especially since they were not kin, they did not share a bloodline? It may have been a way of uniting different individuals or tribes to form a sort of union."

Researchers have previously shown that that in the Neolithic, which marked the beginning of farming and permanent settlement, societies across the world increasingly worshipped their ancestors. This may have helped cement a common identity that sustained larger groups as well as strengthened claims of ownership over coveted agricultural lands.

So if Veselka's hunch about Grave 26 is correct, the composite skeleton may have been created to represent an imaginary common ancestor for two or more groups that didn't have one.

"How do you unite people? By making a common ancestor, establishing an artificial bloodline," she says. "It's similar to what we do today when we have really close family friends and we call them 'aunt' or 'uncle.' They are not really part of the family but they get adopted into it."

If this interpretation is correct, the Pommeroeul skeleton offers unique insight into the social interactions and spiritual beliefs of

prehistoric populations, Veselka says.

"The common knowledge was that 'Neolithic people did weird stuff with their dead,' but now that behavior becomes a bit clearer: perhaps it was about using the dead to establish social relationships," she concludes. "Uniting seven or more households not genetically connected is a strong indicator of how they built social relationships and that's something we didn't know about before."

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