

# Researchers propose a theory to explain how the Menga dolmen was built

August 27 2024, by Bob Yirka



Location and interior of the Menga dolmen. Credit: *Science Advances* (2024).  
DOI: 10.1126/sciadv.adp1295

A multi-institutional team of historians, geologists, physicists, and archaeologists in Spain has developed a theory to explain how a neolithic

culture could have built the Menga dolmen, an ancient structure consisting of stones weighing up to 150 metric tons.

In an [article](#) published in the journal *Science Advances*, the group developed theories describing how each part of the structure was built and why they believe certain techniques were used.

The Menga dolmen is a megalithic [monument](#) built into the side of a small hill in the southern part of what is now Spain. Prior research has dated its construction to approximately 6,000 years ago. Prior research has also shown that the Neolithic people who built the monument had to have been highly skilled engineers not only to move such large stones, but to place them stably, allowing the structure to remain in place for thousands of years in nearly the same condition as when it was built.

The dolmen consists of stone walls and a stone ceiling supported by stone pillars—all of its stones are bigger than those used to make Stonehenge. Over the years, many theories have been proposed to explain how a primitive culture could have built such a massive and [complex structure](#). In this new effort, the team conducted what it describes as the most comprehensive proposal to date.

The research team suggests that the stones were carved from a site approximately 1 kilometer from the monument and then dragged on sledges over a wooden trackway. Once a portion of the hill was dug out, workers dragged the rocks to the site to make the walls, wedging each tightly into bedrock using counterweights and ramps.

The stones were placed at a slight inward angle using levers—the angle reduced the size of the roof and made the monument trapezoidal. The pillar stones were then placed in a similar fashion. The work was finished by placing massive stones on top, to serve as a roof.

The researchers note that each step in building the monument required a high degree of precision to ensure a close fit between all the components. The stones were also interlocked, ensuring that they would hold firm over a long period of time.

**More information:** José Antonio Lozano Rodríguez et al, Early science and colossal stone engineering in Menga, a Neolithic dolmen (Antequera, Spain), *Science Advances* (2024). [DOI: 10.1126/sciadv.adp1295](https://doi.org/10.1126/sciadv.adp1295)

© 2024 Science X Network

Citation: Researchers propose a theory to explain how the Menga dolmen was built (2024, August 27) retrieved 27 August 2024 from <https://phys.org/news/2024-08-theory-menga-dolmen-built.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.