NATIONAL ACADEMY OF SCIENCES OF REPUBLIC OF ARMENIA

INSTITUTE OF GEOLOGICAL SCIENCES

INSTITUTE OF ARCHAEOLOGY AND ETHNOGRAPHY

THE SECOND CIRCULAR

INTERNATIONAL OBSIDIAN CONFERENCE IOC–2026

FROM MAGMA TO ARTIFACT: THE GEOLOGY AND ARCHAEOLOGY OF OBSIDIAN

Yerevan, Armenia, 28 September – 01 October, 2026

Obsidian Hearth, sculpture by Jean-Michel Othoniel (b. 1964), France, 2014, Boghossian Foundation Collection, Lovers Park, Yerevan, 143x200x220 cm.

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LOCAL ORGANIZING COMMITTEE CONTACTS

Conference Web-site www.ioc2026.geology.am
e-mail: IOC2026@geology.am
Payment: Registration fees can be paid conference web site (payments will be open April 2026)
Telephones/WhatsApp : +374 94775980, +374 91503175 , +374 91308431

CONFERENCE TOPICS

- **Petrology and geochemistry of obsidians**
- **Volcanic processes and physical properties of rhyolite melts**
- **Provenance studies of archaeological obsidian: source exploitation and raw material distribution**
- **Typological, technological, and use-wear analysis of archaeological obsidian**
- **History and methods of provenance studies in archaeology**

Abstracts volume with ISBN and DOI will be printed and distributed over conference web-site

CONFERENCE VENUE

ROUND HALL OF THE PRESIDIUM OF ARMENIAN NATIONAL ACADEMY OF SCIENCES

VISA INFORMATION

- ✓ ***Citizens of all European Union countries, Switzerland, UK, the USA, China, Iran, Japan, Brazil, Argentina and the states of former USSR republics do not need visas to enter Armenia.***
- ✓ ***Citizens of many countries can easily get visa on arrival at the Yerevan Zvartnots international airport (visa fee is ~ USD 6).***
- ✓ ***Citizens of some countries are required to apply for visa beforehand***

For more information about the visa policy of Armenia, please check the regularly updated websites:
http://mfa.am/en/visa/
https://en.wikipedia.org/wiki/Visa_policy_of_Armenia

AIRPORT INFORMATION

The new terminal of Yerevan Zvartnots International Airport was built in 2013. Currently more than 30 airlines operate flights to and from Yerevan, totally about 40 flights per day from/to Europe, Asia, Russia and the Middle East. Among them: Air Armenia, Air France, FlyOne, Lufthansa group/Austrian Airlines, Qatar Airways, Aeroflot, S7 Airlines, China Southern Airlines, Lot Polish Airlines, Air Arabia, Aegean Airlines, Brussels Airlines, WizzAir and others.

Airport website: www.zvartnots.aero

HOTELS IN YEREVAN

A large selection of hotels is available in Yerevan – from luxury to affordable.




BACKGROUND: OBSIDIAN OCCURENCES IN ARMENIA

Evidence of the Quaternary and Holocene volcanism in Armenia include plateau-basalt lavas, several large stratovolcanoes (e.g. Aragats) and associated ignimbrites. In Armenia, there are more than 500 Quaternary–Holocene monogenetic volcanoes located in several volcanic fields/highlands and forming one of the densest volcano clusters on the Earth. Compositionally, Armenian Quaternary magmas range from picrobasalts and basanites to rhyolites, and reveal unique geochemical fingerprints of collision zone volcanism that differ from those at island arcs, continental intraplate/oceanic islands settings and mid-ocean ridges. Armenia, with its extensive Pliocene–Quaternary volcanism, hosts high-quality obsidian in five volcanic provinces. Many sources are accessible and show archaeological evidence of prehistoric use. Obsidian was a valuable raw material in prehistoric times across the Caucasus, Near East, and Mediterranean, often found far from its geological sources. Its geochemical properties enable precise provenance tracing, shedding light on ancient trade routes and regional resource utilization. Unlike metals, obsidian retains its composition during tool production, and its distinct geochemical signatures allow clear source differentiation.

Distribution of obsidian sources in Armenia, Georgia and Eastern Turkey (after Meliksetian et al., 2024).

CONFERENCE SCHEDULE

DATES: 28 September – 01 October 2026

CONFERENCE FORMAT

The conference format will be onsite.

Abstract submission deadline: June 5, 2026

REGISTRATION FEES

The online registration secure form will be available on the conference website starting from June 25, 2026.

Onsite regular participants – 200,000.00 Armenian drams (~500 USD)

Onsite student participants 100,000.00 Armenian drams (~250 USD)

Accompanying persons - 100,000.00 Armenian drams (~250 USD)

Online (Remote) participants – 20,000.00 Armenian drams (~50 USD)

Payment on site will be possible, but an additional fee of 50 USD will be charged.

The Registration fee includes:

- ***Attendance at the scientific sessions***
- ***Coffee breaks and lunches during the meeting***
- ***Printed abstracts volume and excursion guide***
- ***Transportation and lunch during two mid-conference field trips***
- ***Conference banquet***
- ***Conference materials and an obsidian souvenir***
- ***Guided tour to the History Museum of Armenia***
- ***Welcome "Icebreaker" event***
- ***Special sightseeing travel program will be offered to the registered accompanying persons***

The registration fee refunds will be available up to one month prior to the conference.

The registration fees do not include the costs of international travel and accommodation in Yerevan.

Abstracts should be prepared in the following format:

Font: Times New Roman, 12 pt

Line spacing: 1.5

Margins: 2.5 cm on all sides

Maximum length: 400 words

Include title, authors, affiliation, and email

Indicate preferred presentation type via email (oral or poster)
Please submit your abstract in Word to IOC2026@geology.am

GUIDED TOUR TO THE HISTORY MUSEUM OF ARMENIA

The History Museum of Armenia is a nationally significant cultural institution dedicated to preserving and showcasing Armenia's heritage. With a collection of over several hundreds of artifacts spanning from Paleolithic times to today, the museum serves as a bridge between the past and the future, contributing to science, education, and tourism.

Obsidian nuclei (Neolithic, VI Mil. BC) in the museum exhibition

Exhibition of History Museum of Armenia

Exhibition of History Museum of Armenia

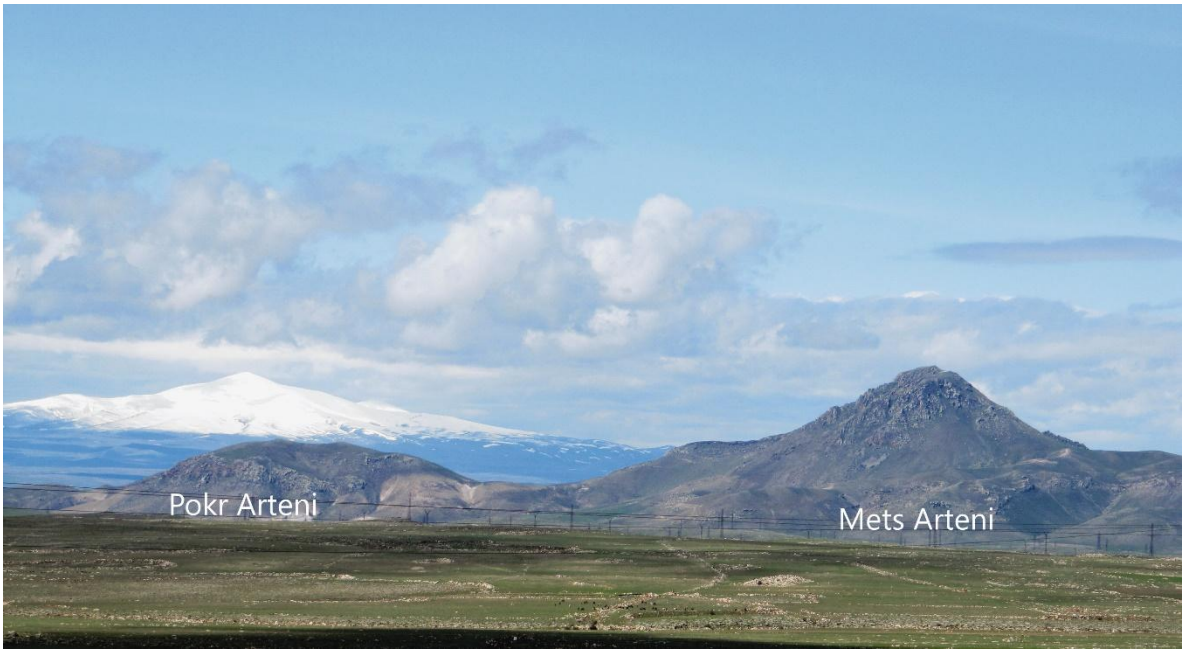
MID CONFERENCE FIELD TRIP 1: ONE DAY, INCLUDING ARTENI OBSIDIAN SOURCE AND BAROZH-12 MIDDLE PALEOLITHIC SITE

Arteni rhyolite (obsidian) volcano

Arteni volcanic complex is located within Aragats volcanic province. The age of Arteni rhyolites considered to be Early Pleistocene; K-Ar ages are: for Mets Arteni 1.45–1.5 Ma (Chernishev et al., 2002); fission track ages –1.27 Ma (Oddone et al., 2000) and 1.26 Ma

for Pokr Arteni (Lebedev et al., 2011). Thus, rhyolitic eruptions and the formation of domes of Arteni volcano correspond to the Early Pleistocene. Eruption products of Arteni volcano are covered by more recentMiddle Pleistocene andesitic lava flows of neighboring Ddmasar cinder cone and ignimbrites of Aragats stratovolcano.

Arteni is the most compound rhyolitic volcanic complex in Armenia, and it consists of two independent rhyolitic volcanoes: Mets (Big) and Pokr (Little) Arteni (2047 and 1754 m asl, respectively). Volcanic activity began with an eruption of perlite-pumice pyroclastics, followed by eruptions of detrital perlite and zonal obsidian that flowed westward and southward; shorter flows also went northward. Arteni obsidian is of high quality; "smoky quartz" of the translucent, reddish-brown, black, and other varieties are known.



Arteni volcanic complex in Armenia, Aragats volcanic province.

Products of explosive eruptions of rhyolite pumice and perlite pyroclastics (left). Obsidian cliff in small modern quarry across a lava flow erupted from Pokr Arteni volcano(right).

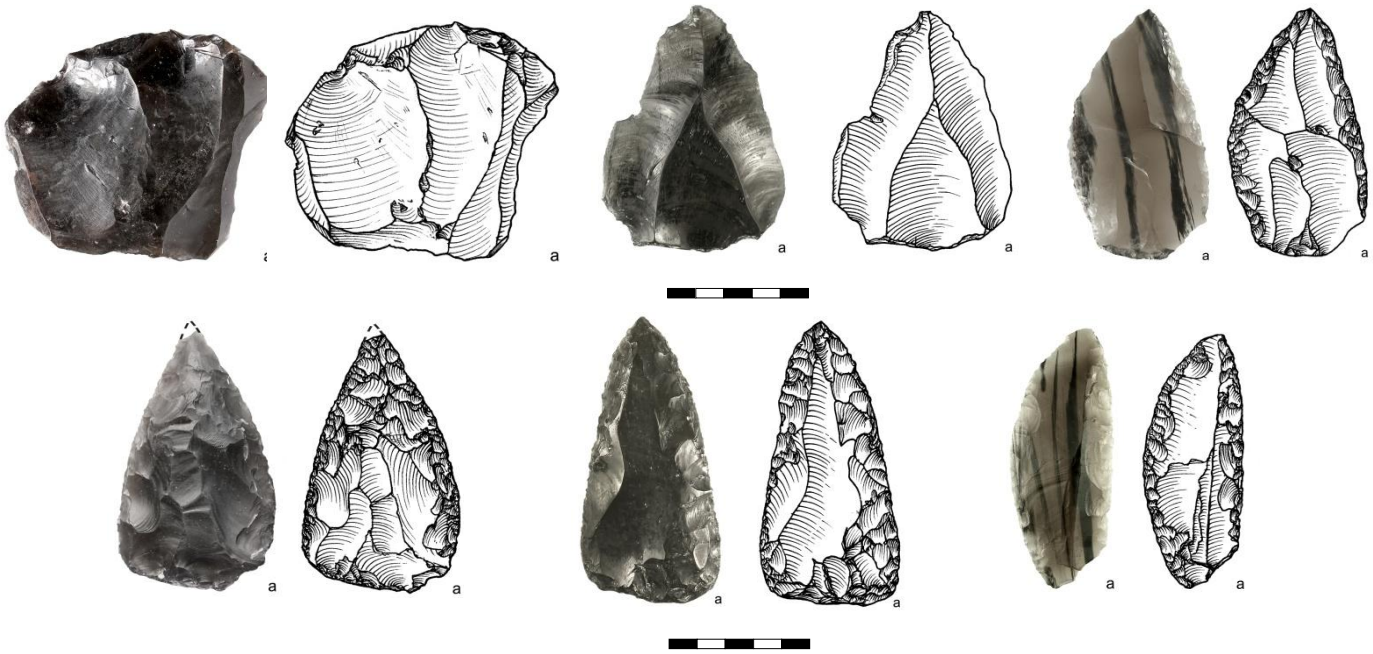
Barozh-12, Middle Paleolithic open-air site and obsidian workshop

Located in western Armenia, at the edge of the Ararat Depression near the Mt Arteni volcano (Fig. 1.16), the open-air Middle Paleolithic site of Barozh-12 was excavated by an international–Armenian archaeological team from 2009 – 2014 (Glauberman et al., 2020a,b). This site yielded significant data on Late Middle Paleolithic technology, land use, and hominin behavior in a region that has heretofore been little explored. The lithic assemblage (Fig. 1.17) appears similar to those from other contemporaneous Middle Paleolithic sites in the region, and luminescence age estimates indicate the site was occupied around 60 – 31 ka, the time range when archaic and anatomically modern humans may have overlapped temporally and/or geographically. Barozh-12 is a large, high-density Middle Paleolithic site. A total of 4.85 m^3 of excavated sediments yielded 17,317 obsidian artifacts with densities ranging from 1600–5200 artifacts / m^3 according to stratigraphic unit.

Unidirectional-convergent and unidirectional Levallois core reduction techniques dominate in the core and flake assemblage, and retouched pieces are numerous. These are mainly retouched Levallois points and convergent and other unifacial scraper forms on Levallois blanks (Fig. 1.17).

View of Barozh-12 open-air Paleolithic site and test trench. Arteni volcano is in the background.

Surface and excavated artifacts are of all size classes and technological categories, including tool re-sharpening flakes and core trimming elements. Artifacts class frequencies and cortex analysis also suggest that all stages of core reduction and tool use, maintenance and discard occurred on site. While artifact assemblage analysis also reveals that site occupation intensity varied over time at the site.
The extent of a 'raw material exploitation territory' is suggested by obsidian sourcing. Results of portable X-Ray fluorescence (pXRF) analysis of samples of obsidian artifacts from all strata (n = 318) indicate that most were manufactured from local (1 – 2 km) Pokr and Mets Arteni material, while a smaller number of mainly retouched artifacts were manufactured on material that originates between 40 and 190 linear km away. Artifact transports overlap with sources in the Armenian Highlands and eastern Anatolia, and other Middle Paleolithic sites within the same time range. Interestingly, obsidian sourcing at the Upper Paleolithic site of Aghitu-3, around 200 km to the south of Barozh-12 also shows exploitation of the same obsidian sources. This suggests overlapping mobility ranges of hominins that employed both Middle and Upper Paleolithic technologies in the region starting around 40 ka.



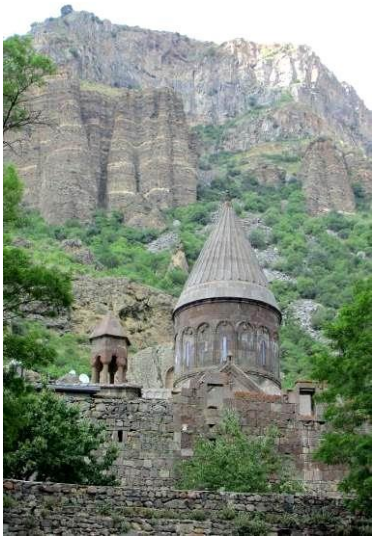
Selected artifacts from Barozh-12: 1 Levallois core; 2 Levallois point; 3 Double straight-convex scraper; 4 Mousterian point; 5 Convergent scraper; 6 Double straight-convex scraper (modified after Glauberman et al. 2020a)

MID-CONFERENCE FIELD TRIP 2: GARNI HELLENISTIC TEMPLE, COLUMNAR JOINTS LAVA FLOW, GEGHARD MONASTERY, GUTASNAR OBSIDIAN SOURCE

Garni and Geghard

a. Visit to 1st century AD Classical Hellenistic temple of Garni.
b. Visit to gorge of Azat River, spectacular columnar joints lava flow and Garni active fault.
c. Visit to 4th – 13th Century AD Geghard monastery and view of Voghjaberd volcanoclastic suite of Upper Miocene – Pliocene age.
d. Gutansar volcano and obsidian outcrops

Garni Hellenistic temple



Geghard Monastery

Columnar joint lava flow in Garni, 127 ka,

Jraber extrusive body related to the Gutansar volcanic complex.
Obsidian outcrop on the Yerevan-Sevan highway

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