 DOI: 10.24425/academiaPAS.2024.150228

The Megalith--Builders of Lebanon

Discoveries by Polish and Swiss archaeologists in the Middle East are bringing us closer to the culture of the first megalith-builders from 5,000 years ago.

Zuzanna Wygnańska

Institute of Mediterranean and Oriental Cultures, Polish Academy of Sciences, Warsaw

Tara Steimer-Herbet

Laboratory of Prehistoric Archaeology and Anthropology, University of Geneva

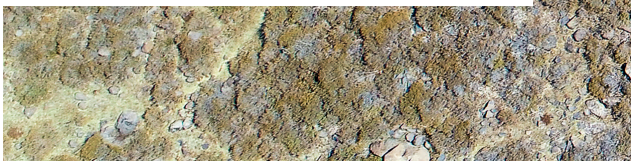
Over the past two years, a Polish-Swiss archaeology team has been exploring the megalithic culture in the Akkar district of northern Lebanon, in collaboration with the General Department of Antiquities in Lebanon. Our research focuses on megalithic tombs that were constructed at the onset of the first urban civilization in the Levant. The main questions our team is trying to address are when and why these megalith-building communities emerged in this part of the Near East, as well as what influence they had on the development of the region's earliest urban centers.

Situated among the basalt hills of northern Lebanon, close to the Syrian border, the Akkar region is lush, well-watered, and fertile. Known as the "breadbasket of Lebanon," it is famed for its plentiful orchards and olive groves. Despite its agricultural richness, Akkar remains relatively undeveloped and is often seen by today's Lebanese as a remote, provincial area.

HANY KAHWAGI-JANHO © MEG-A PROJECT

2

SIDNEY REMPEL © MEG-A PROJECT



Zuzanna Wygnańska, PhD

An archaeologist who specializes in studying the ancient cultures of the Near East during the Bronze Age, especially at the dawn of urban civilization. Her main interests include the evolution of burial customs and personal ornaments as a source for studying the material culture of prehistoric societies. She has been an Assistant Professor at the University of Warsaw for over ten years. Since 2019, she has been leading the Ancient East Archaeology Division at the Institute of Mediterranean and Oriental Cultures, Polish Academy of Sciences, Warsaw.

zwygnanska@iksio.pan.pl

Tara Steimer-Herbet, PhD

An archaeologist who specializes in studying megaliths in the Near East, Asia, and Europe, particularly during the Neolithic and Bronze Ages. She has been teaching at the University of Geneva since 2013. She has led major archaeological projects in Lebanon, Kuwait, Jordan, Syria, Yemen, and Switzerland, significantly contributing to the understanding of prehistoric societies.

tara.steimer@unige.ch

The stones of Akkar

In the intriguing mosaic of Akkar's history, the monumental tombs known as megaliths certainly command one's attention. The term "megalith," derived from the Greek words *megas* (large) and *lithos* (stone), refers to large stone structures found across Eurasia and the Americas. Today, Akkar's tombs are enigmatic and nameless monuments. They were erected by a community for whom these grand structures served as a means to express various aspects of their identity, whether social, economic, or religious. Currently, around 50 of these tombs dot the gentle hills of the district. Typically, they feature a single rectangular chamber lined with stone slabs, enclosed by a circular or rectangular stone wall about 10 meters across. A slab-covered corridor extends from the chamber to the outer ring, through which the deceased's body and offerings were carried. All such corridors face southwards. Some tombs have an elongated rectangular layout, extending up to 30 meters in length and containing three sequentially arranged chambers.

The materials used in their construction – basalt slabs and boulders weighing in the tens to hundreds of kilograms – show signs of careful masonry work. These were then mounted on a pre-prepared stone platform, raising the burial chamber above ground level rather than embedding it. Notably, some tombs seem associated with a sharply pointed boulder set vertically, similar to the *menhirs* (Breton for "high stone") found in Europe.

The tombs of Akkar were first brought to light by Maurice Tallon, a Jesuit priest stationed at a monastery in the village of Menjez in the late 1950s. Tallon documented and studied about 90 ruined tombs, going to great effort to document them with the technology and knowledge available at the time. His work suggested that the structures were built around the turn of the 4th to 3rd millennia BCE. Sadly, much of Tallon's data has been lost, and some crucial details were overlooked. Moreover, since Tallon's time,

Photo 1
Drone shot featuring a less commonly seen type of tomb, with an elongated rectangular layout and two circular-plan tombs

Photo 2
Reconstruction work in a tomb with an elongated rectangular layout – close-up of one of the chambers

JOSEPH MIKHAEL © MEG-A PROJECT

TARA STEIMER-HERBET © MEG-A PROJECT

Photo 3
Article authors and Swiss mission member Florian Cousseau on the slab covering the corridor of one of the tombs

Photo 4
Interior of a tomb chamber – documentation work on the carvings

nearly half of the identified structures have been permanently destroyed.

The megalithism phenomenon

Megalithic structures are known from many parts of the world. Although this trend emerged independently in various regions, it is generally interpreted as a way to express the common identity of a specific community. The concept of building structures out of enormous stone blocks originated in the Near East in the 9th millennium BCE, when Neolithic inhabitants of northern Levant began constructing impressive structures for ritual gatherings. These early communities mastered the skills to work, transport, and erect massive blocks weighing dozens or hundreds of tons as collective endeavors. Initially, this was linked to commemorating particularly significant events or phenomena.

By the 4th millennium BCE, the building of megalithic structures began to be exhibited by smaller groups – individual tribes or families. The large sanctuaries that once gathered entire communities gave way to monumental above-ground tombs, which became increasingly common. From the Near East alone, we know of tens of thousands of megalithic tombs from the period between the 4th and 3rd millennia BCE. This transition marked a significant shift in ritual behavior – from burying the dead underground as had been previously done, to interring them in elaborate stone grave structures above ground, which remained visible to the community and its neighbors. Although these structures had a more individual character, their construction still required a collective effort. Our knowledge about megaliths primarily comes from findings in the southern Levant (modern-day Israel and Jordan). However, this phenomenon had a broader scope, and the cluster of tombs in Akkar is a local, northern Levantine example.

The megalithic tombs of Akkar, though not as grand in scale and size as Neolithic temples, represent a profoundly important cultural movement. They embody human behavior focused on a belief in the

Photo 5
Tara Steimer-Herbet preparing a tracing

Photo 6
Setting up a tent for photographic documentation of the carvings in special, artificial lighting

FLORIAN COUSSOUU © MEG-A PROJECT

ZUZANNA WYGNAŃSKA © MEG-A PROJECT

ZUZANNA WYGNAŃSKA © MEG-A PROJECT

ZUZANNA WYGNAŃSKA © MEG-A PROJECT

Studying rock carvings:
Photo 7
Florian Cousseau creating orthophotographic documentation of a panel with amorphous carvings

Photo 8
Stone featuring the image of a coiled snake

afterlife and the commemoration of significant ancestors. In this culture, tombs were designed to draw attention, above all else. They were also purposefully built for durability and visibility – and indeed, they have endured from 5,000 years ago to the present day.

Reconstruction from fragments

The archaeological landscape of Akkar has experienced considerable change since the tombs were originally built. Since Fr. Tallon's time, over 40 tombs have disappeared. Those that remain have often been looted, and other traces of the culture of their builders have also faded. To unravel the identities of these ancient people, a sophisticated, interdisciplinary methodology has been developed to analyze existing remains that are nevertheless invisible to the naked eye.

This involves analyzing archival aerial photographs, drone images, and satellite data. On hills thick with wild vegetation, this approach helps identify potential sites where remnants of megaliths might be found. The next phase is verification out in the field. Along an east-west axis by one of the region's main rivers, Nahr el-Kebir, clusters of megaliths extending over 20 km have been identified. Naturally, this only shows what has survived to the present day, leaving unanswered questions about the river's practical or symbolic importance to this community. Similar structures, presumably from the same cultural group, are located to the north in Syria. The lack of nearby settlements suggests that the tomb builders were pastoralists.

Dating the tombs is exceptionally challenging. As we have mentioned, they have been subjected to plunder and destruction for millennia, leaving behind only isolated artifacts (at best). Human remains are rarely found, and any organic remains have nearly completely decomposed due to the environmental conditions. Dating primarily uses a technique called optically stimulated luminescence (OSL), which dates the last exposure of soil or stones to sunlight before they were buried during tomb construction. By collecting light-shielded sediment samples from beneath tomb walls and analyzing them through OSL, we can estimate the timeframe in which the first stones were laid and their last exposure to light. This provides an approximate date for the construction of the structures. This method faces a significant challenge, however, posed by the region's pervasive basalt, which lacks the quartz typically used for dating. Instead, we have analyzed feldspar minerals, then integrated these findings with studies of material remains, including

SIDNEY REMPEL © MEG-A PROJECT

Photo 9
One of the elongated tombs with a clearly visible vertical pointed stone – a menhir

Paleoenvironment reconstruction work:
Photo 10
Archaeobotanist Prof. Magdalena Moskal del Hoyo, with the help of Geneva University student Miriam Ifriqiya Bensaid, performing flotation to retrieve plant macro-remains from deposits originating from the tombs

Photo 11
Geologists Prof. Barbara Woronko and Dr. Alison Damick drilling to collect samples for reconstructing the ancient climate conditions of northern Lebanon

sequences of ceramic vessels and flint tools, to compare with known sequences from other parts of the Levant. The typology of the tombs is examined to determine if they represent a single culture or multiple successive groups with similar customs. The arrangement, appearance, geological characteristics, and craftsmanship of the individual stones are all analyzed. The objective is to understand the building techniques and reconstruct the operational chain to decipher something of the decisions and practices of the ancient megalith-builders. This methodology has produced impressive results, enabling the assessment of the tombs' chronological development.

Horn of plenty

In the area around the tombs in Menjez, rock carvings have also been discovered. These are not always easy to spot, but with the right lighting at certain times of the day, one can make out geometric shapes, snake-like forms, and amorphous designs. To create these carvings, the ancients often took advantage of naturally-existing rock formations or fissures, which they further crafted. To document them, photographs are taken inside a special black tent equipped with suitable lighting. The angle, depth of the carvings, and patina are analyzed. These engravings represent symbols and signs that held significance for the community that once lived in this area. Analyzing these carvings also helps gauge the environmental conditions that existed 5,000 years ago in the region. Furthermore, pollen studies offer insights that aid in reconstructing the ancient climate, water resource distribution, and vegetation, helping to elucidate what might have drawn the megalith-builders to this area.

Although the culture of the megalith builders was not linked to permanent settlements, they were not simply ordinary shepherds – this is evident from the sophisticated tomb structures and burial customs. It is believed that they selected this location because of its position on a trade route, which they might have controlled, or due to its proximity to natural resources like the famed Lebanese cedars. The megalithic tombs also may have served to demarcate the territory they occupied.

Rare findings of imported artifacts, such as obsidian tools or beads crafted from precious materials, suggest extensive trade contacts. Although it seems the megalith-builders did not form permanent settlements, they might represent an alternative social organization model. They likely evolved their culture alongside the builders of the first cities, and may even have engaged in trade with them.

The Polish-Swiss joint project is funded by Poland's National Science Centre (NCN) (grant no. 2020/39/I/HS3/02993) and the SFNS (grant no. 100019E_202350) as part of the Opus LAP 2020 competition.

Further reading:

Frazer J.A., *Dolmens in the Levant*, London – New York, 2018.

Laporte L. et al. (ed.), *Megaliths of the World*, Oxford 2022.