



AS IT IS

## Volcanic Explosion Turns Brain into Glass

January 24, 2020

Italian scientists reported this week that a volcanic explosion not only killed one person, but turned the victim's brain material into glass.

This is the first time that scientists have found that a volcanic eruption produced such an effect.

Officials at the Herculaneum archaeology dig reported the finding in *The New England Journal of Medicine*.

Mount Vesuvius erupted almost 2,000 years ago, in the year 79. The eruption killed people in the nearby cities of Pompeii and Herculaneum.

The remains of a man lying on a wooden **bed** were discovered in Herculaneum in the 1960s. He is believed to have been the custodian, or caretaker, of a place of **worship** - the Collegium Augustalium at Herculaneum.

A report describing the discovery noted that archaeologists rarely find brain tissue in ancient human remains. When they do, the tissue is usually smooth.

A team led by Pier Paolo Petrone examined the man's remains. Petrone is with the Federico II University in Naples. He and his team discovered that the victim's brain matter had been vitrified. Vitrification is a process by which tissue is burned at a high heat and turned into glass.

A study of burned wood found near the remains suggested that the heat reached temperatures as high as 520 degrees Celsius. A sudden drop in temperatures followed the burst of extreme heat, which vitrified the brain material, the report said.

The resulting mass found in the victim's chest bones is also **unique** among other archaeological sites.

The report said the finding could be compared with victims of more recent historic events like the firebombing of the German cities Dresden and Hamburg in World War II.

I'm John Russell.

*The Associated Press reported on this story. John Russell adapted it for VOA Learning English. George Grow was the editor.*

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## Words in This Story

**bed** – *n.* something on which to lie or sleep on

**worship** – *n.* the act of honoring God or a being with supernatural powers

**unique** – *adj.* different from everyone and everything else

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