

DETERMINING THE DATE OF THE EXODUS

By Adam Eliyahu Berkowitz January 24, 2019, 12:32 pm

Then Moshe held out his arm over the sea and Hashem drove back the sea with a strong east wind all that night, and turned the sea into dry ground. The waters were split. Exodus 14:21 (The Israel Bible $^{\text{TM}}$)



(Credit: Youtube Screenshot)

A breakthrough in carbon dating may help archaeologists give a more precise dating for the Exodus from Egypt, linking it to a catastrophic volcanic eruption that many claim explains some of the more spectacular aspects of the Biblical story.

A University of Arizona <u>study</u> led by Dr. Charlotte Pearson used high-resolution <u>radiocarbon</u> dating methods to establish a more precise date for a cataclysmic volcanic blast that took place in the 16th century BCE in Thera, an island in the Aegean Sea near Greece. Their results will be used to re-calibrate carbon dating around the world.

"What we are trying to do is be part of the global realization that the radiocarbon calibration method is ready for an improvement. Because now the technology is there to measure the radiocarbon in every single tree ring, and we're just pulling out one treasure from the box — in this instance the carbon-14, and seeing how that can be applied to improve the way we date material in the Mediterranean... and anywhere in the world," said Pearson, in a video explaining her project.

Despite its massive scale as one of the largest volcanic eruptions in the last 4,000 years, archaeologists and historians have always had difficulty assigning a specific date to the Thera eruption. The devastating results of the eruption are evident on the island to this day, as are the results of an earthquake and tsunami generated by the volcano.

The eruption is a key marker for the Bronze Age chronology of the Eastern Mediterranean world. It provides a fixed point for aligning the entire chronology of the second millennium BCE in the Aegean, as evidence of the eruption is found throughout the region. Despite the evidence, the exact date of the eruption has been difficult to determine. Archaeologists have traditionally placed it at approximately 1500 BCE.

Radiocarbon dates corresponding to the eruption, including analysis of an olive branch buried beneath a lava flow from the volcano that gave a date between 1627 BCE and 1600 BCE, suggest an eruption date more than a century earlier than suggested by archaeologists. Thus, the radiocarbon dates and the archaeological dates are in substantial disagreement.

The Thera eruption was so transformative that major historical events in the region have been attributed to it. The discoverer of the Akrotiri archaeological site, suggested that the Minoan eruption is the basis of Plato's story of Atlantis.

Some Egyptologists claim that ancient Egyptians wrote about the Thera eruption. <u>Times of Israel</u> wrote that Nadine Moeller, associate Professor of Egyptian Archaeology at the University of Chicago, maintains that the Thera eruption was referred to in the Tempest Stela. Attributed to Pharaoh Ahmose I who ruled from 1539–1514 BC, it describes a great storm striking Egypt during this time, destroying tombs, temples and pyramids and the work of restoration ordered by the king. The storm was accompanied by darkness, earthquakes and flooding.

"It is now time to consider the possibility that the Tempest Stela is indeed a contemporary record of the cataclysmic Thera event," Moeller wrote in a 2014 article.

In 1981, Professor Hans Goedicke, chairman of the department of Near Eastern Studies at Johns Hopkins University and a world-famous Egyptologist, attributed several aspects of the Biblical account to the eruption at Thera. His theories were based on his opinion that the Exodus took place 1477 BCE in the reign of the Pharaoh Hatshepsut, 200 years earlier than most historians previously ascertained. Goedicke believed the splitting of the Red Sea and the swallowing up of the Egyptian army was the result of a tsunami generated by the eruption at Thera. Initially well-received, Professor Goedicke was ridiculed for his theory and his claims labelled a hoax.

This theory was resurrected by two-time Emmy winner Simcha Jacobovici and world-famous film director James Cameron in a 2006 documentary titled *The Exodus Decoded*. In additon to espousing Goedicke's theory attributing the splitting of the sea to a Thera generated tsunami, the film also suggests that Thera may have been the source of the Biblical <u>pillars of fire</u> and smoke.

This connection between the eruption at Thera and the Biblical Exodus was also suggested in books by geologist Barbara J. Sivertsen.

When asked by *Times of Israel* if her results were significant for the dating of the biblical Exodus story, Pearson answered ambiguously.

"All I can say is that continued work to improve chronological frameworks is essential for the study of past civilizations," she wrote in an email.

In her study, she writes, "No definitive calibrated radiocarbon range for the Thera eruption is currently possible, but the altered position of the 14C plateau indicates that improved calibration has much to offer chronological synchronization of human and environmental timelines in this period."