

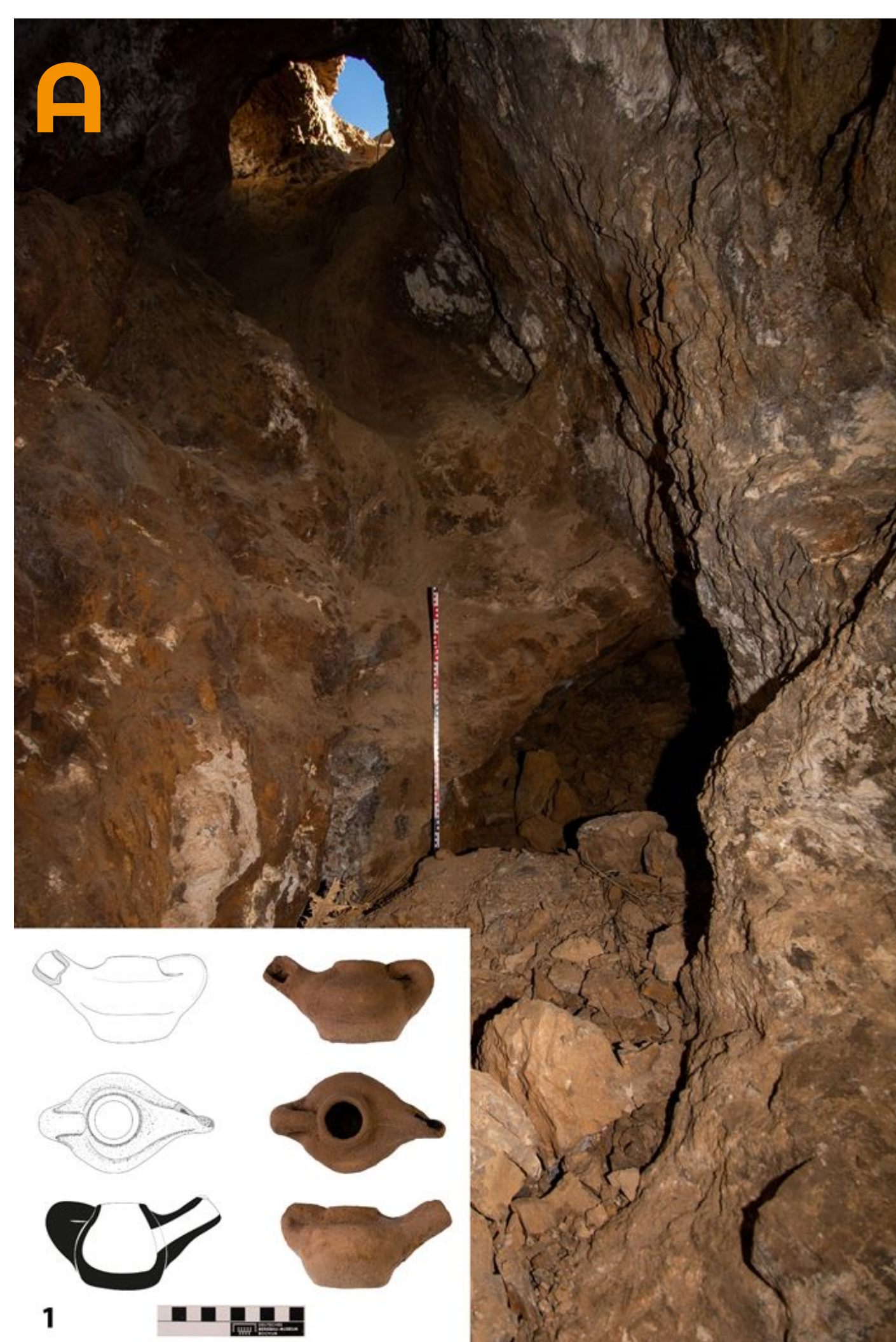
# Ancient Mining on the Iranian Plateau.

## The Case Study of Shakin in the context of diachronic mining landscapes. (PhD-Study)

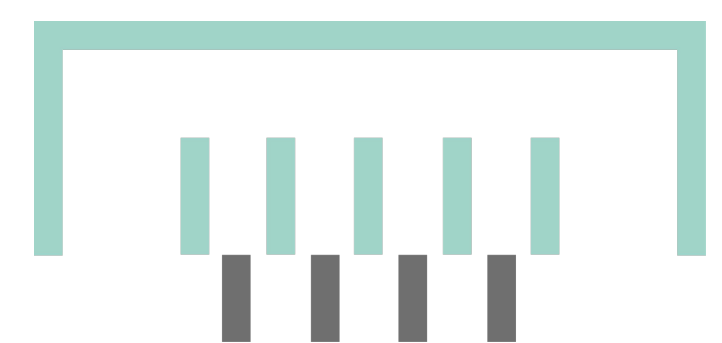
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### Part A: Fieldwork in Shakin

Silver has been mined on the Iranian Central Plateau since the fourth millennium B.C., with early evidence found in the Shakin Mines near Takestan, Qazvin province. These mines, used in prehistoric times, show traces of stone tools and fire-set mining techniques. Silver and possibly lead were extracted through various periods, including the Iron Age, Sassanid, and Islamic periods, as evidenced by numerous mining structures. The region's settlement history is reflected in mounds, millstone quarries, and qanat systems. The Shakin Mines are being studied as part of the SPP 2176 project, with recent surveys documenting the area's features, which are threatened by open-cast mining.



An early Islamic gallery in Shakin, evidenced in 2021. Photo: Schapals/DBM



Interweaving Resources: From Economic Hegemony towards a New Understanding of Resources  
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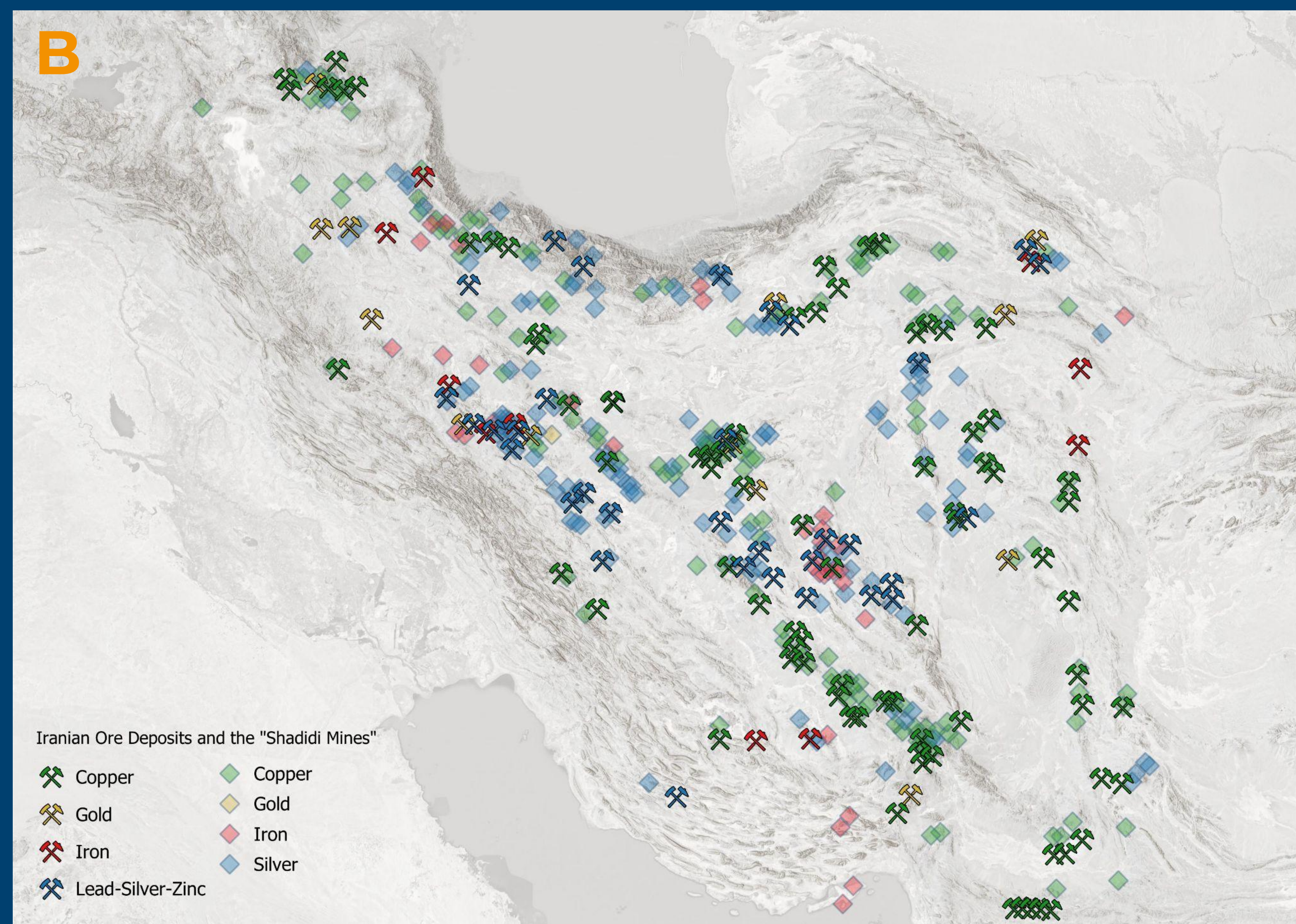
The Iranian Central Plateau is rich in mineral deposits that have been exploited diachronically from prehistoric to modern times and have contributed significantly to the socio-economic development of Iran and its neighbours. This PhD-Study provides basic research on the "major lacuna" of early exploitation of these deposits.

### Fields of Study:

**A: Case Study: Shakin - early, multi-phase mining for silver and its corresponding cultural landscape**

**B: Mining landscapes of the Central Plateau -A review of the mining landscapes of the Central Plateau and a classification of Shakin**

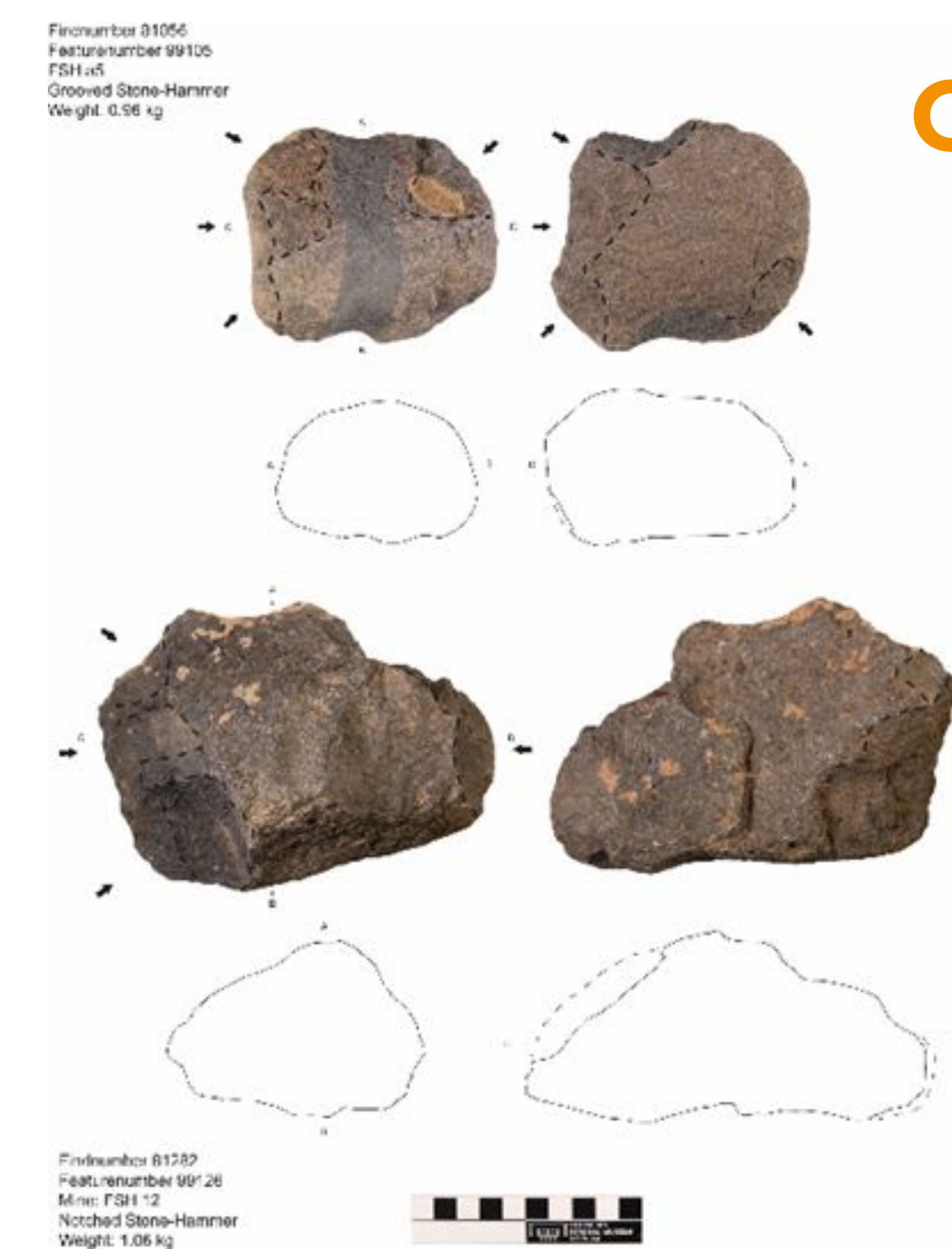
**C: Artefact Studies in combination with mining techniques in early mining through prehistoric-antique and historic times (Shakin/Veshnaveh)**



Bibliography:  
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Nezafati, Nima, Momenzadeh, Morteza and Pernicka, Ernst 2008. The Iranian ore deposits and their role in the development of the ancient cultures. *Der Anschnitt. Anatolian Metal IV*. German Mining Museum (Deutsches Bergbau-Museum), Bochum, Germany. Beiheft 21, pp 77-91.  
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Prehistoric Mining Hammers from Shakin. Schapals/DBM

### Part B: Mining Landscapes

The study of prehistoric mining on the Iranian Plateau reveals complex landscapes, with numerous old mines and ongoing metallurgical activities. Geological surveys and provenance analyses identify many potential prehistoric mining sites, such as Shakin, Anaru, and Veshnaveh. These sites show surface-level mining, later deepened by younger operations from the 1st millennium AD. Fire-setting, stone tools, and surface mining features indicate activity from the 4th to 2nd millennium BC, though dating remains difficult. Veshnaveh is the only reliably dated site from the 3rd and 2nd millennia. This suggests small, local mining operations and challenges in distinguishing early mining activities from later developments.

### Part C: Study of Artefacts and Mining Techniques

Few larger collections of Bronze Age mining tools are known on the Iranian plateau. The approximately 200 stone tools documented in Shakin during the fieldwork now provide the opportunity for a detailed comparison with the extensive and well-documented collection of tools from the Bronze Age mining of Veshnaveh. By reviewing and analysing excavated features and layer contexts in the mines of Veshnaveh and comparing them with the features of Shakin, the work attempts to draw conclusions about techno-complexes in prehistoric mining on the Iranian Plateau.

Duration of the dissertation 2021 - 2026

