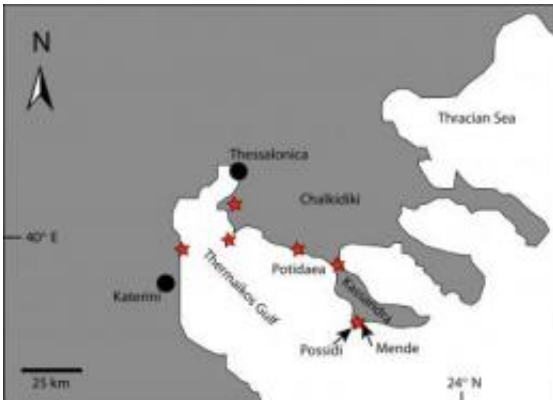


Warning signs from ancient Greek tsunami

April 19 2012



This figure shows the study area in Greece (Thermaikos Gulf). Red stars indicate drilling sites, where researchers have found high-energy layers, which are interpreted as a tsunami origin. Credit: Klaus Reicherter, RWTH Aachen University

In the winter of 479 B.C., a tsunami was the savior of Potidaea, drowning hundreds of Persian invaders as they lay siege to the ancient Greek village. New geological evidence suggests that the region may still be vulnerable to tsunami events, according to Klaus Reicherter of Aachen University in Germany and his colleagues.

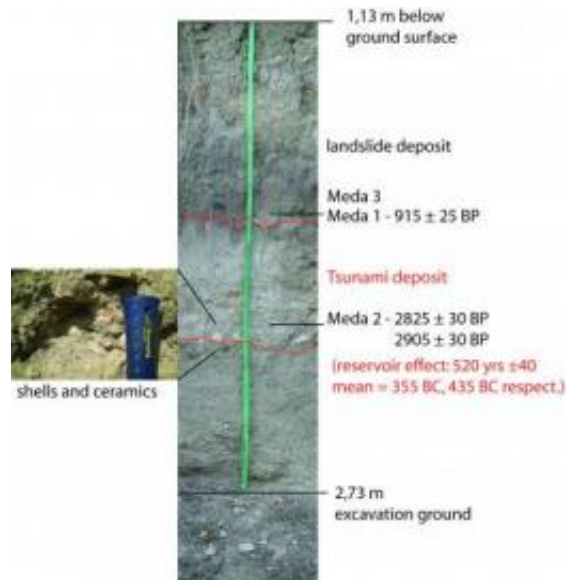
The Greek historian Herodotus described the strange retreat of the tide and [massive waves](#) at Potidaea, making his account the first description of a historical tsunami. Reicherter and colleagues have added to the story by sampling sediments on the Possidi peninsula in northern Greece where Potidaea (and its modern counterpart, Nea Potidea) is located.

The [sediment cores](#) show signs of "high-energy" marine events like significant waves, and excavations in the suburbs of the nearby ancient city of Mende have uncovered a high-energy level dated to the 5th century B.C. The Mende layer contains much older marine seashells that were probably scoured from the ocean bed and deposited during a tsunami.



This figure shows the excavation area at Mende; the yellow box shows location of section. Credit: Klaus Reicherter, RWTH Aachen University

Earthquake forecast modeling in the North Aegean Basin near the peninsula suggests that future earthquakes in the area could produce significant [tsunami waves](#), although the area is not included currently in the ten "tsunami" prone regions of Greece. However, Reicherter and colleagues say their new findings suggest the Thermaikos Gulf where the peninsula is located should be included in tsunami hazard calculations, especially since the area is densely populated and home to many holiday resorts.



The image shows excavated deposits. Credit: Klaus Reicherter, RWTH Aachen University

Reicherter will present his findings at the Annual Meeting of the [Seismological Society of America](#) (SSA) on April 19 in San Diego.

Provided by Seismological Society of America

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