

THE PLAIN OF ERZURUM IN THE BRONZE AGE (Environment and society)

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Abstract

The plain of Erzurum is one of those parts of historical Armenia that had played an important role in the political and economic life of our region throughout centuries, beginning from the IV mill. BC until early modern times. In the article are presented several key aspects of this area – geographical position, environment, economic potential, and brief archaeological history.

Keywords: *Erzurum plain, Bronze Age, agriculture, Sos Höyük, Karaz, Güzelova, political landscape*

Environment

The plain of Erzurum took its shape in the Quaternary period, as a result of the collision of Eurasian and Arabian plates. During its last period – Pleistocene (ends approximately in 9700 BC), in the course of tectonic processes the northern part of the plain is largely composed of lavas and pyroclastic units. In the basin sedimentary strata are widespread which includes lacustrine deposits and extensive.¹ While low magnitude seismicity is frequent, higher magnitude earthquakes also happen.² Through the region under study passes the North East Anatolian Fault which proceeds to the north-north-east from Erzincan in the direction of the Great Caucasus,³ hence the high seismicity of Erzurum plain.

Due to flat landscape, the plain of Erzurum along with that of Erzincan is the most convenient route that connects Southern Caucasus with Asia Minor and Syrian-Mesopotamian region. The plain of Erzurum could be treated as a “corridor” which has open access from both sides. During different historical periods this road was used by migrants and armies.⁴

In antiquity through the plain proceeded the important trading and military road – Karin (Turkish Erzurum) – Bagaric – Satala – Sebasteia, as it is shown in the Peutinger

¹ Collins 2005: 122.

² Collins 2005: 122. Earthquakes in Basen in 1924 and 1983 in Basen [Turkish Pasinler] and Horasan).

³ Türkoğlu 2009: 33 and the Map on p.35.

⁴ For example, continuous migrations of the Kura-Araxes migrants to the west and south-west from their Transcaucasian homeland about 3000 BC onwards, durative Ottoman-Sefevid wars in late Middle Ages, Russian-Turkish wars in the XIX-early XX century etc.

map. Besides this road another road comes from Trebizond and follows through the modern Republic of Armenia to Iran.⁵

The landscape and climatic conditions of this ellipsoid plain with an elevation of about 1900 meters above sea level are not homogeneous. From the north and south it is surrounded by mountain chains with an elevation of 2000-3000 meters (Kargapazarı Mountains to the north and the Şahvelet and Palandöken Mountains to the south) and several fertile valleys between them. Two biggest valleys are that of Aşkale to the west of Erzurum and Basen that is divided from the former by the Deveboynu volcanic range. In the south are located several volcanic ranges and mountains which are intersected by depressions and small valleys.

This region possesses with 488.454 hectares of agricultural area, of which most suitable 143.843.8 hectares, suitable 344.612.4 hectares and less suitable 768.783.0 hectares.⁶

The difference in elevation between mountains and valleys is considerable. Correspondingly, the climate between the north and the south is noticeable. In the north and north-east the climate is milder and in the south is characterized by cold and even dry climate.⁷

The plain of Erzurum possesses with excellent opportunities for the development of agriculture and animal husbandry, of course, especially during the periods of normal climatic conditions. Winters are cold, the thermometer shows 15-20 below zero, and in summer it rises to 20-28 above zero. The region is well watered. Average annual precipitations reach 432.2 mm.⁸ The soil is fertile, particularly the western part of the plain, Derjan (Turkish Tercan), the sources of the River Kharshit, Bayburt, and Basen. Besides cereals, also vegetables are cultivated (carrot, beet, cabbage, pea, cucumber, etc.).⁹ Although yearly precipitations are enough for agricultural activities without artificial irrigation, the prolonged winter in early spring could endanger sowing and harvesting.¹⁰ Cold and sometimes dry summer seasons could be harmful for agriculture and favors the raising of livestock.¹¹

⁵ See Manandyan 1930: 101-124 (for this and other roads).

⁶ Özgül, Çomaklı 2021: 503.

⁷ Işikli, Can 2007: 154.

⁸ Özgül, Çomaklı 2021: 501.

⁹ See Schtrecker 1873: 5. The author mentions that the agricultural products could secure the needs of local population and also people involved in the caravan trade.

¹⁰ Yakar 2000: 385. The abundance of annual precipitations is not enough for agriculture and sometimes requires artificial irrigation during dry seasons (Schtrecker 1873: 6).

¹¹ Sagona *et al.* 1995: 193-195. The British officer R.Kinneir who travelled through this region in the first half of the XIX century mentions that in Erzurum, comparing with Gümüşhane, in June the corn hardly reaches 7-8 cm in height (Kinneir 1818: 351). He adds also that in winter season the town of Bayburt is isolated from its neighborhood due to thick cover of snow.

The region of Gümüşhane, to the west of Erzurum, has better environmental conditions that favor agricultural activities. The Kharshit valley comprises “one continued garden of fruit trees”.¹²

One of the main components of economic potential of Erzurum is natural resources.¹³ Pontic mountains that surround the plain from the north had great number of rich deposits of iron, which were employed still in the antiquity (at least from the II mill. BC), and also not far from Erzurum.¹⁴ Thus, it could be assumed that metallurgy and crafts connected with it was one of the important aspects of the lifestyle of the population,¹⁵ along with agriculture and animal husbandry.

During the time span between the Early Bronze Age (EBA) until the Late Bronze Age (LBA)(mid-IV mill. BC – late-II mill. BC) the Erzurum region comprised flat steppe zone, and the foothills of the mountains surrounding it were covered with dense forests. Here the fauna mostly consists of sheep and goats, less frequently bovids and pigs.¹⁶

Except some mounds where are fixed traces of ancient settlements (*Karaz, Büyüktepe, Sos Höyük, Pulur* etc.), throughout the plain there are very few places for the foundation of more or less large and safe settlements that are naturally protected, hence open landscape and migrations could jeopardize their existence. Here should be expected the existence of small settlements located along the slopes of mountains that surround the plain or in the intermountain depressions. In this regard the pattern of the Late Bronze Age and Early Iron Age is important. Due to harsh climatic conditions, settlements on the mounds are located in the lowest parts of the plain, where it is considerably warmer. In contrast, the settlements in the mountains are additionally fortified, a fact which testifies in favor of constant threat from outside.¹⁷ It is worth to mention that most of the LBA settlements of the Erzurum plain are small in size and scattered on the large area, with no visible traces of their concentration in some region¹⁸ which might be taken as proof for the absence of political centralization.

¹² Kinneir 1818: 348.

¹³ The detailed description of natural resources of the Armenian Highland and Upper Armenia in particular see Karajian 1920.

¹⁴ Muhly 1985: 72 (Map); Siegelová and Tsumoto 2011: 285, Fig. 2. He mentions that actually every settlement has its own source of iron.

¹⁵ The excavations at *Karaz*, one of the EBA settlements of the region (EBA II, late IV - early III mill. BC) had revealed the existence of metallurgy (Yakar 1984: 78). The local population produce arsenic copper which comprises about 75 percent of all products made of copper (see also Yener 2000: 46-47, 51, 677).

¹⁶ Houwel-Meurs 2001 (citation by Rothman 2004: 125). This data had been revealed on due to the materials excavated at *Sos Höyük* and *Büyüktepe*.

¹⁷ Karaosmanoğlu, Işikli, Can 2003: 345ff. One of such fortified settlement is *Pirtin*, 35 km to the west of Erzurum on the road from Erzurum to Erzincan. On the southern part of the cyclopean wall is preserved the wall of about 2-3 meters high. The architecture of the wall is different from that of the Urartian fortification practice (Işikli, Can 2007: 162).

¹⁸ Yakar 2000: 411.

Erzurum plain in the IV-early II millenniums BC.

Although archaeological surveys in the plain of Erzurum had been conducted since the mid XX century, not too many sites have been fixed and studied. More or less satisfactory results had been achieved in regard to the Early Bronze Age (EBA) and LBA. As to the EIA, until now it is poorly understood.¹⁹ Among the most well studied sites are *Sos Höyük*, *Pulur*, *Karaz*, and *Büyüktepe Höyük*.²⁰

Sos Höyük

This important site is located at about 40 km to the east of Erzurum, near Çökender, one of the northern tributaries of Araxes River, on the mound which occupies approximately a space of 150x150 meters (height 12 meters).²¹ The cultural layer of the mound extends from Late Chalcolithic Va level (LC) until Middle Ages (1100-1300 AD).²²

From LC until the end of the MBA the settlement shows continuous occupation without break. As to the situation during the transition from the LBA to EIA it remains unclear.²³ The importance of *Sos Höyük* is connected with its location between Southern Caucasus and Asia Minor which could illustrate interrelations of these two cultural areas.²⁴

From the very beginning (about 3500 BC) the settlement was closely connected with the Transcaucasian cultural world (Kura-Araxes I).²⁵ Ceramic types unearthed during excavations had clear parallels with the Kura-Araxes ceramic repertory.²⁶ The clay of low quality, variety of vessels and their sizes as well as the absence of standardized production points on the assumption that these wares were aimed on local domestic purposes but not for export.²⁷ The general impression that could be deduced

¹⁹ The results of excavations conducted in different sites of the plain (*Sos Höyük*, *Pulur*, *Karaz*, and *Büyüktepe Höyük*, *Güzelova*, *Bulamaç Höyük*, *Çiğdemli* etc.) are published in the next studies - Kökten 1944; Koşay, Turfan 1959; Koşay, Vary 1964; 1967; Sagona, Pemberton and McPhee 1991; 1992; 1993; Sagona, Sagona and Özkorucuklu 1995; Sagona Sagona, Erkmén, Sagona, Thomas 1996; Sagona, Erkmén, Sagona, Howells 1997; Sagona, Erkmén, Sagona, McNiven and Howells 1998; Sagona 2000; Sagona and Sagona 2000; Güneri 1995; Güneri 2008; Güneri *et al.* 2004; Işikli, Can 2007. See Güneri 2008 for the map of all archaeological sites (Map 1).

²⁰ For the most sites until now is absent clear stratigraphy, except *Pulur*, *Karaz* and *Güzelova* (Sagona 1984: 65ff.; 2000: 330ff.).

²¹ At present the mound actually never exists since the modern village of Yiğittaşı which surrounds the mound had expanded for agricultural and domestic purposes (Kibaroglu, Sagona, Satir 2011: 3073).

²² Excavations of *Sos Höyük* took place between 1994-2000 by the team of A.Sagona and the results are summarized in several studies (see n.18).

²³ Sagona 2000: 329f.

²⁴ Palumbi 2008: 64.

²⁵ Sagona 2000: 340.

²⁶ Palumbi 2008: 66f. Chemical analysis of 39 sherds unequivocally proves that all they were produced here and could not be regarded as imports (Kibaroglu, Sagona, Satir 2011: 3082): Such an assumption rests on the structure of the clay which is mixed with small pieces of basalt and other stones. The source of the stones are the mountains located at the northern fringes of the plain of Basen.

²⁷ Kibaroglu, Sagona, Satir 2011: 3082.

from this is that the population of *Sos Höyük* was part of the Kura-Araxes cultural area. Also, the round hearths, which have parallels in the Upper Euphrates region and in some Transcaucasian Chalcolithic and Kura-Araxes I sites (particularly in Shida-Kartli in Central Georgia) point of the east. Besides this here are found fireplaces and andirons characteristic for the Kura-Araxes culture.²⁸ Cultural influence of Southern Transcaucasia is especially well expressed from the 3000 BC and continues for about 1500 years. From approximately 2500 BC here is seen the influence of the Trialeti culture.²⁹

Unlike ceramics, the architecture of *Sos Höyük* shows the existence of two different traditions. One of the peculiarities of the site is the absence of unified building planning. As it was assumed by A.Sagona, at *Sos Höyük* met the bearers of two cultural traits - Transcaucasian and Anatolian, and he concludes that here one might see some sort of a hybrid culture.³⁰ Anyway, the South-Caucasian affiliation of *Sos Höyük* is much stronger as it is seen from the EBA I period onwards.³¹

Some concerns remain in regard to the absence of items from metals and workshops for their production. Most of the tools are made from obsidian which could be found nearby.³² This speaks in favor of the assumption that the population of *Sos Höyük* practiced primitive lifestyle and, probably, had minimal foreign contacts, especially in the case of the location of the site on the road connecting East and West. Apparently, the population of *Sos Höyük* practiced simple agricultural-cattle-breeding lifestyle and was unaware of specialized production (particularly in the sphere of craftsmanship).

The situation described above had been changed in the MBA. The settlement experienced a strong Trialeti influence, at the same time keeping local cultural traditions. Although here were unearthened significant buildings (late III mill. BC - early II mill.), which chronologically correspond to the Trialeti tombs, but all in all are registered periods when the mound served as a temporary residence that lacks serious building activities.³³

Pulur

Among archaeological sites of the Erzurum plain *Pulur* is the best preserved one which is located about 16 km far from Erzurum, 3 km to the south-east of the town Ilica.³⁴ The distance from *Pulur* to *Sos Höyük* is about 50 km. *Pulur* comprises a large

²⁸ Palumbi 2008: 70.

²⁹ Sagona 2000: 340.

³⁰ Sagona, Sagona 2000: 67; Palumbi 2008: 70f.

³¹ Sagona, Sagona 2000: 67; Palumbi 2008: 223.

³² For the sources of obsidian in the plain of Erzurum see Kobayashi and Sagona 2007: 186-188. They could be found on Basen, along the road that proceeds from Erzurum to Bingöl, on some distance from the site of *Pulur*. Layers of obsidian could be found at surface (in the form of clusters), and also in the alluviums.

³³ Sagona, Sagona 2000: 68; Sagona 2000: 340.

³⁴ Excavations at *Pulur* had started in 1960s (Koşay, Vary 1964; Koşay 1976) and later were continued by the team of M.İşikli, University of Erzurum (on the results of surveys see İşikli, Can 2007: 159f., İşikli 2008)).

mound (3 hectares, height 10 meters), of which is excavated only a part. The stratigraphy of material remains shows that we deal with a single habitation period.³⁵

The settlement at *Pulur* began to function at least from LC until the EIA (the existence of some possible breaks in habitation, their chronology and duration are problematic).³⁶ During the EIA, like in *Sos Höyük* and *Güzelova*, the settlement continued to function, that could be proved by considerable number of ceramical remains.³⁷

On the north-eastern edge of the mound are present strong traces of the LBA and EIA habitation, and on the north-western slope significant material remains of the LC. The width of the former cultural layer equals 4.41 meters, which has two extensive breaks, probably as a result of destructions.

165 among 300 sherds from *Pulur* are dated to the LBA and the transition to the Early Iron Age. They are mostly handmade and only very few were produced on a wheel. Similarly, only some sherds are well burnished. The rest were burnished under medium or low temperature. As to the clay, it has low quality and is mixed with sand and small pieces of stone.³⁸ In this regard the ceramics of *Pulur* is paralleled with that of *Sos Höyük* (see above). Here are absent the traces of the so-called "Proto-Kura-Araxes" period which might be taken as a proof for the assumption that the bearers of the Kura-Araxes culture had appeared here not earlier than the mid-IV mill. BC.

The coal excavated in the Late Chalcolithic level points on the date between 4242-4075 BC.

Karaz

The next site of the region under discussion is *Karaz* which is located at about 50 km to the west of *Sos Höyük*, near the village Kahramanlar. The study of the well-known archaeological culture Kura-Araxes begins exactly at *Karaz* still in the mid-XX century³⁹, and the whole culture was named after it.⁴⁰

The habitation level of *Karaz* is impressive (about 9 meters), the earlier part of which reaches 3.5 meters, and is divided into three subphases which ends with about 1-1.5 meters sterile layer. The next period of habitation (2 meters in width) has two subphases. The next period of habitation is more brief, about 0.5 meters which is not divided into subphases.⁴¹

³⁵ Sagona 2000: 331.

³⁶ Işikli 2008: 270.

³⁷ Işikli and Erdem 2009: 255-259.

³⁸ Işikli 2008: 271.

³⁹ On the results of excavations at *Karaz* see Koşay, Turfan 1959.

⁴⁰ In the course of excavations had been suggested the term "Karaz culture" (Koşay, Turfan 1959: 359f.), which thereafter became parallel term for the "Kura-Araxes culture" or "Early Transcaucasian culture" (sometimes it is used by some archaeologists).

⁴¹ Sagona 2000: 331.

Between the first and second phases has been fixed changes which are reflected first of all in the shapes of ceramics.⁴²

Archaeological investigations of the settlements of Erzurum show human activity still from the LC and later in the EIA. Contemporary to these settlements are known archaeological sites also in the neighboring River Chorukh basin, in the area of Bayburt.⁴³ During the Early Bronze Age this region definitely was incorporated into the Kura-Araxes cultural region, a fact well established throughout the plain of Erzurum and its neighborhood. Ceramic types of the plain actually are identical with their Transcaucasian parallels.⁴⁴

Our knowledge of the following period of MBA actually until today remains obscure due to the lack of archaeological excavations.

The LBA of Erzurum and neighboring Bayburt does not allow to reconstruct a complete picture of economic and political activity of the population, but the remains of material culture unequivocally speak in favor of the assumption that life in this area continues without break.⁴⁵

As to the transition from the LBA to the EIA, archaeologists assumed that in the Early Iron Age Erzurum plain was densely populated.⁴⁶ Like the previous period, this region continues to have close contacts with Transcaucasia.⁴⁷ But the reconstruction of the situation in this region encounters some doubts in regard to this period.

Due the uncertainty in the stratigraphy of the EIA sites sometimes archaeologists are forced to suggest considerable duration for their existence. Particularly, A.Sagona was inclined to date the EIA at *Sos Höyük* with 1000-800 BC, and mentions that this period in the settlement is the most problematic one.⁴⁸

In regard to the origins of ceramics of Erzurum plain in particular and the whole local culture during the transition from LBA to EIA one should mention the groundless assumption reached by S.Güneri.⁴⁹ According to him, in the XII century BC took place migration of population from the steppe zone of Central Asia (Khakasia, Tuva) and Southern Mongolia which resulted in the appearance of ceramics made through incised technique.

⁴² Sagona 2000: 331.

⁴³ These are *Ivceklerin tepesi*, *Siptoros Höyük* and *Hindi Höyük* (Yakar 1992: 512). Some other sites are also identified, but they remain unstudied yet.

⁴⁴ This ceramics by its types, coloring, application and burnishing techniques is identical with the Kura-Araxes types of contemporary Transcaucasian wares (Işikli, Baştürk 2009: 161f., here also the statistical evaluation of the EBA pottery from several sites).

⁴⁵ According to J.Yakar, during this period the population had contacts with Anatolian (Hittite) culture (Yakar 1992: 512), since excavations had revealed a significant portion of western ceramics (Güneri 1987).

⁴⁶ Işikli, Can 2007: 164.

⁴⁷ Işikli, Can 2007: 164.

⁴⁸ Sagona 2012: 255-258.

⁴⁹ Güneri 2002: 58-75. this idea was criticized by A.Sagona and Cl.Sagona (Sagona and Sagona 2003: 107).

Political landscape

For the discussion of the plain of Erzurum and its neighborhood an important problem should be born in mind - political organization of the local society during the whole Bronze Age. While the sites located on the plain show little opportunities for the existence of a more or less advanced political organization, although such possibility could not be ruled out (for some archaeological arguments on this problem see below). During the III mill. BC this region remains outside the geographical area documented by the contemporary Mesopotamian cuneiform sources. The same is true for the II mill. BC. Neither the Hittite cuneiform texts of the XV-XIII BC, nor the Assyrian ones compiled during the reign of Tiglathpileser I (1114-1076 BC), contain any clue for the assumption that Hittites and Assyrians had reached this region.⁵⁰ As to the Hittite texts, they refer to some political entities that were located in the Upper Euphrates region - Išūwa, Kummaha, and the plain of Erzincan.⁵¹ Two tribal units - Azzi and Hayaša most probably should be looked in the plain of Erzincan or in its close neighborhood,⁵² but not in the region of Erzurum.⁵³

Although all known archaeological sites that are located in the plain show little traces for the existence of statehood, surveys conducted in the mountain ranges surrounding the plain had revealed several fortified settlements. Preliminary dating of these sites (some probably belong to the Urartian period) makes any conclusion premature. Anyway, taking into account the open landscape of the plain, it should be reasonable to assume the next scenario for the social and political development of this region.

Political center(s) should be looked in the nearby mountains which guard their agricultural sections located on the plain. Hence, the assumption that after the fall of the Hittite Empire and until the advance of Urartu in the plain of Erzurum could have function some political entity (or entities). Archaeologists have fixed a chain of about 10 fortified settlements which surround the plain from both sides (from north and from south), that stretches from Erzurum to Erzincan. These are *Pirtin* (35 km from Erzurum to Erzincan, near the road) and *Umudum Tepe* (18 km to the north of Erzurum), *Küçük Geçit Kalesi* (along the road from Erzurum to Aşkale), *Uzun Ahmet* and *Saksın* (near the pass of Deveboynu, that controls the road leading to Basen). In this same region, in

⁵⁰ In some older studies which deal with the geography of the Assyrian conquests in the north it has been suggested that Tiglathpileser I concluded his campaign in ^{KUR}Dayaeni (approximately in the plain of Erzurum and the valley of River Chorukh) by reaching the Black Sea (Harutyunyan 1970: 29-52; but later scholars had come to the conclusion that the "Sea of Nairi" should be identical with Lake Van (for the geographical limits of the campaigns of Tiglathpileser I most recently Shibata 2022: 172-179).

⁵¹ See Kosyan 2022 (corresponding entries).

⁵² See Kosyan 2004: 38-39, 43-46, 47-50, 98-99 (entries Aripša, Azzi, Hayaša, Duqq/kk/qqam(m)a) with references on current localizations suggested by other scholars.

⁵³ The suggestion made by Gr.Kapancyan in regard to the location of Hayaša in the Erzurum plain (Kapancyan 1948: 42-46, 54-64) is could not be strengthened by valuable arguments. In his earlier studies this location figures also in the article of J.Yakar (Yakar 1992: 50).

the area looking towards the plain of Basen are located some other fortified sites (*Beşiktepe, Hopbik, Ziyarettepe, Pasinler/Hasankale*).⁵⁴ All these fortresses comprise cyclopean masonry where were used rough-hewn stones of different sizes. The architecture of walls has nothing to do with Urartu but has local character. One may suggest that the local political entity was governed by Urartians.⁵⁵

Later, the plain of Erzurum and surrounding regions were incorporated into the kingdom of Greater Armenia and was known as Upper Armenia. Finally, during the World War I it lost its Armenian population.⁵⁶

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⁵⁴ Işıklı, Can 2007: 162f.

⁵⁵ As it was mentioned by P.Zimansky, the Erzurum plain “is remarkably free of any trace of Urartian culture, let alone political control” (Zimansky 1985: 10).

⁵⁶ For the ethnographic history of the plain of Erzurum see Tarbassian 1975.

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ABBREVIATIONS

AMIT – Archäologische Mitteilungen aus Iran und Turan.

ANES - Ancient Near Eastern Studies.

AnSt – Anatolian Studies.

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