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RESUMPTION OF THE EXCAVATIONS OF THE MIDDLE PALEOLITHIC TAGLAR CAVE

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Taglar Cave was first documented in 1960 by M.M. Huseynov and was investigated intermittently over a 12-year period from 1964 to 1986. A total area of 72 m² was excavated. The cave is located at an altitude of 712 meters above sea level, 30 meters above the current bed of the Guruchay River. It consists of six chambers, measuring approximately 50 meters in width and 25 meters in length, with a maximum height of 5.5 meters.

During the earlier excavations, six stratigraphic layers were identified. The first layer contained materials from the Middle Ages, as well as the Bronze and Chalcolithic periods. The remaining layers were attributed to the Middle Paleolithic period.

In 2024, a joint international archaeological expedition conducted by Azerbaijan and Japan resumed research at Taglar Cave. That season's investigations focused on the eastern wall of the cave, where an 8-meter-long longitudinal section (north-south) was excavated and its stratigraphy documented. A grid system was implemented, confirming that a significant portion of the sediment remains unexcavated.

Excavations in 2024 uncovered several hearths, approximately one thousand lithic artifacts, and faunal remains. Additionally, five sediment samples from Layers II and III and two from below Layer VI were collected for absolute dating using the OSL (Optically Stimulated Luminescence) method. These results are expected to provide more precise chronological data regarding the cave's occupation.

Keywords: Taglar Cave, Middle Paleolithic, Neanderthal

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Introduction. The South Caucasus is located at the crossroads of Europe, Southwest Asia, and Central Asia, where complex cultural and population dynamics have occurred since the Paleolithic era. Taglar Cave in Karabakh, South Azerbaijan, is a crucial site for understanding those dynamics during the Middle Paleolithic (Fig. 1). Excavations between 1964 and 1986 by Huseynov (2010), assisted by Jafarov (1980) in its later phase, revealed two significant aspects of this cave site. First, the Middle Paleolithic lithic industries of Taglar likely had direct affinities to those of Southwest Asia, particularly the Zagros Mousterian. Second, the long cultural sequence documented at Taglar, which is more than 5 m thick in the deposits, indicates an intriguing cultural evolution. The excavators identified that the latest layer (Layer 2) contained Upper Paleolithic techno-typological elements, suggesting a stratified occurrence of the Middle and Upper Paleolithic cultural layers.

Fig. 1 Taglar Cave and its related Middle Paleolithic cave sites in Azerbaijan.

These two insights remain unique, even amidst the current knowledge of the Middle Paleolithic archaeology of Azerbaijan, which requires re-evaluation using modern research strategies such as rigorous stratigraphic excavations and radiometric dating techniques that were unavailable during the 1960s-1980s. Accordingly, the Azerbaijan-Japan research team resumed excavations of Taglar Cave. After the preliminary feasibility research in 2023, substantial excavations were conducted in the summer of 2024. This paper summarizes our work and discusses future perspectives.

Investigations of Taglar Cave in 2023–2024

Cave setting

Taglar Cave is located in the Hojavand region of southwest Azerbaijan and approximately 20 km west of Fuzuli. Azykh Cave, another important Paleolithic

cave, is located approximately 3 km east of the Taglar Cave. Taglar Cave was discovered by Huseynov in 1960, and his excavations were conducted intermittently for 12 seasons between 1964 to 1986 (Huseynov 2010), while the field direction of the later seasons were taken over by Jafarov (Jafarov 2017).

The modern geomorphological setting of the cave indicates heavy modification by old and new highway constructions, with three highways running in front of it. Nevertheless, our research indicates that the cave has an altitude of approximately 712 m asl, opening to the south on one of the terraces of the Kuruchay River, approximately 30 m above the modern riverbed. The cave is located at the eastern end of a series of karst caves composed of six chambers distributed over an area of 50 m E–W and 25 m N–S with a maximum height of 6 m (Fig. 2). The target chamber was approximately 8 m wide and 10 m deep. The height from the bedrock was up to 5.5 m. When the excavation began in the 1960s, it was thought to be approximately 1 m from the surface because of the accumulation of sediments.

Fig. 2 General view of the Taglar Cave looking north.
The eastern chamber is a target of excavations.

Excavations

According to Jafarov (1983), approximately two-thirds of the cave deposits have already been excavated. Even now, the central part of the cave has been deeply hollowed out, a reminder of the large-scale excavations that occurred between 1964 and 1986. However, our preliminary investigations in 2023 revealed that primary deposits remained along the east cave wall. Therefore, we opened a 1 m wide and 8 m long trench along the eastern edge of the old excavation area (Fig. 3) and found that the east wall of the previous trench sloped heavily westwards. This meant that because the site had not been protected since the mid-1980s, a large portion of the upper part of the east wall collapsed, filling the inner part of the cave with sediment. Thus, we carefully removed the collapsed or disturbed deposits to determine the boundary between areas that had already been excavated and those that had not.

Fig. 3 Excavation trench at Taglar Cave, in 2024, facing the north.

As a result, a complete stratigraphy along the east wall was revealed, which confirmed the reliability of the stratigraphic divisions made by Jafarov (1983) and Huseynov (2010) into six lithological layers.

Directly below Layer 1 of Holocene sediments, Layer 2, that is, the latest Middle Palaeolithic deposits at Taglar Cave is situated. It is distinguished by light brownish-grey sediments containing clumpy fill, a high content of detrital material, and the angularity of rubble. Sediments closer to the cave mouth are heavily brecciated. They have practically become stones, likely through water activity. Underlying Layer 3 represents a 30–80-cm-thick pale greenish-gray loam layer, which is homogeneous and compact in sediment composition. Evidence of human activity has been sparsely identified. Layer 4, yellowish-pale, and less calcareous loam, constitutes the major part of the Middle Paleolithic deposits at Taglar Cave. It is approximately 2 m thick, divided into 4a and 4b, of which 4b is significantly richer in organic remains associated with numerous hearths superimposing on each other. Layer 4a was identified directly on the bedrock in the inner parts of the cave. Therefore, underlying layers were discovered only in areas closer to the cave mouth. Layer 5 exhibited distinct marker lenses and layers of silty fine sand, approximately 1 m thick, with a greenish-muddy color. The hearth and organic remains were sparsely identified. The lowest layer, Layer 6, is characterized by a sandy composition filled with highly cemented breccia. It was situated on the bedrock of the excavation trench. Similar to Layer 5, hearths and organic remains

were rare. As the bedrock sharply declined downwards at the entrance, it is possible that even older sediments were recovered when the excavation trench expanded to the cave terrace.

Based on the above stratigraphy, we performed a systematic sampling of sediment Layers 2–6 for optically stimulated luminescence dating. Simultaneously, we obtained animal bones for radiocarbon dating from Layer 2.

Recovered remains

The 2024 excavations yielded approximately 1000 flaked stone artifacts from the Middle Paleolithic period. Our preliminary analysis determined a relatively high occurrence of Levallois laminar blanks in later layers. Concurrently, the rather common manufacturing of side scrapers and truncated-faceted pieces also characterizes the tool typology of the Taglar Mousterian as resembling the Zagros Mousterian (Fig. 4). Although there is likely to be a chronological change in the lithic industry, overall, Jafarov's (1983) original description seems justified. Our study aimed to identify these features from modern perspectivess. Faunal remains also constitute an essential part of the material findings from Taglar Cave. Although the sample size was too small to draw meaningful conclusions, temporal variability was discernible, suggesting a change in hunting activities due to either climatic or behavioral changes during the Middle Paleolithic. This observation is also favorable for shaping future research strategies.

Fig. 4 Middle Paleolithic lithic artifacts from Taglar Cave. Top: Layer 4; Bottom: Layer 5

Conclusion

Excavations in the 2023–2024 seasons at Taglar Cave revealed that the excavations in 1963–1986 removed much of the Paleolithic cave deposits. However, rich primary deposits remain along the eastern wall and in the nonsheltered

terrace area, extending southward. During the first season of the resumption of the investigation, we carefully examined the stratigraphy of the primary deposits. This study confirms the validity of the six-layer division proposed by Jafarov (1983). Furthermore, we were able to record a longer stratigraphic cross-section than previously published.

Our fieldwork at Taglar Cave during 2023–2024 and the recommencement of research at the nearby Azykh Cave mark the beginning of the resumption of full-scale Paleolithic research in the Karabakh region. This demonstrates the existence of stratified Middle Paleolithic deposits at this cave, associated with a series of hearths, plenty of lithic artifacts, and animal remains in primary contexts. This long stratigraphic sequence is the unique and strongest point of the Middle Paleolithic Taglar Cave. Long-term investigations would provide invaluable insights into the cultural and population dynamics of the Middle Paleolithic, when the replacement of Neanderthals by modern humans took place.

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ORTA PALEOLİT DÖVRÜNƏ AİD TAĞLAR MAĞARASINDA QAZINTILARIN BƏRPASI

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XÜLASƏ

Tağlar mağarası 1960–cı ildə M.M.Hüseynöv tərəfindən qeydə alınmışdır və 1964-1986-cı illərdə fasilələrlə 12 il öyrənilmişdir. Ümimilkdə 72 m^2 sahə tədqiq olunmuşdur.

Mağara dəniz səviyyəsindən 712 m yüksəklikdə, Quruçay çayının müasir yatağından 30 m yüksəklikdə yerləşir. 50 m enə, 25 m uzunluğa malik 6 zaldan ibarətdir. Maksimum hündürlüyü 5.5 m təşkil edir. Aparılan tədqiqatlar zamanı 6 təbəqə qeydə alınmışdır ki, onlardan ilk təbəqə orta əsrlər, tunc və eneolit dövrlərinə, digərləri orta paleolit dövrünə aiddir.

2024–cü ildə Azərbaycan-Yaponiya birgə beynəlxalq arxeoloji ekspedisiyası Tağlar mağarasında tədqiqatları bərpa etmişdir. 2024-cü il mövsümünün tədqiqatları mağaranın şərq divarı boyunca aparılmışdır və 8 m uzunluğunda şimal-cənub uzununa kəsiyin stratiqrafiyası müəyyən edilmişdir. Tədqiqatlar zamanı tor sistemi tətbiq edildi və çoxlu miqdarda qazılmamış çöküntünün qaldığı təsdiq edilmişdir. Qazıntılar zamanı bir sıra ocaq yerləri, minə yaxın daş məmulatı və heyvan qalıqları aşkar edilmişdir. Bundan əlavə 2024-cü il mövsümü ərzində II təbəqədən III təbəqəyə qədər laylardan beş və VI təbəqənin altından iki OSL üsulu ilə mütləq yaşı müəyyən etmək üçün nümunələr götürülmüşdür. Bu bizə gələcəkdə mağaranın yaşı ilə bağlı dəqiq tarixləri öyrənməyə imkan verəcək.

Açar sözlər*:* Tağlar mağarası, orta paleolit, neandertal

ВОЗОБНОВЛЕНИЕ РАСКОПОК СРЕДНЕПАЛЕОЛИТИЧЕСКОЙ ПЕЩЕРЫ ТАГЛАР

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РЕЗЮМЕ

Пещера Таглар была открыта в 1960 году М.М. Гусейновым и изучалась с перерывами на протяжении 12 лет — с 1964 по 1986 год. В общей сложности была исследована площадь в 72 м². Пещера расположена на высоте 712 метров над уровнем моря и на 30 метров выше современного русла реки Гуручай. Она состоит из шести залов, ширина которых составляет около 50 м, длина — 25 м, а максимальная высота достигает 5,5 м.

В результате проведённых ранее исследований были зафиксированы шесть культурных слоёв. Первый слой относится к эпохе Средневековья, а также бронзовому и энеолитическому периодам; остальные слои датируются временем среднего палеолита.

В 2024 году совместная азербайджано-японская международная археологическая экспедиция возобновила исследования в пещере Таглар. Работы полевого сезона 2024 года проводились вдоль восточной стены пещеры, где была изучена стратиграфия продольного разреза (север — юг) длиной 8 метров. В ходе раскопок была применена система квадратной сетки, что позволило установить наличие значительного объёма нерасчищенных отложений.

Во время раскопок были обнаружены следы очагов, около тысячи каменных артефактов и остатки животных. Кроме того, в 2024 году было отобрано пять образцов из слоёв II–III и два образца из слоя ниже VI для определения абсолютного возраста с использованием метода оптически стимулированной люминесценции (OSL). Это позволит получить более точные данные о времени обитания в пещере в будущих исследованиях.

Ключевые слова: пещера Таглар, средний палеолит, неандерталец