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OBSIDIAN AND SALT IN THE KHOY PLAIN UNCOVERING THE EARLY BRONZE AGE OBSIDIAN PROCUREMENT SYSTEM OF THE SALT MINE OF TAPPEH DOOZDAGHI, NORTHWESTERN IRAN

Marie Orange^{1,2,3,4}, Akbar Abedi⁵, François-Xavier Le Bourdonnec², Afrasiab Garavand⁶, Fatemeh Malekpour⁷, Catherine Marro³

¹Archaeology and Palaeoanthropology, School of Humanities, Arts and Social Sciences, University of New England, Australia; ²IRAMAT-CRP2A CNRS UMR 5060, Université Bordeaux Montaigne, France; ³Archéorient—Environnements et Sociétés de l'Orient Ancien CNRS UMR 5133, Maison de l'Orient et de la Méditerranée, France; ⁴Southern Cross GeoScience, Southern Cross University, Australia; ⁵Department of Archaeology and Archaeometry, Tabriz Islamic Art University, Iran; ⁶Mohaghegh Aradabili University, Iran; ⁷West Azerbaijan Cultural Heritage, Tourism and Handicraft Organisation, Iran

TAPPEH DOOZDAGHI



- Salt mine located in the Khoy plain, Northwestern Iran
- 16 hectares, culminates at c. 24 meters above the surrounding landscape
- First excavation campaign in 2016
- Late Neolithic to Iron Age occupation
- High concentration of Early Bronze Age material culture remains (c. 3500-2400 BCE)

MATERIALS & METHODS

Materials

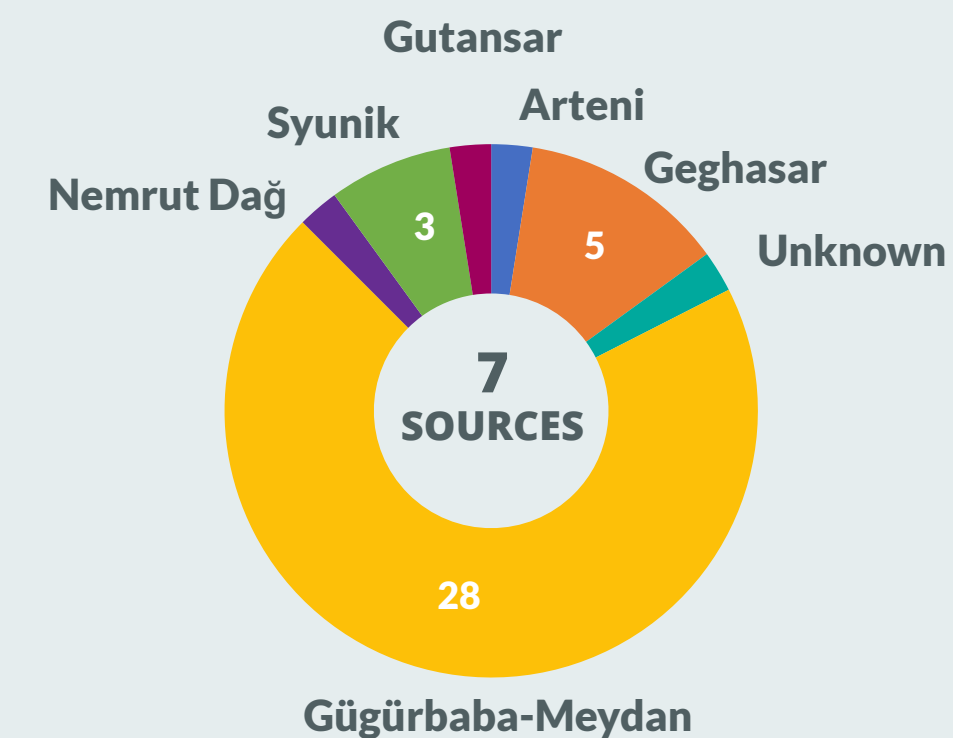
- 40 obsidian artefacts were retrieved from the Early Bronze Age occupation level; they were all analysed by portable XRF.

Methods

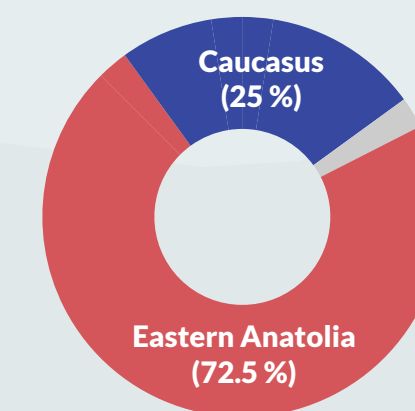
- Instrument: Bruker Tracer III-SD
- Calibration: MURR obsidian calibration
- Elements measured: Mn, Fe, Zn, Ga, Th, Rb, Sr, Y, Zr, Nb
- Measurement specifications: 180 seconds, 40 Kv, 39 µA, green filter (0.006" Cu, 0.001" Ti, 0.012 Al)
- Standards: Several standards were analysed at the beginning and end of each run to ensure the repeatability, accuracy, and precision of our measurements.

24 meters above surrounding landscape

OBSIDIAN PROCUREMENT



- High diversity of obsidian sources exploited (7 in total) from Eastern Anatolia (72.5%) and the Southern Caucasus (25%).



DISCUSSION

- The 40 obsidian artefacts from the Early Bronze Age levels of Tappeh Doozdaghi come from seven different sources located in both Eastern Anatolia and the Southern Caucasus.
- High obsidian procurement diversity suggests that the Khoy plain attracted populations from varied horizons during the Early Bronze Age. They were likely drawn by the numerous natural resources available in the Khoy plain, such as arable land, winter pasturelands, abundant water sources, and salt.
- Similar obsidian sources diversity is also observed on the salt mine of Duzdagi, in Nakhchivan (>90 km North), where both ceramic and obsidian assemblages hint at a possible role of 'pastoralist hub' during the Kura-Araxes period.
- Highlights the key role of local resources (e.g. salt) in the larger circulation system of other staples (e.g. obsidian) and in creating economic and social hubs for populations at the regional and interregional level.

Early Bronze Age ceramics from Tappeh Doozdaghi
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