LEFT The skeletons were removed and analysed before plaster casts were created of the voids
BELOW Plaster casts of the two individuals revealed that they were lying on their backs, having been killed by the second pyroclastic flow from Vesuvius

Victims of Vesuvius

The remains of two individuals who died during the eruption of Vesuvius have been found at a suburban villa near Pompeii.

The large villa is located in Civita Giuliana, a suburb 700m north-west of Pompeii's city walls, where excavations in 2017 uncovered several service areas belonging to the villa, including the remains of three harnessed horses in the stables (CWA 90). The most recent excavations in the residential part of the villa began in January 2020 and have recently discovered two human skeletons near a cryptoporticus (a covered passageway).

The individuals were found in a side room off the cryptoporticus, in a space 2.2m wide, currently of undetermined length. It is known to have had wooden floor, due to holes in the walls which would have held the beams, but the room was largely destroyed by collapsing masonry, and underneath this was a layer formed by the pyroclastic currents typical of the Vesuvius eruption.

The skeletons were found underneath two voids in the layer of hardened ash where the individuals had been submerged by the pyroclastic flow. After their discovery, parts of the bones were removed and analysed, and plaster casts of the voids were made using the technique developed by Guiseppe Fiorelli in 1863.

The casts revealed the shape of the bodies of the two victims lying on their backs, facing upwards, entombed in a 2m-thick layer of the same grey ash found in many buildings in Pompeii. It appears that they died when the room was flooded by a second pyroclastic flow in the early hours of 25 October AD 79, which came after a brief period of quiet following the initial eruption, in which survivors at Pompeii, and probably at Civita Giuliana, attempted to flee.

The first individual appears to be a man aged between 18 and 25 years old, around 156cm tall. He was found with his head tilted back and his teeth and skull visible, wearing a short tunic, the imprint of which is visible on his lower stomach and suggests that it was made of wool fibres. A series of vertebral compression fractures, unusual in a man of his age, has been interpreted as evidence of hard manual labour, perhaps suggesting that he was a slave.

The other individual is also male, older and taller than the first, between 30 and 40 years old and approximately 162cm tall. He appears to have been wearing more intricate clothing, as the fabric imprints underneath his neck and close to his sternum show evidence of a woollen mantle which stopped at the left shoulder, whilst a different fabric imprint on his upper left arm was made by a tunic which seems to have extended to the pelvic area. Perhaps, then, he held a more elevated status than his companion.

IMAGES: @Luigi Spina

COOKING CEREALS IN PREHISTORIC CHINA

A project looking at the history of crops in prehistoric China has identified differences in regional diets and changes over time, which may be connected to varying cooking practices in these areas.

The study, carried out by researchers from Washington University, was recently published in the journal PLOS ONE (https://doi.org/10.1371/journal.pone.0240930). Using existing stable carbon and nitrogen isotope data from 2,448 human remains from 128 sites across China they were able to analyse what these individuals were eating and how dietary patterns changed from 6,000 BC to AD 220.

Isotopic analysis revealed evidence of a north-south divide in diets between 6,000 and 2,000 BC, with people in the Loess Plateau predominantly eating millet, whilst those further south in the region around the Yangtze and Huai Rivers had diets of rice combined with a variety of fruits, nuts, and tubers. It is believed that these differences were connected to environmental differences, as millet is best suited to the semi-arid conditions of the Loess Plateau, whilst an aquatic plant like rice would have flourished in the wetlands of the Yangtze-Huai region.

Signs of an east-west division in diets emerged around 2,000 BC when wheat and barley were introduced from southwest Asia. These new crops were adopted quickly as staple foods in western China but took much longer to be accepted by people in central China, particularly in the area around the Loess Plateau. Unlike the earlier north-south divide, this trend is not believed to be related to environmental conditions but to existing culinary traditions, which were based on grinding grain and baking the flour in the west of the country, a technique that works well with wheat and barley. Traditions in the east, though, were based on boiling and steaming, which were much less well suited to these new cereals.

The study also found that wheat and barley were consumed in higher quantities by females at some sites in the Loess Plateau, suggesting that women may have been instrumental in pioneering the adoption of new culinary practices.

BELOW Proposed regional differences in culinary traditions in China after 2000 BC.

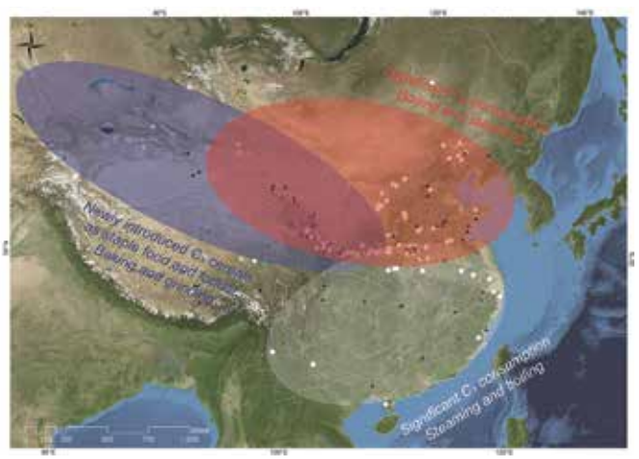

IMAGE: PLoS One, Liu & Reid

NEWS IN BRIEF

HUMAN TRACKWAYS

A set of human tracks created over 10,000 years ago have been found at White Sands National Park, New Mexico. Covering over 1.5km, showing both the outward and the return journey, they represent the longest double human trackway known from the Late Pleistocene. Study of the footprints, recently published in Quaternary Science Reviews (https://doi.org/10.1016/j.quascirev.2020.106610), revealed that they were made by an adolescent or small adult female who was carrying a young child in at least one direction, with footprints showing where the child was put down on three separate occasions. In between the two journeys, which were separated by several hours, there is evidence that both a giant ground sloth and a Columbian Mammoth crossed the human tracks, although neither the human nor the mammoth prints seem to show any changes in behaviour related to predator/ prey awareness.

ICY ASSEMBLAGE

Melting ice in the Jotunheimen Mountains, Norway, has revealed archaeological evidence of activity at the site covering several millennia. Among the assemblage discovered at Langfonne ice patch were almost 300 faunal finds, mostly composed of reindeer bones and antlers, in addition to 68 arrows, some with arrowheads still attached, confirming the popularity of the area for reindeer hunting in the past. The oldest of these arrows has been radiocarbon dated to c.4,100 BC, whilst the most recent dates to AD 1300. The results of the research are presented in a recent paper in Holocene (https://doi.org/10.1177/0959683620972775), which considers the nature of archaeological assemblages frozen in ice patches. This project has revealed that their stratigraphy is less reliable than was previously assumed, due to the ice melting and refreezing several times over the years.

IMAGE: Glacier Archaeology Program, Innlandet County Council

DATING A DECORATED CAVE

Radiocarbon Accelerator Mass Spectrometry (AMS) dating of material from the Sala de las Pinturas at Ojo Guareña (Burgos, Spain) has confirmed that the earliest art in the cave dates to the Upper Palaeolithic, and that human groups continued to use the decorated caves over multiple periods up to c.1,000 years ago. The study, recently published in Archaeological and Anthropological Sciences (https://doi.org/10.1007/s12520-020-01208-w), used charcoal to determine that the black paintings, the oldest in the cave, were created by hunter-gatherers c.13,000 years ago. The cave appears to have held a special significance for multiple groups at different points over the next 12,000 years, with visitors throughout the Neolithic, Chalcolithic, Bronze Age, and Medieval periods, many of whom would have seen the Palaeolithic drawings that the early artists left behind.

TEXT: Amy Brunskill