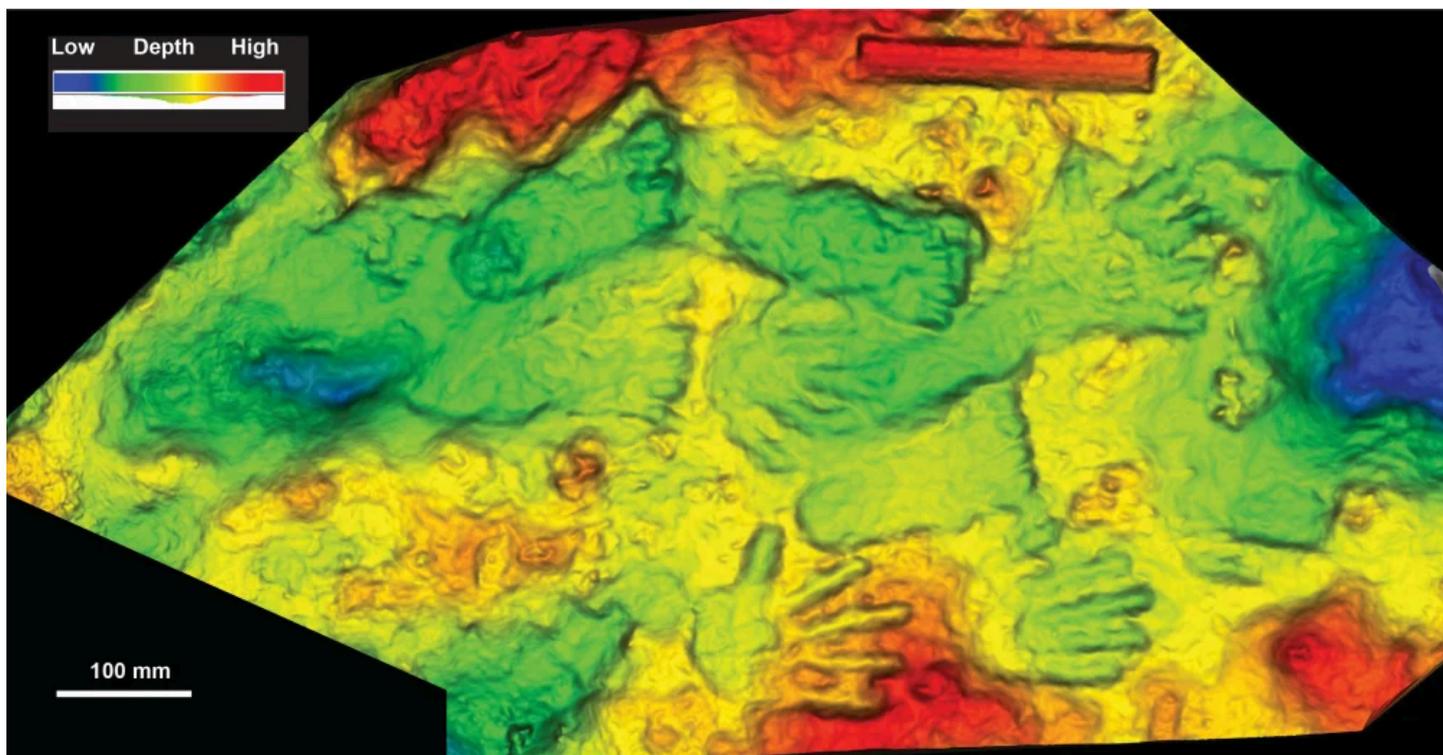


SCIENCE NEWS

## Art or not? Ancient handprints spark debate

A new study of handprints found in Tibet theorizes that they could be the earliest work of art ever found. Some experts are skeptical.



— Researchers think these hand and footprints were made deliberately by two children on soft limestone deposited around hot springs between 169,000 and 226,000 years ago. [Cornell University](#)

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**By Tom Metcalfe**

Impressions of hands and feet that appear to have been made by two children about 200,000 years ago may be the earliest work of human art, according to an international team of geologists and archaeologists.

Some other scientists are skeptical that the prints were made deliberately, or even that they are as old as the analysis suggests. But if they are works of art – even art made in play – then they are more than 100,000 years older than the earliest-known cave paintings.

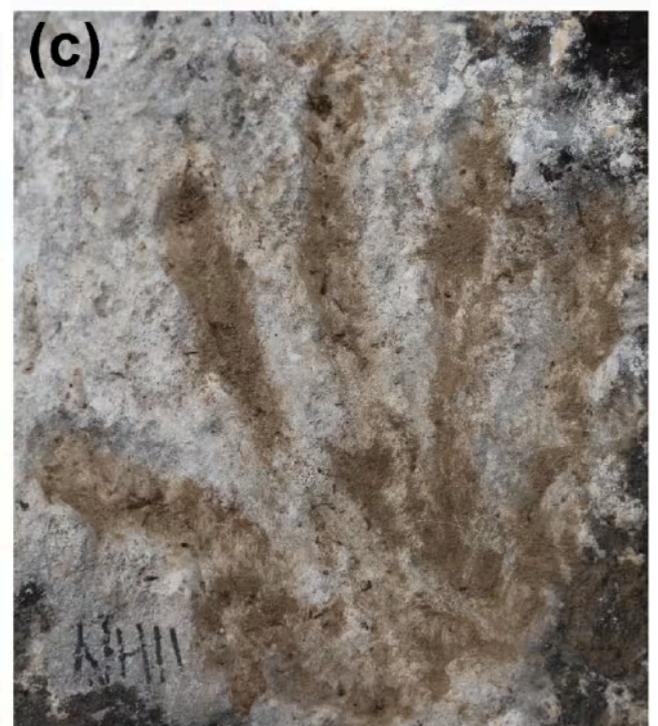
“The arrangement of the prints defies any practical explanation, such as walking, or any accidental explanation, such as falling,” said Cornell University archaeologist Thomas Urban, a co-author of a [study](#) published online Friday in the journal *Science Bulletin*. “They appear to have been carefully arranged, implying a deliberate choice was made in placing them this way.”

The ancient prints were found on a boulder near the village of Quesang in Tibet, about 50 miles northwest of the capital, Lhasa, beside a hot spring that is still used to fill a bathhouse.

Analysis suggests they were pressed into soft limestone called travertine that was deposited around the hot spring 169,000 to 226,000 years ago.

Urban said he thinks they were made on purpose.

“The prints would not be simply byproducts of some other activity such as jumping or running,” he said in an email. “They are a primary product – the printmaker was making the prints intentionally.”



— The researchers think the handprints and footprints were made deliberately by two children, one aged about seven years and one aged about 12 years. Zhang et al / Science Bulletin

The researchers have conducted a rigorous analysis of the handprints and footprints, including an estimate of the age of the rock they were impressed into by measuring the levels of uranium isotopes it contained.

The size of the prints indicates they were made by two children, one about 7 years old and the other about 12.

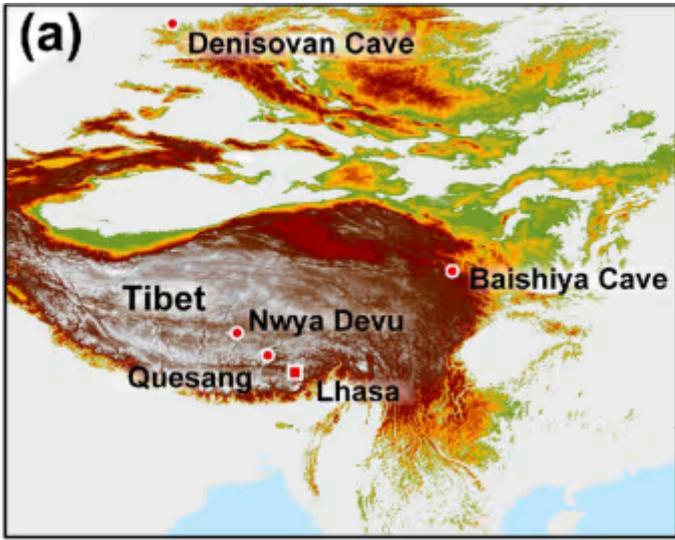
That dating suggests they would have belonged to the genus Homo, which includes our own species Homo sapiens. But it's likely they would have been the earlier human species of [Neanderthals](#) – Homo neanderthalensis – or the related group [Denisovans](#) – provisionally categorized as Homo denisova.

Urban noted recent genetic studies showed Denisovans had been living on the Tibetan plateau for a long time, but the hand and footprints from Quesang – whether deliberate or not – are the earliest evidence found there of any species of Homo.

They are also some of the earliest handprints found anywhere in the world, although some known footprints are older.

“Hand prints are relatively rare because there is simply less opportunity to leave behind a handprint during routine activities,” he said. “Human hand stencils do appear as cave art at many locations, but not nearly as early as this site.”

The [earliest cave paintings](#) date from about 64,800 years ago, and scientists recently announced the discovery of a [carved deer bone from 51,000 years ago](#) that appears to be the oldest mobile work of art.





— The limestone boulder at Quesang is now hard, but the researchers say it would have formed a soft layer deposited from the waters of the hot spring when the prints were made.

Zhang et al / Science Bulletin

The motif of the human hand links the prints at Quesang with later cave paintings.

“I do see a connection, at least in the capacity for artistic behavior,” Urban said. “The hand is so important to being human – it allowed our ancestors to make the practical tools to survive, but also to eventually make the earliest visual art. We still rely on it in the age of email and texting.”

The fact that the handprints appear to have been made by children is also a feature of some early prehistoric art.

“Children are generally more open to playful expression, imagination and seeing the world in different ways,” he said. “Perhaps it is in childhood that we see the roots of artistic behavior, unencumbered by rigid understandings of the world.”

Some other scientists are skeptical that the prints at Quesang are artistic in intent.

Eduardo Mayoral, a Paleontologist at the University of Huelva In Spain, who has [studied Neanderthal footprints](#) but who was not involved in the latest research, said the analysis of the prints on the rock appeared to be correct, but he was not convinced that they were artistic.

“I find it difficult to think that there is an ‘intentionality’ in this design,” he said in an email. “And I don’t think there are scientific criteria to prove it – it is a question of faith, and of wanting to see things in one way or another.”

Michael Petraglia, an archaeologist and anthropologist at the Max Planck Institute for the Science of Human History in Jena, Germany, added that there may not be enough evidence to know for sure that the handprints were made as art, or that they are as old as the limestone boulder itself.

“This is a very big claim,” said Petraglia, who was not involved in the study. “And with such a gigantic claim the amount of evidence you would need to put together would be rather great in terms of scientific work.”

Petraglia, who has studied [human footprints in Arabia](#), said that photographs of the boulder in Quesang seem to show that the handprints and footprints are discolored, which might

suggest they had been tampered with. He also said the prints may have been incised in the rock after it originally formed.

“I would say the jury is still out on the relationship between the prints and the dates,” he said.

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Tom Metcalfe

Tom Metcalfe writes about science and space for NBC News.

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