



People and animals, who became victims of Vesuvius in 79 AD, were buried in hot volcanic ash.

As the ash hardened—volcanic ash does not dissolve in water—it molded itself to those who had died. As bodies deteriorated, they left a cavity inside the hardened ash.

When Professor Giuseppe Fiorelli became involved with archeological excavations in Pompeii, he wanted to learn more about the people and animals who had been inside the hardened cavities. He developed a method to reveal the actual victims by pouring Plaster of Paris into the open spaces of the hardened ash.

The plaster replicas tell us about the final moments of Vesuvius' 79-AD victims. This image depicts one of the men of Pompeii who died in the disaster.

How did the people die? Were they suffocated by volcanic ash? That is what scientists previously thought.

However ... a peer-reviewed study by a group of Italian scientists, led by Volcanologist Giuseppe Mastrolorenzo (from the Italian National Institute for Geophysics and Volcanology), was released in October of 2010. It has come to a different conclusion.

Perpaolo Petrone—an anthropologist at the University of Naples who was involved with the study—announced his team's findings which were published in various journals, including the October 29, 2010 issue of "The Signature" ([at page 6](#)). Among other things, Petrone tells us that Pompeii's victims likely died from thermal shock:

Contrary to what was thought up until now, the victims didn't suffer a prolonged agony from suffocation, but rather died instantaneously from the exposure to high temperatures. Our findings reveal that neither asphyxia nor impact force, but heat, caused the deaths.

How did members of Professor Petrone's team reach their conclusions? They studied the "eruption products and victims" in great detail:

Field and laboratory study of the eruption products and victims indicate that heat was the main cause of death of people, previously supposed to have died by ash suffocation. Our results show that exposure to at least 250C [482F] hot surges at a distance of 10 kilometres from the vent [of the volcano] was sufficient to cause instant death, even if people were sheltered within buildings.

Then ... there is the position of the bodies. They seem "frozen in suspended actions," the study notes, with curled toes and terror-filled faces.

The scientists who worked with Professors Mastrolorenzo and Petrone also concluded that people and animals in Pompeii may have been exposed to temperatures reaching 1112 F (600 C). If that is true, the victims would likely have died within seconds of exposure to such incredible heat. As Mastrolorenzo states:

When the pyroclastic surge hit Pompeii, there was no time to suffocate. The contorted postures are not the effects of a long agony, but of the cadaveric spasm, a consequence of heat shock on corpses.

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