

Defending the Vedi River Valley of Armenia: The Fortification and Refortification of a Flatland-Mountain Interface

PETER J. COBB, ELVAN COBB, HAYK AZIZBEKYAN, ARTUR PETROSYAN, AND BORIS GASPARYAN

The mountainous topography of the Armenian Highlands and the South Caucasus accentuates the importance of valleys as areas of habitation and as conduits among these interspersed settlement areas. The Vedi River Valley of Armenia, located along the southeastern edge of the Ararat Plateau (Plain), serves as one such important transportation route in and through these highland areas. At the center of the mouth of this valley sits the prominent Vedi Fortress, ideally situated for defense of this route and landscape. The site was first fortified during the Late Bronze Age, perhaps during the centralization of power by a local polity contained within the valley. Burned down and abandoned at the end of the Iron Age I, the fortress would then see varied reuse through several later periods given its prominent location and proximity to other local power centers. Of particular importance is its refortification during the Early Medieval (Late Antique) period, when Armenia was under Sasanian Persian suzerainty. This article presents the results of archaeological fieldwork in this valley and at the fortress, followed by a discussion of the landscape's fortification and refortification during these two periods. The Vedi River Valley provides a case study for examining control, mobility, and the negotiation of local and remote power within the specific contained landscape of a river valley in mountainous terrain.

Keywords: South Caucasus; fieldwork; fortification; Late Bronze Age; Sasanian empire

Although once considered peripheral to the major political events of Anatolia, Mesopotamia, and the Iranian Plateau (Persia), the liminality of the Armenian Highlands and South Caucasus provides an opportunity to investigate identity creation and power ne-

gotiation within the peculiar complexity of frontier zones (Parker and Rodseth 2005). This region has been an important intersection area that mixes the isolating and connecting characteristics of its varied mountainous topography (Smith 2005; Manning et al. 2018: 1530–31). Central to

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this connectivity are two major rivers, the Kura and Araxes, with their tributary systems (**Fig. 1**). Within Armenia, the middle Araxes River waters the wide and fertile Ararat Plateau,¹ the largest area of arable land in the country (Smith, Badalyan, and Avetisyan 2009: 5–6). At its southeastern edge, the Vedi River Valley connects the Ararat Plateau flatland with the Gegham and Vardenis Mountain Ranges to the east, making it an important sub-route in transportation networks. The valley's entrance is oriented slightly towards the northwest, towards the central Ararat Plateau, thus attracting transportation from that crucial direction (**Fig. 2**). The Vedi Fortress, a large and elevated site that sits upon a natural rock outcrop just above the modern town of Vedi, holds a commanding view over this entrance and much of the agriculturally productive lower Vedi River Valley (**Figs. 3–4**). Moving east, at the village of Urtsadzor, the valley breaks into multiple, ever more constricted channels that head further up into the mountains following the Vedi River and its various tributaries. Today, the modern road turns southeast at Urtsadzor, running through the villages of Shaghap and Lusashogh over to the Arpa River Valley.

An investigation of local mobilities enables us to consider how people of the past experienced and interacted with such a flatland-mountain interface. Intriguingly, Lara Fabian's (2018: fig. 4) geographic information systems (GIS) analysis suggested a potentially prominent route through the Vedi River Valley to Lake Sevan. The eastern edge of the entire Ararat Plateau has only a handful of valleys that support travel, cut by tributaries to the Araxes into the mountain front. A basic local cumulative least-cost-path (LCP)² analysis was undertaken between the Ararat Plateau, the Lake Sevan Basin, and the mountain ranges to the southeast (**Fig. 5**). The result highlights the four valleys that still serve as the transportation routes into the mountains east of the Ararat Plateau. At the northeast corner near Yerevan, the Hrazdan River Gorge provides a gentle transition to Lake Sevan (Castelluccia 2018). Next, to the south, is the Azat River Gorge containing the classical site of Garni. Then comes the Vedi River Valley, which supports many routes' connecting points. Finally, one needs to travel all the way south into the Sharur "plain" of Nakhijevan (Au-

tonomous Republic of Naxçıvan), Azerbaijan to transit up through the Arpa River Valley (Ristvet et al. 2012). Thus, for any traffic headed southeast from the Ararat Plateau into the mountains of Vayots Dzor or onto the south Lake Sevan Basin, the Vedi River Valley can provide a useful route.

A long tradition of archaeological fieldwork in Armenia and the region has established the framework for understanding the regional past (Kuftin 1946; Martirosyan 1964; Avetisyan and Bobokhyan 2012; Petrosyan et al. 2021). The current project focuses on life, mobility, and militarization within the Vedi River Valley across multiple time periods. The topography of the valley makes this particularly interesting, because the valley presents an elongated, self-contained area that is relatively easy to fortify. The paths in and out of this landscape are clear, and the mountain ranges on the north and south sides present formidable barriers to deviating from these proscribed routes. The name Vedi appears to derive from the Arabic word *wadi*, perhaps reflecting how the Vedi River Valley was recognized as having a kind of quintessential valley form. Furthermore, the topography within the valley changes rapidly over only a few dozen kilometers, rising from the broad, flat, irrigable, and fertile intersection with the Ararat Plateau at about 800 meters above sea level (m asl), the landscape then shifts eastward to high mountain peaks around 3000 m asl. Thus, humans living within this valley have had relatively quick access to a wide range of variable environmental zones that can be exploited in different ways. A new archaeological fieldwork project in the valley explores the potential for research specific to such a flatland-mountain interface, beginning here with an examination of the diachronic defense of the valley. The first section of this paper provides a brief overview of the data derived from the fieldwork. The second section then discusses the context of this valley in two time periods, the Late Bronze Age (LBA) to Iron Age I (IAI)³ period and then the Early Medieval (EM)⁴ period. This article focuses specifically on these two periods given that the bulk of the evidence excavated at the Vedi Fortress thus far dates to these times. It should be noted, however, that the site and valley were used in many periods that will be the target of future investigations. The analysis here explores the defense of this area through the lens of

¹ Commonly known as the "Ararat Plain," this particular article follows the geographical definition of a plateau being a flatland that is over 500 m in elevation above mean sea level.

² LCP has been used widely in archaeological research as one way to approximate human travel over landscapes. Since it only considers energy requirements for movement over a certain topography, it generally leaves out countless other potential variables influencing travel. However, it is a useful heuristic tool for considering and comparing transportation route options.

³ For the pre-medieval periods, the authors follow the periodization and chronology set out in Smith, Badalyan, and Avetisyan 2009 and updated in Manning et al. 2018.

⁴ The period called Late Antiquity can be variously defined geographically and chronologically, and usually concerns the east Mediterranean region between about 250 and 750 C.E. Within the context of studying the past in Armenia, it is more common to refer to the time between roughly the 4th and 9th centuries C.E. as the Early Medieval period, indicating some continuity with the subsequent medieval periods.



Fig. 1. Regional map. (Map by P. Cobb, APSAP Project)

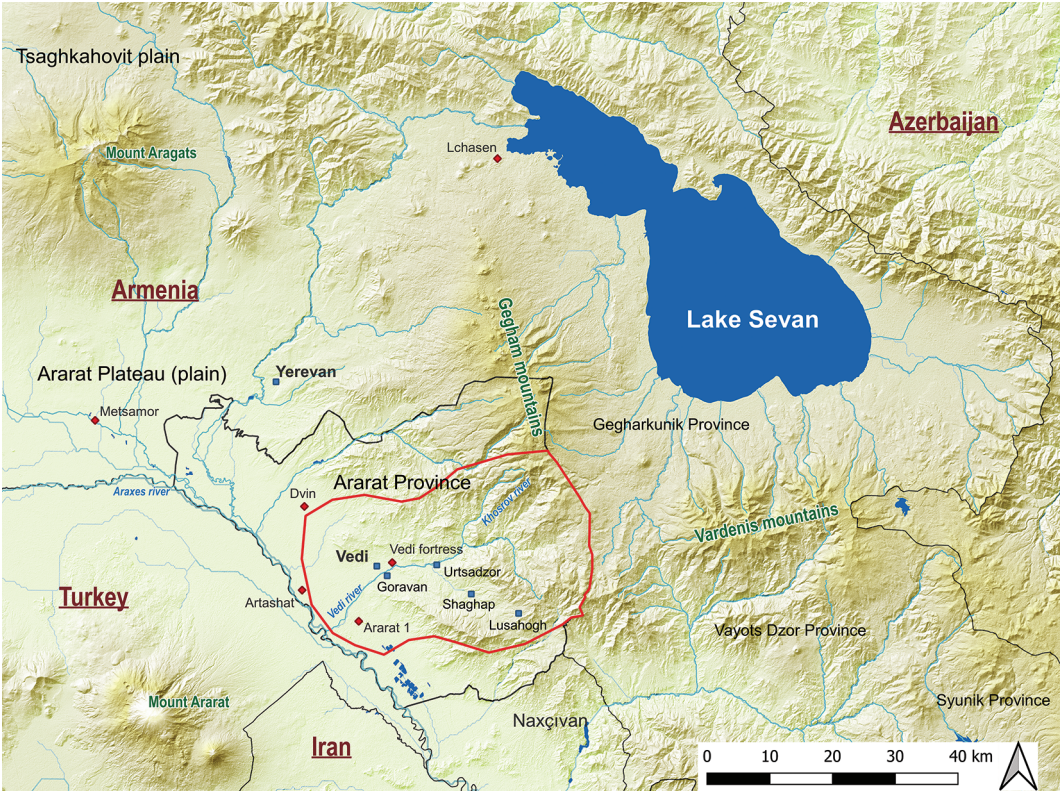


Fig. 2. Local map, showing area of interest for the project's field research outlined in red. (Map by P. Cobb, APSAP Project)



Fig. 3. View looking southeast over the Vedi Fortress, showing the sloped approach from the valley floor to the citadel, bisected by the lower fortification wall. Village of Urtsadzor in the far distance, top left. (Photo by H. Azizbekyan, APSAP Project)

militarization and its reuse and reconceptualization in the two focus periods.

Fieldwork

Project and Recording System

This research originates from the Ararat Plain Southeast Archaeological Project (APSAP), a collaborative fieldwork project between the University of Hong Kong and the Institute of Archaeology and Ethnography of the Republic of Armenia's National Academy of Sciences. APSAP is investigating the landscape and sites of the Vedi River Valley, which has seen less archaeological attention than other surrounding areas. Whereas points on synthetic maps of archaeological publications crowd the north and central sections of the Ararat Plateau, the southeast is often left almost entirely empty (e.g., Martirosyan 1969: map after p. 42; Smith, Badalyan, and Avetisyan 2009: pls. 4–10). Next to the Vedi River at the mouth of the valley, Boris Piotrovsky and Stepan Yesayan⁵ carried out excavations in 1971–1980

⁵ Both from the Institute of Archaeology and Ethnography of the Armenian SSR.

at the site of Aygevan, finding materials and architecture from the Bronze Age, classical, and medieval periods (Yesayan 1981). Some unpublished data also exists from Yesayan's exploration of the Vedi Fortress. Several caves and flint sources were documented during a short survey between the towns of Shaghap and Lanjar in 2001 by Benik Yeritsyan⁶ and Christine Chataigner⁷ (Chataigner 2001; Gasparyan and Arimura 2014).

More recently, a 2010 salvage excavation along the banks of the Vedi River southeast of the town of Vedi by Firdus Muradyan⁸ uncovered a 7th to 3rd centuries B.C.E. site with rectangular buildings, hearths, large pithoi, and other interesting finds (Muradyan, unpublished report). In 2017, Boris Gasparyan⁹ led a survey between the towns of Dashtakar

⁶ From the Institute of Archaeology and Ethnography of the National Academy of Sciences of the Republic of Armenia ("the Institute").

⁷ From the Mission Caucase, Maison de l'Orient et de la Méditerranéen, Lyon.

⁸ From the Institute.

⁹ From the Institute; the survey was continued in collaboration with Ariel Malinsky-Buller (MONREPOS, Archaeological Research Centre and Museum for Human Behavioural Evolution, Neuwied) and Roberto Dan (ISMEO – International Association of Studies on the Mediterranean and the East).



Fig. 4. View looking west/southwest over the mouth of the Vedi River Valley opening onto the Ararat Plateau, the Vedi Fortress is the prominent brown feature to the right of center, and Mount Ararat is partially obscured by clouds in the distance. (Photo by P. Cobb, APSAP Project)

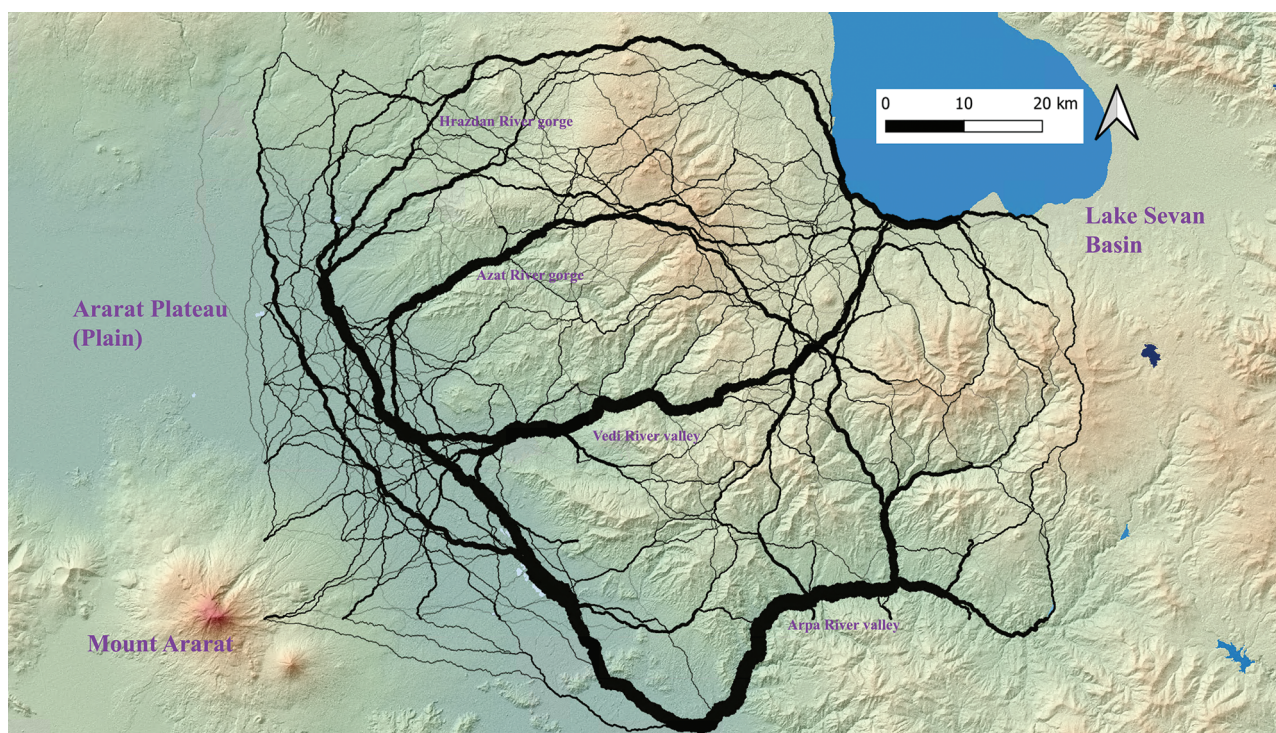


Fig. 5. Cumulative least-cost-path analysis on a 10-km grid using QGIS over the ASTER3 DEM. Thicker line indicates a more favored path among the river valleys at the eastern edge of the Ararat Plateau. (Illustration by Zichen Bai, APSAP Project)

and Lanjar, which located the Shaghap Bronze Age to medieval settlement, and the Shaghap-1 and 2, Lanjanist-1 and 2, and Lanjar-1 fortress-settlements. In particular, Shaghap-2 is an interesting feature within the Vedi River Valley, with evidence from the Bronze and Iron Ages and medieval period. In 2021, Artak Gnuni and Levon Mkrtchyan¹⁰ excavated around the S. Astvatsatsin church of Lusashogh and the Spitak Vank church of Lanjanist to provide context for restoration of the churches. The evidence indicates 13th–17th century C.E. occupation, including several epigraphic inscriptions (Gnuni et al. 2023).

The APSAP project carried out exploratory fieldwork in the summers of 2019 and 2021. About a dozen potential sites were identified during brief surface survey throughout the valley, test excavations were undertaken at several of these, and then topsoil was cleared for several trenches on the Vedi Fortress site. In the summer of 2022, APSAP carried out its first real season of fieldwork with stratigraphic excavation at the Vedi Fortress and survey work in the Vedi River Valley. During surface survey, each find was precisely located using a high-precision global navigation satellite system (GNSS) device and identified by the Universal Transverse Mercader (UTM) coordinate of the southwest corner of the 1 m² area within which it was found (Cobb, Earley-Spadoni, and Dames 2019). During excavation, trenches

are 10 × 10 m squares, identified by the full UTM coordinate of the southwest corner, including the UTM zone. Contexts are differentiated 3D volumes of anything excavated and are numbered sequentially within each trench. A context might be a feature like a section of a stone wall or a pit, which has distinct dimensions and is usually removed. A context might also be an in situ special find, like a whole pottery vessel, or a dirt fill of a consistent color and texture. Finds are individual objects that are collected and numbered sequentially within each context. All dirt was sieved and the materials recovered by hand and by sieve are stored separately. All finds were brought back to the field lab for cleaning, cataloging, photography, 3D scanning, analysis, and storage.

To maintain “reproducibility,” archaeologists must record everything as carefully and precisely as possible and share open access data (Kansa 2012). The feasibility of large-scale data-sharing and reuse through the publication of comprehensive excavation datasets has been demonstrated with sites like Kenan Tepe (Parker and Cobb 2012; Buccellati and Kansa 2016). The APSAP project serves as a laboratory for experimentation with digital methods to improve data recording accuracy and efficiency (Cobb et al. 2019; Wang et al. 2021). The excavation recording system is born-digital, with all information directly collected to a cloud virtual desktop server, with plans to publish open access (Cobb 2017). Each context volume is 3D-modeled

¹⁰ Both from the Institute.

using photogrammetry. For the management of photograph files, APSAP uses several open-source custom mobile apps.¹¹ The efficient and accurate collection and sharing of digital data underpins the next major advance in archaeological research—the application of data science methods to archaeological analysis. Archaeologists can approach new questions through applications of machine learning (Bickler 2021) or interact with 3D data in new ways, including eXtended Reality (Liang 2021).

The Vedi Fortress

The Vedi Fortress sits on a prominent rock outcrop, one of a series that juts across the valley in a northwesterly direction from the valley's southern mountains, dividing the modern towns of Vedi and Dashtakar. The Vedi River runs just south of the site, which rises over 100 m above the surrounding valley floor. If one looks west from the site, Mount Ararat sits dramatically at the center of a view out above the far side of the otherwise flat southeast Ararat Plateau (Fig. 4). This sight must have held as much significance in the imaginations of the ancient inhabitants of this landscape as it does today. The Vedi Fortress is roughly triangular in shape, with corners pointing to the east, west, and north (Fig. 6). The highest place on the site, its citadel, sits within the eastern corner in an enclosed area of about 2 ha. Just east and below the citadel sits a small triangle-shaped lower shelf that was at least fortified on its northwest corner. Ridges run from the citadel towards the west and towards the northwest, slowly decreasing in elevation towards the other two corners of the triangle, ending at the level of the valley floor. Along the ridges on the northeast and south sides, the site is protected by cliff faces, with the steepest along the northeast side. A gentle slope approaches the citadel from the flatland in the west/northwest. This approach was therefore fortified with two lines of north-south running defensive walls, a lower wall in the middle of the site, and an upper wall to the east to enclose the citadel. Including the modern southeast cemetery, the entire raised site has an area of at least 60 ha. Just underneath the citadel, APSAP has explored several caves with entrances high on the northeast cliff face, which contain some (highly disturbed) remains.

The APSAP project has excavated four trenches on the Vedi Fortress (Fig. 7):

- 1) the Top Trench, N.38.478130.4419430, sits at the top of the site just within, and including, the upper fortification (citadel) wall and has the project's deepest stratigraphy, down to in situ LBA-IAI layers;
- 2) the Citadel-East Trench, N.38.478200.4419510, sits along the eastern edge of the citadel and is bisected by a single Early Medieval (EM) retaining wall;
- 3) the Lower Trench, N.38.478020.4419550, sits halfway between the upper and lower fortification walls and has possible in-situ late medieval layers at the top, below which is wash layers of mostly LBA-IA 1 materials down to bedrock;
- 4) the East Shelf Trench, N.38.478230.4419460, sits on the eastern shelf just below the citadel and has an EM burial pit dug into the bedrock.

The Top Trench is the only trench that has a horizontal exposure at its full 10 × 10-m extent. It is also the only trench to have reached in situ LBA-IAI (1550 B.C.E.–800 B.C.E.) levels in the deepest part at the southwest corner, about 2 m deep (Fig. 8). The key features in this trench include a portion of the site's upper fortification wall and an EM storage cellar built against the fortification wall, which contained several in situ pithoi. The excavation here of the upper fortification wall is particularly interesting because it connects the earlier LBA-IAI levels to the later EM levels through the fortification wall. This 2.75 m-thick wall runs along the western side of the entire trench, composed of two faces of squared medium-sized stones, with a core of medium-sized stone rubble. In the south half, the upper part of this fortification wall, likely dated to the EM period (Fig. 9a), sits upon several wash layers of dirt (Fig. 9d). Over 1 m deeper, there is again a similar line of squared medium-sized stones. This seems to be related to the original LBA-IAI version of the fortification wall that was partially collapsed and then covered with eroded dirt wash layers for several centuries (Fig. 9b). The authors hypothesize that during the EM period, people could still see the remains of the LBA-IAI fortification wall across the site, but some sections had eroded away or been covered with dirt. The EM people rebuilt the wall, in some places on the dirt surface and, in others, perhaps shoring up the existing structure.

Throughout the southern, deeper half of the trench, a hard-pack layer was encountered (Fig. 8a). Wherever excavations have dug through this layer, whether near the fortification wall in the southwest or in test excavations on the east, a layer of ashy soil with many chunks of burnt wood was found. Two carbon samples taken from contexts on both the west and east sides of the trench from below the hard-pack layer provide dates in the range of 1200 to 800 B.C.E. (Fig. 10; 1221–1016 and 843–790 cal. B.C.E.). Two other carbon samples that washed into an abandoned, possibly later pithos also indicate dates around 800 B.C.E. (821–768 and 832–774 cal. B.C.E.). Thus, the fortress appears to have been burned right around 800 B.C.E. Destruction levels of a similar date at nearby sites like Metsamor (Khanzadyan 1973: 56–58) and Dvin (Kalantaryan 1996:

¹¹ <https://github.com/anatolian>.

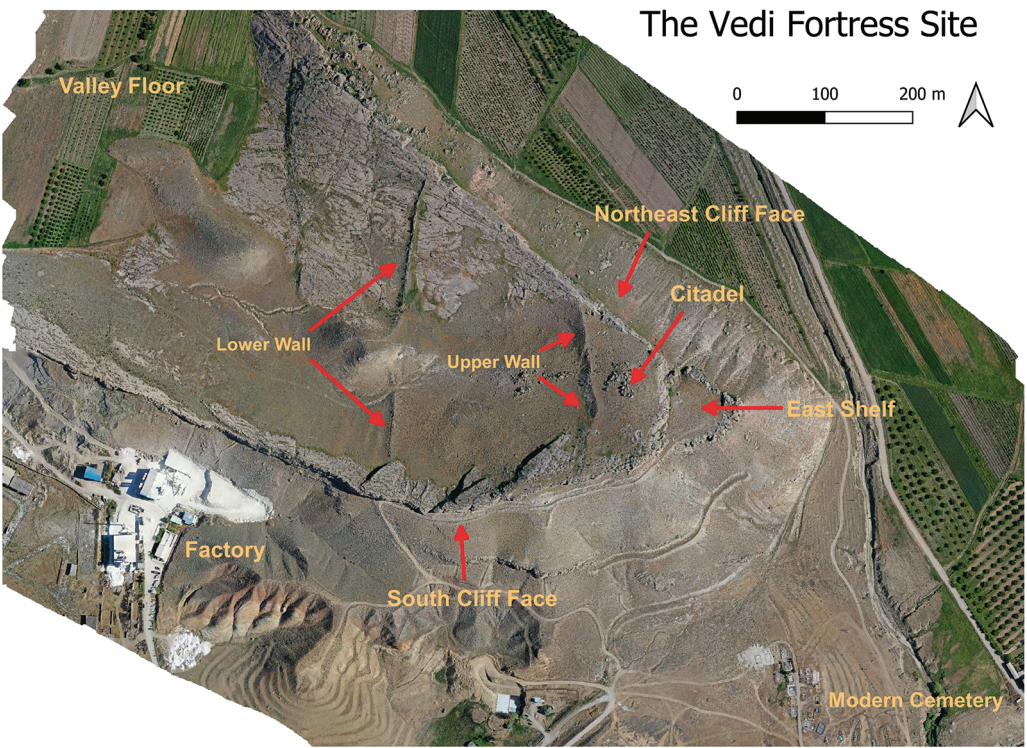


Fig. 6. Drone orthophotography of the Vedi Fortress with main features indicated. (Illustration by P. Cobb, APSAP Project)

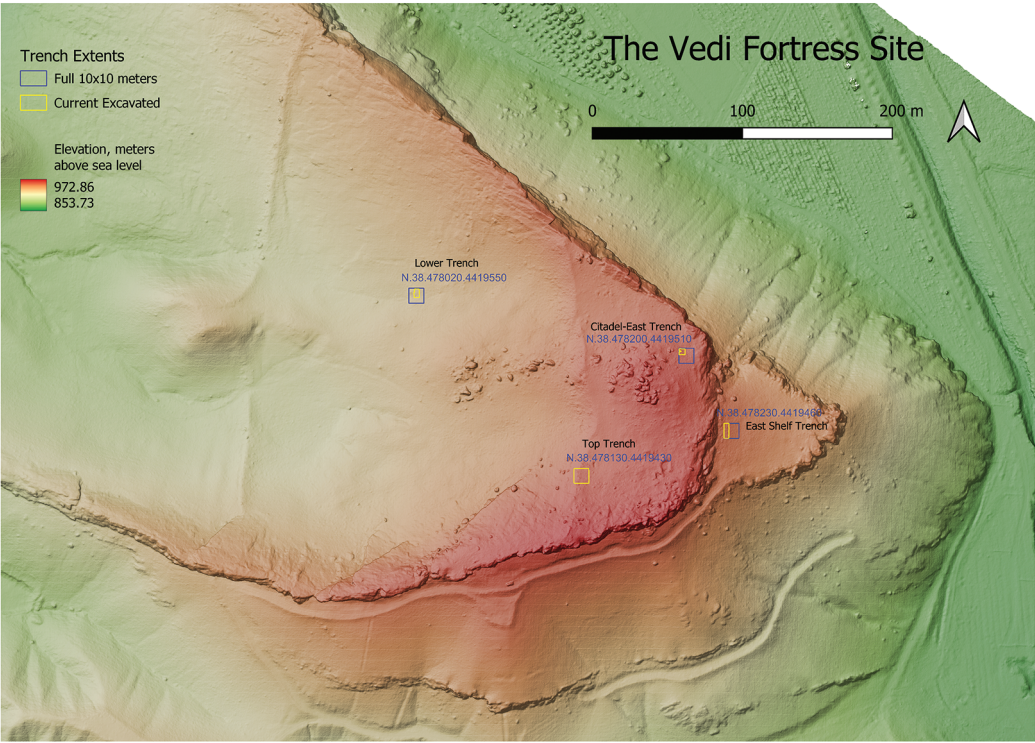


Fig. 7. DEM of the Vedi Fortress with the four trenches. (Illustration by P. Cobb, APSAP Project)



Fig. 8. Top Trench at the end of the 2022 season: (a) hard-pack layer, (b) LBA–IAI deepest levels, (c) upper/citadel fortification wall, (d) EM storage cellar north wall. (Photo by H. Azizbekyan and illustration by P. Cobb, APSAP Project)

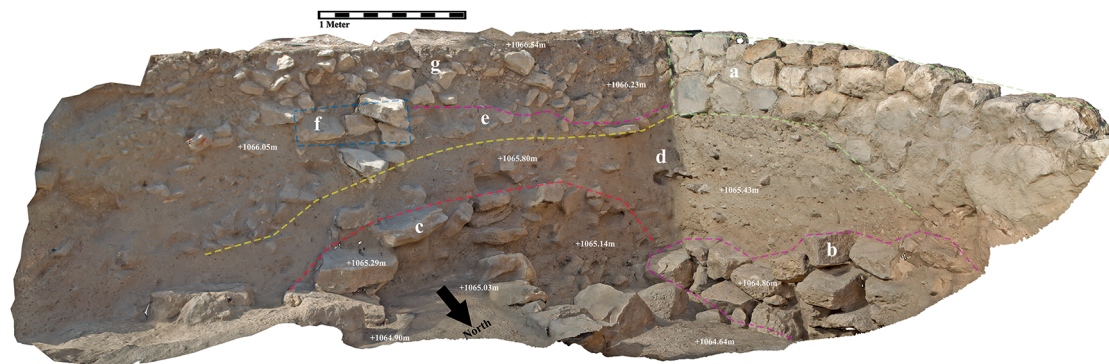


Fig. 9. 3D model of the baulk profile in the southwest corner of the Top Trench: (a) the reconstructed EM upper fortification wall, (b) walls possibly related to the original LBA–IAI upper fortification wall, (c) rock collapse and fill from the end of the LBA–IAI, (d) wash layers from the post-LBA–IAI period, (e) surface from the EM period, (f) medieval wall, (g) wall collapse from the post-medieval period and topsoil. (Illustration by P. Cobb, APSAP Project)

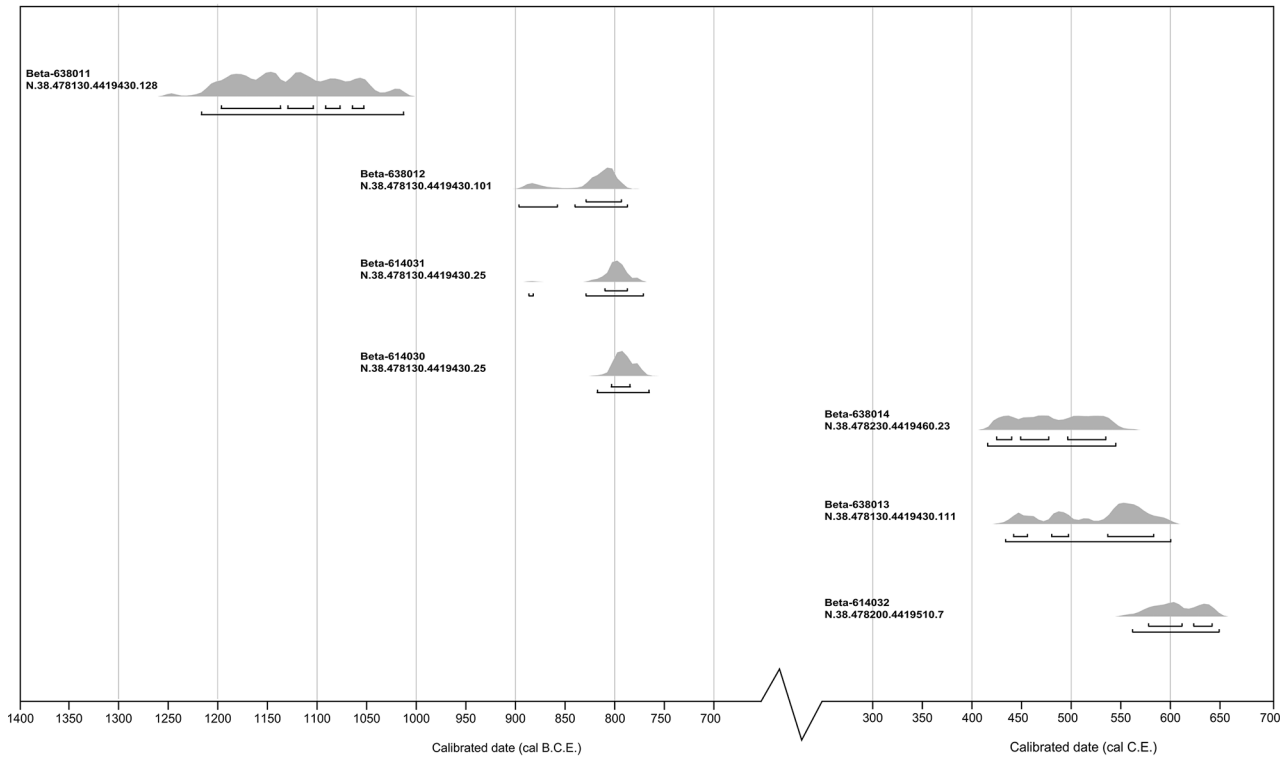


Fig. 10. Radiocarbon dates from the Vedi Fortress, calibrated with BetaCal4.20 using the INTCAL20 dataset. (Reimer et al. 2020; Illustration by Leanne Yutong Guo, APSAP Project)

35) have been associated with the Urartian incursion into this region. It is noted that the hard-pack layer forms the barrier between the LBA–IAI remains below and the EM remains above, and became hard-packed through a process of abandonment and then later intensive use and trampling. A series of EM surfaces visible in the south baulk attest to the continual use of this space over two centuries in the EM period.

One of the deepest contexts from 2022 in the Top Trench (Context 128) was set inside the LBA–IAI stone walls in the southwest corner of the trench (Fig. 8b). All the pottery in this small context can be dated to these early periods, particularly the IAI period, with many examples of black or gray pottery, often burnished, sometimes with incised decorative patterns (Fig. 11). The bowls either have a grooved exterior or have a simple but thick profile and the jars have simple outcurving rims. This type of pottery, indicative of the Lchashen-Tsitelgori culture, has been found in many contexts across the site as it is mixed with later pottery in higher layers (Sagona 2018). Specifically, these forms are similar to Lchashen-Metsamor Periods 4 and 5 pottery found at other sites in Armenia (Avetisyan and Bobokhyan 2008; Smith, Badalyan, and Avetisyan 2009). Thus, both the pottery and carbon evidence has mostly been recovered from the IAI period, but there is still much to excavate of this early period.

The main EM feature seems to be a storage cellar built in the middle of the trench up against the inner face of the EM fortification wall (Fig. 12b). This roughly square space is bounded to the north and east by small walls, with many large fragments of pithoi lying on the floor. On the south side, a purpose-built circular stone feature containing a large pithos was constructed within the LBA–IAI remains. Also, in the northeast and southeast cellar corners and along the fortification wall, the bases of three other medium-sized pithoi were found in situ (Fig. 12b). To the east of this EM storage cellar were a series of parallel walls running east-west, each following a contour of the hill for a constant elevation, with each wall siting higher on the hill as you move southward (Fig. 12c). A carbon sample from the surface within the southernmost of these walls dates to the EM period (432–598 cal. C.E.).

The Citadel-East Trench sits near an apparent division between the citadel's north and south sections. This trench, opened only to 4 × 4 m, soon came down upon natural layers. A small stone wall runs diagonally across the trench as its only feature. It seems to be a terrace or retaining wall to support a building further up into the citadel and perhaps a defense of this approach from the east shelf. From the deepest fill context, uphill from this wall, a carbon sample dates to the EM period (559–646 cal. C.E.).

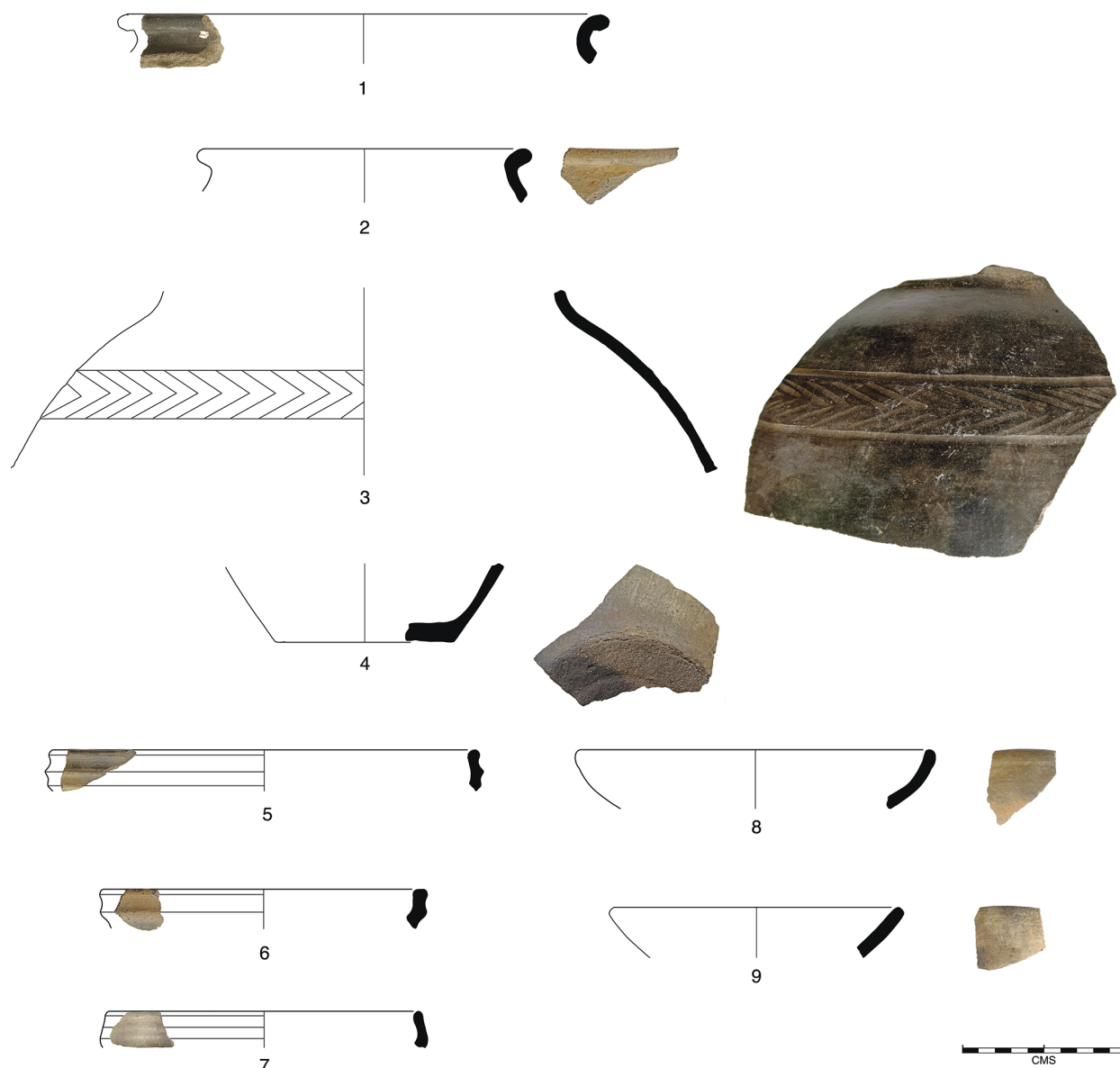


Fig. 11. LBA-IAI pottery from the Top Trench, context N.38.478130.4419430.128. (Illustration by P. Cobb and Leanne Yutong Guo, APSAP Project)

The Lower Trench explores the area between the site's main fortification walls, where a series of rough rectangular structures sit within the local drainage channel (Fig. 13a). Built with large stones fallen from the upper fortification wall, perhaps for capturing water or penning animals, these may be late medieval or modern. Set a little deeper within this are two perpendicular rock alignments (Fig. 13b-c). The drainage erosion pattern becomes clear in the northern section of the deep sounding, with at least four wash layers below topsoil (Fig. 14). These likely represent centuries of wash events after the LBA-IAI period, based on the ceramics. The final layer sits directly above bedrock and has a dis-

tinct ashy color, with fragmented LBA-IAI pottery, like the burnt/ashy layers in the Top Trench. The bedrock appears to have been completely exposed during the LBA-IAI, perhaps for quarrying stones for the lower fortification wall. Due to the destruction, abandonment, and collapse of the upper fortification wall, the materials contained within the citadel began eroding down the hill, reflected in the fragmentary pottery. A particularly interesting special find came to light in the layers above the bedrock, a decorative pottery handle in the shape of a snakehead (Fig. 15).

In the East Shelf Trench, topsoil was removed in the western third, reaching mostly natural layers except in the

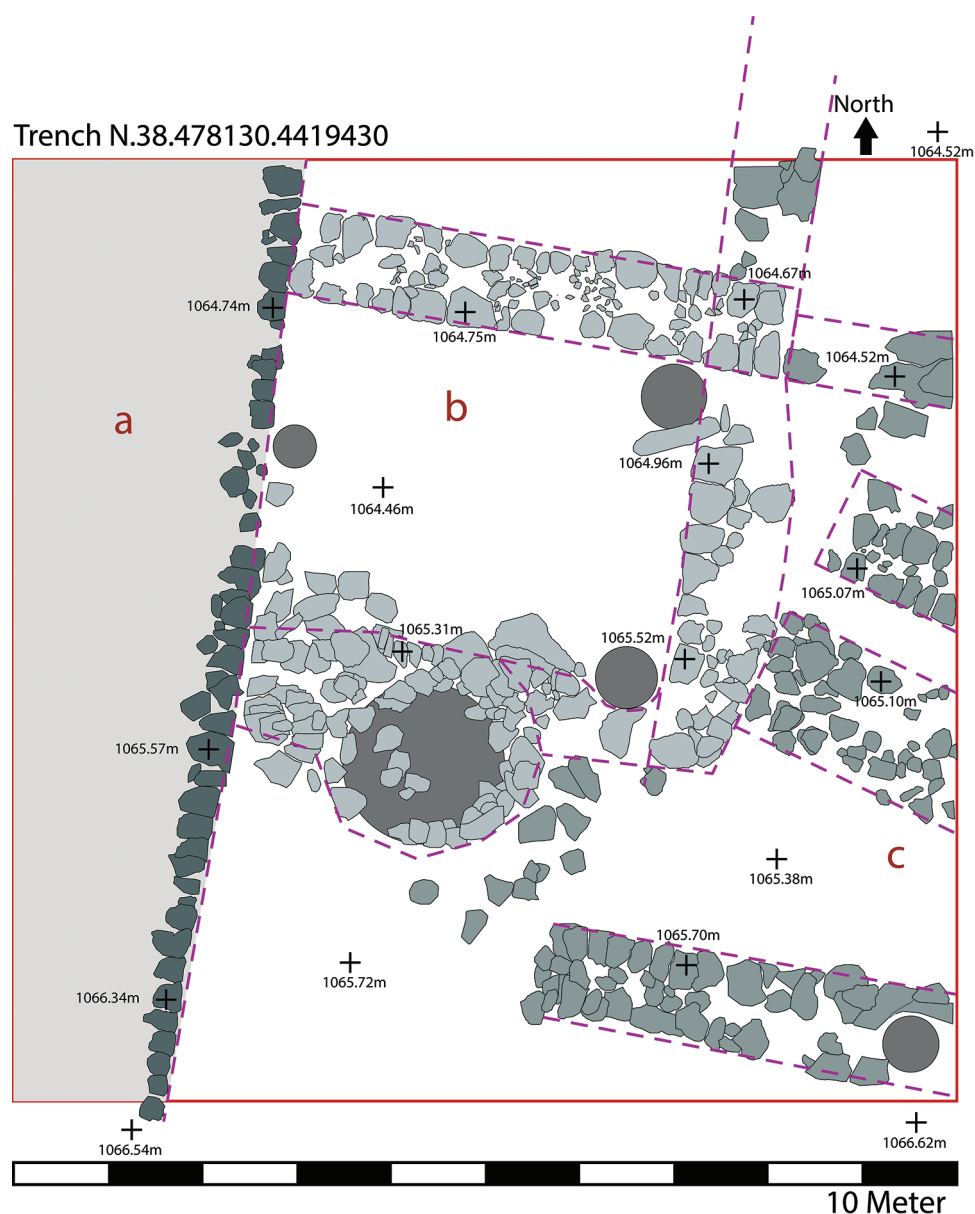


Fig. 12. Top Trench EM architecture, (a) upper/citadel fortification wall, (b) EM storage cellar with 4 pithoi, (c) other EM walls. (Illustration by Leanne Yutong Guo, APSAP Project)

southwest corner (**Fig. 16**). In the northern area with the natural layers, a bell-shaped pit was found dug into the hill (**Fig. 17**). This pit contained ashy soil with several minimally fragmented pottery vessels and other interesting finds but almost no bones, so this may be a cremation burial. Carbon dates this pit to the EM period (416–545 cal. C.E.). A pottery jar found directly above the pit may have been a marker for the burial, and hints at a lack of disturbance of the site after the EM period. The east shelf is visible from much of the valley to the east of the fortress, an interesting prominent position for a burial.

This EM pit contains the assemblage of artifacts common to this period, with similar material found across the Top Trench. A distinct type of EM pottery has a red fabric with a white-washed surface, often decorated with sparse straight or wavy bands of tight parallel incisions made with a comb (**Fig. 18:5**; **Fig. 19:7, 9**). The shapes include large jars with handles, and trefoil or spouted jugs, often with well-articulated rims. This white-washed combed ware is commonly found at Sasanian period sites in Iran and beyond, and many of the rims from the Vedi Fortress match those found at other sites (cf. Simpson 2022: 313–15;

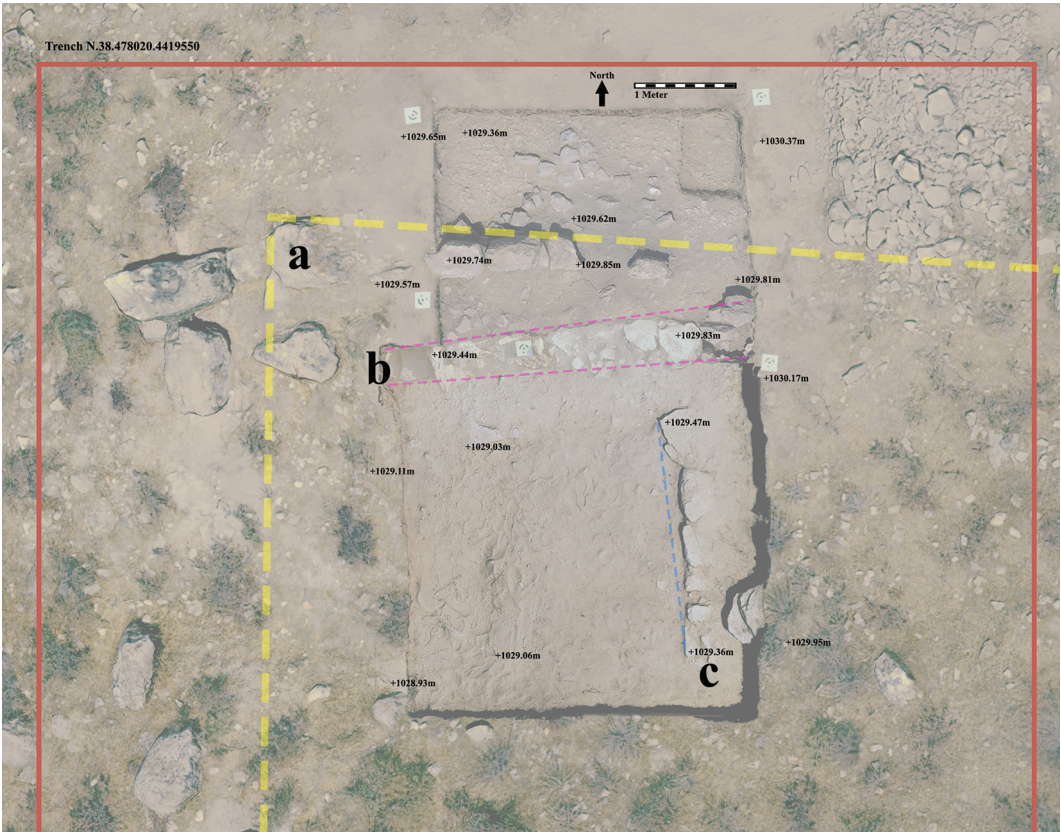


Fig. 13. Lower Trench, (a) outer structure of large stones, (b–c) walls made of smaller stone. (Illustration by P. Cobb, APSAP Project)

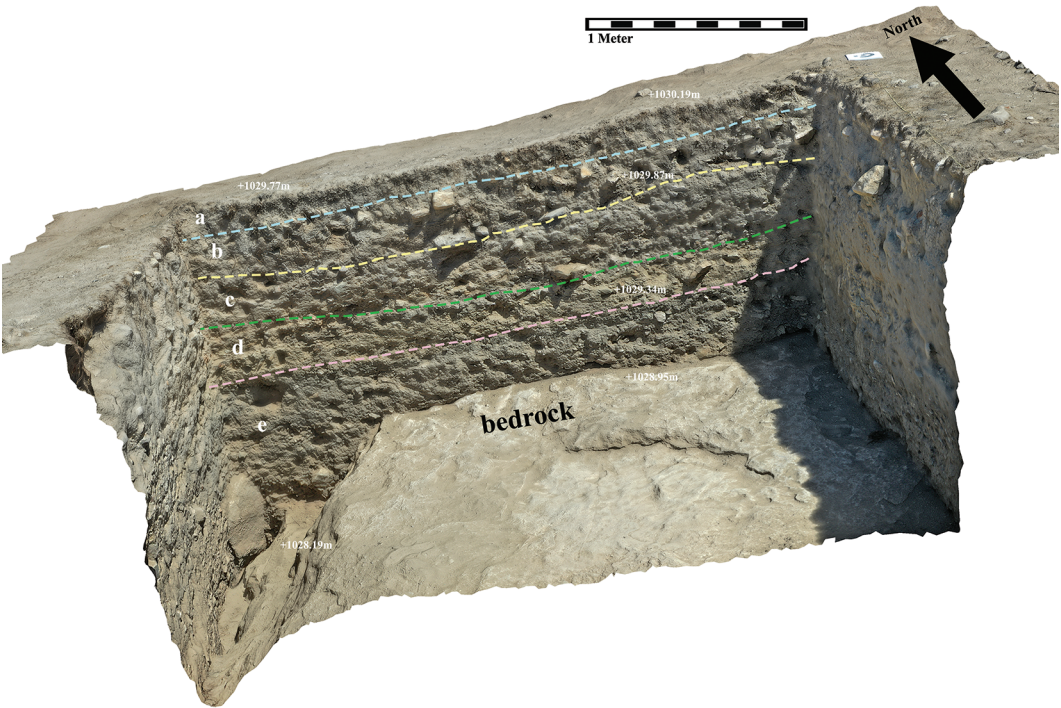


Fig. 14. 3D model of the north baulk section of the Lower Trench, showing (a) topsoil layer, (b–d) various wash layers and then (e) an ashy wash layer on top of natural bedrock. (Illustration by P. Cobb, APSAP Project)



Fig. 15. Ceramic snakehead from the Lower Trench, special find N.38.478020.4419550.36.355 (Photo by APSAP Project)

Kalantaryan 1970: pls. XXV–XXX; Yengibaryan and Ter-Minasyan 2023: 463, fig. 16). Similar ceramics found near the Ghilghilchay Wall on the Caspian Sea are dated to the 5th–6th centuries C.E. (Aliev et al. 2006: 173–75). As with Ultan Qalasi in Iran, the Vedi Fortress has “double-rimmed” vessels, and these ceramics are only decorated with simple reliefs and incisions (Alizadeh 2011: 72). Impressed pottery or relief figures such as animals have not yet been found at the Vedi Fortress. The variety of shapes may point to some sort of drinking function, and perhaps the related pithoi in the Top Trench stored liquids. Another typical shape from this period is a jar made with a dark red fabric, which may have an incised line along the squared simple flaring rim or may have incised lines around the neck (Fig. 18:1, 2). The burial pit contained a unique red burnished vessel with a squared handle that appears to imitate a metal shape (Fig. 19:5).

In the EM layers in the Top Trench, a few sparse examples of blue to green glazed pottery were found, perhaps of a type common at Sasanian sites in Mesopotamia (Fig. 19:12). Along with pottery, the EM layers in the Top Trench and burial pit contained several other types of material. A few pieces of leather were found in both places, which is interesting since leather was “of particular relevance to the army” and may be related to horses (Simpson 2022: 243). The burial pit had a unique bronze attachment with clasps on three sides, perhaps originally joined to the leather. Several pieces of glass in the Top Trench probably reflect the active local production (Janpoladyan and Kalantaryan 1988). Similarly, iron arrowheads were found in this burial pit and the EM layers of the Top Trench, as well as probable whetstones (see similar objects found at Zakari berd, Asatryan 2005: fig XL, XLIII). In the EM layers of the Top

Trench, several unbaked clay spindle whorls and basalt grindstones were found. The topsoil and other mixed layers in multiple trenches had some red stone jewelry pieces, including rings and beads, probably carnelian. Some bones and other organic materials have also been shaped or drilled for various purposes. The leather and arrowheads found in the burial and in the Top Trench may point to this being the burial of a soldier. Given that only storage facilities have been found so far, the initial hypothesis is that the site was used to house a military garrison.

The Vedi River Valley

In addition to the Vedi Fortress itself, there was a focus on controlling the entire Vedi River Valley through militarization of other sites. One smaller fortress, Urtsiberd-2, is located at an important river intersection about 6 km northeast of Urtsadzor on top of a high natural hill south of the Vedi River (Fig. 20). This site was first identified in satellite imagery during the 2019 field season. On some maps, this site is labeled Urtsiberd though it can also be confused with a small medieval fortress north of the river above the village of Urts. For convenience, the site north of the river has been labeled as Urtisberd-1 and the earlier site south of the river as Urtsiberd-2. LBA–IAI pottery samples were collected from Urtsiberd-2 and the stone masonry of the walls resembles the fortifications of the Vedi Fortress. Urtsiberd-2 has a strategic position overlooking where the Khosrov River flows into the Vedi River from the north and the Vedi River itself approaches from the east and then turns south. Urtsiberd-2 thus controls a key transportation point between the upper valleys of these two rivers and the lower Vedi River Valley that opens here onto the flatland

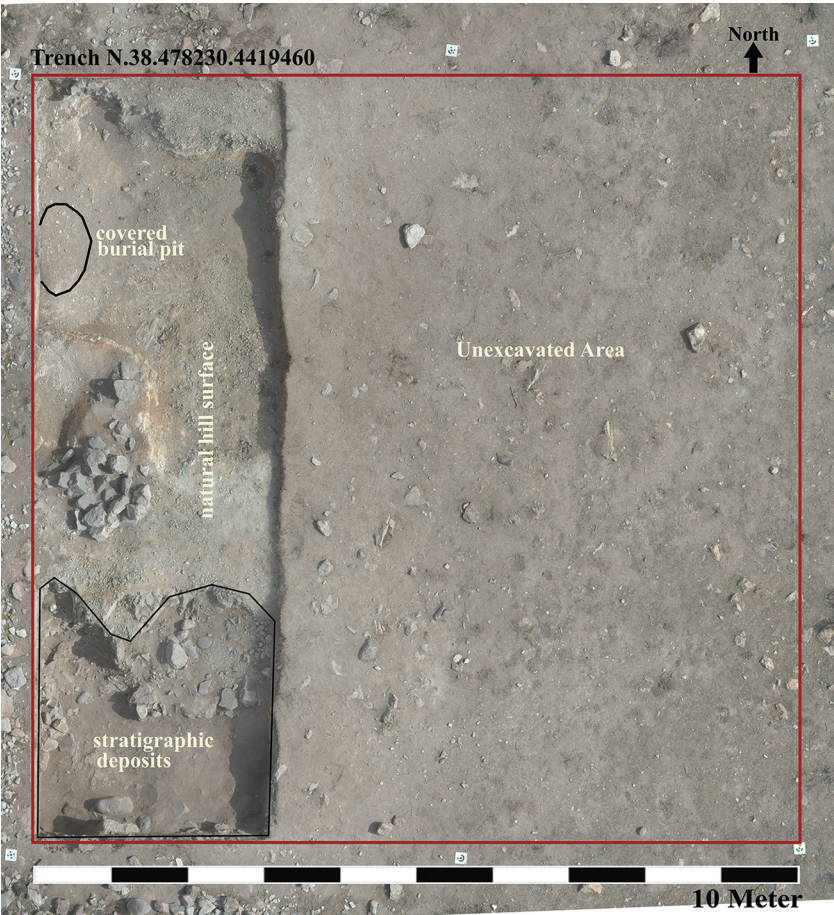


Fig. 16. Overview of East Shelf Trench at the end of the 2022 season. (Illustration by P. Cobb, APSAP Project)

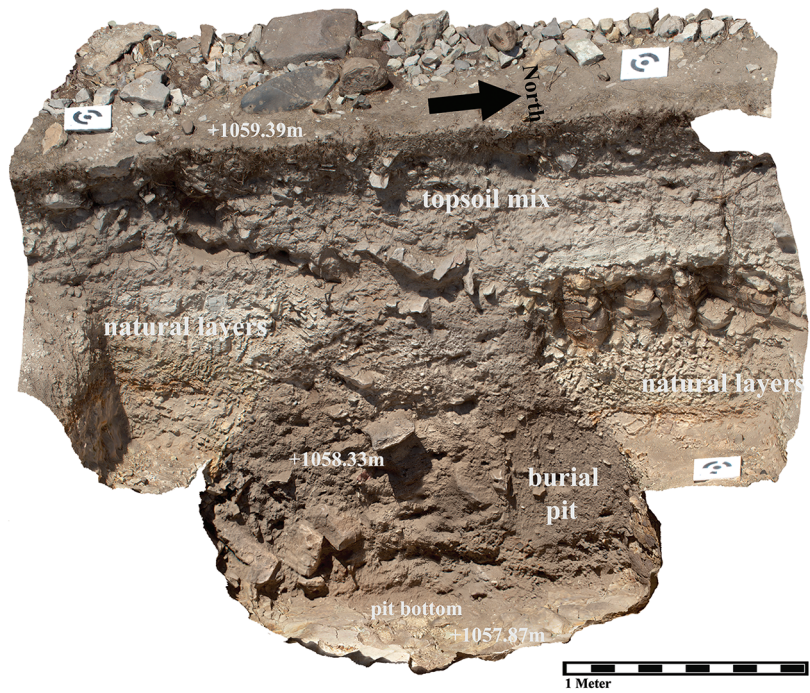


Fig. 17. 3D model of East Shelf Trench EM burial pit, west baulk section. (Illustration by P. Cobb, APSAP Project)

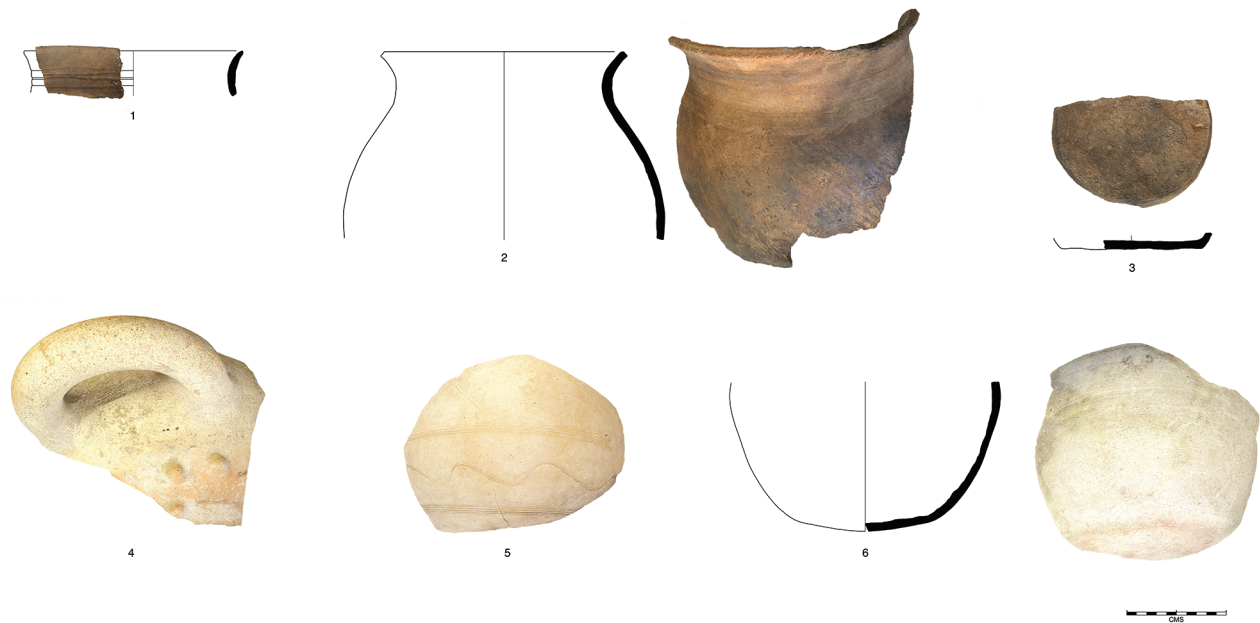


Fig. 18. EM pottery from the Top Trench and East Shelf Trench burial pit. (Illustration by P. Cobb and Leanne Yutong Guo, APSAP Project)



Fig. 19. EM pottery from the Top Trench and East Shelf Trench burial pit. (Illustration by P. Cobb and Leanne Yutong Guo, APSAP Project)



Fig. 20. View west/southwest over the Vedi River Valley with major features and places labeled. (Photo by H. Azizbekyan and illustration by P. Cobb, APSAP Project)

that contains Urtisadzor. Walls can be traced around Urtisberd-2's fortified citadel, containing an area of approximately 1 ha (**Fig. 21**). Within this area, set at an angle from northwest to southeast is a further raised area surrounded by walls. This may indicate some sort of building or tower that was used as a lookout, but architectural traces on the surface are obscured by vegetation. Although the location of the main entrance to the citadel is unclear, it is likely on the northeast where terracing approaches from below.

Much further up the Vedi River Valley, a rapid survey was conducted within and around the Khosrov Forest State Reserve area. One premodern site sits about 9 km upstream from Urtisberd-2, just east of the remains of the abandoned modern Azizkend village. This site is located at a turn in the Vedi River on a prominent foothill with a clear view in both directions. The remains of a square building, perhaps a small fort, are barely visible on the surface. Among the ceramics, the one rim sherd found was reminiscent of similar LBA–IAI jars found at Urtisberd-2 and the Vedi Fortress, but definitive chronological evidence remains lacking. Another site sits on a prominent hill just southwest of the abandoned

Kelanlu village, 6 km further up into the valley. This site overlooks the intersection of another tributary to the Vedi River. It is mostly buried but the potential remains of some fortification walls or buildings were noted. Another jar rim sherd there shows similarities to the one found at the site near Azizkend, so again the limited evidence points to LBA–IAI use.

Other Periods

The focus here is on the LBA–IAI and EM results, but the fieldwork also documented evidence for other periods of use and occupation in the valley. For the Early Bronze Age (EBA), the Vedi Fortress has potential Kura-Araxes pottery, but no stratigraphic exposure yet. The Middle Bronze Age (MBA) is represented by a single whole pot with painted parallel lines found during survey along the foothills north of the Vedi Fortress. This may indicate the existence of burial mounds in the valley, opening the possibility for investigating societal organization and change between this period and the subsequent LBA (Lindsay and

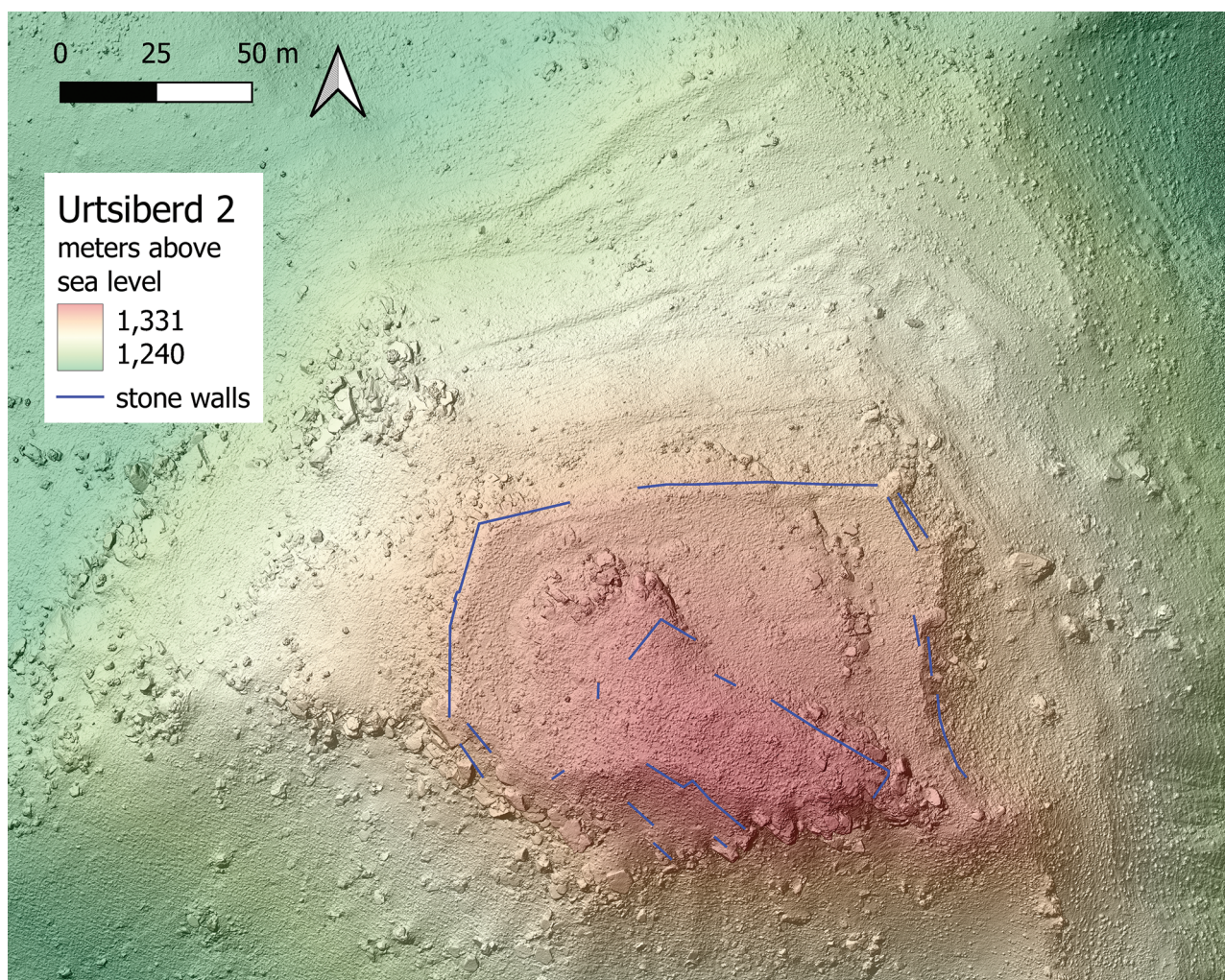


Fig. 21. Overview DEM of the Urtsiberd-2 fortress with potential walls marked. (Illustration by P. Cobb, APSAP Project)

Greene 2013: 694; Smith 2015: 130–37). After the LBA–IAI period, the Vedi Fortress was likely destroyed around 800 B.C.E. before the beginning of the Iron Age II (IAII) period. There is no definitive evidence for Urartian use of the Vedi Fortress itself. Instead, within the survey area, a few potential Urartian sites have been identified that are planned for further investigation. A likely Urartian fortress called Ararat-1 stands on a prominent rock outcrop on the plain southwest of the Vedi River Valley, above the town of Ararat. A pair of low mounds north of the road between Vedi and Urtsadzor that had been dug illegally were also investigated. The architecture and pottery indicate this site may also be Urartian.

Artashat, the Iron Age IV (ca 200 B.C.E.–300 C.E.) capital of the Artaxiad kingdom of Armenia, is intervisible with the Vedi Fortress. Three bronze or copper coins of this period were found in the Vedi Fortress citadel. One is decorated with a king’s portrait and, on the other side, a thin cornu-

copia, projecting a Hellenistic king’s ideal of providing “plenty.” Above that, one can still make out the Greek letters . . . ΣΙΑΕ . . . and . . . ΗΜΗΤ . . ., likely *Basileus* (King) Demetrius, perhaps the Seleucid king Demetrius II (reign 145–138 B.C.E.). A second coin, with a king portrait and eagle, is probably a bronze *dichalk* produced by either Tigran I (reign 121–96 B.C.E.) or Tigran III (reign 20–8 B.C.E.), of the Artaxiad dynasty. The third is likely a Roman *as* from the time of emperor Augustus (reign 27 B.C.E.–14 B.C.E.). One side has the emperor’s portrait, while on the other is written S.C.—“by the decision of the Senate.” And finally, a fourth EM coin seems to be a Byzantine bronze *folles* produced by the emperor Heraclius (reign 631–638 C.E.). On one side is the emperor together with his son Heraclius-Constantine, while on the other is the letter M, meaning 40 *numia*, that is, one *folles*.

After the significant activity of the EM period, next comes the late medieval in the Vedi River Valley. Astghik

Babajanyan and Kate Franklin (2018) describe how this part of Armenia was a node in the medieval trade networks popularly known as the Silk Road. Even within the Vedi River Valley, the reconstructed Gevorg Marzpetuni castle (Tapiberd), as well as the remains of several churches throughout the valley, attest to significant activity during this time (Gnuni et al. 2023). At the Vedi Fortress, this period may be represented by a clay bulla whose obverse indicates it sealed a ribbon around a scroll. The seal's impression, likely made by a metal ring and potentially depicting a military saint, shows similarities to medieval examples from Bastam, and indicates the potential administrative role of the site (similar to Kroll 1970: Taf. 31.2.1). Several iron nails with squared tops have also been found. Moving into the modern era, over the last few centuries, the Vedi River Valley has been home to many rural villages populated until 1990 by both Armenians and Azeri Turks. Many of these agricultural villages were abandoned during the 20th century C.E., likely due to Soviet-era policies or through population exchanges.

Contextualizing Fortification and Refortification

Late Bronze Age Fortification

The Vedi River Valley appears to have undergone its first major period of fortification during the LBA and this initial infrastructure remained in use until the end of the IAI. Across the northeastern Armenian Highlands and South Caucasus, a cultural transition is noted at the beginning of the LBA (ca. 1550 B.C.E.) when evidence for settled populations increases. The most prominent evidence includes the building of new stone fortresses (Smith, Badalyan, and Avetisyan 2009; Narimanishvili 2019; Erb-Satullo et al. 2019; Herrmann and Hammer 2019). These fortresses may reflect a transition from nomadic lifeways in the MBA to more hierarchical control structures implemented over agriculturally based, settled populations, something not seen since the EBA. This hierarchy may derive from MBA social structures (Smith 2015) or react against them (Erb-Satullo 2021). The evidence from some of these fortresses indicates the development of complex social life, including the centralized production of goods such as bronze objects. Religious installations have also been uncovered, pointing to important social organization (Smith and Leon 2014). These sociopolitical institutions represented materially by the monumental fortresses would have negotiated power and control with local populations, some of them perhaps still living nomadic lifeways (Lindsay and Greene 2013: 694). These building programs also demonstrate both a need for and an ability to control significant pools of human labor. What was the intention of these new LBA fortresses, what was the organi-

zation of these societies, who was controlling and who was being controlled (Erb-Satullo and Jachvliani 2022)? For example, Ian Lindsay and Alan Greene (2013: 703) suggest that the spaces within LBA fortresses were dedicated to institutional uses such as storage, production, and ritual activities—controlled by “sovereign institutions.” In this hypothetical model, the subject populations, on the other hand, would have been living outside and below the fortresses, on the flatlands, though these may be more difficult to locate.

In terms of material culture, across the Armenian Highlands in the LBA, we find pottery of a standard style, labeled Lchashen-Tsitelgori (Sagona 2018). Burials are typified by the cromlech, a low-lying but large circle of stones with a tomb in the middle. These burials tend to be less extravagant than those of the MBA, yet they still demonstrate social inequalities. This evidence leads to the hypothesis that during the LBA, individual polities were established as separate political units. It has been suggested that the extensive fortifications aimed to differentiate and defend the polities against each other (Smith 2015: 157–65; Badalyan and Avetisyan 2007). Although there may be some breaks at the end of the LBA, such as a lack of strata dating between 1200 and 1100 B.C.E. at sites on the Tsaghkahovit “Plain,” the Iron Age in the wider region is generally seen as a continuation of LBA culture in terms of ceramics and the reuse of architectural elements (Manning et al. 2018). This is somewhat unique across southwest Asia where many cultures experience a disruption, known colloquially as the “Bronze Age Collapse” (Cline 2014). If the Armenian Highlands, together with the adjoining northern Zagros Mountains, do stand out for their relative continuity, this could support interesting contrasting research.

The LBA evidence from the Vedi River Valley fits well within this context of the wider LBA in the region. Significant effort was put into constructing both the Vedi Fortress to defend the valley's intersection with the Ararat Plateau, and Urtsiberd-2 to defend one of the main upstream approaches to the lower Vedi River Valley. These two fortresses thus enclose the lower valley and should relate to each other. A basic intervisibility analysis was conducted to explore a potential network of LBA fortresses and forts (Fig. 22). The Vedi Fortress has a clear view over the entire Ararat Plateau entrance to the valley. Looking east, however, the Vedi Fortress has some limitations on visibility up into the valley, especially beyond Urtsadzor. Urtsiberd-2, with its strategic position overlooking the intersection of the Khosrov and Vedi rivers, has a good view downstream to the Urtsadzor area as well as upstream into the Khosrov tributary valley. Interestingly, Urtsiberd-2 can also see some portions of the Ararat Plateau but has limited visibility further up into the Vedi River Valley to its east. Urtsiberd-2 and the Vedi Fortress also cannot see each

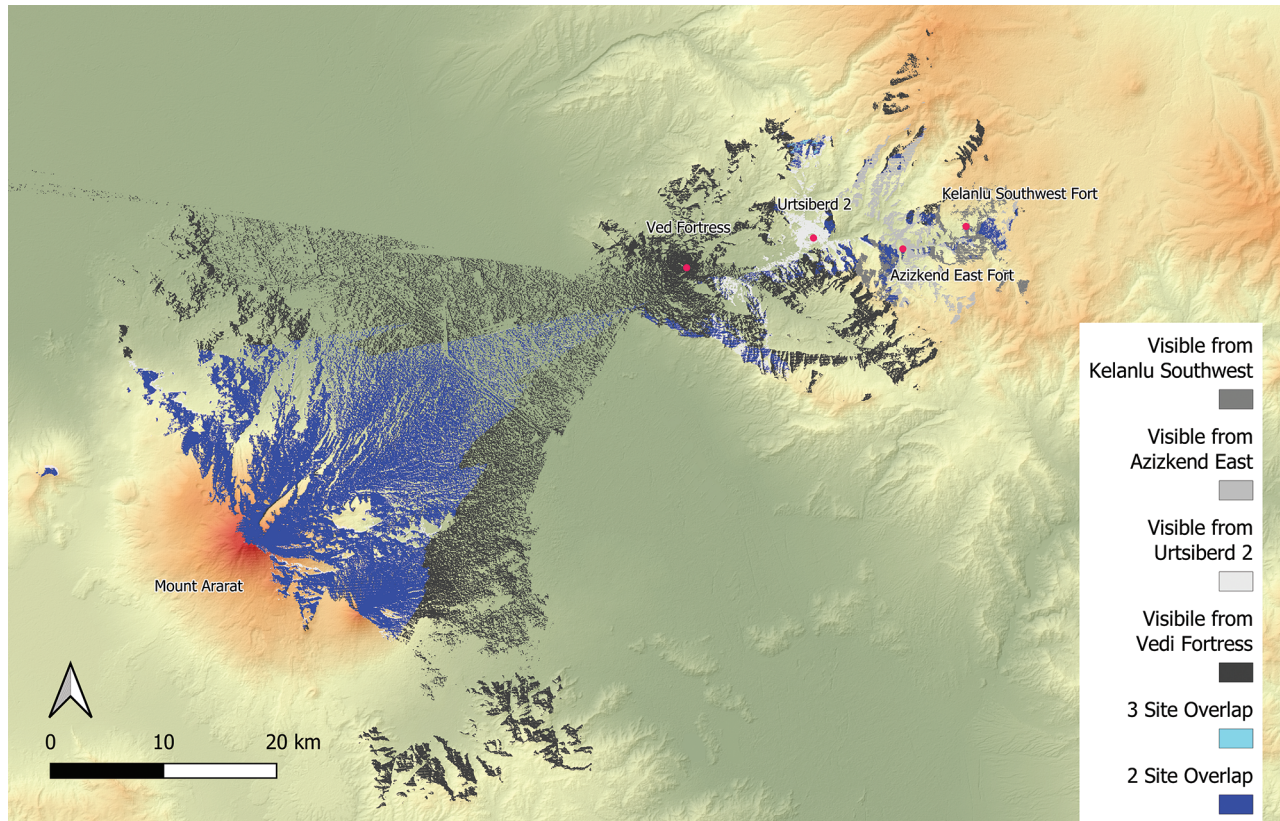


Fig. 22. Basic visibility and intervisibility among the LBA-IAI sites. (Illustration by P. Cobb and Yiu Kam Kong, APSAP Project)

other, but several of the high areas south of Urtsadzor could serve as intervisible connecting points.

Assuming that the two small forts found further up the Vedi River at Azizkend and Kelanlu do belong to the LBA, one can see a specific effort not just to control the agricultural lower Vedi River Valley, but also to control the entire transportation route up to the Lake Sevan Basin. It appears that all four hilltop sites provide positions of military control throughout the valley, linked in a kind of networked system (Hammer 2014; Erb-Satullo et al. 2019). The Kelanlu and Azizkend forts may be just barely intervisible to each other, and they both see some overlapping areas between them (Fig. 22). However, between Azizkend and Urtsiberd-2 there are several high peaks, so the intervisibility is cut. The APSAP project plans to search here for connecting forts on the high areas along the river. This line of fortresses and forts is interpreted as a control network that would overlook a road through this valley up to the Lake Sevan Basin. Interestingly, if one continues up into Gegharkunik Province, several sites surveyed by Raffaele Biscione, Simon Hmayakyan, and Neda Parmegiani (2002) continue this same line of dots down towards Lake Sevan (see also Earley-Spadoni 2015).

Given the potential significance of the Vedi River Valley and the Vedi Fortress during the LBA, it is suggested that the valley may have contained a local independent polity with its power center at the Vedi Fortress. This polity may have developed out of nomadic cultures of the MBA through the consolidation of power and the building of the military infrastructure to protect the valley, as hypothesized at other sites in the region. The shape of the valley's landscape lends itself well to a contained polity separated from those developing in other valleys. One can compare the entrance to the Arpa River Valley further south, albeit for a different period. For a set of walls and sites including the hilltop fortress of Oglangala in that valley, Emily Hammer (2014: 760) notes that "The position of the complex at the entrance to a river pass may have facilitated control of highland pastoral and lowland agricultural resources." These examples contrast with the broader and more porous Tsaghkahovit "Plain," where Lindsay and Greene (2013: 708) argue that LBA fortresses were not situated to control the mobility across the plain. Instead, fortresses there may have served as centers of communal ritual practice in order to bind social ties and maintain political control. The Vedi River Valley presents a more contained and directed path of

motion, and sites like Urtsiberd-2 are clearly situated to control important “choke-points” in transportation networks. Therefore, the study area may provide a different model for the political change that occurred during the transition to the LBA. This landscape militarization represents the projection of political power onto the landscape, and it had a lasting imprint that would lead to reuse and reconceptualization in later periods even after its destruction at the end of the IAI.

Early Medieval Refortification

The ceramic evidence and carbon dates indicate that the Vedi Fortress next saw its most significant reuse during the EM period. The fortification wall was rebuilt likely tracing the LBA–IAI walls, with a storage cellar placed just inside it in the Top Trench, along with a pit burial dug into the natural hill on the east shelf. The carbon dates indicate the range of 416 to 646 C.E., lining up almost exactly with the historically attested period when eastern Armenia was a province of the Persian Sasanian empire, under the rule of a military governor (*marzpan*, “guardian of the frontier”) appointed by the Persian king from 428 C.E. This governor lived at the provincial capital Dvin, a site just north of the Vedi River Valley. Historical sources indicate that local power was negotiated among the various Armenian nobles (*nakharars*) with their familial dynasties, whose interactions with the Persian empire were constantly shifting between cooperation and conflict (Thomson 2010). Archaeologically, Sasanian influence on local material culture is seen as part of a larger political and military intervention in the region, often framed around conflict with the Byzantine empire. What is particularly interesting is that both empires also worked together to fend off nomadic raiders from the Eurasian Steppe who occasionally crossed the Caucasus Mountains. Several recent conferences and edited volumes shine new attention on the archaeological exploration of the Sasanian empire (Kennet and Luft 2008; Sauer 2017; Simpson 2022).

Historically, written sources provide some information about Armenia in late antiquity, including those composed in Armenian using the new Armenian alphabet, invented in 406 C.E. (La Porta 2018). The political geography of the EM period was established with an agreement circa 387 C.E. to split Armenia so that the western part came under the eastern Roman empire (soon to be the Byzantine empire) while the eastern part, including the current area of study, remained under the Sasanian empire as Persarmenia (Chaumont 1986). The mountainous region of Armenia thus stood as a sort of buffer zone between the empires, with many of the major battles occurring south of Armenia, around the fortified frontier settlements at Dara and Nisibis

in northern Mesopotamia (Garsoïan 2004). This situation of fluctuating conflict and peace between the two empires may not have directly impacted the Vedi River Valley much in the subsequent centuries, so the Vedi Fortress may have held a role more relevant within local politics rather than international affairs. Not until after 590 C.E. does the border between the Sasanian and Byzantine empires shift significantly once again, when the Persian king Khosrow II ceded substantial Armenian land to the Byzantines after they helped him successfully rise to power. The border thus moved eastward, all the way to the Azat River near Garni, just north of Dvin. In this case, the Vedi River Valley remained just barely within Persian territory. By the mid-7th century, a weakened Sasanian empire was conquered by the Arabs, united under their new Islamic religion, and a simultaneous sharp drop in occupational evidence at the Vedi Fortress is noted (Chaumont 1986).

The Armenian sources about the EM period emphasize religion’s role in the political relationships with the Sasanians (Hewsen 2001: 87). Within this context, we find the only historical references to an EM place called Urc/Urts, associated with the Vedi River Valley and the modern town of Urtsadzor. The historians Lazar of P’arpi and Elishe describe an Armenian revolt against the Sasanian empire’s attempt to impose Zoroastrianism in 450 C.E. The *marzpan* at the time was Vasak, an Armenian prince of Siwnik’ (Syunik), who is depicted as an apostate in the Armenian sources since he ended up siding with the Sasanians. This disunity of the Armenians contributed to their defeat at the battle of Avarayr in 451 C.E., though the Persians subsequently seem to have backed away from enforcing Zoroastrianism (Thomson 2010: 162–63). Interestingly, the list of princes mentioned as joining Vasak in turning against Armenian Christianity include one Nerseh of Urc (Lazar P’arpec’i, *History* 36, tr. Bedrosian 1985; Elishe, *History*, 74, 92, tr. Thomson 1982). This seems to indicate that the Vedi River Valley held close political connections to Syunik, located just east in the mountains.

A generation later, in the early 480s C.E., the sources again describe hostilities between the Armenians and Sasanians and include another reference to the region called Urc/Urts, this time with more detail. During the conflict, the local prince shifted loyalties back to the Persians, as recalled in this passage from the historian Lazar of P’arpi:

There was a sepuh from Urc named Varaznerseh, the son of Koght’ek, prince of Urc, who had sworn the oath along with the Armenian *nakharars*, but then broke the holy vow. He went and laid waste the shahastan of Brhnavesh, took all the goods of the shahastan and fortified himself in the fortress called Sagray fortress, which was a secure fortress in their principality. (Lazar P’arpec’i, *History* 67, tr. Bedrosian 1985)

The reference to a fortress called Sagray in Urc has led to speculation about which fortress in the Vedi River Valley this may be (Shaghoyan 2007). Some sites, including Urtisberd-1, Urtsiberd-2, and even Tapiberd (Gevorg Marzpetuni castle) have each been associated with Sagray Fortress, or Sagraberdd. Further up into the valley, on the Mankuk River, which is a tributary to the Vedi, a medieval *khachkar* is reported to mention Sagraberdd, potentially locating the fortress in that valley. The small Urtsiberd-1 fortress does have medieval evidence, though it could be late, just as Tapiberd is generally considered Late Medieval (LM), and there is as yet no evidence for EM occupation at Urtsiberd-2. Though one must always exercise caution when attempting to mix archaeological and historical evidence, given that the Vedi Fortress is the largest and most prominent fortress in the valley with significant EM evidence, perhaps this may be Sagraberdd.

Archaeologically, the Sasanian empire is often understood through its large-scale transformation of the landscape across southwestern Asia. In Mesopotamia, this takes the form of canal irrigation for intensive agricultural production that provided one of the economic foundations of the empire. There and on the Iranian Plateau we find the major urban centers, including the capital Ctesiphon, where specialized crafts production took place, including perhaps by captured Roman craftspeople (Simpson 2022). Around its boundaries, the empire undertook large military and defensive constructions. East of the Caspian Sea, the Gorgan Wall stretches for almost 200 km (Sauer et al. 2013). A series of walls and fortresses in the Caucasus also defended the northern edge of the empire against incursions from nomadic tribes from the Eurasian Steppe (Ur and Alizadeh 2022: 82). In both these areas, the constructions are dated to the 5th and 6th centuries C.E., the later part of the empire (Lawrence and Wilkinson 2017). The Armenian Highlands were also a contested zone with the Byzantines, but the highly diverse mountainous topography defies simple demarcation with clarity like the northern Caucasus. Thus, it was impractical for the empire to construct similar massive military installations, and local autonomy could be somewhat maintained. At the same time, the empire had a clear impact on the material remains throughout the Caucasus, particularly in terms of pottery, glass, and other materials.

The empire's projection of military power in the Armenian Highlands and the South Caucasus is particularly clear to the east in the lowland Caspian areas of Azerbaijan and Iran. Several fortresses and fortification walls have been archaeologically explored on the Mil Plain and Mughan Steppe, where the lower Kura and Araxes Rivers merge, and along the Caspian Sea coast. The Sasanian empire adapted the natural landscape to integrate defensive constructions, while at the same time building infrastruc-

ture for agricultural productivity (Lawrence and Wilkinson 2017). Between the east end of the Caucasus Mountains and the Caspian Sea, in today's Azerbaijan and Russian Daghestan, a strip of small plains enables relatively easy land transportation along the shore. Therefore, here the empire built a series of walls and fortresses, from the 42-km Derbent Wall and nearby Torpakh Qala Fortress in the north, to the Ghilghilchay Wall with its Chirakh Qala and Beshbarmak fortresses to the south, all dated to the 5th and 6th centuries C.E. (Gadjiev 2008; Aliev et al. 2006). Further inland on the Mil Plain and Mughan Steppe, we find fortresses like Ören Qala, ancient Beylaqan, and Ultan Qalası, ancient Vardanakert, a large rectangular settlement with a nearby canal network (Ahmadov 1997; Alizadeh 2011). Moving north, Nargiz Tepe and Qala Tepe have layers from this period (Lawrence and Wilkinson 2017: 114). And finally, there is Barda/Partaw, the capital of the ancient local region called Albania. Daniel Lawrence and Tony Wilkinson (2017: 115) point out that these fortresses in inland Azerbaijan seem to form dots in a line along the foot of the Gharabagh Range, potentially protecting a route towards the Dariali Pass through the Caucasus Mountains. This seems to be a historically documented communication route (Ur and Alizadeh 2022: 82).

The Sasanians invested in the Caucasus region and the Armenian Highlands for several reasons, such as for defense and control, but also to extract resources, including mining and agriculture. In fact, the purpose of the defense and control likely included protecting those resources in addition to protecting the approaches to the empire's center (Ur and Alizadeh 2022: 88). These imperial efforts would also have had impacts on the Ararat Plateau and surrounding areas. For example, it is noted that this flatland was famous for the raising of horses, and this is reflected in the deployment of Armenian cavalry in the Imperial army. Even today, economically valuable mining occurs in the mountain ranges around the Vedi River Valley, all the way to the Lake Sevan Basin. One wonders how the mix of political interests in the Ararat Plateau impacted large-scale irrigation works in this region including in the Vedi River Valley. The Vedi Fortress is not a major fortress on the scale of Torpakh Qala or others in the empire, it is focused only on defending the local valley. The construction of the fortress was facilitated by the reuse of the existing LBA structure. As a comparison, on the Mughan Steppe along the Araxes River, Jason Ur and Karim Alizadeh (2022: 84) identified a few large fortresses, but also many sites with fortified areas of 1 ha and smaller. Yet, even if the Vedi Fortress only focused on defense of the Vedi River Valley, this may have had larger implications within trans-regional transportation networks, especially if this valley continued to be used as route similar to the potential LBA-IAI route discussed above. After all, the Vedi River

could provide a path to move from the capital at Dvin up into the Lake Sevan Basin, making a direct line thereafter over the mountains to the Albanian capital of Barda/Partaw (cf. Mirijanyan and Grigoryan 2018).

It is this proximity to the local Armenian capitals that also situates the importance of the Vedi River Valley during the EM period. The older capital of Artashat sits just 15 km to the west of the Vedi Fortress out on the Ararat Plateau and is clearly intervisible. The Sasanian period capital was moved to Dvin, which is about 16 km to the northwest of the Vedi Fortress. However, the mountains divide the sites, so it would actually take about 25 km to move between them. Several monumental buildings from the 5th–6th centuries C.E. have been excavated at Dvin. In the center of the city, the cathedral stood from the 4th–9th centuries C.E. To the southwest of the cathedral was found a columned hall that has been identified as an early palace of the *catholikos*, the head of the Armenian church. The building contained pottery of types found at other Sasanian-period sites and column bases typical of the period. Historical interpretation suggests that a Zoroastrian fire temple added to the building led to its destruction in an Armenian revolt around 570 C.E. (Kalantaryan 1996: 38–40). The closeness of the Vedi River Valley to these centers of religious and related political power, both local and Persian, likely shaped the influences at work on the economic and cultural life in the valley.

Comparisons through Refortification

The goal of the current research is to investigate life and mobility at a flatland-mountain interface. As a first step, this article has focused on the evidence for fortification and refortification of the Vedi River Valley during two periods. This valley provides an interesting case study given its topography and environment. The elongated and contained shape of the valley offers a natural transportation route up to the Lake Sevan Basin. Today, the alluvial valley floor hosts intensive agriculture, while the upland areas see seasonal animal pasturing. Modern quarries and mines take advantage of the local geological resources, while the diverse flora and fauna in the northeastern part of the valley are protected within the national Khosrov Forest State Reserve. Given the potential significance of the Vedi River Valley, it is natural that the valley has been militarized since the LBA and remilitarized in later periods. Within Armenia, only the Hrazdan River gorge is more prominent for travel from the Ararat Plateau towards the east and was thus also militarized, providing an interesting comparative example (Castelluccia 2018).

Fortification is a social process, and this research is investigating defensive communities, how they are struc-

tured, and how they change over time within the same landscape (Erb-Satullo and Jachviani 2022). Fortresses help to form community through both their visual symbolic power and through the labor and resource management required to build them. Although investigation into the LBA–IAI layers has only just begun, the sheer quantity of material and the likely depth of the stratigraphy seems to indicate significant occupation during this period. This should, though, be balanced against the multiple centuries of potential use of the Vedi Fortress during that time. The authors are particularly interested in the formation of community coming out of the MBA, with initial signs pointing to the development of an organized, possibly hierarchical, society that focused on controlling the valley and its transportation route. It is suggested that this was an independent local polity differentiating and defending itself against surrounding polities. A goal of the work is to learn more about what life was like within the fortress and whether this place was occupied year-round, as hinted at by the quantity of evidence. Although evidence for LBA–IAI habitation has not yet been found outside of hilltop fortifications in the valley, future efforts with geophysics may help. Investigation into any crafts production that may have taken place within the fortresses is also planned.

The reuse and remilitarization of the valley, particularly in the EM period, seems to indicate that the landscape may have always influenced how people thought about this area. Contrasting the EM with the LBA–IAI periods helps to further conceptualize this flatland-mountain interface. As with the MBA to LBA transition, the EM refortification happens at a time of change. After the replacement of the centralized Armenian Arsacid dynasty with the Sasanian marzspans, the Armenian nakharars and their noble families concentrated their own power. Related to this, the cities declined and the fortresses became key features in local politics (Kalantaryan 1996:1). Nina Garsoïan (1984), in fact, identifies this as a distinguishing feature of the Armenian (and Persian) culture, differentiating their more rural human-landscape relationship from the more urban-centric Hellenistic culture of the west. The separation of consolidated nakharar powers, guided by the landscape situation, may, in some ways, echo what happened in the LBA with the rise of the individual competing polities. However, it is unknown if or how the external LBA large powers—the Hittites, Mitanni, and Assyrians—influenced these local developments, and thus if there are any similarities with the impact of the Sasanian empire during the EM. Local peoples in both periods likely negotiated their relationships with external forces, in some cases becoming more independent from far-flung authority, or in other cases becoming dependent on the resources made available from interconnections enabled by organized states (Ristvet et al. 2012; Khatchadourian 2016).

Potential differences between the original fortification and the refortification are also noted. First, the relative effort put into building and rebuilding the Vedi Fortress provides an interesting contrast. The LBA fortification walls are faced with extremely large stones, likely cut from the bedrock, some 1 m across and deep, and 0.5 m tall. Among the EM materials thus far explored, the 2.75-m width of the rebuilt EM wall matches the original LBA wall's width, but the stones used in the EM construction are smaller, all under a size that one or two people could have carried. This points to a much lower effort made by the EM rebuilders than the original LBA builders, especially given that the EM people had much of the wall already available. Perhaps the EM inhabitants could therefore focus more on agriculture and less on defense, particularly given their position within the broader Sasanian empire, which may have provided some stability. The LBA efforts, on the other hand, appear directed at sealing off the valley against external threats and controlling traffic over the transportation routes.

A shift in focus during the EM period to the agricultural productivity of the Vedi River Valley may also be reflected by a lack of further fortifications in the valley. No evidence has been found for EM use of Urtsiberd-2 or sites further up into the valley that are more likely to be LBA in date. Several small sites on the foothills around the Lower Vedi River Valley edges may be unfortified farmsteads from the EM period. At the Vedi Fortress, the storage cellar with its pithoi indicates some potential centralization of the agricultural production of the valley. Many basalt grindstones have been found in these layers, perhaps used to process local grains. At the same time, a handful of unbaked clay spindle whorls have been found, so the upper parts of the valley may have hosted wool production. It remains to be seen whether the LBA levels will evince such activities. Another potential explanation for the contrasting refortification could be that the Vedi Fortress was focused more on controlling the local population rather than defending against external threats. Thus far, the distinctive, white-washed Sasanian-style pottery has only been found on the Vedi For-

treass, and not on the small unfortified farmsteads around the edges of the valley. This may point to some interesting social divisions and hierarchies that developed in the valley at this time.

The Vedi River Valley offers a unique opportunity to study the lived experiences of people within a contained landscape setting. The environment affords a variety of potentials for exploitation over a small distance. The placement of the Vedi Fortress highlights the desire to focus on both the flatland and the mountains at this flatland-mountain interface. The people who lived here appear to have both been able to isolate themselves in the valley with protective installations, while at the same time maintaining various connections to what was happening in surrounding valleys and further afield, in all periods. The fortification and refortification of the valley was one important expression of these relationships, which have been explored here. Having only undertaken the project's first full season of fieldwork within the Vedi River Valley in 2022, the authors look forward to addressing further questions about this interface through future research.

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