

## An Archaeological Mystery Reveals its Secret after 3,200 Years

*For almost two hundred years, archaeologists have been looking for a plausible explanation for the ancient rock sanctuary of Yazılıkaya in Central Turkey. Over 3,200 years ago, stonemasons artfully cut more than 90 reliefs of deities, animals, and chimaeras into the limestone bedrock. An international team of researchers now presents an interpretation that for the first time suggests a coherent context for all of the figures. Accordingly, the stone-carved reliefs in two rock chambers symbolize the cosmos: the underworld, the earth, and the sky, as well as the recurring cycles of the seasons, the phases of the moon, and day and night.*

**Zurich, Switzerland, June 16, 2021** – The Yazılıkaya rock sanctuary is a UNESCO cultural heritage site, and yet also ranks as one of the great puzzles of archeology. The shrine is located in Central Turkey, around 150 kilometers east of Ankara, near the former Hittite capital Hattuša. In the thirteenth century BC, more than ninety figures, mostly deities, were carved into the stone of two natural rock chambers, and a temple was erected in front of them. Scientists today largely agree that the the sanctuary served as an important place of worship at the time of the Hittite kingdom (c. 1650–1190 BC).

The reliefs of the Hittite gods adhere to a strict hierarchical order and are faced by an image of the great king Tudhalija IV. What the procession means, however, has been a mystery since it was first seen by scholars almost two hundred years ago. The prehistorian Juergen Seeher, who headed the excavations in Hattuša from 1994 to 2005, wrote in 2011 in the last monograph on Yazılıkaya: “It is still by no means clear today what function the rock sanctuary actually fulfilled.”

Now, for the first time, a team of Swiss, US, and Turkish archaeologists and astronomers is presenting an explanation that embraces all the figures in the facility and assigns each of them a plausible function. The scientific paper was published today in the peer-reviewed *Journal of Skyscape Archeology* and is freely available. According to the scientists, the sanctuary is essentially a symbolic representation of the cosmic order as imagined by the Hittites. The artistic reliefs represent on the one hand the static levels of the cosmos – the underworld, earth, sky, and the most important deities up above – and on the other hand also the cyclical processes of renewal and rebirth: day and night, the phases of the moon, and the seasons. Each of the more than ninety figures adheres to this system.

This explanation, which in hindsight is glaringly obvious, resulted from several years of intensive research. In the course of this inquiry, the geoarchaeologist Eberhard Zangger, President of the Luwian Studies Foundation in Zurich, and Rita Gautschy, archaeologist and astronomer at the Institute for Archeology at the University of Basel, realized that many of the figures at Yazılıkaya indicate the moon phases and the time of the solar year. The researchers published this interpretation two years ago in a scientific article. The subsequent investigation concentrated on the symbolic meaning of the shrine as a whole; it also involved – in addition to Zangger and Gautschy – E. C. Krupp, director of the Griffith Observatory in Los Angeles, and Serkan Demirel, ancient historian at the Karadeniz Technical University in Turkey.

The new interpretation integrates many components that scientists had recognized before. This applies to the function of a lunisolar calendar, but also to the meaning of Chamber B as a symbol of the underworld, which is indicated, among other things, by a relief of the sword god Nergal. However, the idea of associating the most important gods of the Hittite pantheon with the circumpolar region of the northern sky is completely new. The constellations near the celestial axis, which are visible all year round, play a special role in the cosmology and religion of many early cultures. In Yazılıkaya it is, among other things, their position in the procession – due north and above all the other gods – that suggests such an interpretation.

The researchers write: “It thus seems more likely that this was a place where astronomical information was displayed so that the shrine in its cosmological entirety conformed to the full expression of cosmic order. Both major chambers of the sanctuary were, above all, ritual spaces that were used as a stage for important ceremonial activity involving some specific audience. The gods were elaborately illustrated on a large scale. This is staging, not merely computation.”

**Scientific publication (Open Access):**

<https://luwianstudies.academia.edu/EZangger>

<https://journal.equinoxpub.com/JSA/article/view/17829>

**Video (04:31) on the subject:**

<https://www.youtube.com/watch?v=kpc0-xO0OqY>

**Popular science summary:**

<https://www.asor.org/onetoday/2020/05/calendar-in-stone>

**Additional Information:**

<https://luwianstudies.org/de/>

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Selected Illustrations









