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The Hartashen Megaliths: Spatial Organization and Possible Defensive Functions of a Megalithic Complex in Northwestern Armenia

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The article is devoted to the structural and functional analysis of the Stone Row (Sharan Karer), a megalithic complex near the village of Hartashen in Armenia's Shirak region. The aim of the study is to identify the monument's structural features and possible functions, and to compare them with similar megalithic structures in Europe and Scandinavia. Field research and measurements revealed that the complex consists of approximately 700 basalt menhirs arranged in three symmetrical rows, extending for approximately 400 meters. The rows of stones have a clear geometric organization, with an average distance of 120–160 cm between the menhirs, and in some cases, a noticeable slope toward the foot of the hill. This structure is unique not only in Armenia but also in the global megalithic heritage, as virtually no similar structures with a three-row arrangement have been recorded. A comparative analysis with Carnac (France) and the Ales stones (Sweden) reveals that the Hartashen complex has a unique organization that is not limited to ritual or cultic significance. The arrangement of the stones, their topographic position, and structural logic suggest that it may also have served a defensive or territorial function, serving as a natural barrier or boundary. This perspective echoes the structure of modern military engineering systems, particularly artificial barriers such as the "Dragon's Teeth." The article concludes that the Hartashen stone path likely represents a multi-layered monument combining both ritual and defensive functions. It also notes that this structure may represent a prototype of early engineering thinking and spatial organization, a finding that requires confirmation through further excavations, radiocarbon dating, geophysical scanning, and 3D modeling. The Hartashen megalithic complex, thanks to its unique structure and possible multifunctionality, is of exceptional importance not only in the context of the development of Armenian but also global megalithology.

Keywords: megalithic structures, Hartashen, Stone Row, defensive system, Dragon's Teeth, Neolithic, Bronze Age.

Introduction

Megalithic structures are important components of the material heritage of ancient cultures, widespread throughout the world, and of archaeological interest, as they can serve as keys to understanding and interpreting the socio-political systems, economic realities, and military realities of ancient civilizations. Traditionally, they have been interpreted as monuments of ritual and cult significance, but new

materials, methodological approaches, and comparative analyses that have emerged in recent decades indicate that the function of these structures may be more multilayered, including elements of territorial organization, social hierarchy, and even defensive systems [1–3].

The Armenian Highlands, a crossroads of Neolithic and Bronze Age cultures, are rich in stone and megalithic structures (the most famous of which

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is undoubtedly the renowned Karahunj complex). However, their systematic study has remained largely unexplored. Except for isolated excavations and inscriptions, structural, spatial, and functional analysis of megaliths is virtually nonexistent. Particularly noteworthy in this context is the megalithic complex known as the Stone Row (according to the locals: Sharan Karer) near the village of Hartashen in the Shirak region, distinguished by its exceptional three-row structure and precise geometric organization.

The Hartashen Stone Row, located on a plain between natural hill ridges, is unique in that, among the world's known megalithic structures, there are virtually no examples of such a three-row arrangement. This feature allows us to consider it not only within the context of cult or ritual systems but also in terms of possible engineering and defensive functions. Field observations indicate that the arrangement of the stones and the distances between them follow a certain logic, which may be due to the area's defensive and control functions.

Despite the abundance of megalithic monuments in the Armenian Highlands, the structural organization and functional significance of many such complexes remain insufficiently studied. In particular, the Hartashen Stone Row has received little scholarly attention, and its spatial organization, construction principles, and possible functions have not been systematically analyzed. This gap limits our understanding of the territorial organization, engineering practices, and cultural landscapes of prehistoric societies in the region.

The study focuses on the Hartashen megalithic complex in Shirak Province, Armenia.

The study examines the spatial organization, structural characteristics, and potential functional significance of the Hartashen Stone Row within its geographical and archaeological context.

Aim of the Research

The aim of this research is to investigate the structural and spatial characteristics of the Hartashen megalithic complex and to evaluate its possible functions through comparative analysis with analogous megalithic monuments in Europe and Scandinavia.

To achieve this aim, the following tasks were undertaken:

- to document and measure the principal structural parameters of the Hartashen Stone Row;

- to analyse the spatial arrangement and topographic position of the monument;
- to compare the Hartashen complex with selected megalithic structures in Europe and Scandinavia;
- to assess the possible functional significance of the monument based on its morphology, spatial organization, and environmental context.

Literature review

In scientific literature, megalithic structures are typically viewed as objects of cult or funerary significance [4]. However, in recent decades, research has begun to emerge that, directly or indirectly, points to possible additional functions for some megaliths [5].

The Hartashen Stone Row is unique in its nature: nowhere else in the world does a similar megalithic structure with a three-row arrangement of stones exist. In this regard, some similarities can be noted with the famous megalithic monument of Carnac. The Carnac megalithic complex (French: Alignements de Carnac) is located in the Morbihan region of Brittany, France, between the towns of Carnac and Plouharnel. It is considered the densest and most significant complex of prehistoric stone structures in Europe, covering an area of over 0.4 km² [6].

The complex includes more than 3,000 standing stones (menhirs), as well as dolmens, tumuli (burial mounds), and circular stone structures (cromlechs), with several subsystems: Ménéac, Kermario, Kerlescan, and the recently discovered site Le Plasker [7].

The Ménéac section is characterized by parallel rows of 11 symmetrical lines. The height of the stones gradually decreases from east to west, creating a wave-like pattern [8].

In the Kermario section, the menhirs reach a height of 3–4 m, forming more impressive and dense fields [8].

The Kerlescan subsystem represents a more limited but symmetrical arrangement of approximately 13 rows, and excavations at the recently discovered Le Plasker section have revealed menhir foundation pits, indicating multi-stage construction of the stones [7].

The arrangement of the stones is mainly oriented in a north-south direction, with occasional deviations in a west-east direction, which some researchers interpret as a system of astronomical orientation or ritual routes [6].

The Carnac stone rows extend approximately 4–10 km in length and range from a few hundred meters to a kilometer in width [6]. The field is located on a gently undulating plain covered with grass and moss. The stones are primarily granite, gray and light brown in color, and covered with dark moss due to long-term weathering, giving them a distinctive air of antiquity and mystery.

From a distance, the rows of stones at Carnac resemble stone waves: the stones rise and fall in proportion to one another, and their structure seems to direct the eye toward a distant peak or ritual site. This visual image is often presented as one of the most iconic examples of European Neolithic architecture [6, 8].

Recent excavations at Le Plasker, conducted between 2019 and 2023, yielded 49 radiocarbon dates, on which Bayesian modeling was used to derive chronological phases [6].

Mesolithic pre-occupation phase:

c. 5680–5070 cal BCE

Cist/mound construction:

c. 4790–4640 cal BCE

Menhir alignment construction:

c. 4660–4370 cal BCE

These data indicate that the territory of Carnac was formed gradually, over several centuries, simultaneously combining burial, ritual, and territorial functions.

The Carnac stone system is one of the oldest and most complex megalithic structures in Europe. Evidence from the Le Plasker section indicates that construction began here as early as the 5th millennium BCE, earlier than similar structures in Great Britain or Scandinavia [6].

New research rethinks the function of the Carnac complex not only as a burial or ritual site but also as an expression of social and territorial organization, demonstrating the engineering and ideological complexity of Neolithic societies [6].

Another megalithic monument that can be roughly compared to the Hartashen Stone Row is the Ales Stones, or Ale's Stenar monument, located in southern Sweden, near the village of Kåseberga in Skåne County. This stone structure from the Late Bronze Age (c. 1000 BCE) consists of 59 upright stones arranged in the shape of a ship, approximately 67 meters long and 19 meters wide. Aero-astronomical analysis has shown that the orientation

of the stones corresponds to the sunrise and sunset points during the main calendar phases of the year, making this monument a solar calendar of astronomical or ritual significance [9].

It should remain clear that the general analysis of a defense line, which is geographically based, cannot ignore the principal theoretical elements—still not well enough known in their drawing lines—on the direct examination and architectural definition of megalithic monuments. In recent research, it is also often noted that landscape, borders, and geographical determinism make significant contributions to ancient as well as new military strategies [10–12]. Such studies demonstrate how natural and architectural features have played a role in structuring the position and purpose of defensive monuments, which is relevant to reading the Hartashen Stone Row as something other than ritual or supraindividual defense works.

It's also appropriate to review research on the development of Armenia's defensive system during the Bronze and Iron Ages, which provides insights into the defensive structures and buildings that emerged in the northern regions of the Armenian Highlands during this period. Research shows that stable defensive systems began to emerge here as early as the mid-2nd millennium BCE [13].

Methodology

The Hartashen megalithic complex is situated in the Shirak Province of northwestern Armenia, northeast of the present-day village of Hartashen (WGS-84: 41°00'49.72" N, 43°55'56.87" E). The site occupies a geomorphologically distinctive position within a gently dissected upland environment composed of low volcanic hills and intervening flat surfaces. The preserved stone alignments are distributed along the interface between sloping and level terrain, creating a clearly identifiable anthropogenic landscape feature. The monument's location provides broad visual control over the surrounding area and demonstrates a close relationship between the monument's construction and local topography. Since theoretical studies of the Hartashen complex are practically nonexistent, the study is based solely on our field observations and comparative analysis with other megalithic monuments (Fig. 1, 2).

As a result of field research and measurements, several interesting patterns and episodes were identified that warrant special attention.



Fig. 1. Location

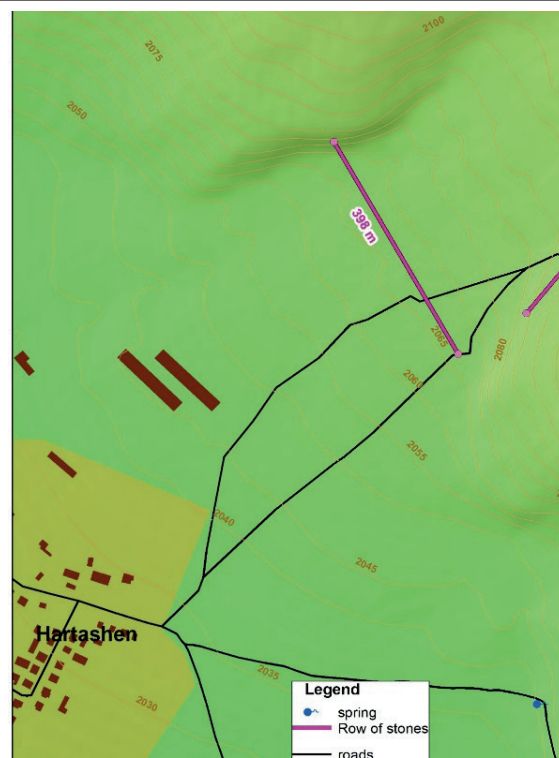


Fig. 2. Study Area

The first thing that catches the eye upon the initial inspection of the megalithic monument is the presence of two preserved three-row “paths,” the first of which (let’s conventionally call it southwestern) is located in the southwestern part of the monument, stretches for 398 m, and starts from the hill on the northeastern side to the foot of the hill on the southeastern side but does not reach it.

The second path, the eastern one, runs along the eastern hill and is 282 m long. Notably, the eastern hill in this area is approximately 30 m concave, and the path appears to “cover” the lower part of the hill. Near the eastern path, on the higher part of the hill, a “ditch” approximately 400 m long, 15 m wide, and 3 m deep is visible to the naked eye. According to

residents, this ditch is also part of the megalithic monument (*Fig. 3*).

Field measurements were conducted on a representative sample of menhirs from both preserved alignments. More than 50 measurements were recorded for inter-stone spacing, menhir height, and row width. Inclination measurements were focused on the monument’s sloping eastern sector, where approximately 20–30 menhirs exhibiting visible inclination were documented and measured. To ensure reliability, a portion of the measurements was repeated and cross-checked during fieldwork.

In total, the megalithic monument contains approximately 700 preserved basalt stone columns (menhirs) of varying sizes, weights, and heights.

Table 1. Selected Parameters of Hartashen Stone Row¹

Parameter	Mean	Min	Max
Inter-stone spacing	142 cm	120 cm	160 cm
Row width	451 cm	430 cm	470 cm
Menhir height	87 cm	40 cm	140 cm
Inclination angle	82.4°	80°	85°

¹ Field measurements were conducted using a Machtz MDM 70-P laser rangefinder. The instrument has a manufacturer-specified measurement accuracy of ± 2 mm. To improve measurement reliability, selected measurements were repeated and cross-checked during fieldwork.



Fig. 3. The Hartashen Stone Row (overview)

They are arranged in a very logical pattern, in three rows, with stones in each row spaced 120–160 cm apart. The distance between menhirs on the south-western path is 135–160 cm, while those on the eastern path are less—120–160 cm. The width of the entire path (for both paths) varies from 430 to 470 cm. The height of the lowest menhir is 40 cm, and the highest—140 cm. The menhirs on the eastern path have a slope toward the foot of the hill, visible to the naked eye. The angle of inclination varies among menhirs: 80–85°. It is also noteworthy that the arrangement of the menhirs in the middle row of paths is such that it never coincides with the “straight line” connecting the adjacent menhirs in the first and third rows (*Table 1*).

According to residents, a spring (“Katnakhbyur”) and two partially collapsed caves are located 2–3 km north of the complex.

It is worth mentioning the dimensions of the wooden chariot discovered during excavations at Lchashen from 1956 to 1974. This remarkable find, housed in the collection of the History Museum of

Armenia under item number 2009-609, is a four-wheeled chariot with an arched roof, dating to the 15th–14th centuries BCE. Its dimensions are:

body — 350 × 220 × 140 cm,

yoke — 300 × 80 × 20 cm

(<https://surl.li/mbhoeY>) (*Fig. 4*).



Fig. 4. Four-wheeled cart
(source: <https://historymuseum.am/wp-content/uploads/2025/08/2009-6092018bq.jpg>)

The Lchashen chariot clearly demonstrates that similar devices were already in use in the northern Armenian Highlands by the mid-2nd millennium BCE, requiring unconventional, original solutions for protection.

Overall, the area of the megalithic complex requires serious archaeological research. Even with the naked eye, traces of alleged tombs or other significant structures are visible, the study of which could reveal fascinating facts about the life, behavior, and customs of the region 3,000–4,000 years ago, and possibly even earlier.

When compared with the Hartashen Stone Row, interesting parallels can be found in modern military reference books, bulletins, and scientific studies containing information about artificial obstacles that hinder the advance of heavy armored vehicles. Specifically, during the Russian-Ukrainian War, the manual “Engineering Support for Combat Operations,” published by the Kyiv Institute of the National Guard of Ukraine in 2024, described, among the artificial obstacles preventing the advance of heavy armored vehicles, vertical concrete or stone pillars as recommended for installation in 3–5 rows, with 150–450 units per 100 m [14]. The didactic

materials in this work also note a certain inclination attributed to the barriers, due to their defensive orientation. In fact, these barriers were quite common since World War II and were nicknamed “Dragon’s Teeth” [15] (Fig. 5).

Results

Structural Characteristics of the Hartashen Stone Row

Field investigations conducted at the Hartashen megalithic complex revealed the presence of a large-scale stone alignment system composed of approximately 700 preserved basalt menhirs of varying dimensions. The monument is situated northeast of the village of Hartashen, within an open upland landscape characterized by gently sloping terrain and a series of low hills surrounding the site.

Two principal stone alignments were documented during field observations. The first alignment, located in the southwestern sector of the complex, extends for approximately 398 m. The second alignment is situated on the eastern hill and measures approximately 282 m in length. Both alignments

The 5,000-year evolution of defensive structures



Fig. 5 Hartashen Stone Row and Dragon’s Teeth use in Ukraine

exhibit a distinctive three-row arrangement of upright stones.

Measurements indicate that the spacing between adjacent menhirs generally ranges between 120 and 160 cm. Along the southwestern alignment, distances between stones vary from 135 to 160 cm, whereas in the eastern alignment the observed spacing ranges from 120 to 160 cm. The overall width of the stone rows varies between 430 and 470 cm.

The preserved menhirs display considerable variation in size. Recorded heights range from approximately 40 cm to 140 cm above the present ground surface. Most stones are composed of locally available basalt and remain partially embedded in the soil.

A notable feature of the eastern alignment is the inclination of many menhirs toward the lower part of the slope. Visual observations indicate inclination angles ranging between approximately 80° and 85°. In addition, the stones of the central row consistently occupy offset positions relative to the stones of the outer rows, producing a staggered rather than linear arrangement.

Topographic Context

The monument occupies a transitional zone between adjacent hills and open terrain. The southwestern alignment descends from a hill slope toward lower ground, while the eastern alignment follows the contour of a naturally concave hillside. The eastern hill exhibits a depression of approximately 30 m in depth relative to the surrounding terrain.

Near the eastern alignment, a linear depression approximately 400 m long, 15 m wide, and 3 m deep is visible on the upper part of the hill. According to local informants, this feature may be associated with the broader megalithic complex, although its chronology and function remain undetermined.

Field observations also recorded the presence of a spring known locally as “Katnakhbyur” and two partially collapsed caves located approximately 2–3 km north of the monument.

Comparative Morphological Observations

Comparison of the Hartashen monument with selected megalithic complexes in Europe demonstrates several distinctive characteristics. Unlike the Carnac alignments in France, which consist of multiple rows extending across a broad area, the Hartashen complex is characterized by a clearly de-

fined three-row configuration maintained throughout the preserved sections of the monument.

Similarly, while the Ale's Stones monument in Sweden exhibits a highly structured arrangement of standing stones, its overall configuration differs substantially from the linear organization observed at Hartashen.

The field data therefore indicate that the Hartashen complex possesses a distinctive spatial organization consisting of long, parallel rows of standing stones, regular inter-stone spacing, and a recurring staggered arrangement of the central row relative to the outer rows. These characteristics represent the principal measurable features documented during the present investigation.

Discussion

The defensive significance of the Stone Row can be considered in terms of several angular factors. First, the three-row structure is located on level ground, sloping toward the flat terrain. This is a very characteristic factor for defending terrain suitable for attack by armored vehicles. In this case, the Stone Row could have served to neutralize the potential direction of attack by chariots. Second, the distances between the stones are large enough for people and animals but too small for any type of vehicle: carts, chariots, and wagons. Moreover, the uneven arrangement of the rows could have made the three-row structure difficult to overcome even for light cavalry, as they would have been forced to slow down, making themselves an easy target.

A comparison of the Hartashen complex with other megalithic monuments reveals a number of similarities and differences. One thing is clear: the Hartashen Stone Row is unique in its three-row arrangement. However, traces of dolmens, visible to the naked eye, and discussions with experts suggest the presence of burials in the area. Thus, this megalithic monument mirrors other existing monuments around the world, which presumably may have had multiple functions, and, most importantly, different parts of them may have been built at different times.

Another argument can be made: even under modern conditions, when moving through the area with equipment, residents had to move some columns of the megalithic monument to ensure the passage of vehicles. It is noteworthy that the current earth road passes through the site of the displaced menhirs of the eastern trail. This indicates that even

today, the Hartashen Stone Row definitely poses an obstacle for mobile units of a certain size.

Conclusion

The Hartashen Stone Row represents one of the most distinctive and insufficiently studied megalithic monuments in Armenia and the South Caucasus. Field observations and measurements demonstrate that the complex possesses a highly organized spatial structure characterized by a three-row arrangement of basalt menhirs, relatively regular inter-stone spacing, a staggered configuration of the central row, and a clear relationship with the surrounding topography. These characteristics indicate deliberate planning and suggest a substantial investment of labor, technical knowledge, and organizational effort in the construction of the monument.

The results of the present study indicate that the Hartashen complex cannot be adequately interpreted solely within the framework of ritual or cultic explanations traditionally associated with megalithic monuments. The monument's morphology, spatial organization, and landscape setting collectively suggest that it may have fulfilled multiple functions. At the same time, the available evidence supports the hypothesis that defensive and territorial-control considerations may have played a significant role in its design and use.

Several observable features support this interpretation, including the three-row arrangement of the menhirs, the relatively restricted passages between stones, the staggered positioning of the central row, and the placement of the structure within a topographically advantageous setting. Together, these characteristics create a barrier-like configuration that could have influenced and regulated movement across the landscape. In this respect, the Hartashen Stone Row may represent an early example of a deliberately constructed territorial barrier whose practical functions extended beyond purely symbolic or ceremonial purposes.

Comparative analysis with selected megalithic monuments in Europe and Scandinavia demonstrates both similarities and significant differences. While the Hartashen complex shares certain organizational principles with other megalithic landscapes, its preserved three-row configuration appears to constitute a distinctive spatial form that

has not yet been adequately documented or analysed within the broader context of Eurasian megalithic studies.

The archaeological, historical, and geoarchaeological significance of the Hartashen Stone Row extends beyond its local context. The monument provides valuable evidence for investigating patterns of spatial organization, territorial management, landscape use, and collective construction practices in prehistoric societies of the Armenian Highlands. It also contributes to broader discussions concerning the development of engineering thinking and the relationship between human communities and their physical environment during the Neolithic and Bronze Age periods.

The comparison with modern anti-vehicle obstacles should be regarded not as evidence of direct functional continuity but as a heuristic analogy that highlights the potential practical and defensive dimensions of the monument's design. Although the available data do not permit definitive conclusions regarding its original function, they justify considering the defensive interpretation as a plausible and productive direction for future research.

Further investigation through systematic archaeological excavations, radiocarbon dating, geophysical survey, GIS-based spatial analysis, and 3D modelling is essential for establishing the chronology of the complex, clarifying the sequence of its construction, and evaluating the relative importance of its defensive, territorial, and symbolic functions. Such research has the potential to establish the Hartashen Stone Row as a key reference site for the study of Armenian and Eurasian megalithic heritage.

Scientific Novelty

The scientific novelty of this study lies in presenting the first systematic structural and spatial analysis of the Hartashen Stone Row based on field measurements and direct observations. The study introduces new empirical data concerning the monument's dimensions, organization, and topographic setting. It also proposes an alternative functional interpretation of the complex by considering not only ritual and symbolic aspects traditionally associated with megalithic monuments but also its potential role in territorial organization and defensive landscape management.

References [Література]

1. Scarre, C. (2002). *Monuments and Landscape in Atlantic Europe: Perception and Society during the Neolithic and Early Bronze Age*. Routledge. 292 p.
2. Parkinson, W. A., & Duffy, P. R. (2007). Fortifications and Enclosures in European Prehistory: A Cross-Cultural Perspective. *Journal of Archaeological Research*, 15, 97–141. DOI: <https://doi.org/10.1007/s10814-007-9010-2>
3. Renfrew, C. (2008). *Prehistory: The Making of the Human Mind*. Modern Library. 288 p.
4. Patton, M. (1993). *Statements in Stone: Monuments and Society in Neolithic Brittany*. Routledge. 232 p.
5. Bradley, R. (2007). *The Prehistory of Britain and Ireland*. Cambridge University Press. 336 p.
6. Blanchard, A., Guyodo, J.-N., Paulsson, B. S., & Montassier, F. (2025). Le Plasker in Plouharnel (fifth millennium cal BC): a newly discovered section of the megalithic complex of Carnac. *Antiquity*, 99(406), 915–934. DOI: <https://doi.org/10.15184/aqy.2025.10123>
7. Cassen, S., Boujot, C., Grimaud, V., Chaigneau, C., Obeltz, C., et al. (2021). Carnac. Récit pour un imagier (Lithogénies 2). Nantes: Laboratoire de Recherche Archéologie et Architectures.
8. Brittany Tourism. (n. d.). Carnac alignments. URL: <https://shorturl.at/c4Na0> (Accessed: October 10, 2025).
9. Mörner, N.-A. (2015). Ales Stones in SE Sweden: A solar calendar from the Late Bronze Age. *Journal of Archaeological Science: Reports*, 2, 437–448. DOI: <https://doi.org/10.1016/j.jasrep.2015.04.002>
10. Sayadyan, H. Ya. (2023). Military geography and geographical factor in the Russian war in Ukraine. *Ukrainian Geographical Journal*, 2023(3), 63–69. [In Ukrainian]. [Саядян А. Я. Військова географія та географічний фактор у російсько-українській війні. *Укр. геогр. журн.* 2023. № 3. С. 63–69.] DOI: <https://doi.org/10.15407/ugz.2023.03.063>
11. Sayadyan, H., & Gevorgyan, A. (2020). Military geography in the context of geographic determinism. *Wisdom*, 16(3), 136–141. DOI: <https://doi.org/10.24234/wisdom.v16i3.384>
12. Sayadyan, H., & Gevorgyan, A. (2023). A geographic and urban planning view of military administrative divisions. *Multidisciplinary Reviews*, 6(3), e2023022. DOI: <https://doi.org/10.31893/multirev.2023022>
13. Avetisyan, H., Gnuni, A., Bobokhyan, A., Sargsyan, G., & Mkrtchyan, L. (2023). The Development of Defensive Systems in Armenia in the Bronze and Iron Ages. *History and Culture*, 19(1), 176–191. DOI: <https://doi.org/10.46991/hc.2023.19.1.176>
14. Turskyi, O., & Semenov, M. (2024). *Engineering Support for Combat Operations*. Kyiv: Kyiv Institute of the National Guard of Ukraine. [In Ukrainian]. [Турський О. Ю., Семенов М. В., Інженерне забезпечення бою : навч. посіб., Київ: КІ НГУ, 2024. 256 с.] URL: <https://kingu.edu.ua/wp-content/uploads/2024/09/Інженерне-забезпечення-бою.pdf>
15. Ambrose, S. E. (1998). *The Victors: Eisenhower and his Boys — The Men of World War II*. New York: Simon & Schuster. 384 p.

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Мегаліти Харташена: просторова організація та можливі оборонні функції мегалітичного комплексу у Північно-Західній Вірменії

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Стаття присвячена структурному і функціональному аналізу «Кам'яного ряду» — мегалітичного комплексу, розташованого поблизу с. Харташен у Ширакській області Вірменії. Мета дослідження — визначити структурні особливості та можливі функції пам'ятки, порівнявши їх із подібними мегалітичними спорудами в Європі, зокрема Скандинавії. Польові дослідження і вимірювання показали, що комплекс складається з приблизно 700 базальтових менгірів, розташованих у три симетричні ряди, що простягаються на відстань близько 400 метрів. Ряди каменів мають чітку геометричну організацію, середня відстань між менгірами становить 120–160 см, а в деяких випадках спостерігається помітний нахил у бік підніжжя пагорба. Ця споруда є унікальною не лише для Вірменії, а й для світової мегалітичної спадщини, оскільки практично не зафіксовано подібних споруд із трирядним розташуванням. Порівняльний аналіз із Карнаком (Франція) та каменями Алеса (Швеція) показує, що комплекс Харташен має унікальну організацію, що не обмежується лише ритуальним чи культовим значенням. Розташування каменів, їхнє топографічне положення та струк-

турна логіка свідчать про те, що комплекс міг також виконувати оборонну або територіальну функцію, служучи природним бар'єром або кордоном. Ця точка зору перекується зі структурою сучасних військово-інженерних систем, зокрема штучних бар'єрів, таких як «зуби дракона». У статті робиться висновок, що мегалітичний комплекс Харташен, ймовірно, є багат шаровим пам'ятником, що поєднує як ритуальні, так і оборонні функції. Також зазначається, що ця споруда може бути прототипом раннього інженерного мислення та просторової організації — це припущення потребує підтвердження шляхом подальших розкопок, радіовуглецевого датування, геофізичного сканування та 3D-моделювання. Мегалітичний комплекс Харташен, завдяки своїй унікальній структурі та можливій багатофункціональності, має виняткове значення не лише в контексті розвитку вірменської, а й світової мегалітології.

Ключові слова: мегалітичні споруди, Харташен, кам'яний ряд, оборонна система, «зуби дракона», неоліт, бронзова доба.

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