


Vol. 5  B. Horejs, Çukuriçi Höyük 1. Anatolia and the Aegean from the 7th to the 3rd Millennium BC. With contributions by Christopher Britsch, Stefan Grasböck, Bogdana Milić, Lisa Peloschek, Maria Röcklinger and Christoph Schwall (Vienna 2017).


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Preface by the Series Editor

The 8th volume of the OREA series about *Landscape Archaeology in Southern Caucasus* represents the proceedings of a workshop held at the International Congress on the Archaeology of the Ancient Near East (ICAANE) in 2016. This 10th anniversary of the ICAANE took place from 25th to 29th of April in Vienna, hosted and organized by the Institute for Oriental and European Archaeology (OREA) of the Austrian Academy of Sciences. Altogether 800 participants from 38 different countries found their way to Vienna to celebrate the 10th anniversary of ICAANE with 8 scientific sections, 28 workshops, round tables, a huge poster exhibition and a special section about “Cultural Heritage under Threat”.

The topics of the 10th ICAANE covered traditional, as well as new fields, in relation to state-of-the-art approaches and methodologies. The general themes of transformation and migration, cultural landscapes, religion and rituals, environmental shifts, contextualized images, economies and societies, Islamic archaeology, as well as current excavations and field reports, have been discussed in large sections published as the 10th ICAANE proceedings with the Harrassowitz Publishing House. A special element was new scientific input discussed in the additional 28 workshops, focused on more detailed questions in relation to our broad scientific fields. The engaged discussions of internationally high-ranked experts with young scholars was essential for the success and open atmosphere of the 10th ICAANE in Vienna.

I would like to thank W. Anderson, K. Hopper and A. Robinson, who not only organised the workshop about *Landscape Archaeology in Southern Caucasus. Finding Common Ground in Diverse Environments*, but also edited these proceedings as a volume for the internationally peer-reviewed OREA series.

The editors brought together 16 authors for ten contributions focussing on different aspects of Caucasian Landscape Archaeology, accompanied by a detailed introduction providing a good overview for an audience not familiar with this particular region. The editors succeeded in their aims to present and reflect on some of the current approaches in Landscape Archaeology based on site and regional studies in Armenia, Azerbaijan, Georgia, parts of eastern Turkey and north-west Iran. By drawing attention to the Southern Caucasus as a zone of cultural contacts with its particular environmental and cultural conditions, the editors and authors offer a new perspective of this fascinating region to a broader readership. Moreover, their consideration of future research directions demonstrate the potential of southern Caucasian archaeology and the impact of “Finding Common Grounds in Diverse Environments”.

My sincere thanks for financial support of the conference go to several Austrian and international institutions, which are The Austrian Federal Ministry of Europe, Integration and Foreign Affairs, the University of Vienna, the City of Vienna, the Vienna Science and Technology Fund (WWTF), the Institute for Aegean Prehistory (INSTAP), the Austrian Orient Society Hammer-Purgstall and the Austrian Academy of Sciences. For the publication of this volume, I would like to thank Ulrike Schuh for the coordination, Angela Schwab for the layout, Hazel Harrison for English language editing and the Publishing House of the Austrian Academy of Sciences.

Barbara Horejs
Vienna, 2 March 2018
The Archaeological Landscape of the Hrazdan River Basin during the Late Bronze–Early Iron Age

Manuel Castelluccia

Abstract: This paper aims to evaluate the archaeological landscape patterns of the territory of the Hrazdan River basin, a crucially strategic position that links two of the most important areas of the Armenian highlands, the Lake Sevan basin and the Aras Valley. The chronological focus spans the Late Bronze Age and Early Iron Age (1500 BC to 800 BC), a period in which the lands south of the main Caucasus range were the scene of several noteworthy innovations evident in the archaeological record that include an increase in the quantity and variety of metalwork, the introduction of iron, the emergence of new pottery types and the growth of funerary evidence. Among the most important developments was the transformation of the socio-political structure of the local population, as seen in the settlement pattern, and the emergence of fortress sites, which shows a tendency toward militarisation of the society. In the Hrazdan Basin, these fortresses are formed by circuit walls of large, irregularly shaped boulders; they are situated at high points above the river gorge, on the foothills of the valley and, in the case of Tghit, on a mountain-top. The fortresses are representative of a social organisation based around military aristocratic elites which developed in Armenia during the Late Bronze to Early Iron Age.

Keywords: Archaeological landscape; Fortresses; Late Bronze Age; Early Iron Age; Transcaucasia

Introduction

During the Late Bronze Age (1500–1100 BC), remarkable material innovations occurred in the societies of southern Caucasia. Firstly, there was a massive increase – in both quantity and variety – in the production of metal objects. Several new types appeared, such as crescent-shaped bronze axes, one-cast daggers with bell-shaped pommel, bronze belts, horse-bits and various kinds of personal adornment. The production of iron objects began gradually in the Late Bronze Age and became more common from the tenth century onwards. Burials also greatly increased and burial types diversified. Several large burial grounds date to this period, where kurgans, dolmens, cist-graves and interments in simple grave-cuts exist side by side. However, cist-graves with low mounds and surrounding cromlechs are the most prevalent.

Particularly prominent is a marked increase in settlements, notably fortified sites, termed ‘hill-forts,’1 which are characterised by walls built from very large, irregularly shaped boulders. These hill-forts are spread across the mountainous areas of northern Iran, eastern Anatolia and southern Transcaucasia and several important studies have been devoted to the phenomenon.2 They are a clear sign of the initial development of socio-political complexity among the native population and signal an increasingly militarised landscape.

During the Late Bronze–Early Iron Age most of present-day Armenia and the neighbouring regions of eastern Georgia, western Azerbaijan and Karabakh shared somewhat similar archaeological evidence, which has been interpreted as the result of a uniting, common culture. Several scholars have addressed the matter, and different interpretations, definitions and approaches have

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1 Biscione 2009, fn. 1.
been proposed concerning this culture’s identification and labelling. Names that have been pro-
posed are ‘Ganja-Karabakh’ or ‘Chodžali-Kedabek’ culture3, ‘Lčašen culture’4 or the ‘Lčašen-
Metsamor/Tsitelgori horizon’5. Although there are several shared features, strong regional varia-
tions may also be observed; however, it is generally accepted that Lake Sevan and the neighbour-
ing areas are the core zone.

The Study Area

The Hrazdan River basin occupied a strategic position, linking two of the most important eco-
nomic areas of Armenia: the Aras Valley and the Lake Sevan basin. It has yielded remarkable
remains of the Late Bronze–Early Iron Age cultures of the Armenian highlands.

Hrazdan is the second largest river of the Republic of Armenia. It originates from Lake Sevan
at an elevation of 1900m and flows southwards through the Kotayk province and Armenia’s capi-
tal, Yerevan, finally joining the river Aras on the present-day border with Turkey. For most of its
course, it passes through the Kotayk plateau in a deep and picturesque gorge. The local geologi-
cal formations consist of basalts and tuff emitted by the volcanoes in the Gegham range. Today,
the river is extensively exploited to irrigate crops and for hydro-electric schemes, which strongly
reduces its flow.

Before entering into Yerevan’s outskirts, the river divides two diametrically opposed geo-
graphic environments (Fig. 1). To the right of the river lie the slopes of the Pambak and Tsaghkun-
yats mountain ranges and, further south, the isolated extinct volcano of Arayi Ler and the Yegvard
plateau; to the left, the landscape is formed by an extensive basalt plateau with several extinct

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3 Hančar 1934; Minkevič-Mustafaeva 1963; Džafarov 1984; Schachner 2001.
4 Pogrebova 2011.
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volcanoes that are part of the Gegham mountain range, one of the main sources of obsidian in Armenia.

After flowing through Yerevan, the river passes through the Ararat Plain, one of the largest agricultural areas in the Armenian highlands, stretching from the foothills of Mount Aragats to the north to the Gegham ridge in the east and the base of Mount Ararat to the south. It is a lengthy fertile strip, about 100km long and ranging from 15 to 20 to 45km wide, and is crossed by the river Aras (which marks the modern border between Turkey and Armenia).

The Hrazdan Basin served as an important communication route, especially by linking the Aras and Kura rivers. Just north of Lake Sevan flow the rivers Debed and Aghstev, which belong to the Kura River drainage basin. Given this geographical meeting point, it is not surprising that the valleys of the Hrazdan Basin have yielded prolific archaeological remains.

In the past, at least three main roadways connected the Lake Sevan basin with the Ararat Valley: one ran beside the present course of the river, which is the same route as the modern Yerevan–Sevan highway. A second road probably crossed the Gegham range, which runs north–south parallel to the western shore of the lake, at a 2700m-high pass; the third followed a route further south through the Selim Pass.6

The area around the lower part of the river Hrazdan has been the site of several important discoveries in Caucasian archaeology. The Urartian centres of Karmir Blur and Erebuni, as well as the Early Bronze Age settlement of Shengavit, are located within the urban limits of Yerevan. Further south, the Hellenistic settlements of Dvin and Artaxata lie just a few kilometres away from the river.

Archaeological Investigations of the Hrazdan River Basin and the Kotayk Plateau

In recent decades, new archaeological projects have focused on the study of the archaeological landscape of the Hrazdan River basin and Kotayk plateau. The most notable is a joint Armenian-Austrian expedition investigating the Urartian settlements of Aramus, c. 20km north-east of Yerevan. In the north-western part of Kotayk province, along the river Marmarak, a survey was carried out by a joint expedition between the University of Idaho and the Institute of Archaeology and Ethnography of Armenia, but a report has not yet been published. Since 2013, a joint Italian-Armenian expedition has taken on the task of surveying the upper Hrazdan area, in order to clarify the urban settlement pattern between the Yerevan and Lake Sevan basins.7 This project involved collaboration between the Italian International Association of Mediterranean and Oriental Studies (ISMEO) and the Armenian Institute of Archaeology and Ethnography of the National Academy of Sciences of the Republic of Armenia. The fieldwork was organised firstly with a study of the area using remote sensing techniques, together with a review of the literature concerning the area. An especially valuable source of information is the National List of Monuments of the Republic of Armenia, an inventory of all known sites of cultural interest organised according to the municipalities in which they are located. Subsequently, sites have been visited in the field wherever possible and information gathered on site attributes and artefacts.8 The Armenian-Italian expedition achieved some important results, which will be further discussed below. However, in order to tentatively reconstruct the archaeological landscape of the whole Hrazdan River basin, first it is necessary to gather together all related literature, especially that of the Soviet period.

The present review of the available archaeological evidence will start in relation to its southernmost part, that is, the Armenian capital, Yerevan. Reconstructing the archaeological landscape of modern-day Yerevan and its outskirts is not an easy task, since the expansion of the modern

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7 Castelluccia et al. 2012; Petrosyan et al. 2015.
8 Castelluccia et al. 2012, 28.
City has probably covered many archaeological sites. Fortunately, the Armenian scholar S. Esajan gathered together the archaeological evidence concerning the city’s urban limits in a book published during the Soviet period.9

With regard to the Late Bronze–Early Iron Age, within the modern city of Yerevan, only scarce traces of the period have been detected, although at least two fortresses are known. The first of these is located on the hill known as Tsitsernakaberd, on top of a steep promontory overlooking the Hrazdan. Unfortunately, the site was heavily damaged by construction activities which obliterated most of the structures, but fortunately it was mapped before the remains of the walls disappeared altogether and its main features have been published.10 No archaeological investigations were ever carried out at the site and most of the available evidence was unearthed during the building work: a pottery assemblage dating to the late second and early first millennium BC includes grey wares with incised decorations analogous to finds from the same period from numerous sites in Armenia.11

The fortress consists of two lines of defensive walls of ‘cyclopean’ masonry, with large unworked stones set in rough courses and smaller ones filling the spaces between them (Fig. 2). The first line has a perimeter of 281m enclosing 0.2ha; the second circuit encloses a small raised citadel of 0.03ha.

The second fortress, Muchannat-tapa, has totally disappeared. It was located near the railway station of Yerevan but has now been covered, if not destroyed, by modern housing (Fig. 3). The archaeological site covered about 0.5ha and included remains from the third millennium BC. Most of the finds, however, date to the Early Iron Age and consist of pottery. It was partially investigated before the Second World War and several reports are available.12

The first excavations began in 1935 and continued the following year under the guidance of E. A. Bajurtijan. Three distinct cultural levels were unearthed, the middle one of which probably contained Urartian material. It is reported that the oldest layer contained monochrome

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9 Esajan 1969.
12 Bajurtijan 1937; Field – Prostov 1937; Piotrovskij 1966, 23.
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The top layer can be dated to the Hellenistic period. B. Kuftin also reported the discovery of a short sword and axes made of iron, red pottery with geometric designs in black, and a cylinder stamp seal bearing the image of a bird, probably Urartian. Moreover, he describes pottery dating to the third millennium. Subsequently Esajan published a complete summary of the archaeological evidence from the site. He identified a bronze belt with dotted decoration as coming from this site, but unfortunately further information is lacking. The presence of Urartian-style items suggests that this site was still in use during the Middle Iron Age.

Traces of a settlement and a necropolis of pre-Urartian date are attested at Karmir Blur; scarce remains from the same period were also found in Erebuni. Just a few kilometres north of Yerevan lies the important site of Karmir Berd (literally ‘Red Hill’), also known in the archaeological literature under the names Tazakend, Kizil-Kala and Gaja-Charaba. It stands on a rocky promontory on the right bank of the gorge of the river Hrazdan and consists of a fortress and a large burial ground. The fortress is surrounded on three sides by the cliffs of the 80m-deep river gorge and is open only on the north-east side (Fig. 4), where there are massive fortification walls built with large blocks of basalt (Fig. 5). The fortress covers an area of about 3.5ha. It was reused in the mediaeval era and hence the oldest structures are partially hidden or destroyed. The fortress has yielded material from the mid-2nd millennium to the 7th century BC, plus the later occupation during the Middle Ages. In the burial ground, remarkable Middle Bronze Age discoveries have been made. Several past expeditions have concentrated on excavating the cemetery. It was excavated for the first time in 1896 by P. V. Čarkovskij, who unearthed 22 tombs. The site was investigated again in 1903 by M. Zachar’janc, who dug another 17 tombs, and the following year E. Rösler investigated 28 burials. Further investigations were carried out some decades later: B. Piotrovskij worked there in 1934, A. Martirosjan in 1962, L. Karapetjan

Fig. 3 Probable site of the Muchannat-tapa fortress (GoogleEarth)

13 Bajburtjan 1937, 212–213.
14 Kuftin 1943, 59.
15 Kuftin 1943, 120–123, figs. 76–78.
17 Esayan 1984, pl. 8, no. 28.
18 Ter-Martirosov 2012, 170.
19 IAK 1909.
20 OAK 1904, 98–99.
21 Piotrovskij 1949, 43–44.
carried out some soundings within the fortress in 1966,\textsuperscript{22} and finally, from 1965 to 1967, Esajan carefully investigated the necropolis, digging 73 graves.\textsuperscript{23}

The Late Bronze–Early Iron Age cemetery consists largely of cist-graves lined with stone slabs and covered with small mounds. In some cases there is also a cromlech. The average length of the cists is 1.8m, while the average width is 0.8–0.9m. Generally only three sides of the cist are lined with stone slabs, while the northern side is formed instead of smaller, irregular stones. Other stone slabs are sometimes present on the bottom of the pit. Esajan recognised three different grave shapes: rectangular, square and round. In many graves the bones have not been preserved, although some did contain skeletal remains: the deceased usually lay on the left side, head to the north or east, in a crouched position. The burials are all single inhumations except for Tomb 3, where two skeletons were found, one lying on the left side and the other on the right, both with the head pointing eastwards. The grave goods were not particularly abundant, comprising small groups of pottery and some metalwork (Fig. 6).

\textsuperscript{22} Karapetjan 1972.
\textsuperscript{23} Esajan 1969, 29–52.
East of Karmir Berd there are two other fortresses, Kamaris and Elar, which show scarce traces of the Early Iron Age.

North of Karmir Blur lies another remarkable site, Karashamb, known for its Middle Bronze Age necropolis, which also contains material from the Late Bronze Age. Near the large burial ground there is a fortress, but it is yet to be investigated.

Near Karashamb, on the opposite side of the river, traces of a fortress have been attested on a rocky spur in the Hrazdan River gorge; it is referred to here as Karashamb. In the western part of the site stand the remains of huge ‘cyclopean’ retaining walls, while in the eastern section, several stone-built structures are still clearly visible. Much of the pottery collected from both site and hillside dates to the Early and Middle Bronze Age, but some sherds appear to be of Late Bronze Age date. According to a local villager, the easternmost part of the rocky spur was used in Soviet times as a basalt quarry. Despite the very scarce presence of Late Bronze Age pottery, it is plausible that the walls of this site date mostly to that period, since fortresses with masonry of that kind are typical of this epoch.

Further to the north, a very important fortified settlement known as Tghit overlooks the village of Teghenik on a rocky outcrop of the Tsaghkunyats range; it was investigated by the Italian-Armenian team in 2014. The fortress provides a view stretching from the Gegham range to the Aras Valley, and overlooks the entire Hrazdan Valley. The few recovered sherds suggested a Late Bronze–Early Iron Age date, with traces of the medieval period as well.

The fortress is rectangular in shape (Fig. 7). Single fortification walls run along the northern, southern and eastern sides; the eastern wall is built just above a vertical cliff overlooking the village of Teghenik. The western side is less steep, sloping down towards a large depression, and features a triple fortification system of walls. The upper line of fortification is the main one and measures about 70 × 100m; it is built with very large stones, with walls over 4m thick and pre-
Fig. 7  Aerial view of the fortress of Tghit (GoogleEarth)

Fig. 8  Defensive wall of Tghit (after A. Petrosyan et al. 2015, pl. 22, no. 2)
served up to 5m in height (Fig. 8). A large opening, probably part of a 6m-wide gate, is present in the middle of this upper fortification. To have such a wide gate would be unusual, since entrances are perhaps the weakest point of a fortress. Traces of smaller walls are preserved within the entrance itself; these may have belonged to an additional system of defence or perhaps pertain to a later period. On the first wall there are also three 12m-long buttresses, protruding about 3m from its face.

The second defensive line consists of thinner walls with a width of about 2.5m and several circular towers. The gate of the second line is not in line with the main entrance but several metres to the south. This disposition increased defensive capabilities, since an attacking force, after breaking through the first entrance, would have moved toward the second gate, exposing its right side for several metres to defenders located on the top of the second wall.

The third defensive wall line was the smallest, with walls 1.5–2.5m thick and, in several places, it has collapsed or is completely covered by vegetation. No entrance was identified.

When visited, the inner part of the site was densely covered with high vegetation, making it impossible to see the layout of the inner buildings clearly. The buildings’ presence was, however, visible to some degree.

There was a large oval-shaped body of water enclosed by an earth embankment reinforced by large stone blocks 190m north of the fortress; it measured 110 × 200m and was clearly a reservoir intended to supply water to the fort. A canal entering the lake from the north probably conveyed runoff from the slope generated by rainwater and melting snow. Another canal exits from the lake to the south, passing close to the fortress and continuing down towards the hills beneath.

The presence of another fortress has been recently reported near the village of Bdžni, but no further information is available at present.28

The remains of two further small fortresses were identified above the Hrazdan Gorge, near the village of Kaghsi.29 The first was built on a rocky spur protected on three sides by the Hrazdan Gorge. A large wall with buttresses defends the side facing the plateau; a small amount of Late Bronze–Early Iron Age pottery was found there along with some medieval sherds.

The second fortress is located just 250m north-east of the first. Its 3.7m-thick ‘cyclopean’ walls are visible for only one course, and are built without buttresses or towers. The main entrance is visible on the north-west wall. Both fortresses have typical double-faced masonry with an internal fill of smaller stones and earth.

West of Kaghsi, a few hundred metres from the modern Yerevan–Sevan highway, lies the fortified site of Solak, which has been investigated by the Italian-Armenian team.30 Although the structures date to the Middle Iron Age, a small amount of Late Bronze–Early Iron Age pottery was found on the surface.

Next to the modern village of Lernanist there is another remarkable fortress, which is located on a mountain top overlooking the whole upper Hrazdan Valley and is known as Berdi Dar. It is trapezoidal in shape, with the longest side measuring about 50m (Fig. 9); the main defensive wall, around 3m thick and preserved up to 1m in height, is built with ‘cyclopean’ masonry. An entrance flanked by two towers is still clearly visible on the north-eastern side and several buttresses are present along the eastern side. Within the structure, traces of buildings can be seen. Surprisingly, no surface pottery was found at the site, so its identification as dating to the Late Bronze–Early Iron Age is somewhat uncertain.

The presence of fortresses has been reported along the western part of the Pambak range and the Marmarik valleys, but these structures have yet to be studied in detail.

At the point where the river Hrazdan exits from Lake Sevan lies one of the most important sites of the whole Armenian highlands for the Late Bronze–Early Iron Age, the fortress of Lčašen.

29 Petrosyan et al. 2015, 62.
Fig. 9  Aerial view of the fortress of Berdi Dar (Petrosyan et al. 2015, pl. 22.1)

Fig. 10  The fortress of Lēašen (Biscione – Parmegiani 2004, fig. 1).
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Lčašen is one of the largest sites of the pre-Urartian period in the Armenian highlands, with an area of over 35ha and extending along 15 ridges. Some soundings have been excavated at the site, but very few results have been published. At the foot of the settlement there is a large necropolis, 1.5km long and 200–300m wide; for a long time it has been submerged under the waters of the lake following a rise in the water level. Along with fortresses and the associated cemetery, isolated burial grounds are attested near the river, but none of them have been fully investigated and published. A large cemetery is located on the outskirts of Hrazdan in the locality known as Jrarat and was partially investigated by A. Mnatsakanyan. Unexcavated graves with cromlechs are still visible at the site. A small burial ground is also present next to the village of Kaghsi, in the river gorge. The presence of graves was discovered during construction work in Soviet times and some test excavations were carried out there by Mnatsakanyan.

Other Late Bronze–Early Iron Age graves were investigated in the village of Bdžni, but these have been reported only in brief publications. The graves show the typical features of the period: tombs with cromlechs, low mounds and small stone cist-graves. The burials are mostly single and the deceased have usually been placed in a crouched position. Grave goods typically include some metalwork, weapons and various personal adornments, as well as a small amount of pottery.

Conclusion

In conclusion, the archaeological landscape of the Hrazdan River basin features a plurality of fortified settlements, mostly erected during the Late Bronze–Early Iron Age. Some fortresses are located just above the river gorge which offers a strong defensive position, whereas others are located on the foothills of the valley. All these sites are situated near economic resources, strategically controlling both the route passing along the river and the agricultural plains. Only the large fortress of Tghit is isolated on a mountain top.

As mentioned at the beginning of this paper, the development of fortified settlements is a distinctive trait of a socio-political process involving the militarisation of society which characterised Transcaucasia and the neighbouring regions during the Late Bronze Age. This socio-political process, whose origin can be dated to the end of the third millennium, led to the emergence of societies with a high degree of internal complexity and has been defined by the Russian scholar, B. M. Masson, as ‘Кавказский путь к цивилизации’ (‘the Caucasian way to civilisation’). This model is characterised by non-urban, non-state societies with strong social differentiation and an extremely unequal distribution of wealth, ruled by military aristocracies with a great capacity for accumulating wealth and organising labour and manpower, and with a hierarchy of large and smaller settlements. The model developed further during the Late Bronze–Early Iron Age towards a pre-state organisation characterised by the wider sharing of power and the increased size of the ruling military elites.

The final development of the ‘Caucasian model’ proposed by Masson can be seen in the emergence of the Urartian kingdom, at the beginning of the ninth century BC, which subsequently brought the whole Armenian highlands under its control.

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