

# Preserved Neurons Discovered In The Remains Of A Pompeii Eruption Victim

By Lisa Brewster



Italian scientists have been able to locate perfectly conserved neurons in the vitrified brain of the remains of a victim of the Vesuvius eruption that in 79 AD. C. buried the cities of Herculaneum and Pompeii.

The study carried out by researchers from the University of Naples Federico II, CEINGE-Advanced Biotechnology, the Roma Tre University of Rome, the State of Milan and the National Research Council (CNR) was published in the scientific journal PLOS ONE.

“The discovery of brain tissue in ancient human remains is an unusual event, but what is extremely rare is the comprehensive preservation of neural structures from a central nervous system for 2,000 years, in our case with an unprecedented resolution,” explains forensic anthropologist Pier Paolo Petrone, who has directed the project, in a note.

The eruption, which caused the devastation of the Vesuvius area and the death of thousands of inhabitants, has allowed the conservation of biological remains, including humans.

The find in the archaeological area of Herculaneum has been possible “thanks to the conversion of human tissue into glass”, which gives “clear indications of the rapid cooling of the hot volcanic ash that hit the city in the early stages of the eruption,” they explain.

The results of our study show that the unique vitrification process induced by the eruption “froze the cellular structures of the central nervous system of this victim, keeping them intact to this day”, agrega Petrone.

The study also analyzed data on some proteins already identified by researchers in a paper published last January by the New England Journal of Medicine.

“An important aspect could refer to gene expression that encode proteins isolated from vitrified human brain tissue “, explains Giuseppe Castaldo, Principal Investigator at CEINGE and Professor of Technical Sciences of Laboratory Medicine at Federico II.

The investigation of the remains of the victims of the eruption does not stop there, since from the Archaeological Park, they explain that this finding is not only important in the scientific field “but also in the field of historical studies and strengthening the capacity to manage disasters such as the Vesuvius eruption “.

The ongoing investigation goes into the direction of a rebuild back to the different phases of the eruption, evaluating the times of exposure to high temperatures and the cooling of the flows, which are important not only for archeology and bioanthropology, but also for volcanic risk, they say.

<https://tv6.news/preserved-neurons-discovered-in-the-remains-of-a-pompeii-eruption-victim/>

The screenshot shows a news article on the TV6 website. The article title is "Preserved Neurons Discovered In The Remains Of A Pompeii Eruption Victim". The main image is a photograph of an ancient Roman interior with frescoes. The article text discusses the discovery of perfectly conserved neurons in a vitrified brain from a Pompeii victim. It mentions that the study was published in the journal PLOS ONE and was conducted by researchers from the University of Naples Federico II, CEINGE, and the National Research Council (CNR). The article highlights the significance of the discovery, noting that it is an unusual event to find such well-preserved neural structures after 2,000 years. It also mentions that the study provides insights into the volcanic eruption and the preservation of biological remains.