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Lake Van Basin during the Chalcolithic Period: Yılantaş and other Survey Sites

Aynur ÖZFIRAT*

Öz

Makalede, Van Gölü havzasındaki yüzey araştırmamızın Kalkolitik Dönem bulguları ve havzada yapılmış olan diğer araştırmaların sonuçları birlikte değerlendirilmiştir. Doğu Anadolu yüksek yaylasında Kalkolitik Dönem araştırmaları azdır. Kuzeydoğu Anadolu'da Sos VA, Pulur, Alaybeyi ve Van Gölü'nün güneydoğu kıyısında yer alan Tilkitepe I-III höyüklerinde yapılan kazılarda ve bölgedeki yüzey araştırmalarında sınırlı veri elde edilmiştir. Kalkolitik Döneme ait yerleşimler Van Gölü havzasının batı ve doğusundaki ovalar-nehir vadileri ile gölün doğu kıyısında bulunmuştur. Çanak çömlek özellikleri havzanın saman yüzlü mal bölgesi içinde olduğunu, ayrıca bölgesel bir grup olan boyalı mala (Tilkitepe ware, saman yüzlü) sahip olduğunu gösterir.

Anahtar sözcükler*:* Van Gölü, Kalkolitik, Saman Yüzlü Mal, Tilkitepe Malı.

Abstract

This article is based on the Chalcolithic evidence of our survey campaigns in the Lake Van basin. The material from previous and as well as current researches is discussed together. Investigations on the Chalcolithic period in the eastern Anatolian highland are scarce. Excavations at the mounds of Sos VA, Pulur and Alaybeyi in the north-eastern Anatoli**a,** and Tilkitepe I-III located on the south-eastern shore of Lake Van and surveys in the region yielded limited data. The Chalcolithic period is mainly situated in mounds on the plains and river valleys in lowlands and on the eastern shoreline of Lake Van. The characteristics of pottery indicate that the Lake Van basin is within the chaff-faced ware horizon; it also has a regional group of and painted ware (Tilkitepe ware, also chaff-faced).

Keywords: Lake Van, Chalcolithic, Chaff-Faced Ware, Tilkitepe Ware.

Introduction

This article is based on the Chalcolithic evidence of our survey campaigns in the Lake Van basin except for the Muş Plain and southern Taurus Mountains (1995-1999, 2002-2011). The material from previous and as well as current researches is discussed together. Unfortunately, no excavation site yielded Chalcolithic finds except for Tilkitepe mound. Surveys were carried out by K. Kökten (1945), C. A. Burney (1956), M. S. Rothman (1991 and H. Biber (2009-2014) in the

* Prof. Dr., Mardin Artuklu University, aynurozfirat@gmail.com, **ORCID**: 0000-0002-9693-3379.

western part of the basin. In addition to this area, C. Burney also investigated some sites in the northern and eastern sides of basin. No Chalcolithic pottery was found in the survey of Kökten[1].

Lake Van, Aras Valley-Mt Ağrı and Upper Euphrates basins are the most suitable areas for living space in eastern Anatolia. The topography of the highland to the east of the Upper Euphrates river is defined by high mountain ranges and volcanoes which are located in the Lake Van and Aras Valley-Mt Ağrı basins. The characteristics of the highland of eastern Anatolia are linked to volcanic formations, such as fertile volcanic soils of the high plateaus and foothills, and abundant obsidian deposits from the highest massifs of Mts. Nemrut, Süphan, Aladağ, Tendürek and Ağrı. The basin's vast and richest pasture lands are located on the slopes of these volcanoes.

Lake Van is surrounded by the high volcanic massifs of Nemrut and Süphan to the west, Aladağ and Tendürek to the north, and the range of southeastern Taurus Mountains to the south and east **(Fig. 1)**. The basin contains several geographical units with high plateau plains of the river valleys, small volcanic lakes, wide pastures on high plateaus on mountain slopes and, small and arable plains-river valleys on the lakeshore between these mountains which allow living areas. The small and sheltered plains irrigated by rivers on the lake's shoreline have fertile agricultural areas and a comparatively warm climate. The limited number of agricultural lands in the basin are located in these plains. High plateaus are mainly pasturelands. The archaeological sites also cluster in these areas and the pastures on the foothills and highlands surrounding them. The socio-economic structure developed based on animal husbandry thanks to rich pasture lands covering almost the whole basin. Lake Van basin is also important for its location at the crossroads of the leading natural links between Anatolia, northern Mesopotamia, southern Caucasus and north-western Iran. The density and the existence of key sites in the Lake Van basin and remarkable evidence indicate the importance of its geographical position.

Sites

Contrary to the high number of settlements, only a small amount of Chalcolithic pottery was found in the basin. Of the 271 sites that we investigated during our survey at the Lake Van basin, only 8 sites were dated to the Chalcolithic period[2]. In addition to these sites, the total number of those surveyed by C. Burney (2 sites)[3], M. S. Rothman (7 sites)[4] and H. Biber (10 sites)[5], are located mainly on the Muş Plain and some in Bulanık Plain is 16, 3 of these sites were re-visited by the researchers (Fig. 1).

The settlements that were investigated in our research are as follows:

Avcıbaşı Mound is located in the Çaldıran Plain-Bendimahi River valley and the main route of the southern Caucasus and northern Iran **(Figs. 1-2)**[6]. This small settlement lies in the plain on a low rocky (Büyük Gır) **(Fig. 3)**. The sherds collected from the surface are

[1] Kökten, 1947: 463-472.

[2] The sites of Çaldıran (Özfırat, 2007: 114), Aşağı Gölalan (Özfırat, 2007 : 114), and Salihin Evi (Özfırat, 2010 : 223) which we previously published as the Chalcolithic period didn't include here. In our last study, we considered that these sherds probably belong to the Early Kura-Araxes.

[3] Burney 1958, 164.

[4] Rothman and Kozbe, 1997: 108-109. Rothman has recorded a few more Chalcolithic settlements in his previous publications. We used data from the last publication.

[5] Biber 2014, 212-214.

[6] Van Province, Çaldıran District, Avcıbaşı Village (Site Code M72/3), (39° 4'26.45"K; 43°54'19.09"D). Özfırat, 2007: 114, the site is named Çavuşbaşı in this publication.

uninterrupted from the Chalcolithic (one or two chaff-faced ware, **Fig. 10: 2-3**) to the Late Iron Age (Achaemenid).

Çolpan Settlement is located on the eastern shore of the lake and the main road to the north of Lake Van **(Figs. 1-2)**[7]. It is a small flat site, single-layered on the shore **(Fig. 4)**. The site is situated on a peninsula by the shore of Lake Van, an Iron Age fortress that lies on the adjacent hill behind it. Pottery sherds found on the surface were from the Chalcolithic period (chaff-faced ware, **Fig. 11**) and one piece of Kura-Araxes.

Yılantaş-Yaylıyaka Settlement is located on the eastern shore of the lake and the main road to the north of Lake Van **(Figs. 1-2)**[8]. It is a small single-layered flat site on a very low rocky the shore **(Fig. 5)**. Pottery sherds found on the surface were only from the Chalcolithic period (painted ware, **Figs. 12-14**). A multi-layered mound of Yaylıyaka (Adır) whith a thick Kura-Araxes layer is very close. Both sites are located on the shore of a small bay, and opposite them is the island of Adır.

Keşiş Çimeni 1-Mollakasım Settlement is located on the northern side of the Karasu River **(Figs. 1-2)**[9]. It is a small single-layered flat site situated on a slope overlooking the valley **(Fig. 6)**. Pottery sherds found on the surface were only from the Chalcolithic period (chaff-faced ware, **Fig. 10: 9-12**). An Early Bronze Age (Kura-Araxes) settlement (Keşiş Çimeni 2) is situated with the same characteristics about 100 m south of it.

Aştepe and Toptepe-Dibekdüzü Mounds are located on the northern bank of the Karasu River **(Figs. 1-2)**[10]. Both sites are within the borders of the same village, close to each other on the bank of the river. Aştepe and Toptepe are probably part of the same settlement **(Fig. 7)**. Toptepe is a medium-sized multi-layered mound. Pottery found on the surface were from the Chalcolithic period (a couple of chaff-faced and painted wares, **Fig. 15: e**), Middle Iron Age (Urartu) and Late Iron Age (Achaemenid). Aştepe looks like a different type of site, probably a small temporary settlement next to Toptepe. It lies on a low rocky with no traces of stratification. A couple of sherds found on the surface of Aştepe were from the Chalcolithic period (a few chaff-faced ware, **Fig. 10: 6-8**), and some very small sherds of the Early Bronze Age (Kura-Araxes) and Middle Iron Age (Urartu).

Baklatepe Mound is located in the Memedik (Özalp) River valley and the southern end of Lake Erçek and, one of the main routes of northern Iran **(Figs. 1-2)**[11]. It is situated on a rocky hill overlooking the valley and lake **(Fig. 8)**. The sherds collected from this small site are uninterrupted from the Chalcolithic to the Late Iron Age (Achaemenid), except for Middle Bronze Age. One or two sherds of Chalcolithic fragments were collected (**Fig. 10: 1)**.

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[7] Van Province, Central District (Site Code: Settlement N71/11, Fortress N71/6), (Settlement: 38°54'49.55"K; 43°33'5.47"D). Marro and Özfırat, 2005: 322-323, 332).

[8] Van Province, Central District (Site Code: Yılantaş N70/2, Yaylıyaka N70/3), (Yılantaş: 38°49'1.42"K; 43°23'30.61"D). Marro and Özfırat, 2004: 232-234.

[9] Van Province, Central District (Site Code: Keşiş Çimeni 1, O69/6), (38°40'28.74"K; 43°11'59.21"D).

[10] Van Province, Central District (Site Code: Aştepe O70/3, Toptepe O70/2), (38°37'47.94"K; 43°14'39.50"D, 38°37'56.20"K; 43°14'37.01"D). Marro and Özfırat, 2005: 322, 332-333. For the Toptepe Chalcolithic pottery, see Abay 2009, The mound named Dibekdüzü in this publication is the mound we recorded as Toptepe.

[11] Van Province, Central District, Baklatepe Village (former Hino) (Site Code: O71/3), (38°35'35.08"K; 43°34'16.85"D). Özfırat, 2005: 114. Burney first investigated the site during his survey in 1956 (Burney, 1958: No 224, 178; Russell, 1980: No. 224, Baklatepe is named Hino).

Otbiçer Mound is located in the Gürpınar Plain-Güzelsu (Hoşab) River valley and one of the main routes of northern Iran **(Figs. 1-2)**[12]. It is situated on a low rocky extending into the plain **(Fig. 9)**. Pottery sherds found on the surface were from the Chalcolithic period (one or two chaff-faced ware), Early Bronze Age (Kura-Araxes), Early Iron Age (pre-Urartu), Middle Iron Age (Urartu) and Late Iron Age (Achaemenid). One or two sherds of Chalcolithic fragments were collected (**Fig. 10: 4-5)**.

The dating a couple of sherds in Avcıbaşı, Baklatepe and Otbiçer mounds since the Kura-Araxes level exists in these settlements, the dating of these pieces can also be considered the very early early Kura-Araxes or transitional phase (proto-Kura-Araxes).

Pottery

The Chalcolithic pottery from the surveys consists of Halaf painted ware, chaff-faced ware and painted ware-Tilkitepe ware (also chaff tempered). All the pottery that was collected in our survey is handmade, mix-tempered with fine to medium grits and chaff, and fine or medium fired. Chaff-faced ware is in varying fabric and surface colours. The paste is ranges from buff and brown to red, orange and some have a thin beige or cream slip on the exterior surface. Some sherds are lightly burnished or smoothed. This group is undecorated. A few sherds are slightly incised with comb pattern in the exterior or interior. This practice is very rare in this region; it was encountered frequently on the sherds found during the Mt Ağrı survey. Jars have simple rims and a round body with a vertical or long outflaring neck. Pots are globularly bodied with everted short-necked and hole-mouthed with simple rims. Bowls are mainly hemispherical, and some shallow examples with simple rims. Painted ware (Tilkitepe ware) is consisted of painted and its unpainted samples chaff-faced, creamy burnished group. The paste changes from buff to brown. They have a thick slip in cream or buff, shiny burnished surface, mix-tempered with fine grit and chaff tempered, and painted decoration. The forms include vertical or long outflaring necked jars, hole-mouth pots, and hemispherical and shallow bowls with simple rims. The decoration is composed of rather simple vertical wavy lines applied on the exterior surface, painted in red or orange. Some examples are painted on the interior and exterior surfaces.

The earliest pottery is Halaf painted ware which was found at Tilkitepe III[13]. The Halaf painted ware is represented by a few pieces from the Muş Plain **(Fig. 15: c)**, and a sherd of Halaf or Obeid painted ware? from Çolpan in the eastern shore **(Fig. 11: 1)**. The chaff-faced ware, which was found in the western part of the basin in the Muş Plain, is quite limited in number **(Fig. 15: a-e)**. These dark-faced pieces seem to represent a local group. Chaff-faced ware is represented by a larger amount and typical samples on the eastern shore of the lake **(Figs. 10; 11: 2-17)**[14]. Likewise, the painted ware (Tilkitepe ware) has been found only on the eastern coastline so far, in 3 sites, at Yılantaş **(Figs. 12-14)**, Toptepe-Dibekdüzü (a few), **(Fig. 15: 1e)** and Tilkitepe I[15]. Painted ware is well represented in Yılantaş, a site located north of Tilkitepe mound. No other pottery group was found in this flat settlement. Large amount of painted and unpainted pottery of the same group collected from Yılantaş suggests that the site is a single-phase settlement. Apart from Tilkitepe ware in Yılantaş, the absence of chaff-faced group from the

[12] Van Province, Gürpınar District, Otbiçer Village (former Iremir) (Site Code: P702/9**)**, **(**38°19'16.01"K; 43°26'40.32"D). Özfırat, 2006: 177, 182. We described two sherds in Fig. 3: 3, 9 as the Chalcolithic period did not include in this study. Later, we considered that they probably belonged to the Early Kura-Araxes. The site was first investigated by Burney during his survey in 1956 (Burney, 1958: No 204, 178; Russell, 1980: No: 204. Otbiçer is named as İremir I). Excavation at Otbiçer is continues at the direction of Van Museum and Dr. Hanifi Biber (2019-).

[13] Korfmann, 1982: 41-42, 150-154.

[14] Tilkitepe II contains undecorated chaff tempered pottery but is also mixed with materials from lower and upper levels, Korfmann, 1982: 42-43, 164-174.

[15] Korfmann, 1982: 43-44, 175-179.

well-known chaff-faced horizon is remarkable. On the contrary, only the chaff-faced ware is found in the other settlements. The distribution of pottery groups is another question that needs to be answered. However, it should be noted that these are the results of the survey material.

The characteristics of pottery indicate that the Lake Van basin is within the chaff-faced ware horizon related to northern Mesopotamia. Chaff-faced ware spread the southern Caucasus, north-western Iran and, southern areas of eastern Anatolia and, extended up to the Upper Euphrates Valley in the west during the earlier and later phases of the Chalcolithic period[16]. The highland of eastern Anatolia also has various regional groups according to the available data **(Fig. 1)**: Halaf ware, chaff-faced ware and painted ware (Tilkitepe I ware) in the basin of Lake Van; chaff-faced ware and Sioni ware in the southern part of Middle Aras Valley-Mt Ağrı region; drab late chalcolithic wares, black burnished ware, proto-Kura-Araxes and Late Sioni ware in the north-eastern Anatolia which is outside the chaff-faced ware horizon. The stratigraphic evidence for the Chalcolithic period in the highland eastern Anatolia were excavated in the Tilkitepe I-III, Alaybeyi, Pulur and Sos VA. Excavation of the Late Chalcolithic period in Sos VA, Alaybeyi and Pulur has been made in a limited area, the chronological sequence of Tilkitepe has problems. A more detailed chronology and description are difficult due to the lack of stratigraphic data and the material that comes from the survey. The frame of the Chalcolithic period in the highland of eastern Anatolia is based exclusively on pottery, which cannot be fully compared with reliable stratigraphic sequences.

In sum

Unfortunately, investigations on the Chalcolithic period in the eastern Anatolian highland are scarce. Excavations at the mounds of Sos VA[17] and Pulur[18] in the north-eastern Anatolia, and Tilkitepe I-III[19] located on the south-eastern shore of Lake Van yielded limited data (Fig. 1). Some material was collected in the surveys in the Bayburt region in the western end of the north-eastern Anatolia[20], on the southern side of the Middle Aras Valley-Mt Ağrı region[21]**,** and in the Lake Van basin. The most remarkable and earliest evidence found so far have been found at Tilkitepe III. Its stratigraphic sequence is not reliable, although the material was studied attentively by M. Korfmann based on the material of previous excavations[22]. The only data at hand is the unstratified pottery. Architectural remains and stratigraphic layers were not found, apart from Sos VA.

In the Lake Van basin, the evidence for the Chalcolithic period is found in the western and eastern plains **(Fig. 1)**. Until now, no earlier evidence from the Early Bronze Age (Kura-Araxes) have been recovered in the northwest and north of Lake Van. The Chalcolithic period is mainly situated in mounds on the plains and river valleys in lowlands and the eastern shoreline of Lake Van **(Fig. 2)**. The sites with the most evidence to date, Tilkitepe, Aştepe-Toptepe, Keşiş Çimeni 1, Yılantaş and Çolpan are close to each other on the same shore **(Figs. 1-2)**. Until today,

[16] Marro, 2011 ; Palumbi 2011 ; Sagona, 2017 : 133-137, 182-189.

[17] Sagona, 2000: 332-333; Sagona, 2017: 204, 227-230, 242; Sagona and Sagona, 2000: 58-63; Sagona and Sagona, 2004: 162-167; Palumbi, 2011. Sos VA Late Chalcolithic pottery is divided into five groups: drab chalcolithic, black burnished ware, hard orange (Sioni), proto-Kura-Araxes and thick yellow-slipped.

[18] Işıklı, 2008: 272. Işıklı, 2019: 145-148. Black burnished ware dating to the end of the 5th Millennium BC was found at Pulur (the range of 4242-4075 cal BC).

[19] Korfman, 1982.

[20] Sagona and Sagona, 2004: 162-167. All of the pottery groups of Sos VA were also found during the Bayburt survey.

[21] Marro and Özfırat, 2003: 389-390; Marro and Özfırat, 2004: 232-233; Marro and Özfırat, 2005: 322-326; Özfırat, 2006: 177-182; Özfırat, 2012a; Özfırat, 2012b: 155; Özfırat, 2013: 293; Özfırat in press.

[22] For the discussion of Tilkitepe stratigraphy, see Marro and Özfırat, 2004: 232-233; Palumbi, 2011: 208; Sagona, 2017: 183, Fn 156.

most of the sites found and those with larger quantities of pottery are located in the eastern side of the lake, which is the most fertile area, and on the main roads of north-western Iran and the southern Caucasus. The flat sites single-layered of Yılantaş, Keşiş Çimeni 1-Mollakasım and Çolpan on the shore of the lake yielded the largest number of pottery in the basin. The others are small multi-layered mounds on low rockies at the edge of plains and river valleys. One or two fragments were found in these sites. Mounds of Aştepe and Toptepe-Dibekdüzü in the Karasu Valley, Baklatepe on the eastern shore of Lake Erçek, Otbiçer in the Güzelsu River valley-Gürpınar Plain, Avcıbaşı in the Çaldıran Plain-Bendimahi River valley are possibly small permanent sites, or some of them might have been used seasonally. They all have EBA levels, while those with a single-layered next to an EBA settlement, except for Çolpan. Even if the Kura-Araxes fragment found in Çolpan is only a fragment, it may indicate a weak settlement here or a nearby settlement that we cannot see.

Despite its geographical importance, a smaller amount of Chalcolithic pottery was found in the mounds of the Muş and Bulanık plains-Murat River valley in the western part of the basin **(Fig. 1)**. The Muş Plain is the main natural route reaching the Upper Euphrates Valley via the Murat River valley in the west. At the same time, the Muş Plain is at the crossroads of the roads leading to the south of the Taurus Mountains in the southern and to north-eastern Anatolia via the Bulanık and Malazgirt plains-Murat Valley in the north.

The presence of Halaf pottery at Tilkitepe III was explained by the obsidian deposits at the volcanoes on the western and northern shore of Lake Van, indicating northern Mesopotamian groups settled and participated in economic activities such as pastoralism or trading raw materials (mainly metal and obsidian). The Paleolithic and most probably Chalcolithic obsidian deposits at Gürgürtepe located on the Meydan Dağ (Aladağ) volcano to the north of Lake Van provides new information about this issue **(Figs. 1-2)**. The obsidian source and workshop located at the site support this view with their incredible size, finds and archaeological results[23].

No Chalcolithic and Neolithic sites have been found in the foothills and mountainous areas of the basin so far. Even in the fertile river valleys, Chalcolithic settlements are limited in number and small in size. Contrary to evidence from the highland to the east of the Upper Euphrates basin in the eastern Anatolia, numerous and larger in size Neolithic and Chalcolithic sites were found in north-western Iran, the southern Caucasus and the Upper Euphrates basin. Also, the total absence of the Neolithic period and the limited evidence for the Chalcolithic period constitute another question requiring an explanation. One possibility is that the Neolithic and Chalcolithic settlements are buried beneath the deposit of sedimentation in river valleys. However, this assumes that they were few, occupied for a single period, and primarily located on the plains.

Although there has been considerable researches, more detailed investigations of the Lake Van basin during the Holocene are needed in paleo-geographic terms[24]. Investigations on lake level changes in the Holocene may explain the coastal sites. The lake covered a much smaller area by 8000 BC. Even today, increases and decreases in the lake level continue partially. Evidence of past regional climatic changes indicates a strong increase in humidity at the beginning of the Holocene. Desert-steppe was partly replaced by forest in *ca.* 4400-2200 BC. The characteristic feature of the postglacial vegetational period of the Lake Van is the late expansion of the forest.

23 The first investigation on the site was carried out in our survey in 2003 (Marro and Özfırat, 2004: 230, Site Code: M69/3). Later, the surveys (2014-continue) and excavations (2017-2018) were directed by Van Museum and Dr. İsmail Baykara, see Baykara *et al.*, 2018a; Baykara *et al.*, 2018b; Uslu *et al.*, 2019.

24 Kempe and Degens, 1978; Wick *et al.*, 2003; van Zeist and Woldring, 1978; Litt *et al.*, 2009; Pickarski, 2013: 76-81; Pickarski and Litt 2017.

At the same time, the eruptions of the extensive volcanism surrounding the west and north of Lake Van must have made the unsuitable environment for living spaces. Despite the absence of detailed geomorphological, climatic and volcanism data of Holocene, the Lake Van basin was not inhabited or had no suitable environment for permanent sites before the 6th millennium BC can be suggested.

The characteristics of the Chalcolithic period in the Lake Van basin and the highland of eastern Anatolia (east of the Upper Euphrates Valley) are quite difficult to describe both culturally and chronologically because of the limited survey material and the total lack of stratigraphic data. Therefore, we aimed to present only the material here.

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Figures

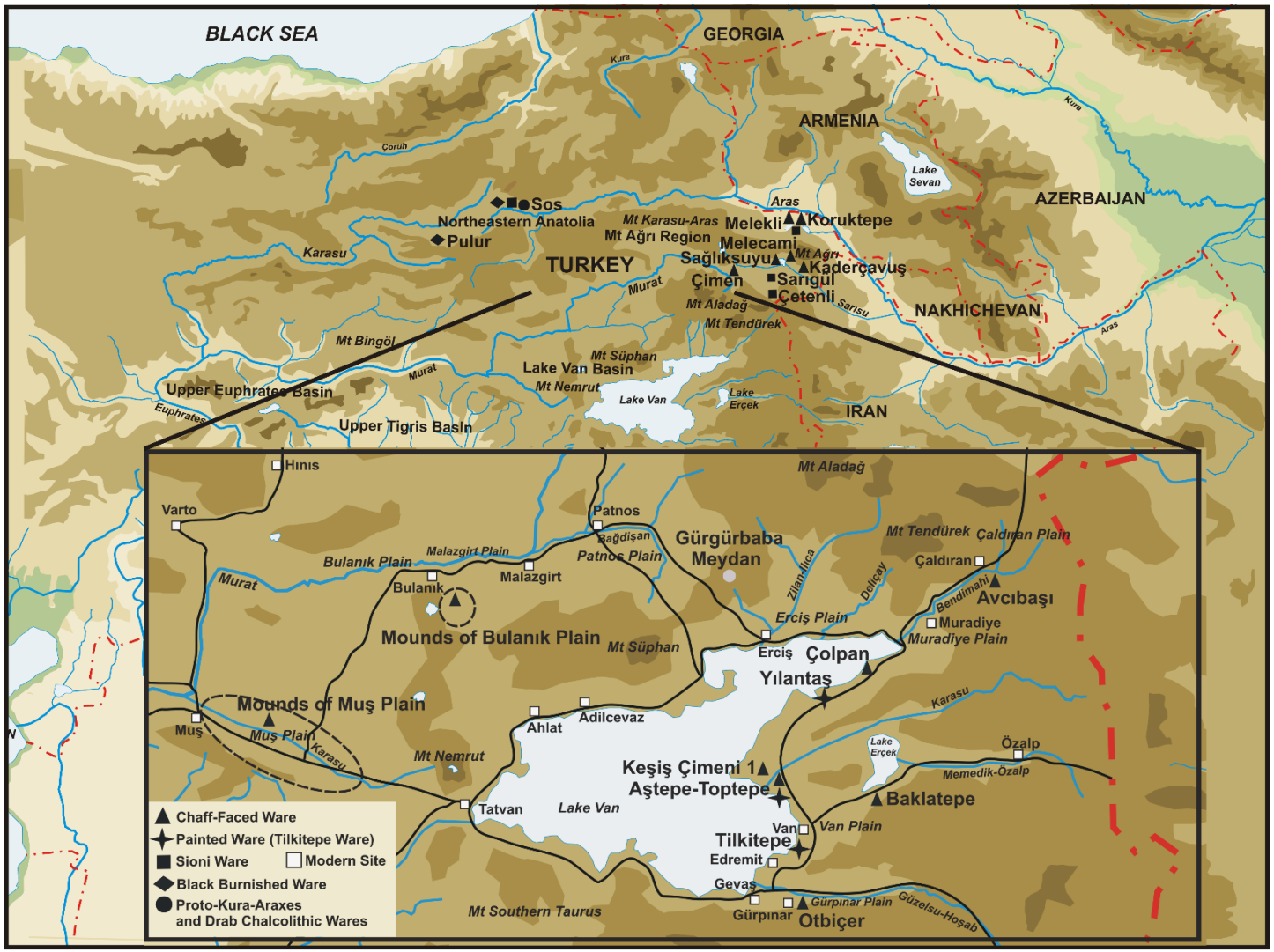

Fig. 1: Chalcolithic Settlements in the Highland of Eastern Anatolia.

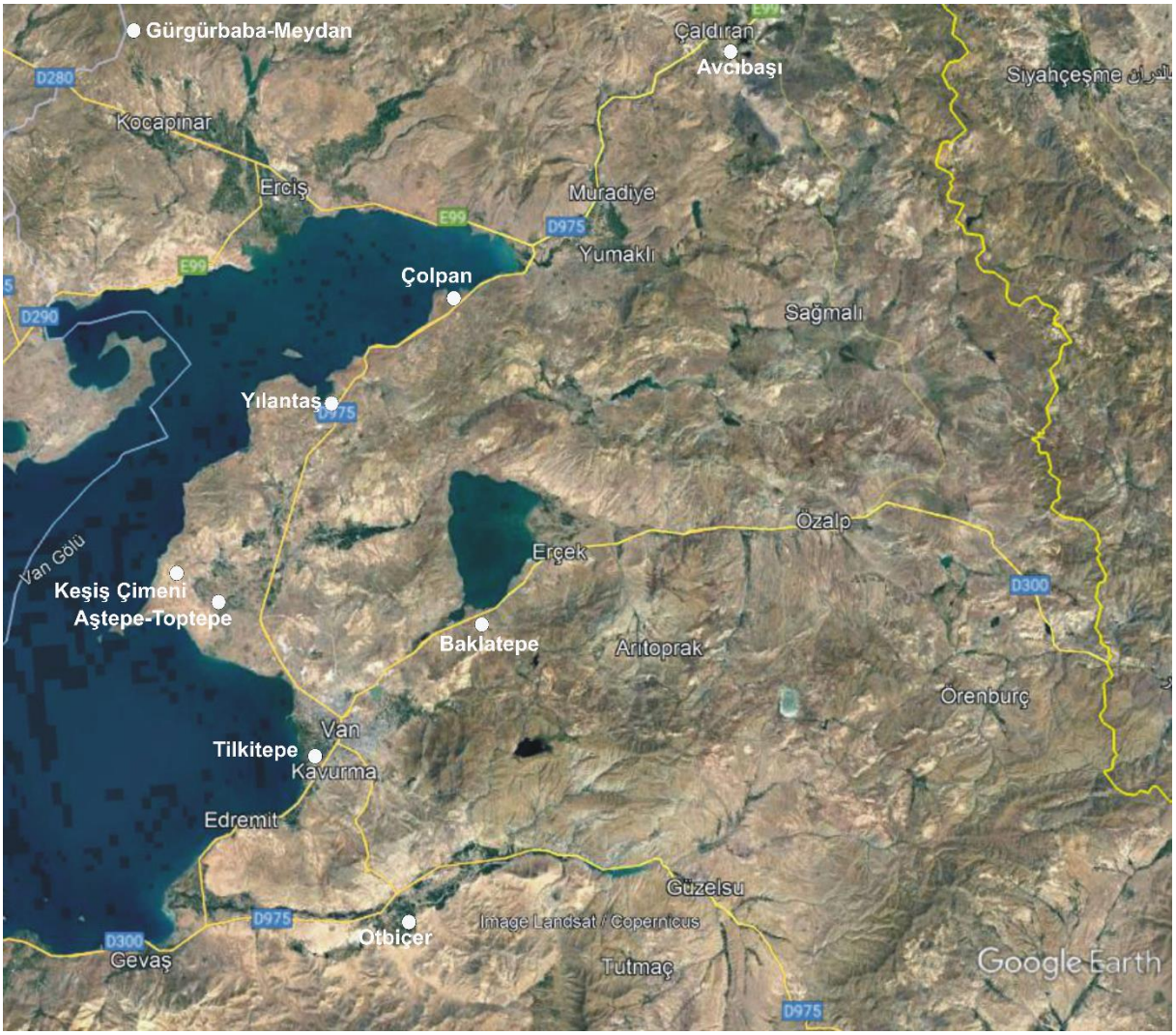

Fig. 2: Chalcolithic Settlements in the eastern side of Lake Van.

Fig. 3: Avcıbaşı Mound**.**

Fig. 4: Çolpan Settlement.

Fig. 5: Yılantaş-Yaylıyaka Settlement.

Fig. 6: Keşiş Çimeni 1-Mollakasım Settlement**.**

Fig. 7: Aştepe and Toptepe Dibekdüzü Mound.

Fig. 8: Baklatepe Mound.

Fig. 9: Otbiçer Mound.

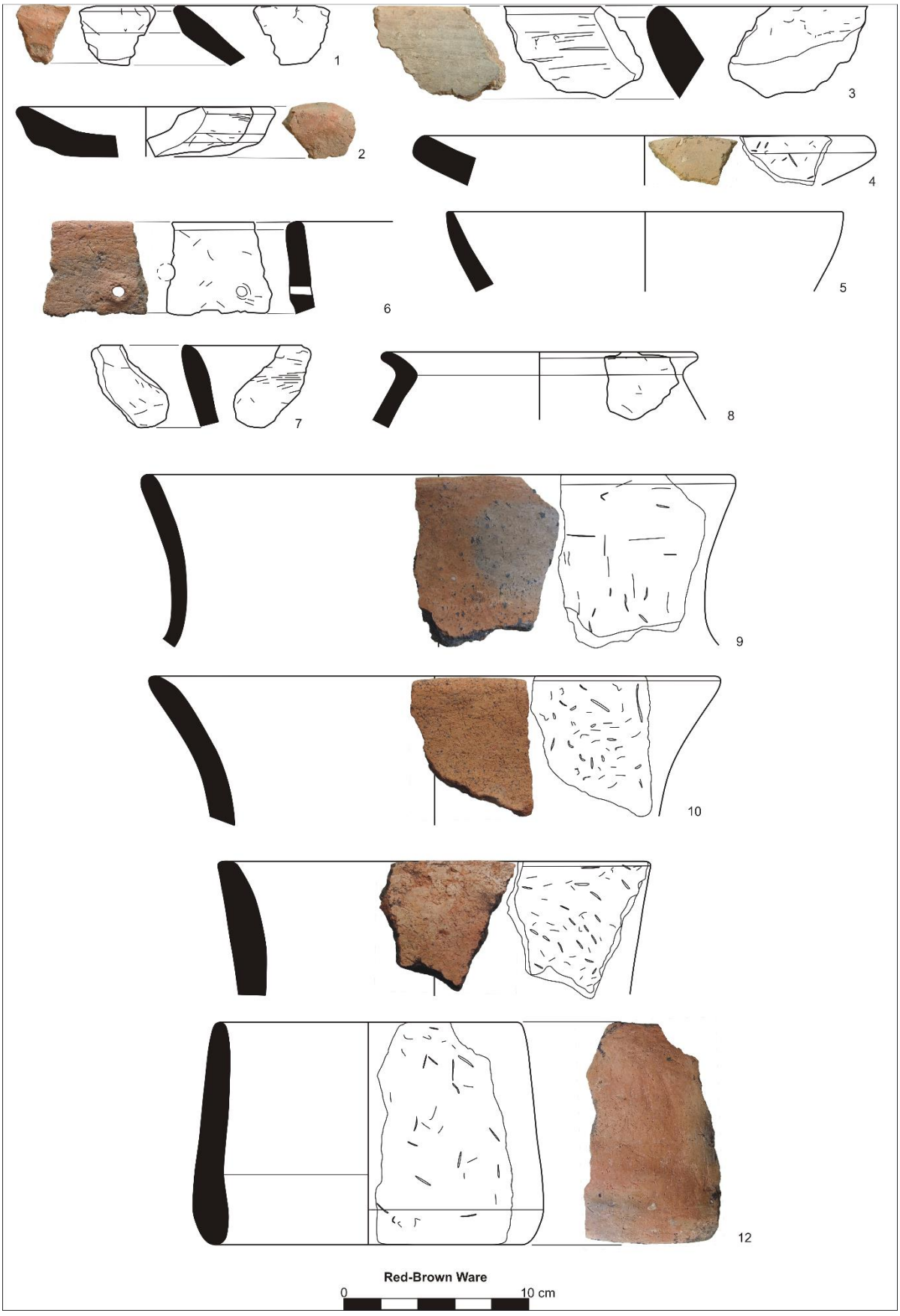

Fig. 10: Pottery sherds of Baklatepe (1), Avcıbaşı (2-3); Otbiçer (4-5); Aştepe-Dibekdüzü (6-8); Keşiş Çimeni 1-Mollakasım (9-12).

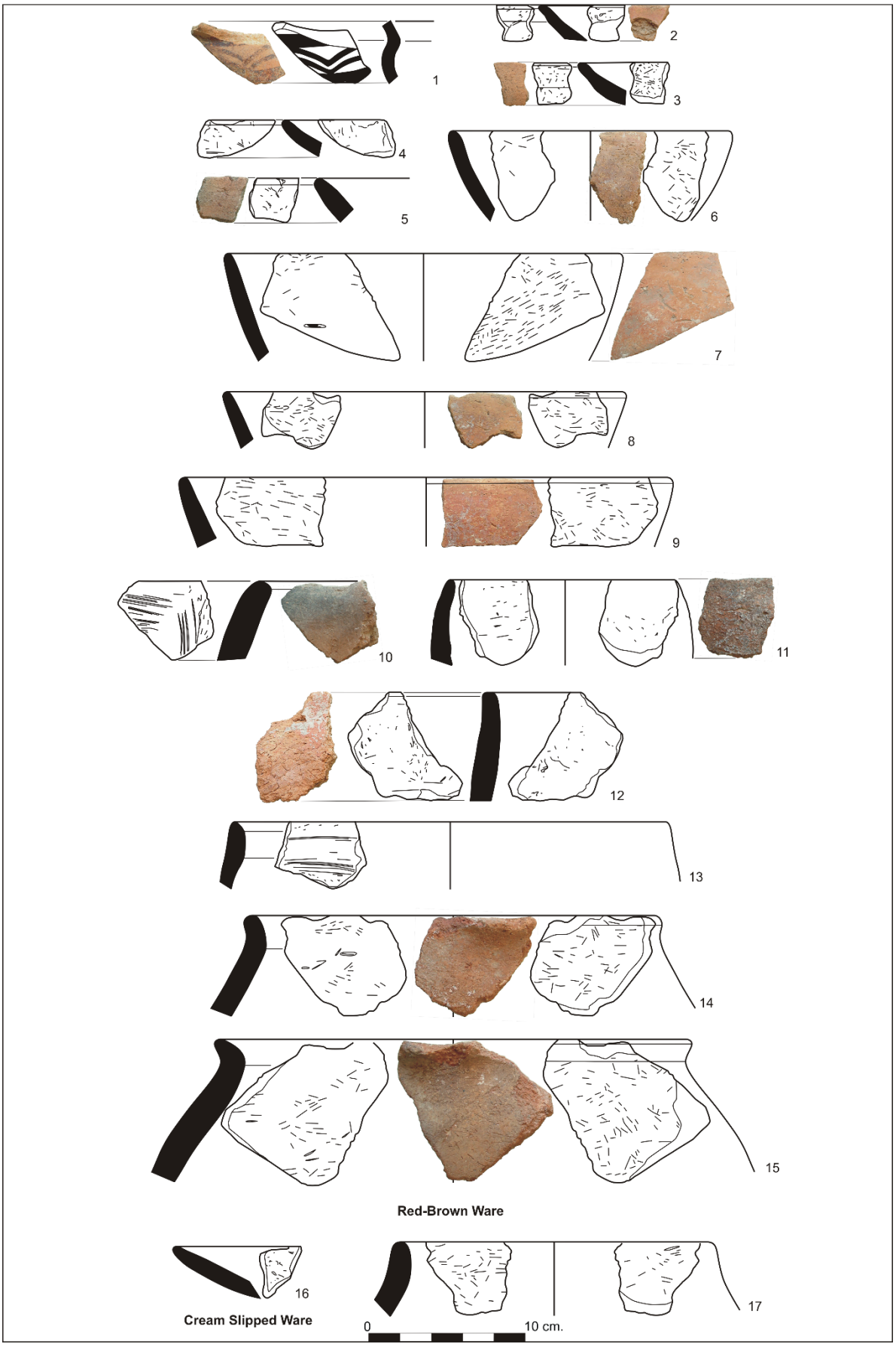

Fig. 11: Pottery sherds of Çolpan.

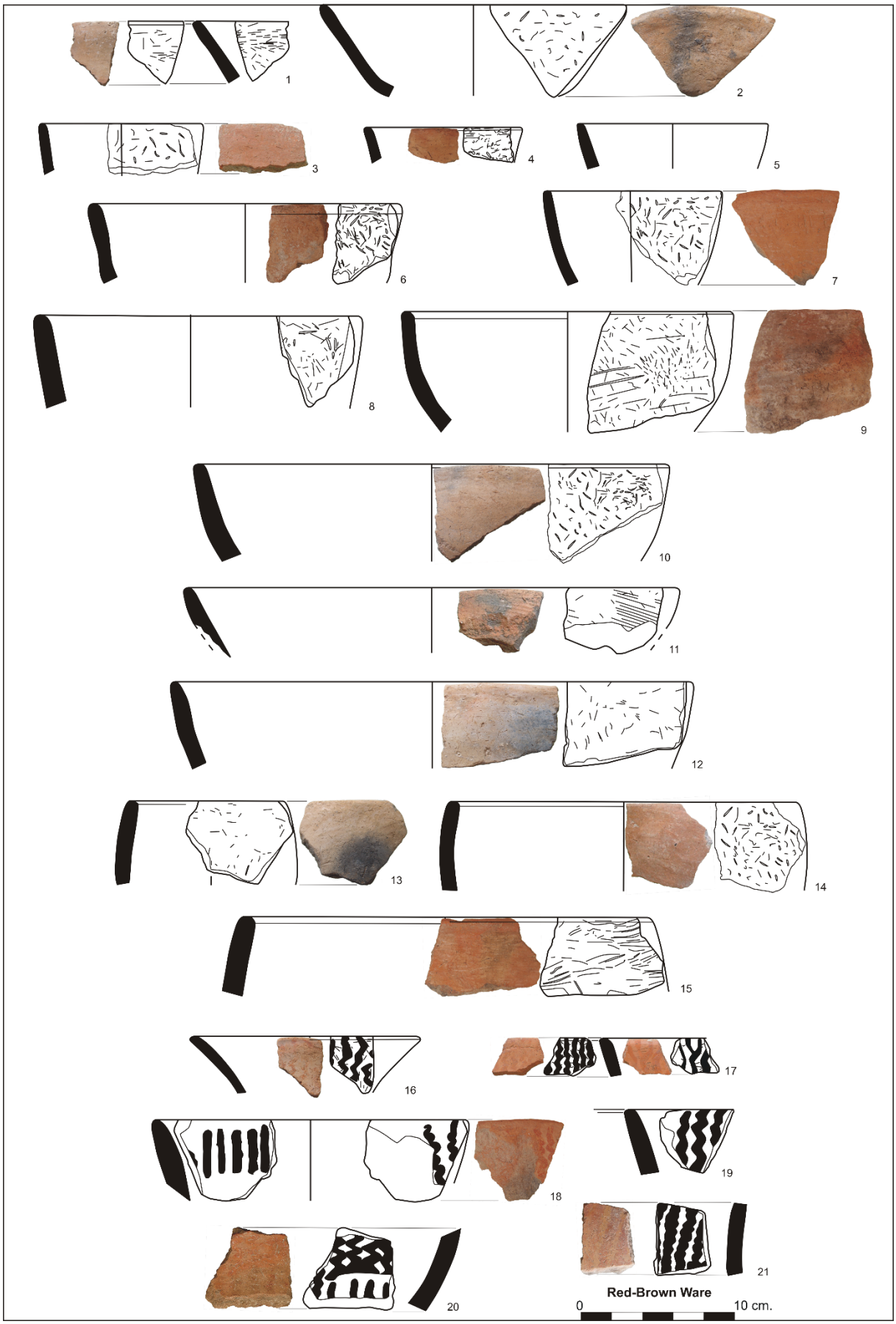

Fig. 12: Pottery sherds of Yılantaş-Yaylıyaka.

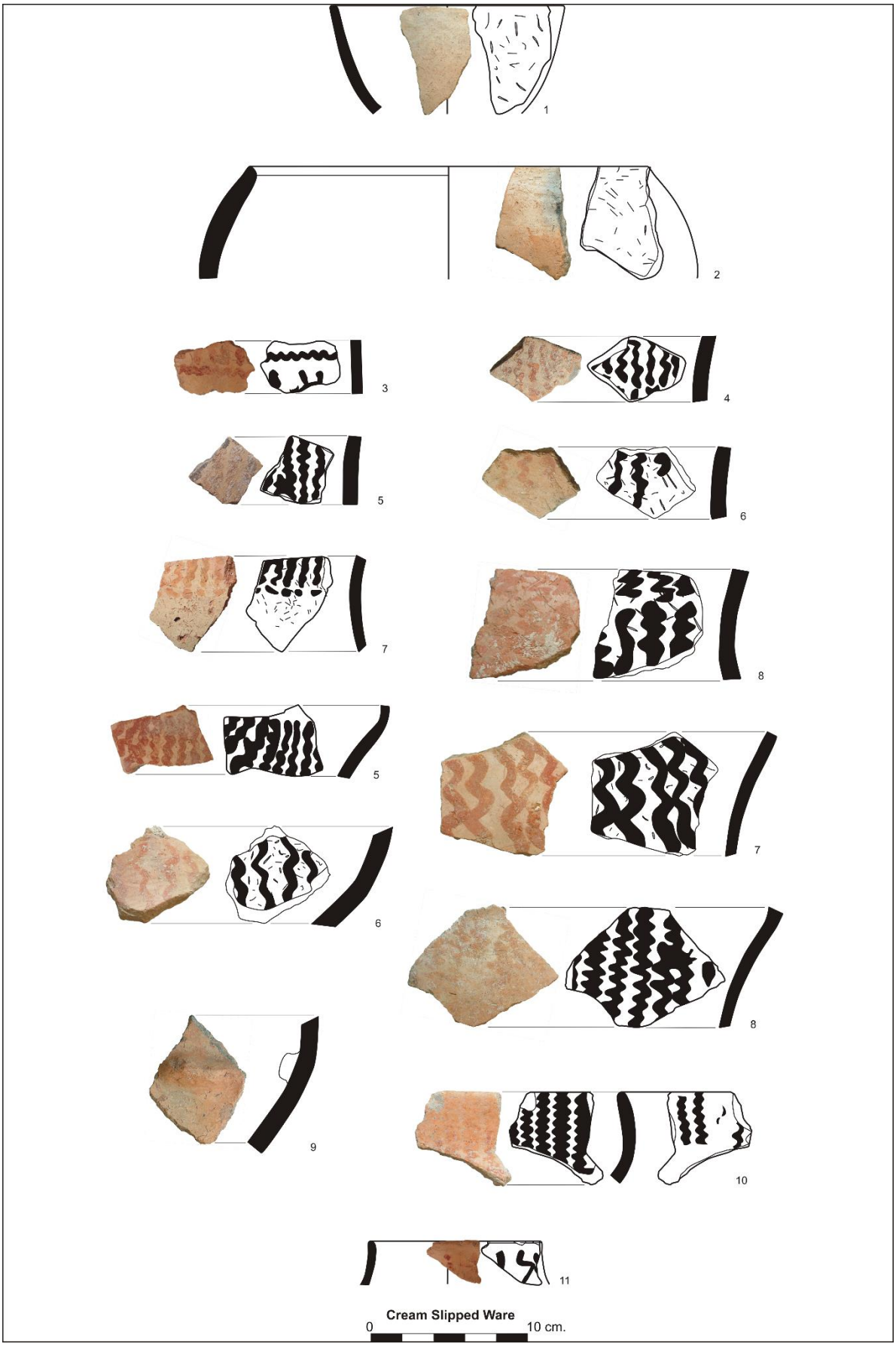

Fig. 13: Pottery sherds of Yılantaş-Yaylıyaka.

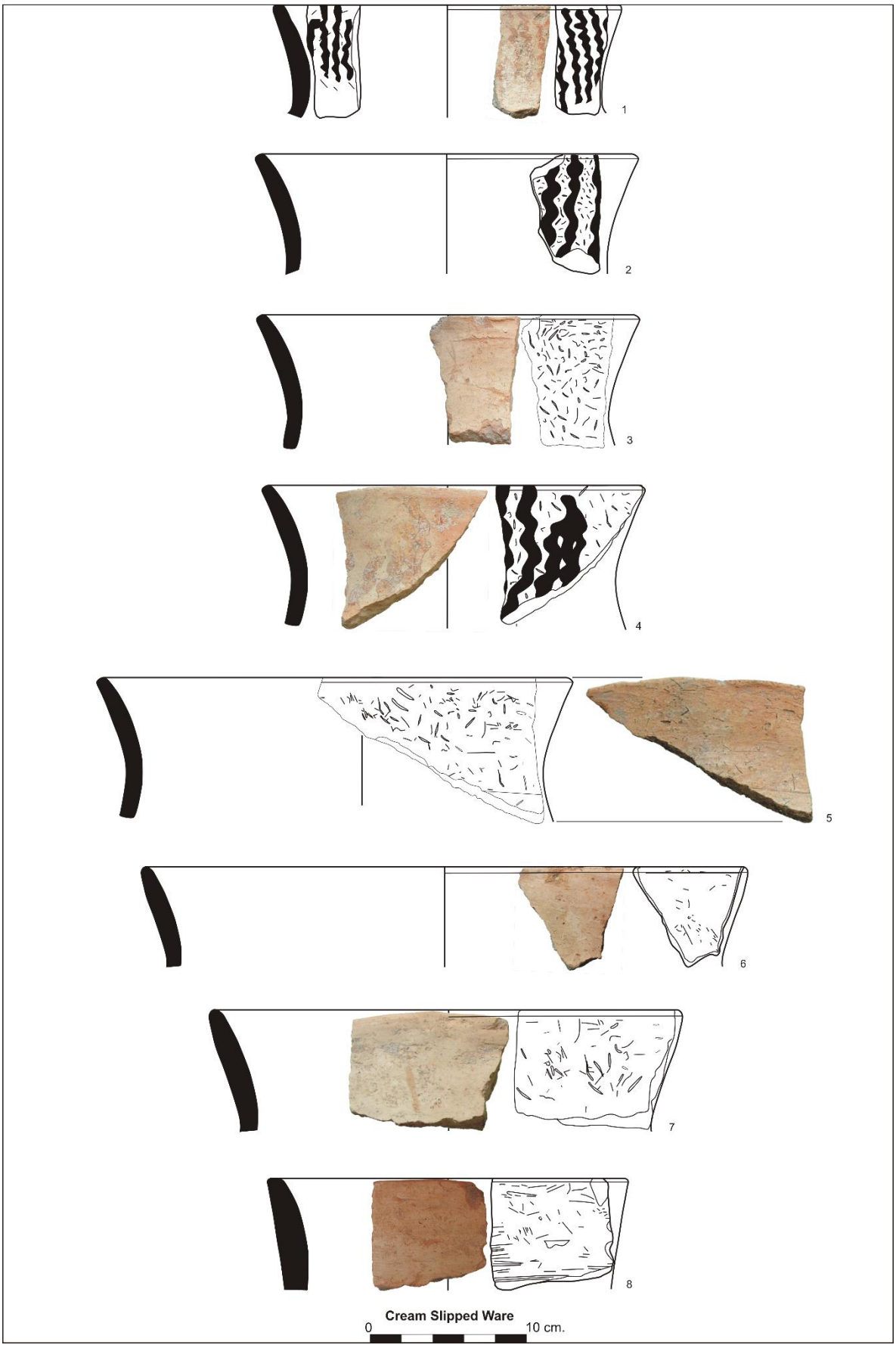

Fig. 14: Pottery sherds of Yılantaş-Yaylıyaka.

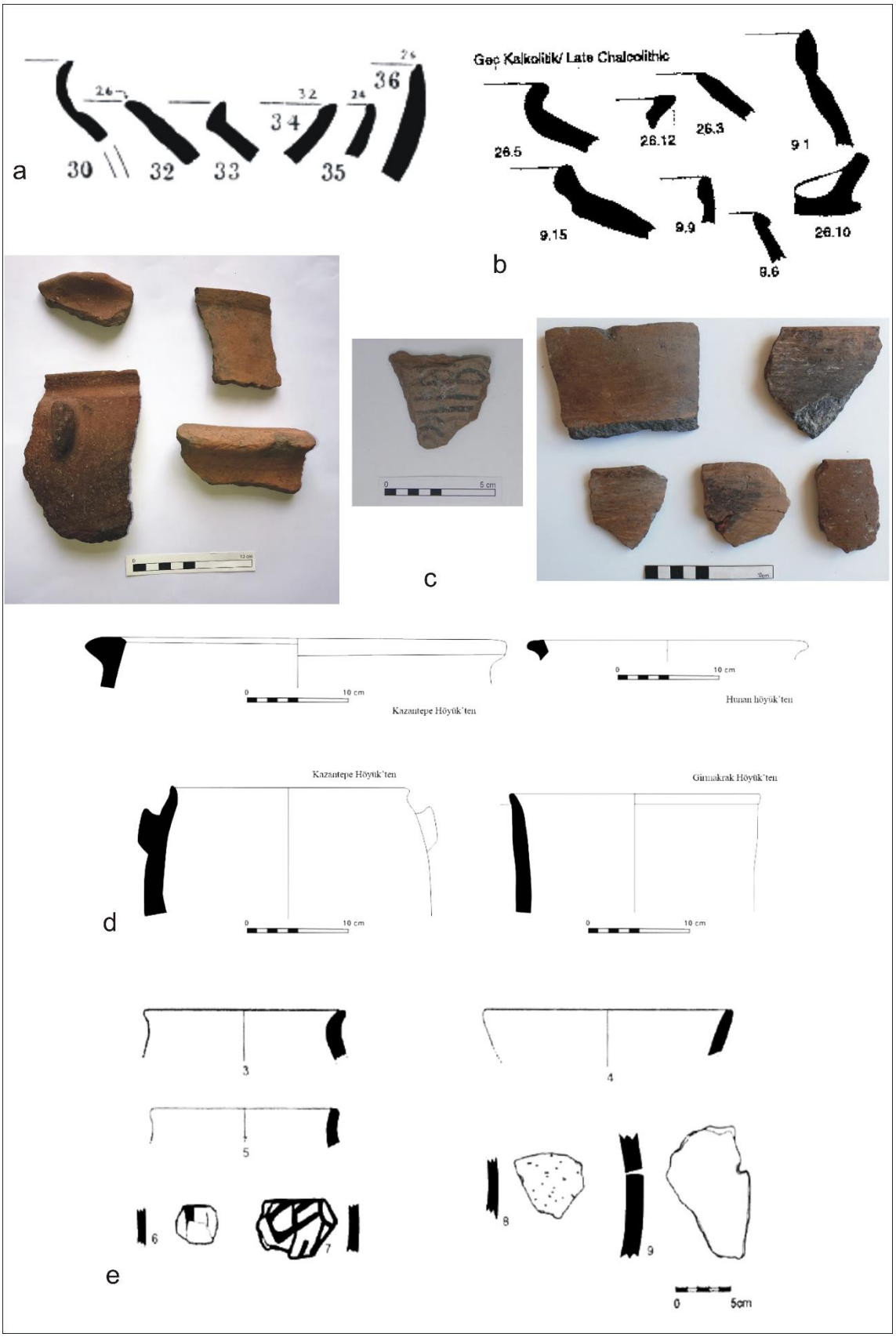

Fig. 15: Pottery sherds of Muş and Bulanık plains, **a.** Burney survey (Burney 1958: Figs. 32-36), **b.** Rothman survey (Rothman 1995: Fig. 4), **c-d.** Biber survey (Biber 2018: Res. 247-250); **e.** Pottery sherds of Toptepe-Dibekdüzü (Abay 2009: Fig. 5).