TL;DR SCIENCE

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A 2,000-year-old computer called the Antikythera Mechanism helped the ancient Greeks understand their universe

By Rachel Becker | May 17, 2017, 7:00am EDT

Google Doodle

The world's oldest known computer lay submerged for more than 2,000 years off the treacherous coast of the Greek island of Antikythera. Beneath the weight of the water, the sand, and the wrecked ship that once carried it, the ancient astronomical computer's bronze gears and mechanical parts slowly warped and rusted.

At the turn of the 20th century, a group of fishermen happened upon the wreck and its decaying treasures while diving after their dinners. One of the fishermen swam back to his crewmates clutching a bronze arm — the first find from the Antikythera wreckage to resurface.

Two years later in 1902, Spirydon Stais visited the museum that housed the treasures from the wreck. Stais, a Greek politician, had orchestrated the ship's underwater excavation. In the midst of the coins, sculptures, and pottery, a green-rusted lump of metal caught his eye. It was a piece of the ancient computer, which became known as the Antikythera Mechanism.

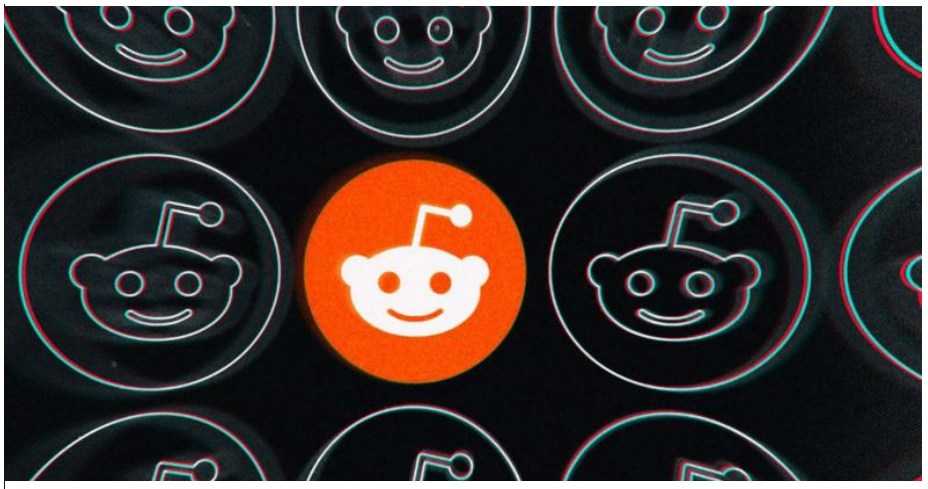
Today's Google Doodle celebrates the 115-year anniversary of Stais' discovery — although it might be more accurate to reserve the celebration for May 18, or even the end of the month, NYU Professor Alexander Jones told *The Verge* in an email. That's because scholars identified the date from contemporary newspaper accounts announcing the find had occurred "last Saturday." But, Jones says, "[In] 1902 Greece was still using the Julian calendar, and so the previous Saturday was the 18th Julian, or in the rest of the world May 31 according to the Gregorian calendar."

For the past several decades, scientists have been using X-rays and CT scans to look inside the Antikythera Mechanism and reconstruct what it probably looked like when it was first made, sometime between 200 and 70 BCE.

We now know that the clock-sized device contained an elaborate collection of some 30 interlocking, spinning gears that controlled dials tracking the Sun, the Moon, eclipses, planets, and the schedule for the Olympics. Turning the hand crank jutting from the device's (likely wooden) frame spun the gears, which moved the hands on the dials — allowing the user to accurately predict eclipses and the passage of celestial bodies through the sky. "Nothing as sophisticated, or even close, appears again for more than a thousand years," writes Jo Marchant for *Smithsonian*.

The scans also uncovered an inscription, revealed in 2016 to be a kind of explanatory label for the device, Sarah Kaplan reported for *The Washington Post*. It included a discussion of the colors of eclipses — details used at the time in making astrological predictions. But the researchers don't know for certain the device's purpose, or who used it — and they likely never will. Still, they're holding out hope that recovering more fragments from the ancient shipwreck could help them answer some of the lingering questions about the Antikythera Mechanism.

Correction: A previous version of the story identified Valerios Stais as the person who discovered the Antikythera Mechanism. It was in fact his cousin Spirydon Stais. The story has also been updated to include a discussion of the correct anniversary date.



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