



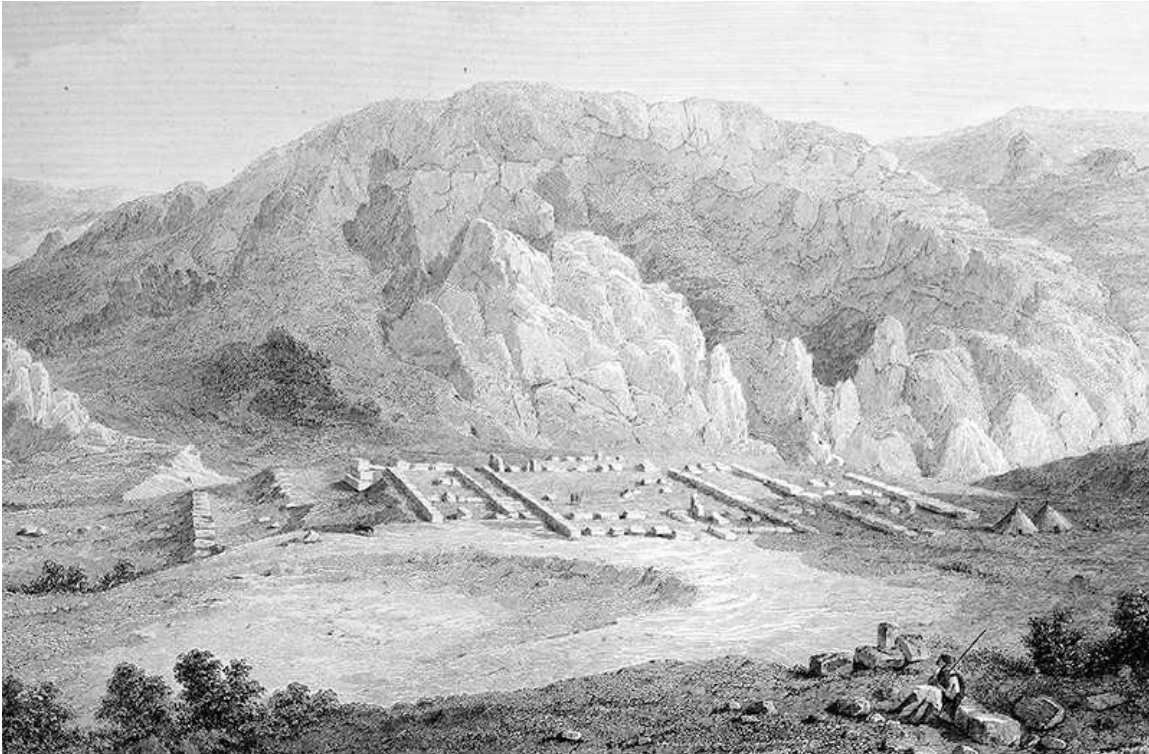
## The Ancient Near East Today

CURRENT NEWS ABOUT THE ANCIENT PAST

### The Symbolic Representation of the Cosmos in the Hittite Rock Sanctuary of Yazılıkaya

By Eberhard Zangger and E.C. Krupp

In the thirteenth century BCE, when Ramses II ruled Egypt for around 66 years, the pharaoh was faced with a powerful political counterweight in Central Asia Minor: the Hittites. Then, all of a sudden, around 1190 BCE, this Anatolian power disappeared from the scene. The capital Hattuša was abandoned, control of the country collapsed, and Hittite culture was later forgotten for almost 3,000 years. It was not until 1834 that the French archaeologist Charles Texier visited the area of the former capital and drew the huge architectural foundations that had been preserved there. The fortified area of the former capital measures two hundred hectares, over a hundred times the size of the citadel of Troy VI.



The French archaeologist Charles Texier published in 1839 the report of his 1834 visit to the ruins of the former Hittite capital Hattuša. This image shows the foundations of Temple 1. All the prominent walls running towards the viewer are aligned with the sunset at summer solstice (Charles Texier 1839, *Description de l'Asie Mineure, faite par ordre du Gouvernement Français de 1831-1837, et publiée par le ministre de l'Instruction Publique*; Luvian Studies #1006).



The foundations of Temple 3 (foreground left), Temple 2 (right), and the king's palace at Büyükkale (background) catch the first rays of the rising sun on the day of the winter solstice 2018 in the upper city of Hattuša (© Luwian Studies #1015).



Star trails above Yerkapı emphasize the strict northern orientation of the architecture (© Bernd Pröschold/Luwian Studies #1041).

Texier anxiously followed the local peasants when they led him a few hundred meters further to a natural limestone outcrop. Inside was a rock sanctuary from the Hittite period with over 90 well-preserved reliefs of human figures, animals, and chimeras. It turned out to be one of the most important sanctuaries of the Anatolian Bronze Age and gives us an insight into the Hittite belief system; but this insight has not yet been fully deciphered. For almost two hundred years, archaeologists have puzzled over what the figures might have meant. “Many researchers have worked intensively towards an interpretation of the site, but to this day it retains much of its mystery,” wrote one of the excavators not too long ago.



The main scene in Yazılıkaya's Chamber A is where the processions of deities coming from the left and from the right meet on the local meridian (© Luwian Studies #1216).



Main panel in Chamber A (Reliefs 42–46) showing the chief deities Teššub and Ḫebat (© Luwian Studies #1217).

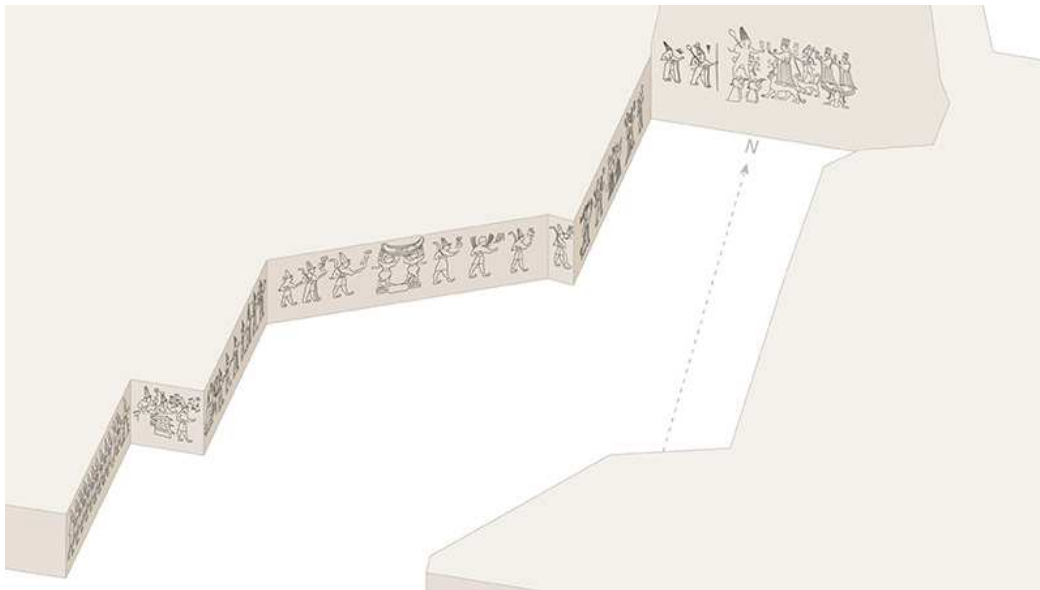


Twelve identical male gods in Chamber B carrying sickle-shaped swords (© Luwian Studies #1233).

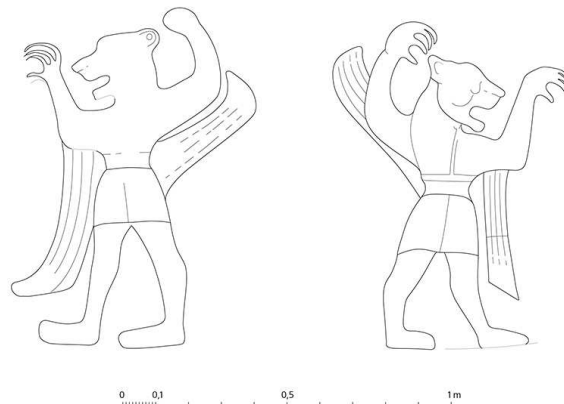
In 2019, Eberhard Zangger and Rita Gautschy published a paper, [summarized in ANEToday](#), arguing that the majority of the deities are arranged in such a way that they can be used as a perpetual lunisolar calendar. The reliefs can be assigned to groups of 12, 30, 5, and 19 figures. The number 12 represents the number of lunar months per solar year; 30 represents the maximum number of days per lunar month; 5 could be seen as symbolically reflecting the number of missing days in a schematic year ( $12 \times 30 + 5 = 365$ ), and 19 corresponds to the number of years in a solar cycle, which is useful in calibrating solar and lunar calendars.

With the help of this system, Hittite priests could have determined when an additional lunar month had to be introduced in order to synchronize the calendar with the seasons. Seven leap months would have to be inserted over a period of 19 years; that would then correspond to what the Greeks later called the Metonic Cycle. With the help of such a calendar, the priests could have ensured that the 165 days of the year on which religious festivals were held fell in the correct season. Hittite documents prove that it was important for the festivities to be held at the right time of the year.

This interpretation of the rock sanctuary attached greater importance to elements relating to heaven in the Hittite religion than had previously been assumed. It also, for the first time, provided a technical explanation for the sanctuary – a technology that can still be activated even now. Nevertheless, many questions remained unanswered. The highest gods as shown on the central panel of the obviously rather strictly hierarchical pantheon could not be attributed to a calendar function. The symbolic meaning of the sanctuary as a whole remained unclear, as did the enigmatic Chamber B.



#1404: Schematic drawing of the reliefs of deities on the western wall and main panel in Yazılıkaya's Chamber A (© Luwian Studies).



Lion-headed demons guarding the entrance to Chamber B in Yazılıkaya (Luwian Studies #1227).

This second chamber consists of a narrow corridor between vertical limestone faces. The most impressive relief in Chamber B is 3.4 m high and shows a sword god. Next to it, the Hittite king Tuthalija IV is depicted being led by his patron deity Šarruma. Opposite is a group of 12 identical male deities, each with a saber on his shoulder. In retrospect, our results published in 2019 might perhaps be compared with identifying the clock on a church tower. Although it indicates the time, it does not explain the actual purpose of the building.

Already more than 20 years ago, E.C. Krupp had launched an attempt to decode the symbolic meaning of the shrine as a whole, which resulted in a number of publications. Leveraging his experience with rock art, which in ancient and traditional societies confers symbolic meaning on the landscape, and combining it with the models of thought introduced by the religious historian Mircea Eliade, E.C. Krupp found that Yazılıkaya's natural features reflect cosmic principles. As such the site may have had a special meaning since time immemorial.

It is known from archaeological excavations that the shrine had predecessors. The Hittites appear to have recognized this elevated place (over 1400 meters above sea level) in part as a natural point of contact between heaven and earth and therefore as a focus for the transmission of divine celestial power. In the

traditional cosmologies of urbanized societies, such places are often identified as the world's center and for that matter as the center of the entire cosmos. Often affiliated with capital cities, those places permit access to celestial power and make it a prerogative of royal authority.

The team to tackle the symbolic meaning of Yazılıkaya eventually comprised four scholars: Eberhard Zangger, E.C. Krupp, Rita Gautschy, and the ancient historian Serkan Demirel from the Karadeniz Technical University in Trabzon, Turkey. The latter specializes in Hittite calendars and provided abundant references to Hittite documents. Our investigation resulted in a follow-up publication on Yazılıkaya ("Part 2") that aims to decipher the symbolic meaning of the entire sanctuary by combining the previous research on the shrine with the most recent identification of the calendar function.

It now appears that Yazılıkaya symbolizes the cosmos – like so many other temples in ancient Mesopotamia and Egypt. Here, however, a building was not erected, but the image of the cosmos was projected onto the natural environment. In the beginning, cosmic order defeated chaos and thus formed the cyclical nature of time, which is determined by celestial regularities. Since these manifest cosmic order, they are emphasized in Yazılıkaya (in the form of the calendar). Above all, the cosmic order is reflected in clearly structured units, the earth on which people live, for instance, and the sky above them. Those were the two units that had been recognized in our initial study.

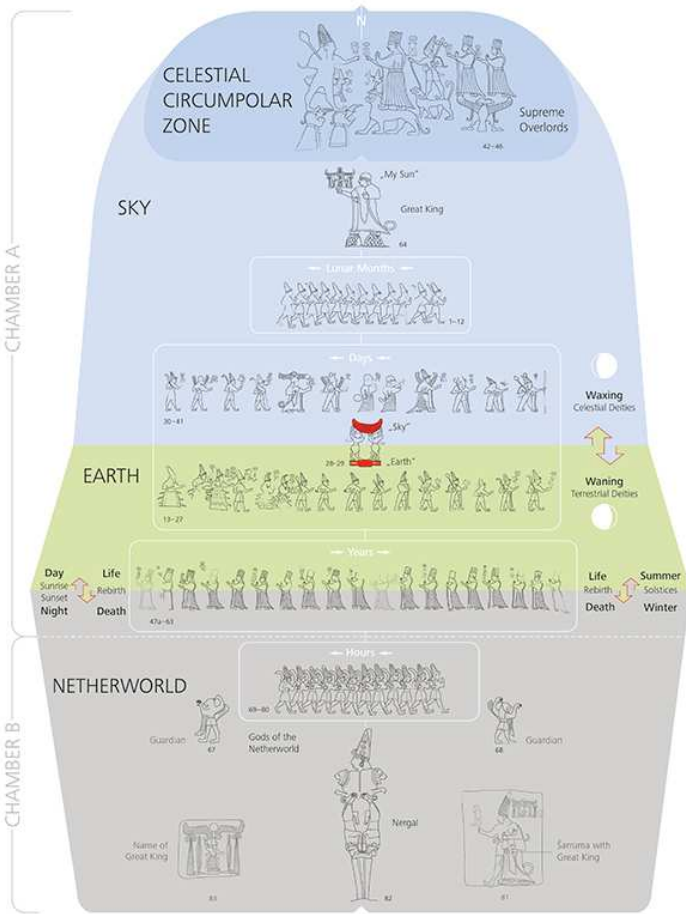
At the Yazılıkaya sanctuary, three main units of the cosmos are distinguished. The third element is the underworld. This is the region where the sun spends the winter and the night hours of the day. In the ancient Egyptian belief system, it is also the region where the dead continue to exist. In Yazılıkaya, the underworld is symbolized by Chamber B. This is not new, as the underworld characteristics of Chamber B were recognized long ago. The main deity in Chamber B is, after all, the underworld god Nergal. Opposite him is a panel with 12 identical male deities, who are interpreted as the 12 gods of the underworld. In fact, the entire chamber is believed to have served in the funeral cult of the late King Tudhaliya IV. Chamber B's iconography indeed reflects death, but it is a transient death: the sun setting in the night, the time the sun spends in the south in winter, and the temporary disappearance of the Pleiades and other stars in their heliacal setting. It is a death that is ultimately overcome again and again through the celestial cycles.

But among the many reliefs in the sanctuary there are some that have received little attention. These include, for example, the two chimeras at the entrance to the narrow passage to Chamber B (67 and 68). The head of a lion with its mouth open rests on a human body in a stepping position. The arms are extended high and end in a mixture of human hands and lion paws. Both figures are winged, and each wears a short skirt with a wide belt. The former excavator of the site, Kurt Bittel, interprets them as demons who protect the entrance from malicious visitors. These demons are taken from the old Babylonian repertoire of Istar and were widely known in Mesopotamia as "lion-headed gods." They symbolize liminality, i.e. the crossing of a boundary in space and time. Their placement in Yazılıkaya at the transition between Chamber A, which embodies the earth and heaven, and Chamber B, which symbolizes the underworld, thus fits seamlessly.

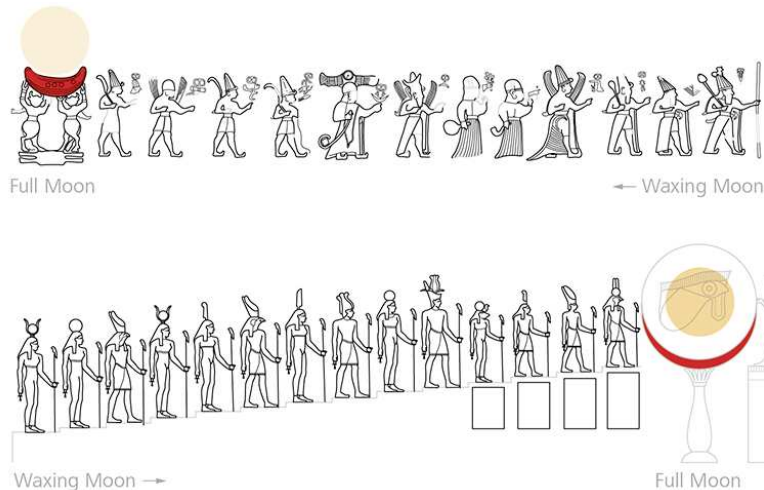
The main panel of Chamber A, on which the highest deities of the Hittite pantheon are depicted (reliefs 42–46), still has to be explained – it symbolizes the highest level of the cosmos. This panel rests in the very north, and from there dominates the entire pantheon symbolized by the remaining figures. The arrangement in the north and at the center of a procession of heavenly and cosmic deities makes reference to the circumpolar constellations whose stars shine all year round and never disappear below the horizon. There, at the northern celestial pole, the cosmic axis is anchored, and the sky and thus the entire universe seems to rotate around it.



The four elements of the Hittite cosmos as symbolically depicted in the rock sanctuary of Yazılıkaya: underworld, earth, sky, and celestial circumpolar zone (© Luwian Studies #1418).



Proposal for the cosmological model depicted in Yazılıkaya, including all reliefs of deities and emphasizing the groups they form and how these are related to each other to symbolize recurring celestial cycles (© Luwian Studies #1419).



Waxing days of the lunar month depicted as Hittite deities in Yazılıkaya's Chamber A (Reliefs 11. 28–41) and as Egyptian deities in the Temple of Hathor at Dendera (© Luwian Studies #5028).

In traditional cosmology, this axis mundi stabilizes the cosmos and at the same time determines its behavior. Teššub and the other high gods in the central relief are not the stars of the circumpolar sky, but they seem to be associated with this region and thus rule from the highest point in heaven. In the Hittite belief system, the circumpolar region of the northern sky appears to have had special meaning, because the meridian determines the orientation of both Chamber A and Chamber B in Yazılıkaya. But not only that: Yerkapi, the uppermost architectural structure of Hattuša, is also aligned on the north-south axis.

Taken together, the Yazılıkaya sanctuary symbolizes the cosmos in its entirety, earth, heaven, and underworld. This cosmos extends around a center, the meridian or the axis mundi, and reflects the paradigmatic work of the gods when order was created and space was divided – in this case into three cosmic levels with the circumpolar constellations being distinguished in the upper most level of the sky. Yazılıkaya even allows the transition from one cosmic region to another: from heaven to earth and from earth to the underworld, similar to what is known from Sumerian cosmology.

Our first investigation ended with the remark that this interpretation could open up a new approach to understanding the Hittite religion. Two years later, it feels as if we are a significant step further.

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***[E.C. Krupp](#) is an astronomer and director of the Griffith Observatory in Los Angeles. He has been actively involved in ancient, prehistoric, and traditional astronomy around the globe since 1973 and has been to 2200 archaeological sites as part of that effort.***

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Further reading:

Zangger, Eberhard, E.C. Krupp, Serkan Demirel and Rita Gautschi (2021): "Celestial Aspects of Hittite Religion, Part 2: Cosmic Symbolism at Yazılıkaya." *Journal of Skyscape Archaeology* 7 (1).

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Outreach in German: <https://www.archaeologie-online.de/artikel/2021/die-symbolische-darstellung-des-kosmos-im-hethitischen-felsheiligtum-yazilkaya/>