ISSN: 0569-9746 E-ISSN: 2667-629X

ANADOLU ARAŞTIRMALARI

ANATOLIAN RESEARCH

JAHRBUCH FUR KLEINASIATISCHE FORSCHUNG

ISSUE
28
YEAR
2023

İSTANBUL UNIVERSITY PRESS

Anadolu Araştırmaları
Anatolian Research

İSTANBUL UNIVERSITY PRESS

ISSN 0569-9746 E-ISSN 2667-629X

Issue 28, 2023

Indexing and Abstracting

SCOPUS
Emerging Sources Citation Index (ESCI)
TÜBİTAK-ULAKBİM TR Dizin
DOAJ
ERIH PLUS
SOBİAD
EBSCO Humanities Source
EBSCO Central & Eastern European Academic Source

Anadolu Araştırmaları
Anatolian Research

ISSN 0569-9746 E-ISSN 2667-629X Issue 28, 2023

Owner
Prof. Dr. Hayati DEVELİ
Istanbul University, Faculty of Letters, Istanbul, Turkiye

Responsible Manager
Prof. Dr. Mustafa H. SAYAR
Istanbul University, Department of History, Istanbul, Turkiye

Correspondence Address
İstanbul Üniversitesi Edebiyat Fakültesi,
Tarih Bölümü, İstanbul, Türkiye
Ordu Cad. No: 6, Laleli, Fatih 34459, İstanbul, Türkiye
Telefon / Phone: +90 (212) 455 57 00 / 15947
E-posta: anadoluarastirmalari@istanbul.edu.tr
https://iupress.istanbul.edu.tr/tr/journal/anar/home

Publisher
İstanbul Üniversitesi Yayınevi / Istanbul University Press
İstanbul Üniversitesi Merkez Kampüsü, 34452 Beyazıt,
Fatih / İstanbul, Türkiye
Telefon / Phone: +90 (212) 440 00 00

Printed by
İlbey Matbaa Kağıt Reklam Org. Müc. San. Tic. Ltd. Şti.
2. Matbaacılar Sitesi 3NB 3 Topkapı / Zeytinburnu,
İstanbul, Türkiye
www.ilbeymatbaa.com.tr
Sertifika No: 17845

The publication languages of the journal are English, German, French and Italian.

This is a scholarly, international, peer-reviewed and open-access journal published biannually in June and December.

Publication Type: *Periodical*

Anadolu Araştırmaları
Anatolian Research

İSTANBUL UNIVERSITY PRESS

ISSN 0569-9746 E-ISSN 2667-629X Issue 28, 2023

EDITORIAL MANAGEMENT BOARD

EDITORIAL BOARD

Anadolu Araştırmaları
Anatolian Research

İSTANBUL UNIVERSITY PRESS

ISSN 0569-9746 E-ISSN 2667-629X Issue 28, 2023

EDITORIAL BOARD

ADVISORY BOARD

Anadolu Araştırmaları
Anatolian Research

İSTANBUL UNIVERSITY PRESS

ISSN 0569-9746 E-ISSN 2667-629X Issue 28, 2023

CONTENTS

Anadolu Araştırmaları
Anatolian Research

İSTANBUL UNIVERSITY PRESS

AnAr, 28, 1–29
DOI: 10.26650/anar.2023.28.1262976 Research Article

Some Remarks on a Group of Early Bronze Age Pottery Kept in the Istanbul Archaeological Museums

Fatih Çongur[1]

[1]Istanbul University, Faculty of Letters, Department of Protohistory and Near Eastern Archaeology, İstanbul, Turkiye

ORCID ID: F.Ç. 0000-0002-3141-9096

Corresponding author:
Fatih Çongur,
Istanbul University, Faculty of Letters, Department of Protohistory and Near Eastern Archaeology, İstanbul, Turkiye
E-mail: fatih.congur@istanbul.edu.tr

Submitted: 10.03.2023
Revision Requested: 08.04.2023
Last Revision Received: 22.04.2023
Accepted: 09.05.2023

Citation: Congur, F. (2023). Some remarks on a group of early bronze age pottery kept in the İstanbul archaeological museums. *Anadolu Araştırmaları-Anatolian Research*, *28*, 1–29. https://doi.org/10.26650/anar.2023.28.1262976

ABSTRACT

This study evaluates a group of Early Bronze Age pottery kept in the İstanbul Archaeological Museums. Within the scope of this study, the material, which can be dated to the Early Bronze Age I-II, has been divided into two different ware groups according to their periods, taking into account the consistency of the paste, surface-slip colours, firing and production techniques. The material examined was divided into main form groups such as beak spouted jugs, jars, a miniature vessel and a duck vase (askos). The beak spouted jugs and pots were subsequently divided into subtypes, according to mouth, neck and body differences. Amongst the Ware 1 and Ware 2 pottery examined, beak spouted jugs with well burnished glossy surfaces, and decorated oblique/vertical reliefs dating to the EBA I, besides a very successfully fired beak spouted jug with well burnished glossy surface and grooved horizontal band and zigzag motifs dated to EBA II are most likely imitations of metal vessels. Apart from the mentioned jugs, a miniature vessel in the form of a pot with a swastika, a 'Medallion', a circle between waves/snakes and possibly a plant motif is also remarkable. The investigated duck vase (askos), which can be dated to the EBA III, has some similarities to examples within Phylakopi I Culture pottery. While presuming these 20 pieces of pottery originated from the Lakes District and Western Anatolia, the exact excavation sites of most of them are unknown. For this reason, comparisons shall be made between the pottery of Early Bronze Age settlements from the mentioned regions and the material examined, whereas an attempt shall be made to ascertain the probable origins of the vessels.

Keywords: Lakes District, Western Anatolia, Early Bronze Age, Pottery, Ware Groups

Introduction

20 vessels that were acquired by and donated to the Istanbul Archaeological Museums will be examined in this study.

Dated to the Early Bronze Age I-II, this material has been divided into two different ware groups according to their periods, taking into account the consistency of the paste, surface-slip colours, firing and production techniques.

The find location of most of this material is uncertain. For this reason, comparisons were made between the pottery of the Early Bronze Age settlements found in Anatolia and the samples we examined, whereby it was determined these vessels were similar to the materials of the Lakes District[1] and Western Anatolia[2] (Fig. 1). In comparing the pottery with similar examples from other settlements the vessel forms were taken as the main criteria.

The material consists of beak spouted jugs (Fig. 2; 3; 5/1-7; 6/1-8; 7/1; 8/1-13; 9/1-3), jars (Fig. 3; 7/2, 3; 9/4, 5), a miniature vessel (Fig. 7/4; 9/6) and a duck vase (askos) (Fig. 7/5; 9/7). The beak spouted jugs (Fig. 2; 3) and jars (Fig. 4) are subsequently divided into subtypes, according to mouth, neck and body differences. Differences such as the splayed, pointed or cut of the jugs, the narrow/wide necks and the squat/spherical bodies of the pots made this distinction necessary.

The jugs called “beak spouted” became a common tradition in the Lakes District and Western Anatolia at the beginning of the Early Bronze Age. The jars with a plain rimmed, an everted mouthed and a pair of strip handles were usually found in the vicinity of Burdur –Antalya in the Early Bronze Age II. Duck vases were identified in the Lakes District and Western Anatolia at the end of the Early Bronze Age.

Ware Groups

Within the scope of this study, the material, which can be dated to the Early Bronze Age I-II, has been divided into two different ware groups[3].

1 see Karataş – Semayük (Eslick, 2009; Mellink, 1967; 1969; Warner, 1994), Bademağacı Höyük (Duru, 2008; 2016; Umurtak & Çongur, 2021), Kuruçay Höyük (Duru, 1996) and Hacılar Büyük Höyük (Umurtak, 2020; 2021; Umurtak & Duru, 2013; 2016).

2 see Beycesultan (Lloyd & Mellaart, 1962), Laodiekeia-Kandilkırı (Oğuzhanoğlu-Akay, 2015) Kusura (Lamb, 1937; 1938), Küllüoba (Efe & Ay, 2000; Sarı 2004; Türkteki, 2004), Demircihöyük (Efe, 1988; Seeher, 1987), Seyitömer Höyük (Kuru, 2016), Höyüktepe (Ünan, 2015; 2020), Yortan (Kâmil, 1982), Liman Tepe (Şahoğlu, 2002), Bakla Tepe (Böyükulusoy, 2016; Özkan & Erkanal, 1999) and Troy (Blegen et al. 1950; Blegen, Caskey & Rawson, 1951).

3 The Early Bronze Age I – II pottery ware groups are described separately, but different ware groups number (Ware 1, 2) are not preferred for each period. The miniature vessel (Fig. 7/4; 9/6) and duck vase (askos) (Fig. 7/5; 9/7) are not included in these ware groups.

Early Bronze Age I

Ware 1: This is a carefully made ware group with a high-quality appearance. The paste of this group is beige and buff and shades/tones of these colours, and it is very well refined, with fine mineral tempers and has extremely good texture. The firing is successful for the pottery, although yellow, brown, grey and black mottling of the surface is visible on the vessels. All the pieces are orange, buff, and tones of red slipped and very well burnished. The Ware 1 beak spouted jugs (Fig. 5/1-4; 8/1-4) are especially striking and the quality of the paste, the fine rims of the jugs, the standard of the firing and the well burnished glossy surfaces would suggest these could be an imitation of metal jugs. The pottery is decorated with shallow oblique/vertical reliefs. Similar examples to the Ware 1 group determined at Beycesultan (Lloyd & Mellaart, 1962, pp. 126, 127, Fig. 18/1, 2).

Ware 2: There is one beak spouted jug in this ware group (Fig. 5/5; 8/5). The paste and production technique in this group are similar to the Ware 1 group. The well refined paste is beige in colour, and has extremely good texture. The firing is very successful. The surface is brown slipped and very well burnished. The body section of the jug is decorated with shallow vertical reliefs.

Early Bronze Age II

Ware 1: The fine (Fig. 6/3-6; 7/1; 8/10-13; 9/3) or medium-sized (Fig. 6/7, 8; 9/1, 2) vegetal and fine mineral tempered paste of this ware is orange in colour and is very compact. The firing is generally successful. The colour of the slip is red[4] (Fig. 6/3-8; 7/1; 8/10-13; 9/1-3) and lightly (Fig. 6/3, 5-7; 8/10, 12, 13; 9/1) or well (Fig. 6/4, 8; 7/1; 8/11; 9/2, 3) burnished. Colour fluctuations of the black (Fig. 6/5, 6; 8/12, 13) can be seen on the surfaces due to variations in the firing process. Ware 1 is only represented by beak spouted jugs (Fig. 6/3-8; 7/1; 8/10-13; 9/1-3). They are decorated with a knob and grooved designs.

Ware 2: This ware group consists of two pottery types, which are fine carefully made beak spouted jugs and more roughly made jars. The fine mineral particles (Fig. 5/6, 7; 8/6, 7) and vegetal (Fig. 6/2; 7/2, 3; 8/9; 9/4, 5) tempered, well refined paste of this ware is grey in colour and always has a good consistency. The quality of the firing is variable, and blackish colour fluctuation (Fig. 5/7; 6/1; 7/2, 3; 8/7, 8; 9/4, 5) is visible on the surface of some of the pieces. The vessels are grey (Fig. 5/6, 7; 6/1; 7/2, 3; 8/6-8; 9/4, 5), brown-black (Fig. 6/2; 8/9) slipped and very well burnished. The pottery forms identified include varieties of beak spouted jugs (Fig. 5/ 6, 7; 6/1, 2; 8/6-9) and jars (Fig. 7/2, 3; 9/4, 5). The examples are decorated with incised, encrusted and grooved designs.

4 A single example is black on the interior surface (Fig. 6/6; 8/13).

Forms

The pottery repertoire below will be introduced in chronological order and forms.

Early Bronze Age I

This group of beak spouted jugs is divided into three main sub-groups (Fig. 2).

Type a – Wide, Narrow Necked

This form made from Ware 1 is represented by three splayed spout, spherical bodied jugs (Fig. 5/1-3; 8/1-3) with a strip handle and a flat (Fig. 5/2) or a round (Fig. 5/1, 3) base, decorated with a horizontal grooved band (Fig. 5/1-3) and shallow oblique (Fig. 5/2, 3) or vertical reliefs (Fig. 5/1).

Parallel Examples: Hacılar Büyük Höyük (Umurtak, 2021, p. 42, Fig. 9), Beycesultan (Lloyd & Mellaart, 1962, pp. 126, 127, Fig. 18/1, 2, Level XVIIa), Kusura (Efe, İlaslı & Topbaş, 1995, p. 390, Fig. 26/105), Akören/İhsaniye (Efe, İlaslı & Topbaş, 1995, p. 390, Fig. 26/105), Uşak Archaeological Museum[5] (Hüryılmaz, 1998, Şek. 1), Sadberk Hanım Museum (Anlağan, 1990, p. 53, Res. 19).

Type b – Narrow, Straight Necked

An example with a spherical body, a strip handle and a round base, and is made from Ware 1 fabric (Fig. 5/4; 8/4). The beak spouted jug is decorated with a horizontal grooved band, shallow oblique relief designs on the body section and a vertical relief design on the handle.

A similar one to this example was not found..

Type c – Wide, Straight Necked

The beak spouted jug that resembles jars with a splayed spout, a strip handle and a round base and is made from Ware 2 fabric (Fig. 5/5; 8/5). The body section of the jug is decorated with a horizontal grooved band and shallow oblique relief designs.

Parallel Examples: Bademağacı Höyük (Umurtak & Çongur, 2021, p. 23, Fig. 13/2, EBA II/2), Beycesultan (Lloyd & Mellaart, 1962, pp. 126, 127, Fig. 18/18, Level XVIIa), Höyüktepe (Ünan, 2015, p. 281, Kat. No. 83, EBA II).

Early Bronze Age II

5 It is stated that the aforementioned beak spouted jug was found in Karbasan Village, Karahanlı District of Uşak Province (Hüryılmaz, 1998, p. 713).

The Early Bronze Age II pottery repertoire consists of beak spouted jugs, jars and a miniature vessel.

Beak Spouted Jugs

This form will be studied under three main sub-groups (Fig. 3).

Type a – Long, Narrow Necked, Squat Bodied

This group of jugs is divided into two sub-types (Fig. 3).

Type aı – Beak Spouted, with a Splayed Spout

An example of a long, narrow necked, a squat bodied jug with a strip handle and a flat base and is made from Ware 1 fabric (Fig. 5/6; 8/6). The body section of the jug is decorated with adjacent short, three vertical grooves, while the handle is decorated with a vertical relief. Under the mouth rim of the example, there are two protrusions that resemble ears or eyes and are not fully pierced but may have had rings attached to them.

A similar one to this example was not found.

Type aıı – Beak Spouted with a Long, Pointed Spout

The second sub-type the beak spouted jug with a long, narrow neck, a squat body, a strip handle and a round base and is seen among the pottery of Ware 2 (Fig. 5/7; 8/7). The example is decorated with rows of horizontal groove decorations on the neck and triple zigzags, two short "V" shapes on the body section and a 'window' hole on the lower section of the handle and not fully perforated two protrusions (one on each side) under the mouth rim.

Parallel Examples: Bademağacı Höyük (Umurtak & Çongur, 2021, p. 23, Fig. 10/1, EBA II/2), Yortan ?[6] (Kâmil, 1982, Fig. 81/279, Class C).

Type b – Long, Narrow Necked, Spherical Bodied

The jugs that make up this group will be studied under two sub-types (Fig. 3).

Type bı – Beak Spouted with a Long, Pointed Spout

An example with a long, narrow neck, a spherical body, a strip handle and a flat base and is made from Ware 2 fabric (Fig. 6/1; 8/8). The jug is decorated with rows of horizontal groove decorations on the neck and triple long "V" shapes on the body section and two protrusions (one on each side) under the mouth rim.

Parallel Examples: Karataş – Semayük (Eslick, 2009, Plt. 40/KT 311, KT 329, Period

6 Turhan Kâmil stated that its provenance as Yortan is not certain (Kâmil, 1982, p. 109, Fig. 81/279).

V:1); Mellink & Lawrence, 1968, Plt. 84, Fig. 33), Bademağacı Höyük (Umurtak & Çongur, 2021, p. 23, Fig. 13/6, 7, 14, EBA II/2; 13/15, EBA II/1), Kuruçay Höyük (Duru, 1996, Lev. 121/19, EBA II/2), Harmanören (Ünlüsoy, 1993, p. 307, Çiz. 2a; p. 309, Çiz. 4a; p. 310, Çiz. 5a; p. 311, Çiz. 6a, b), Karahisar (Yaylalı & Akdeniz, 2002, Lev. 5/Fig. 17), Kusura (Lamb, 1938, LXXXIII/2, Period B), Karaoğlan (Topbaş, Efe & İlaslı, 1998, p. 59, Fig. 45/68).

Type bıı – Beak Spouted with a Cut, Pointed Spout

The second sub-type is the beak spouted jug with a long, narrow neck, a spherical body and a flat base was found among the Ware 2 fabric (Fig. 6/2; 8/9). White filling of the incised decoration consists of two horizontal bands and single and double zigzags lines filled in with small dots on the body of the jug. The vessel has two protrusions (one on each side) under the mouth rim.

Parallel Examples: Beycesultan (Lloyd & Mellaart, 1962, p. 176, 177, Fig. 39/5, Level XIV; p. 178, 179, Fig. 40/1, Level XIV), Yortan (Kâmil, 1982, Fig. 67/221/a, b, Class C; Orthmann, 1966, p. 11, Abb. 5/26), Babaköy (Bittel, 1939-1941, p. 9, Abb. 7/1, 2).

Type c – Wide Necked

Beak spouted jugs with wide necks are a large group among the beak spouted examples and have been divided into six sub-types according to their beak and neck characteristics (Fig. 3).

Type cı – Beak Spouted with a Splayed Spout and a Spherical Body

The small jug with a strip handle and a round base is of Ware 1 fabric (Fig. 6/3; 8/10). It is decorated with two knobs on the body section and thin, adjacent two vertical groove designs on the handle.

Parallel Examples: Bademağacı Höyük (Çongur, 2019, Lev. 47/4, EBA II/2), Hacılar Büyük Höyük (Umurtak & Duru, 2013, p. 18, Res. 39, EBA I), Beycesultan (Lloyd & Mellaart, 1962, pp. 174, 175, Fig. 38/11, Level XVI), Kusura (Lamb, 1937, Plt. VII/3, Period B), Kaklık Mevkii (Efe, İlaslı & Topbaş, 1995, p. 394, Fig. 21/52).

Type cıı – Beak Spouted with a Splayed Spout and a Wide, virtually Straight Neck

The example of Ware 1 group has a spherical body and a round base (Fig. 6/4; 8/11).

Parallel Examples: Karataş – Semayük (Eslick, 2009, Plt. 17/KA 851, Period I), Bademağacı Höyük (Umurtak & Çongur, 2021, p. 23, Fig. 10/20, EBA II/3; 10/25, EBA II/2), Kuruçay Höyük (Duru, 1996, Lev. 121/5, EBA II/2), Höyüktepe (Ünan, 2015, p. 276, Kat. No. 059, EBA II), Çiledir Höyük (Türktüzün, Ünan & Ünal, 2014, p. 57, Res. 14, EBA II), Troy (Blegen et al. 1950, Fig. 228/35.759, Troy I), Thermi (Lamb, 1936, Fig. 28/7, Class B).

Type cıı – Beak Spouted with a Splayed Spout and a Wide, Straight Neck

The jug has a spherical body, a strip handle and a flat base, and is made from Ware 1 fabric (Fig. 6/5; 8/12). The decoration consists of three horizontal grooved bands and undulating lines on the body of the jug, and three vertical grooves on the handle.

Parallel Examples: Karataş – Semayük (Eslick, 2009, Plt. 55/KA 77, Main Cemetery Trench), Bademağacı Höyük (Umurtak & Çongur, 2021, p. 23, Fig. 11/19, EBA II/2), Küllüoba (Sarı, 2004, Lev. 6/2, Phase IIIİ).

Type cıv – Beak Spouted with an Upright Spout

This group consists of examples with wide necks, spherical bodies, strip handles (Fig. 6/6; 8/13), and flat (Fig. 6/6; 8/13) or round (Fig. 6/7; 9/1) bases. These vessels are seen among the pottery of Ware 1 fabric. The jugs are decorated with horizontal grooved bands and long, oblique, vertical grooves (Fig. 6/7; 9/1) and a knob (Fig. 6/6; 8/13) on the body sections, and short parallel grooves and a horizontal "V" design on the handle (Fig. 6/6; 8/13).

Parallel Examples: Karataş – Semayük (Eslick, 2009, Plt. 61/KA 215, 134, Mixed Deposits), Bademağacı Höyük (Umurtak & Çongur, 2021, p. 23, Fig. 12/1; p. 24, Fig. 14/13, EBA II/2), Hacılar Büyük Höyük (Umurtak & Duru, 2016, p. 35, Res. 30, EBA II), Höyüktepe (Ünan, 2020, p. 121, Kat. No. 055, EBA II).

Type cv – Beak Spouted with an Upright, Pointed Spout

The jug has a long, wide neck, a spherical body and a flat base (Fig. 6/8; 9/2). This example was found among the Ware 1 fabric. The neck section of the jug is decorated with a horizontal grooved band, while the body is decorated with three zigzags and a protrusion.

Parallel Examples: Bademağacı Höyük (Çongur, 2019, Lev. 56/3, EBA II/2), Kaklık Mevkii (Topbaş, Efe & İlaslı, 1998, p. 67, Fig. 51/112).

Type cvı – Beak Spouted with obliquely Cut Spout

A jug with a long, wide neck, a spherical body and a flat base and is of Ware 1 fabric (Fig. 7/1; 9/3). It features three knobs on the body section.

Parallel Example: Yortan (Kâmil, 1982, Fig. 36/120-122; 37/125, 132; 38/137; 39/140; 43/154a, b, Class A).

Jars

In the material we examined, the jars are divided into two main sub-groups according to their body features (Fig. 4).

Type a – Squat Bodied

The jar with a plain rimmed, an everted mouthed, a pair of strip handles (one on each side) and a flat base belongs to the Ware 2 fabric (Fig. 7/2; 9/4). Decoration on the jug includes triple zigzag lines and two knob designs.

Parallel Example:[7] Yortan (Kâmil 1982, Fig. 70/228, Class A).

Type b – Spherical Bodied

A jar with a plain rimmed, an everted mouthed, a pair of strip handles (one on each side) and a flat base and is seen in the Ware 2 fabric (Fig. 7/3; 9/5). The example has horizontal grooved bands and undulating decorations.

Parallel Examples: Karataş – Semayük (Eslick, 2009, Plt. 37/KT 283, IV; 49/KT 446, Period V:3), Bademağacı Höyük (Çongur, 2019, Lev. 79/2, 3, EBA II/2), Kuruçay Höyük (Duru, 1996, Lev. 123/2; 128/5, EBA II/2; 137/1, EBA II/1), Çapalıbağ (Oğuzhanoğlu – Pazarcı, 2020, p. 205, Şek. 8/11, EBA IB), Kaklık Mevkii (Efe, İlaslı & Topbaş, 1995, p. 387, Fig. 23/66), Demircihöyük (Seeher, 1987, Taf. 31/2, Phase D; 36/6; 41/3, Phase E; 47/7, Phases F_1 – F_2; 50/15, Phases $F_{2, 3}$), Küllüoba (Efe & Ay, 2000, Plt. 7/12, 4; p. 57, Plt. 12/7, Phase 3).

Miniature Vessel

The fine vegetal tempers and mineral particles, the well refined paste of this vessel is grey in colour and has a good consistency (Fig. 7/4; 9/6). Miniature vessel with a corrected surface that is rough in appearance and is not slipped or burnished. The firing is unsuccessful. This vessel has externally thickened rimmed, a long, wide neck, a spherical body, a pair of cylindrical handles (one on each side) and a flat base. An outstanding group of motifs has been identified on the surface of the vessel. The incised and white filled motifs include one with two well preserved swastika motifs, a 'Medallion'[8], a circle between waves/snakes and possibly a plant motif on the body of the vessel. In addition, there are two lozenge patterns between three horizontal bands on the neck as well as a vertical wave/snake motif on one of the handles.

7 Similar jars are found in phase EBA II/2 at Bademağacı Höyük (Çongur, 2019, Lev. 78/7) and among the surface finds from Yakaemir in the Isparta Province (Üstün-Türkteki, 2012, Lev. 107/4), although these examples have more baggy bodies than the jar we examined.

8 This motif consists of multiple concentric circles made with the technique of incise.

Parallel Examples: Karataş – Semayük (Eslick, 2009, Plt. 66/KA 326, Mixed Deposits), İzmir Archaeological Museum (Özkan, 1999, p. 5, Res. 2).

Early Bronze Age III

Among the material examined, one vessel belongs to this period.

Duck Vase (Askos)[9]

The well refined paste of this vessel is orange in colour and has a good consistency (Fig. 7/5; 9/7). The exterior surface of the example is slipped in the same colour as the paste and well burnished. The firing is very successful with the exception of some grey stains. This vase has a splayed spout, a narrow neck, a pointed body, a strip handle and a flat base. The white filled incised decoration consists of two oblique bands on the neck of the vase and four or six short "V" shapes between "+" shape on the upper body and three horizontal bands and four or five short inverted "V" shapes between double vertical bands on the middle body.

Parallel Examples: Karataş – Semayük (Mellink, 1967, Plt. 76, Fig. 12), Aphrodisias (Joukowsky, 1986, p. 587, Fig. 425/34), Beycesultan (Lloyd & Mellaart, 1962, p. 214, 215, Fig. 53/1, Level IX), Troy (Blegen, Caskey & Rawson, 1951, Fig. 238/D 29), Kalymnos (Benzi, 1997, p. 389, Fig. 5665, 5666, 5731), Asomatos (Marketou, 2009, p. 57, Fig. 3a), Heraion (Milojcic, 1961, Taf. 38/10), Thera (Renfrew, 2011, pp. 590, 614, Plt. 12/1), Aegina (Renfrew, 2011, pp. 590, 614, Plt. 12/3), National Archaeological Museum, Athens (Şahoğlu & Sotirakopoulou, 2011, pp. 242/20).

Discussion and Conclusion[10]

There are some difficulties in evaluating the pottery, which has been acquired by the museums via donation and purchase. Regarding the form and decoration features of this material, an analogical evaluation was attempted with the contemporary pottery assemblages from Anatolian settlements.

In the material we examined, the splayed beak spouted jugs (Fig. 2; 5/1-5), which can be dated to the Early Bronze Age I[11], are divided into two ware groups. The vessels are especially striking and the quality of the paste, the fine rims of the jugs, the standard of the firing and the well burnished glossy surfaces, decorated with oblique/vertical reliefs would suggest these could be an imitation of metal jugs. Murat Türkteki compared the surface colours of the metal vessels and pottery belonging to the EBA. In this context, grey coloured,

9 This vessel was first published in *Beycesultan Vol. I, The Chalcolithic and Early Bronze Age Levels* (Lloyd & Mellaart, 1962, pp. 214, 215, Fig. 53/2).

10 All of the references given in the previous section will not be repeated here.

11 Examples of these beak spouted jugs are seen at Beycesultan in the EBA I period (Lloyd & Mellaart, 1962, p.117).

well burnished examples uncovered at Beycesultan, Kusura and Küllüoba (Türkteki, 2021, pp. 155, 156, Fig. 3/a-h), as well as some red slipped beak spouted jugs of Western Anatolian origin (Türkteki, 2021, p. 156, Fig. 5/b, c) were evaluated. M. Türkteki emphasized that the grey coloured, well burnished, vertical groove decorated pottery could be associated with silver and lead, and the red slipped examples may be related to vessels made of copper and bronze (Türkteki, 2021, pp. 154-157). Halime Hüryılmaz reported that a beak spouted jug from Uşak Archaeology Museum shares common features with the metal vessels found at Alacahöyük, Mahmatlar and Horoztepe. According to H. Hüryılmaz, the beak spouted, well burnished and shallow relief decorated jugs are probably the precursors of the metal vessels dated to the EBA II-III (Hüryılmaz, 1998, pp. 713, 714, 718). Some of the high quality, well burnished, vertical shallow groove decorated jugs, which are quite similar in terms of material and production techniques, were found in a shrine/temple at Beycesultan level XVIIa. According to Seton Lloyd and James Mellaart, these vessels were used for ritual purposes (Lloyd & Mellaart, 1962, pp. 32, 34, Plt. 18/9, 10). It is not possible to infer the certain role of these jugs in religious ceremonies because of the questionable functions of the building[12]. There are some questions that cannot be answered in terms of the intended use of these jugs. Why were these jugs, which have high quality and display more careful workmanship than vessels used for daily purposes, produced in EBA I? Were the elites using these high quality ceramics with metal vessels? Could the use of metal vessel imitations in the general populace be an indicator of prestige? (Türkteki, 2021, pp. 160, 161) Were these jugs used for special/sacred purposes for the people of the period? Were metal imitation jugs used only for the presentation or service of certain liquids?

The location(s) where the beak spouted jugs, imitations of metal vessels, which we evaluated in type a-c, are unknown (Fig. 5/1-5). However, these were settlements where similar beak spouted jugs were found within the borders of Denizli, Afyonkarahisar and Uşak provinces (Fig. 1). The samples we examined were probably recovered from the EBA I settlement(s) located in the aforementioned provinces.

Constituting the large group in the material we studied, beak spouted jugs are seen among the pottery of Ware 1 and Ware 2 fabric (Fig. 5/6, 7; 6/1-8; 7/1). The splayed/upright/upright, pointed/cut spout, a long, narrow/wide/virtually straight neck, a squat/spherical body, a strip handle, a flat/round based jugs feature horizontal incised bands, vertical/oblique/zigzags and dots/“V”/downward hanging grooves, protrusions and knobs (Fig. 3). Examples with a similar tradition were identified in the EBA II pottery of the settlements found in the Lakes District and Western Anatolia. Therefore, the beak spouted jugs we examined should be dated to the said period. A squat bodied, splayed spouted jug with a long, narrow neck (Fig. 5/6;

12 Bleda Düring and Erkan Fidan think that the megaron in Beycesultan XVII is probably a domestic structure (Düring, 2011, p. 269; Fidan, Sarı & Türkteki, 2015, p. 68; Fidan, 2020, p. 171; 2022, p. 315).

8/6, Type a_I) has not been encountered in the presented regions. The paste and production technique of this vessel and the two protrusions, which are not fully drilled just below the mouth rim, are frequently encountered in EBA II settlements in the vicinity of Burdur – Antalya[13]. Parallels to this jug with a long, pointed spout, a long, narrow neck, a squat body, and a strip handle and a flat base (Fig. 5/7; 8/7, Type a_{II}) were identified at Bademağacı Höyük and Yortan (Fig. 1). Type b_I consists of a well fired beak spouted jug with elaborately burnished glossy surfaces and grooved horizontal and zigzag decoration (Fig. 6/1; 8/8). The closest parallels to these jugs with a long, pointed spout, a narrow neck, a spherical body, a strip handle are seen in many EBA settlements in the Lake District and Western Anatolia. There are horizontal shallow groove decorations on the necks of very thin-walled, well fired vessels found at Karataş – Semayük (Eslick, 2009, Plt. 40/KT 329) and Bademağacı Höyük (Çongur, 2019, Lev. 63/1, 3, 5; Umurtak & Çongur, 2021, p. 23, Fig. 13/14). Gülsün Umurtak stated that this type of beak spout jugs, identified as Ware 4 in Bademağacı Höyük, EBA II pottery (Umurtak & Çongur, 2021, p. 8), may be an imitation of metal vessels (Umurtak & Çongur, 2021, p. 2). There are a pair of protrusions (one on each side) under the mouth rim. The protrusions are probably not ordinary decorations. In this context, different opinions can be evaluated. A ring is attached to the fully pierced protrusions found on a jug with a long, pointed spout, a spherical body, a strip handle and a round base, which is kept in the Antalya Archaeological Museum (Çongur, 2019, p. 176). As with the jug we examined, it is very difficult to add an attachment to the not fully pierced protrusions. An anthropomorphic vessel was found in a pit, dated to the EBA II at Laodikeia – Kandilkırı, the vessel has two protrusions (one on each side) on the neck section. According to Umay Oğuzhanoğlu, these protrusions are meant to represent ears (Oğuzhanoğlu – Akay, 2015a, p. 78, Lev. 20/2; Oğuzhanoğlu, 2015b, pp. 425, 426, Res. 5). Two protrusions were identified just under the mouth rim of a beak spouted jug holding a bowl in its hands considered to be a libation vessel within the Temple VA, dated to EBA III at Seyitmömer Höyük (Bilgen & Kapuci, 2018, pp. 155, 157; Kuru, 2016, p. 436, Kat. No. 456, Lev. 30/1-3). Considered in conjunction with the Seyitömer example, these protrusions located under the mouth rim of the jugs may have represented the eyes[14] or ears of a stylized human being. Could the fact that such vessels are burial objects at Karataş – Semayük (Mellink & Lawrence, 1968, Plt. 84, Fig. 33) and Harmaören (Ünlüsoy, 1993, p. 307, Çiz. 2a; p. 309, Çiz. 4a; p. 310, Çiz. 5a; p. 311, Çiz. 6a, b) cemeteries indicate that some jugs might have a place in the cult of the EBA tradition? Were these protrusions made to make jugs resemble metallic vessels? In the material we studied,

13 see Hacımusalar Höyük (Özgen, Baughan & Ünlü, 2021, p. 624, Fig. 21/r), Karataş - Semayük (Eslick, 2009, Plt. 40/KT 311, 329, Period V:1; 44/KT 399, Period V:2; 63/KT 565, Mixed Deposits), Bademağacı Höyük (Umurtak & Çongur, 2021, pp. 23, 24, Fig. 10/8; 12/11, 12; 13/6/14, 15; 14/8), Yassı Höyük II (Burdur) (Mellaart, 1954, p. 230/344) and Harmanören (Ünlüsoy, 1993, p. 308, Çiz. 3a; p. 311, Çiz. 6b).

14 Aliye Öztan has stated that the two circles on a bifoil spouted jug, which found in Level III dated to Assyrian Colony Period at Acemhöyük, are said to be eyes in the style of Syro/Cilician (Öztan, 2008, pp. 25, 26, Fig. 1a-b).

the cut beak spouted jug, which was found in Kepsut District of Balıkesir Province (Fig. 6/2; 8/9, Type b_{II}), is similar to examples identified at Yortan and Babaköy. A large number of cut beaked jugs were uncovered on the EBA cemeteries in the vicinity of Balıkesir (Bittel, 1939-1941, p. 9, Abb. 7; Kâmil, 1982, Fig. 35-64). On the other hand, the small dots seen on the jug we examined, within two horizontal incised bands, between one zigzag decoration on the top and two on the bottom, were not seen on the jugs found at Yortan. Beak spouted jugs with wide necks are a large group among the beak spouted examples (Fig. 3; 6/3-8; 7/1; 8/10-13; 9/1-3, Type c_I, c_{II}, c_{III}, c_{IV}, c_V, c_{VI}). Parallel vessels of these red slipped jugs were found at Karataş – Semayük (Type c_{II}, c_{III}, c_{IV}), Bademağacı Höyük (Type c_I, c_{II}, c_{III}, c_{IV}, c_V) and Hacılar Büyük Höyük (Type c_I, c_{IV}). The obliquely cut spouted and knobs decorated jug in Type c_{VI} is nearly the same as the Yortan examples (Fig. 7/1; 9/3).

In the material we examined, a plain rimmed, an everted mouthed, a squat/spherical bodied, flat based jars are decorated with horizontal bands, zigzags, undulating decorations and knobs (Fig. 7/2, 3; 9/4, 5, Type a, b). These two jars are quite similar to each other in terms of paste and production techniques. The spherical bodied jar (Type b) originated in Hacılar Village of Burdur Province. Examples very similar in form to this jar were found at Karataş – Semayük, Bademağacı Höyük, Kuruçay Höyük and Hacılar Büyük Höyük. Some double handled jars, dated to the EBA IB, have been identified at the Çapalıbağ cemetery. U. Oğuzhanoğlu and S. Pazarcı have stated that spherical bodied and round based jars are a form seen in Caria (Oğuzhanoğlu & Pazarcı, 2020, pp. 204, 205, Şek. 8/11), and have been found in cemeteries such as Iasos (Pecorella, 1984, p. 52, Fig. 4) and Kumyeri (Kara, 2013, Lev. 93/b). The settlements of squat bodied (Type a) examples are not known. Although a similar piece of pottery was uncovered at Yortan in terms of form, the paste and production technique of this jar features common with samples determined in the vicinity of Burdur – Antalya (Fig. 1). These examples, we examined are presumed to date to EBA II, as with the aforementioned settlements.

A miniature vessel in the material we examined is quite intriguing (Fig. 7/4; 9/6). The closest parallels of the vessel in terms of forms and dimensions are at Karataş – Semayük[15], a miniature vessel of Yortan origin from a private collection[16], as well as a vessel kept in the

15 The jar has externally thickened rimmed, a long neck, a spherical body and a flat base. The burnishing is successful. The example is decorated with two horizontal bands, lozenge patterns and zigzags (Eslick, 2009, p. 195, Plt. 66/KA 326, Mixed Deposits).

16 The vegetal tempers and mica particles, well-refined paste of this vessel is grey and black in colours. This vessel with the corrected surface that is rough in appearance is not slipped or burnished. The miniature vessel has externally thickened rimmed, a spherical body, two horizontal string pierced lugs, and a round base. The example is decorated with swastikas, a tree? and 'hooks' motifs (Höckmann, 1984, pp. 126, 127, Abb. 6/2).

İzmir Archaeological Museum[17]. Large sized jars similar to this miniature vessel with the same pottery form features but used for daily purposes have been encountered in the vicinity of Burdur – Antalya and some settlements in Western Anatolia (Karataş – Semayük (Eslick, 2009, Plt. 37/KT 290 Period IV; 46/KT 394 Period V:2), Bademağacı Höyük (Çongur, 2019, Lev. 84/1, EBA II/2), Beycesultan (Lloyd & Mellaart, 1962, pp. 148, 149, Fig. 25/24, Level XVI), Kusura (Lamb, 1937, Plt. VII/13; Lamb, 1938, Plt. LXXXIII/3, Period B).

In terms of dimensions, miniature vessels are unsuitable for the storage of some goods and liquids. G. Umurtak stated that the functions of the roughly shaped, poorly fired, miniature vessels at Höyücek dated to the Neolithic Age, must have been different from that of the better quality examples (Umurtak, 2005, pp. 27, 28). Franz Fischer assessed the miniature vessels from the Imperial Hittite Period at Boğazköy to be votive vessels. According to F. Fischer, these vessels were unsuitable for more than one use, like everyday use pottery. In stating some miniature vessels were found inside the temple at Boğazköy, he emphasized that they were used for ritual purposes (Fischer, 1963, p. 69). It was reported that the miniature vessels dated to the Late Bronze Age at Alalah (Aççana Höyük) were not suitable for everyday use. While it was determined the miniature vessels could be models of large sized pottery, it was also stated that such examples could have been used for toys or ritual purposes. Claudia Glatz mentioned that some miniature vessels from the Late Bronze Age in North-Central Anatolia had ritual functions (Glatz, 2009, p. 130, Fig. 2/1, 2).

The closest parallels to the lozenge shaped decorations between two incised bands on the neck section of this vessel are identified from Hacımusalar Höyük (Özgen, Baughan & Ünlü, 2021, p. 609, Fig. 7/d), Karataş – Semayük (Eslick, 2009, p. 42, Motif 54; p. 115, Plt. 36/KT 592; 66/KA 326), Bademağacı Höyük (Çongur 2019, Lev. 80/1; 107/1; 111/17), Kuruçay Höyük (Duru, 1996, Lev. 128/7, 10), Höyüktepe (Ünan 2015, pp. 263, 304, Kat No. 233) and a vessel kept in the İzmir Archaeological Museum. (Özkan, 1999, p. 5, Res. 2). Possibly made for decoration, the lozenge patterns are entirely surrounding the neck of the vessel. In addition, two swastikas found on the vessel body are unlike ordinary decorations. Similar swastika motifs were also determined on a miniature vessel of Yortan origin from a private collection (Höckmann, 1984, p. 126, Abb. 6/2) as well as Karataş – Semayük (Eslick, 2009, Plt. 38/KT 591, Period IV; Mellink, 1969, Plt. 73/Fig. 13; Wheeler, 1973, Fig. 2/C), Bademağacı Höyük (Çongur, 2019, Lev. 104/1), and on a vessel kept in the İzmir Archaeological Museum (Özkan, 1999, p. 5, Res. 2). The swastika motif identified in the settlements in the Lakes District and Western Anatolia in the EBA was generally formed with horizontal lines on the four arms of the '+' sign. Apart from the four arms of the "+" sign,

17 The jar has externally thickened rimmed, a spherical body, pair of cylindrical handles (one on each side) and a flat base. It is decorated with two horizontal bands, lozenge patterns and swastika motifs (Özkan, 1999, p. 5, Res. 2)

horizontal and vertical lines were also present in certain parts of the swastika motifs of the example we examined. The swastika motif probably represents an animal. Lines ascending upwards on the front of the swastika may represent a stylized head, vertical lines behind them the horns, and the part formed with slightly curved lines downwards on the back may have represented the tail of an animal. There are stylized goat motifs with horns and tails on some pottery at Karataş – Semayük (Eslick, 2009, Plt. 15, Motifs 142, 143) and Hacılar Büyük Höyük (Umurtak & Duru, 2016, p. 35, Res. 31) in the vicinity of Burdur – Antalya. However, there is no similarity between the swastikas on the miniature vessel and the goats. Therefore, it is not known which animal this swastika represents. Among the swastika motifs is a 'Medallion'[18] motif. The 'Medallion' motif may have some symbolic meanings (Çongur, Forthcoming). Sedat Alp thinks that some signs on the pottery can provide information regarding the ownership, production, and in rare cases, the object or capacity indicators of the vessels (Alp, 1994, p. 264). Ursula Seidl determined that earlier examples of the circular reliefs with knobs in the centre seen on some vessels identified at Kültepe (Ib and II) and Alişar date to the Assyrian Trade Colonies Period as well as at Boğazköy date to Imperial Hittite Period, whereas she emphasized that an earlier example can be found at Karataş – Semayük (Mellink & Angel, 1966, Plt. 66, Fig. 22), it may be one of the local symbols seen in Anatolia before the 2_{nd} millennium BC. According to Seidl, this sign found on some vessels from the Assyrian Trade Colonies Period to the end of the Imperial Hittite Period is that *Signe Royal*. Moreover, Seidl believes the symbolic meanings of the mentioned are not exactly known, but that the circular reliefs seen on the cult vessels are probably not simple decorations (Seidl, 1972, pp. 66, 67, 79). In addition, this vessel features a circle between the waves/snakes and possibly a plant motif. A similar plant motif was found at Karataş – Semayük (Eslick, 2009, Plt. 49/KT 384, Period V:3).

Hypothetical debates regarding the belief system and cultic activities of the EBA II people of Lakes District and Western Anatolia have been formed based on the interpretation of very limited archaeological findings. In this context, the so-called temples at the Beycesultan XVI-XIV layers (Lloyd & Mellaart, 1962, p. 36-53), burial customs of the period (Uhri, 2006), and the idols and figurines (Bilgi, 2012, pp. 202-259) unearthed from settlements dated to the EBA II in the Lakes District and Western Anatolia provide insight into the social structure of these communities. As with the miniature vessel we discussed, it is possible that every mark on the artefacts in question, such as pottery, seals, spindle whorls, or loom weights, was not made for ornamental purposes (Umurtak, 2009, p. 7). All the motifs on the body, except for the lozenges surrounding the neck of the vessel, were most likely not made

18 A motif found on some pottery recovered from the EBA levels of Karataş – Semayük was called 'Medallion' for the first time by Machteld J. Mellink (Mellink 1967, p. 253; Mellink & Angel 1966, pp. 253-254; 1968, pp. 248, 254, 259). This motif consists of one or multiple decorations made with the technique of relief/groove and the knob/protrusion in the centre (Eslick 2009, 44, Motifs 122-130, DC4). In addition to this, some examples do not bear a centre knob in the circular decorations.

for decorative purposes. The detection of the wave/snake motif on only one handle further supports the idea. It should be discussed why these signs, which are not ordinary filling motifs, were included. Can these motifs provide information about the beliefs or religions of the people of the period? Did these motifs have symbolic meanings for the people of the EBA II? Could the motifs found on the vessel be a visualization of a mythological scene? Was the miniature vessel used in rituals?

Among the materials we examined was a duck vase (askos) (Fig. 7/5; 9/6) that was acquired from the vicinity of İzmir. This vessel has similar counterparts at Karataş – Semayük, Aphrodisias, Kalymnos, Asomatos, Heraion, Thera, and Aegina (Marketou, 2009, pp. 51, 52). M. Mellink stated that a black slipped askos found at Karataş – Semayük, next to a child's tomb numbered 167, was locally produced. However, she emphasized that in terms of form, this vessel was similar to the samples found in the Aegean (Mellink, 1967, pp. 253, 254, Plt. 76, Fig. 12). It was determined that an example found in the Schliemann Collection at Troy, which could not be identified as imported or locally produced, is of the Cycladic type (Blegen, Caskey & Rawson, 1951, pp. 109, 110). Toula Marketou suggested that the Aegean type duck vases may have also been produced in Cyprus (Marketou, 2009, p. 52). Jeremy Rutter reported that duck vases from the 'Phylakopi I Culture' were generally found on mainland Greece. While they were few in number, such askoi were also found in the Cyclades. According to Rutter, the duck vases were significant in showing the relations between mainland Greece and the Cyclades in the early stages of the Middle Bronze Age (Rutter, 1983, p. 74). Colin Renfrew emphasized that the duck vases he evaluated in the 'Phylakopi I Culture' are quite similar to some samples found in Anatolia (Renfrew, 2011, pp. 192, 193, Fig. 12.4).

Marija Gimbutas reported that askoi were observed in southeastern Europe in the mid-7_{th} millennium BC and that this form was found in some settlements during the Neolithic and Bronze Ages (Gimbutas, 1989, p. 6). According to Gimbutas, Bird Goddesses and askoi of the Cotofeni Culture were incorporated into Old European beliefs during the last quarter of the 4_{th} millennium BC (Gimbutas, 1977, p. 264). Moreover, it was suggested that askoi were used as votive vessels in a sanctuary located at Level IIa of the Sărata –Monteoru settlement (Gimbutas, 1965, p. 228). M. Mellink stated that the black slipped askos found next to a child's grave numbered 167 at Karataş – Semayük could be a toy or a burial object (Mellink, 1967, pp. 253, 254, Plt. 76, Fig. 12). The askoi dating to the EBA III levels brought to light at the Seyitömer Höyük are believed to have been used in rituals (Kuru, 2016, p. 182).

Duck vases have been discovered in EBA IIIB settlements throughout Western Anatolia, the Dodecanese Islands, the Cyclades, and Cyprus (Marketou, 2009, pp. 51, 52). The askos we examined show parallels with examples from the 'Phylakopi I Culture,' both in terms of form and decoration, suggesting it was likely imported from the Cyclades,

where the 'Phylakopi I Culture' thrived, within the framework of trade routes proposed by archaeologists (Renfrew, 2011, pp. 192, 193, Fig. 12.4). Vasıf Şahoğlu reported a very complex trade line between Anatolia and Mesopotamia during the third quarter of the 3_{rd} millennium BC. This trade network covered regions stretching from Cyprus, Coastal Western Anatolia to the Cyclades, mainland Greece, Thrace, and the Balkans. V. Şahoğlu stated that this trade included raw minerals and goods, leading to inter-regional cultural, technological, and economic relations (Şahoğlu, 2005; 2019). M. Massa and V. Şahoğlu reported that this trade network collapsed in the 2200s BC due to a natural disaster that affected the entire Mediterranean (Massa & Şahoğlu 2015). According to Turan Efe, the Menderes Valley served as a trade route between Western Anatolia, the Cyclades, and eastern mainland Greece in the early phase of EBA III, with the trade being primarily maritime (Efe, 2020, pp. 127, 128, Fig. 4). T. Marketou stated that liquid products were often transported in duck vases (Marketou, 2009, p. 52). The liquid product within the askos we examined may have been transported from the Cyclades to İzmir in EBA III, but the vessel's exact purpose and the context in which it was recovered are unclear. Therefore, it is challenging to determine the askos' specific use.

The material we have discussed so far has only been evaluated by analogical examination, as its origin is unclear. The fact that vessels with very similar form and decoration were found in settlements in the Lakes District and Western Anatolia suggests that the origin of the pottery in question is likely from these regions.

Catalogue

Object type: Beak Spouted Jug (Fig. 5/1; 8/1) Find location: Unknown. Period: EBA I Ware Group: 1 Condition: Some parts of the handle missing. Measurements:[19] H. 18.3 cm; W. body 13.7 cm. Museum Inventory Number: 09.13	Object type: Beak Spouted Jug (Fig. 6/7; 9/1) Find location: Unknown. Period: EBA II Ware Group: 1 Condition: Some parts of the handle missing. Measurements: H. 13.6 cm; W. body 11.9 cm. Museum Inventory Number: 09.10
Object type: Beak Spouted Jug (Fig. 5/1; 8/1) Find location: Unknown. Period: EBA I Ware Group: 1 Condition: Some parts of the handle missing. Measurements: H. 18.3 cm; W. body 13.7 cm. Museum Inventory Number: 09.13	Object type: Beak Spouted Jug (Fig. 6/8; 9/2) Find location: Unknown. Period: EBA II Ware Group: 1 Condition: The handle and a small part of the spout missing. Measurements: H. 12.8 cm; W. body 9.7 cm. Museum Inventory Number: 77.267
Object type: Beak Spouted Jug (Fig. 5/2; 8/2) Find location: Unknown. Period: EBA I Ware Group: 1 Condition: Intact. Measurements: H. 17.7 cm; W. body 12.7 cm. Museum Inventory Number: 9187	Museum Inventory Number: 09.12 Object type: Beak Spouted Jug (Fig. 6/4; 8/11) Find location: Unknown. Period: EBA II Ware Group: 1 Condition: Handle missing. Measurements: H. 9.3 cm; W. body 7.4 cm. Museum Inventory Number: 09.20
Object type: Beak Spouted Jug (Fig. 5/3; 8/3) Find location: Unknown. Period: EBA I Ware Group: 1 Condition: The handle and some parts of the spout missing. Measurements: H. 17.6 cm; W. body 11.5 cm. Museum Inventory Number: 09.08	Object type: Beak Spouted Jug (Fig. 6/5; 8/12) Find location: Unknown. Period: EBA II Ware Group: 1 Condition: Intact. Measurements: H. 21.8 cm; W. body 16.1 cm. Museum Inventory Number: 9846
Object type: Beak Spouted Jug (Fig. 5/4; 8/4) Find location: Unknown. Period: EBA I Ware Group: 1 Condition: Spout missing. Measurements: H. 12.6 cm; W. body 11.4 cm. Museum Inventory Number: 09.07	Object type: Beak Spouted Jug (Fig. 6/6; 8/13) Find location: Unknown. Period: EBA II Ware Group: 1 Condition: Intact. Measurement: H. 15.3 cm; W. body 11.5 cm.
Object type: Beak Spouted Jug (Fig. 5/5; 8/5) Find location: Unknown. Period: EBA I Ware Group: 2 Condition: Intact. Measurements: H. 12.8 cm; W. body 14.7 cm. Museum Inventory Number: 10434	Museum Inventory Number: 09.06 Object type: Beak Spouted Jug (Fig. 7/1; 9/3) Find location: Unknown. Period: EBA II Ware Group: 1 Condition: Some parts of the spout missing. Measurements: H. 18.5 cm; W. body 13.9 cm. Museum Inventory Number: 09.05

19 H. Height; W. Width; D. Diameter.

Object type: Beak Spouted Jug (Fig. 5/6; 8/6) Find location: Unknown. Period: EBA II Ware Group: 2 Condition: Some parts of the spout missing. Measurements: H. 15.9 cm; W. body 9.2 cm. Museum Inventory Number: 2018.19	Object type: Jar (Fig. 7/2; 9/4) Find location: Unknown. Period: EBA II Ware Group: 2 Condition: Intact. Measurements: D. rim 12 cm. Museum Inventory Number: 8289
Object type: Beak Spouted Jug (Fig. 5/7; 8/7) Find location: Unknown. Period: EBA II Ware Group: 2 Condition: Intact. Measurements: H. 21.9 cm; W. body 13.9 cm. Museum Inventory Number: 8292	Object type: Jar (Fig. 7/3; 9/5) Find location: Hacılar Village of Burdur Province. Period: EBA II Ware Group: 2 Condition: Intact. Measurement: D. rim 13 cm. Museum Inventory Number: 10131
Object type: Beak Spouted Jug (Fig. 6/1; 8/8) Find location: Unknown. Period: EBA II Ware Group: 2 Condition: Some parts of the spout missing. Measurements: H. 19.6 cm; W. body 13.3 cm. Museum Inventory Number: 2018.18	Object type: Miniature Vessel (Fig. 7/4; 9/6) Find location: Unknown. Period: EBA II Condition: Some parts of the rim missing and the body cracked. Measurement: D. rim 5.5 cm. Museum Inventory Number: 77.271
Object type: Beak Spouted Jug (Fig. 6/2; 8/9) Find location: Kepsut District of Balıkesir Province. Period: EBA II Ware Group: 2 Condition: The handle and a small part of the spout missing. Measurements: H. 25.9 cm; W. body 15.5 cm. Museum Inventory Number: 9251	Object type: Duck Vase (Askos) (Fig. 7/5; 9/7) Find location: Vicinity of İzmir Province. Period: EBA III Condition: Some parts of the spout missing Measurements: H. 10.6 cm; W. body 9.4 cm. Museum Inventory Number: 80.46
Object type: Beak Spouted Jug (Fig. 6/3; 8/10) Find location: Unknown. Period: EBA II Ware Group: 1 Condition: Intact. Measurements: H. 7.5 cm; W. body 8.5 cm.	

Peer-review: Externally peer-reviewed.

Conflict of Interest: The author has no conflict of interest to declare.

Grant Support: The author declared that this study has received no financial support.

Acknowledgement: I extend my thanks to Rahmi Asal, the Director of İstanbul Archaeological Museums and Tuğçe Akbaytogan, the Assistant Director of İstanbul Archaeological Museums, who gave permission to work on the pottery. I would like to thank Simge Güreş, Duygu Narçin, Dr. Emre Öncü, Betül Merve Yıldız and Veysi Gündüz for their help and hospitality in the museum during my study of pottery. I am also grateful to A. Buğra Ateş (MA) and Stuart Kline for translating this article into English.

References

Akar, M. (2017). Pointed Juglets as an International Trend in Late Bronze Ritual Practices: A View from Alalakh. In Ç. Maner, M. T. Horowitz & A. S. Gilbert (Eds.), *Overturning Certainties in Near Eastern Archaeology A Festschrift in Honor of K. Aslıhan Yener* (pp. 1-24). Boston: Brill.

Alp, S. (1994). *Konya Civarında Karahöyük Kazılarında Bulunan Silindir ve Damga Mühürleri*. Ankara: TTK.

Anlağan, Ç. (1990). Sadberk Hanım Müzesinde Bulunan Bir Grup Eski Tunç Çağı Eseri. *X. Türk Tarih Kongresi*, 65-70, Lev. 45-62.

Benzi, M. (1997). The Late Early Bronze Age Finds from Vathy Cave (Kalymnos) and Their Links with the Northeast Aegean. In C. G. Doumas & V. La Rosa (Eds.), *Poliochni e l'antica eta del bronzo nell'egeo settentrionale* (pp. 383-394). Athens: cuola Archeologica Italiana de Atene.

Bilgen, N., & Kapuci, A. (2018). *Seyitömer Höyük II*, İstanbul: Arkeoloji ve Sanat Yayınları.

Bilgi, Ö. (2012). *Anadolu'da İnsan Görüntüleri. Klasik Çağ Öncesi*. İstanbul: Aygaz.

Bittel, K. (1939-1941). Ein Gräberfeld der Yortan-Kultur bei Babaköy. *Archiv für Orientforschung* 13, 1-31.

Blegen, C. W., Caskey, C. L., Rawson, M., & Sperling, J. (1950). *Troy General Introduction The First and Second Settlement Vol. I*, Part 1, 2. New Jersey: Princeton University Press.

Blegen, C. W., Caskey, C. L., & Rawson, M. (1951). *Troy The Third, Fourth, and Fifth Settlement Vol. II*, Part 1, 2. New Jersey: Princeton University Press.

Böyükulusoy, K. (2016). *Bakla Tepe Erken Tunç Çağı I Seramiğinin Ege Arkeolojisindeki Yeri ve Önemi* (Unpublished Ph.D. Thesis). Hacettepe University, Institute of Social Sciences, Ankara.

Çongur, F. M. (2019). *Bademağacı İlk Tunç Çağı Çanak Çömleği* (Unpublished Masters Thesis). İstanbul University, Institute of Social Sciences, İstanbul.

Çongur, F. M. (Forthcoming). Some Remarks on the 'Medallion' Motif Decorated Pottery in the Vicinity of Burdur – Antalya in the Early Bronze Age.

Duru, R. (1996). *Kuruçay Höyük II. 1978–1988 Kazılarının Sonuçları. Geç Kalkolitik ve İlk Tunç Çağı Yerleşmeleri / Results of the Excavations 1978–1988. The Late Chalcolithic and Early Bronze Settlements – A Comprehensive Summary*. Ankara: TTK.

Duru, R. (2008). *MÖ 8000'den MÖ 2000'e Burdur Bölgesi'nin Altıbin Yılı*. Antalya: Suna – İnan Kıraç Akdeniz Medeniyetleri Araştırma Enstitüsü.

Duru, R. (2016). *Tarım'dan 'Yazı'ya Burdur Yöresi ve Yakın Çevresinin Altıbin Yılı (MÖ 8000 – MÖ 2000)*. Antalya: Batı Akdeniz Kalkınma Ajansı.

Düring, B. S. (2011). *The Prehistory of Asia Minor. From Complex Hunter-Gatherers to Early Urban Societies*. United States of America: Cambridge University Press.

Efe, T. (1988). *Demircihüyük. Band III. Die Keramik 2. Die Frühbronzezeitliche Keramik der Jüngeren Phasen (ab Phase H)*. Philipp von Zabern: Mainz am Rhein.

Efe, T. (2020). Once Again on Early Bronze Age Trade and Trade Routes in Western Anatolia. In S. W. E. Blum, T. Efe, T. L. Kienlin & E. Pernicka (Eds.), *From Past to Present. Studies in Memory of Manfred O. Korfmann* (pp. 121-134). Bonn: Habelt.

Efe, T., & Ay, D. Ş. M. (2000). Early Bronze Age I pottery from Küllüoba near Seyitgazi, Eskişehir. *Anatolia Antiqua* 8, 1-87.

Efe, T., İlaslı, A., & Topbaş, A. (1995). Salvage Excavations of the Afyon Archaeological Museum Part 1: Kaklık Mevkii, A Site Transitional to the Early Bronze Age. *Studia Troica* 5, 357-399.

Eslick, C. (2009). *The Early Bronze Age Pottery of Karataş Habitation Deposits. Elmalı – Karataş 5*. England: Bryn Mawr College.

Fidan, E. (2020). Batı Anadolu'da Tarih Öncesi Dönemlerde Saray ve Tapınak Algısı. In E. Abay & F. Dedeoğlu (Eds.), *Arkeolojide Çöküş ve Dönüşüm Süreçleri* (pp. 167-176). İstanbul: Ege Yayınları.

Fidan, E. (2022). MÖ 3. Binyıl'da İç Batı Anadolu. In M. Işıklı, E. Fidan, A. Türker & M. A. Yılmaz (Eds.), *MÖ III. Binyılda Anadolu* (pp. 311-324). İstanbul: Ege Yayınları.

Fidan, E., Sarı, D., & Türkteki, M. (2015). An Overview of the Western Anatolian Early Bronze Age. *European Journal of Archaeology* 18.1, 60–89.

Fischer, F. (1963). *Die Hethitische Keramik von Boğazköy*. Berlin: Verlag Gebr. Mann.

Gimbutas, M. (1965). *Bronze Age Cultures in Central and Eastern Europe*. Netherlands: Mouton & Co.

Gimbutas, M. (1977). The First Wave of Eurasian Steppe Pastoralists into Copper Age Europe. *Journal of Indo-European Studies* 5, 277-338.

Gimbutas, M. (1989). *The Language of the Goddess*. San Francisco: Harper & Row.

Glatz, C. (2009). Empire as Network: Spheres of Material Interaction in Late Bronze Age Anatolia. *Journal of Anthropological Archaeology* 28, 127–141.

Höckmann, O. (1984). Frühe Funde Aus Anatolien im Museum Altenessen, Essen, und in Privatbesitz. *Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz* 31, 100-148.

Hüryılmaz, H. (1998). Göller Bölgesi'nin Batısında Bulunmuş Bir "Maden Taklidi" Testi. *BELLETEN* 235/LXII, 713-718.

Joukowsky, M. S. (1986). *Prehistoric Aphrodisias I-II*. United States of America: Brown University.

Kâmil, T. (1982). *Yortan Cemetery in the Early Bronze Age of Western Anatolia*. London: Oxford Press.

Kara, O. (2013). *Karia Bölgesi Tunç Çağı Yerleşmeleri* (Unpublished Ph.D. Thesis). Selçuk University, Institute of Social Sciences, Konya.

Kuru, A. (2016). *Seyitömer Höyük Erken Tunç Çağ III Seramiği'nin Batı Anadolu Erken Tunç Çağı'na Katkıları* (Unpublished Ph.D. Thesis). Adnan Menderes University, Institute of Social Sciences, Aydın.

Lamb, W. (1936). *Excavations at Thermi in Lesbos*. London: Cambridge University Press.

Lamb, W. (1937). *Excavations at Kusura near Afyon Karahisar*. London: Oxford Press.

Lamb, W. (1938). *Excavations at Kusura near Afyon Karahisar II*. London: Oxford Press.

Lloyd, S. & Mellaart, J. (1962). *Beycesultan Vol. I, The Chalcolithic and Early Bronze Age Levels*. London.

Marketou, T. (2009). Rhodes and Cyprus in the Bronze Age: Old and New Evidence of Contacts and Interactions. In V. Karageorghis & O.Kouka (Eds.), *Cyprus and the East Aegean. Intercultural Contacts from 3000 to 500 BC. An International Archaeological Symposium held at Pythagoreion, Samos, October 17th – 18th 2008* (pp. 48-58). Nicosia: A.G. Leventis Foundation.

Mellaart, J. (1954). Preliminary Report on a Survey of Pre-classical Remains in Southern Turkey. *Anatolian Studies* 4, 175-240.

Mellink, M. J. (1967). Excavations at Karataş – Semayük in Lycia, 1966. *American Journal of Archaeology* 71/3, 251-267.

Mellink, M. J. (1969). Excavations at Karataş – Semayük in Lycia, 1968. *American Journal of Archaeology* 73/3, 319-331.

Mellink, M. J., & Angel, J. (1966). Excavations at Karataş – Semayük in Lycia, 1965. *American Journal of Archaeology* 70/3, 245-257.

Mellink, M. J., & Angel, J. (1968). Excavations at Karataş-Semayük in Lycia, 1967. *American Journal of Archaeology* 72/3, 243-263.

Milojcic, C. (1961). *Samos. Die Prähistorische Siedlung. Unter dem Heraion. Grabung 1953 und 1955*. *Band I*. Berlin: Rudolf Habelt Verlag.

Oğuzhanoğlu-Akay, U. (2015a). *Laodikeia-Kandilkırı Verileri Işığında Güneybatı Anadolu'da Erken Tunç Çağı 2 ve 3* (Unpublished Ph.D. Thesis). Pamukkale University, Institute of Social Sciences, Denizli.

Oğuzhanoğlu, U. (2015b). Laodikeia Erken Tunç Çağı 2 Mezarlığından Bir Çukur ve Düşündürdükleri. In C. Şimşek, B. Duman & E. Konakçı (Eds.), *Mustafa Büyükkolancı'ya Armağan / Essays in Honour of Mustafa Büyükkolancı* (pp. 423-434). İstanbul: Ege Yayınları.

Oğuzhanoğlu, U., & Pazarcı, S. (2020). Karia Bölgesi'nde Yeni Bir Erken Tunç Çağı Merkezi: Çapalıbağ. *Hacettepe Üniversitesi Edebiyat Fakültesi Dergisi* 37/1, 195-219.

Orthmann, W. (1966). Keramik der Yortankultur in den Berliner Museen. *Istanbuler Mitteilungen* 16, 1-26.

Özgen, İ. Baughan, E. P., & Ünlü, E. (2021). Hacımusalar Höyük in the Early Bronze Age. *American Journal of Archaeology* 125/4, 603-638.

Özkan, T. (1999). *İzmir Arkeoloji Müzesi Seramik Kataloğu*. İzmir.

Özkan, T., & Erkanal, H. (1999). *Tahtalı Barajı Kurtarma Kazısı Projesi / Tahtalı Dam Area Salvage Project*. İzmir.

Öztan, A. (2008). Some New Finds from Acemhöyük. In D. Bonatz, R. M. Czichon & F. J. Kreppner (Eds.), *Fundstellen: Gesammelte Schriften zur Archäologie und Geschichte Altvorderasiens ad honorem Hartmut Kühne* (pp. 25-29). Wiesbaden: Harrassowitz.

Pecorella, P. E. (1984). *La Cultura Preistorica Di Iasos in Caria*. Rome: G. Bretschneider.

Renfrew, C. (2011). *The Emergence of Civilisation. The Cyclades and the Aegean in the Third Millennium BC*. Philadelphia: Oxford Press.

Rutter, J. (1983). Some Observations on the Cyclades in the Later Third and Early Second Millennia. *American Journal of Archaeology* 87/1, 69-76.

Sarı, D. (2004). *Küllüoba İlk Tunç Çağı II Çanak Çömleği* (Unpublished Masters Thesis). İstanbul University, Institute of Social Sciences, İstanbul.

Seeher, J. (1987). *Demircihüyük: Die Ergebnisse der Ausgrabungen 1975- 1978; III; 1; Die Keramik 1*. Philipp von Zabern: Mainz am Rhein.

Seidl, U. (1972). *Gefässmarken von Boğazköy*. Berlin: Gebr. Mann Verlag.

Şahoğlu, V. (2002). *Liman Tepe Erken Tunç Seramiğinin Ege Arkeolojisindeki Yeri ve Önemi*. (Unpublished Ph.D. Thesis). Ankara University, Institute of Social Sciences, Ankara.

Şahoğlu. V. (2005). The Anatolian Trade Network and The İzmir Region During The Early Bronze Age. *Oxford Journal of Archaeology* 24.4, 339–361.

Şahoğlu V. (2009). The Early Bronze Age Anatolian Trade Network and its Role on The Transformation of The Anatolian and Aegean Communities. In V. Şahoğlu, M. Şevketoğlu & Y. H. Erbil (Eds.), *Kültürlerin Bağlantısı. Başlangıcından Roma Dönemi Sonuna Kadar Eski Yakın Doğuda Ticaret ve Bölgelerarası İlişkiler / Connecting Cultures. Trade and Interconnections in the Ancient Near East from the Beginning until the End of the Roman Period* (pp. 115-131). Ankara.

Şahoğlu, V., & Massa, M. (2015). The 4.2 ka BP Climatic Event in West and Central Anatolia: Combining Palaeo-climatic Proxies and Archaeological. In H. Meller, H. W. Arz , R. Jung & R. Risch (Eds.), *2200 BC – A Climatic Breakdown as a Cause for the Collapse of the Old World?* (pp. 61-78), Barcelona: Halle.

Şahoğlu, V., & Sotirakopoulou, P. (2011). *Karşıdan Karşıya MÖ 3. Binde Kiklad Adaları ve Batı Anadolu*. Sakıp Sabancı Müzesi: İstanbul.

Topbaş, A., Efe T., & İlaslı A. (1998). Salvage Excavations of the Afyon Archaeological Museum, Part 2 : The Settlement of Karaoğlan Mevkii and the Early Bronze Age Cemetery of Kaklık Mevkii. *Anatolia Antiqua* 6, 21-94.

Türkteki, M. (2004). *Küllüoba İlk Tunç Çağı III Çanak Çömleği* (Unpublished Masters Thesis). İstanbul University, Institute of Social Sciences, İstanbul.

Türkteki, M. (2021). Skeuomorphism in 3_{RD} Millennium BC Pottery from Western Central Anatolia: Metal Ves-Sels and Their Reflections. *Mediterranean Archaeology and Archaeometry* 21/1, 149-165.

Türktüzün, M., Ünan, S., & Ünal, S. (2014). Çiledir Höyük Erken Tunç Çağı Bulguları. *TÜBA-AR* 17, 49-72.

Uhri, A. (2006). *Batı Anadolu Erken Tunç Çagı Ölü Gömme Gelenekleri*. (Unpublished Ph.D. Thesis). Ege University, Institute of Social Sciences, İzmir.

Umurtak, G. (2005). Çömlekçilik. In R. Duru & G. Umurtak (Eds.), *Höyücek 1989-1992 Yılları Arasında Yapılan Kazıların Sonuçları / Höyücek Results of the Excavations 1989-1992* (pp. 29-91). Ankara: TTK.

Umurtak, G. (2009). A Study of Three Numerical (!) Tablets and a Stamp Seal from the Early Bronze Age Settlement at Bademağacı Höyük. *ADALYA* XII, 1-10.

Umurtak, G. (2020). Some Remarks on the Early Bronze Age I Defence System at Hacılar Büyük Höyük (Burdur, Turkey). *Bulgarian e-Journal of Archaeology* 10.1, 33-54.

Umurtak, G. (2021). Evidence of Daily Life Inside the EBA I Defence System at Hacılar Büyük Höyük (Burdur–Turkey). *Bulgarian E-Journal of Archaeology* 11/1, 33-57.

Umurtak, G., & Çongur, F. (2021). The Early Bronze Age II Settlement at Bademağacı Höyük: An Evaluation of the Pottery and Beak Spouted Jugs. *OLBA* XXIX, 1-24.

Umurtak, G., & Duru, R. (2013). Yeniden Hacılar. Hacılar Büyük Höyük Kazıları 2011-2012. *Arkeoloji ve Sanat* 142, 1-22.

Umurtak, G., & Duru, R. (2016). Hacılar Büyük Höyük 2015 Yılı Kazılarının Sonuçları. *Arkeoloji ve Sanat* 151, 19-44.

Umurtak, G., & Duru, R. (2018). Hacılar Büyük Höyük Kazıları – 2016. *KST* 39/1, 411-420.

Ünan, N. (2015). Höyüktepe 2014 Yılı Erken Tunç Çağı Çanak Çömleği. In M. Türktüzün & S. Ünan (Eds.), *Kureyşler Barajı Kurtarma Kazıları 2014 / Kureyşler Dam Rescue Excavations 2014* (pp. 223-308). Ankara: Bilgin Kültür Sanat.

Ünan, N. (2020). Höyüktepe 2015-2016 Yılı Erken Tunç Çağı Çanak Çömleği. In S. Ünan (Ed.), *Kütahya Kureyşler Barajı Kurtarma Kazıları 2015-2016 / Kütahya Kureyşler Dam Rescue Excavations 2015-2016* (pp. 65-137). Ankara: Bilgin Kültür Sanat.

Ünlüsoy, İ. (1993). Isparta İli Atabey İlçesi Harmanören (Göndürle) Kurtarma Kazısı 1989 – 1991. *Müze Kurtarma Kazıları Semineri* III, 291-322.

Üstün-Türkteki, S. (2012). *Göller Bölgesi İlk Tunç Çağı 1-2 Çanak Çömleği* (Unpublished Ph.D. Thesis). İstanbul University, Institute of Social Sciences, İstanbul.

Warner, J. L. (1994). *Elmalı-Karataş II. The Early Bronze Age Village of Karataş*. England: Bryn Mawr College.

Wheeler, T. S. (1973). *The Early Bronze Age Burial Customs of Karataş-Semayük* (Unpublished Ph.D. Thesis). Bryn Mawr College, Classical and Near Eastern Archaeology, England.

Yaylalı, S., & Akdeniz, E. (2002). Aphrodisias Müzesi'ndeki Karahisar Buluntuları. *OLBA* VI, 1-40, Lev. 1-34.

Figures

Fig. 1. Map of the sites mentioned in the text

Type a	Ware 1	Ware 2
	★	
Type b		
	★	
Type c		
		★

Fig. 2. Early Bronze Age I,
Table of Beak Spouted Jugs

Tip a	Mal 1	Mal 2
		★
Tip b		
		★

Fig. 4. Early Bronze Age II,
Table of Jars

Type a	Ware 1	Ware 2
		★
		★
Type b		
		★
		★
Type c		
	★	
	★	
	★	
	★	
	★	
	★	

Fig. 3. Early Bronze Age II,
Table of Beak Spouted Jugs

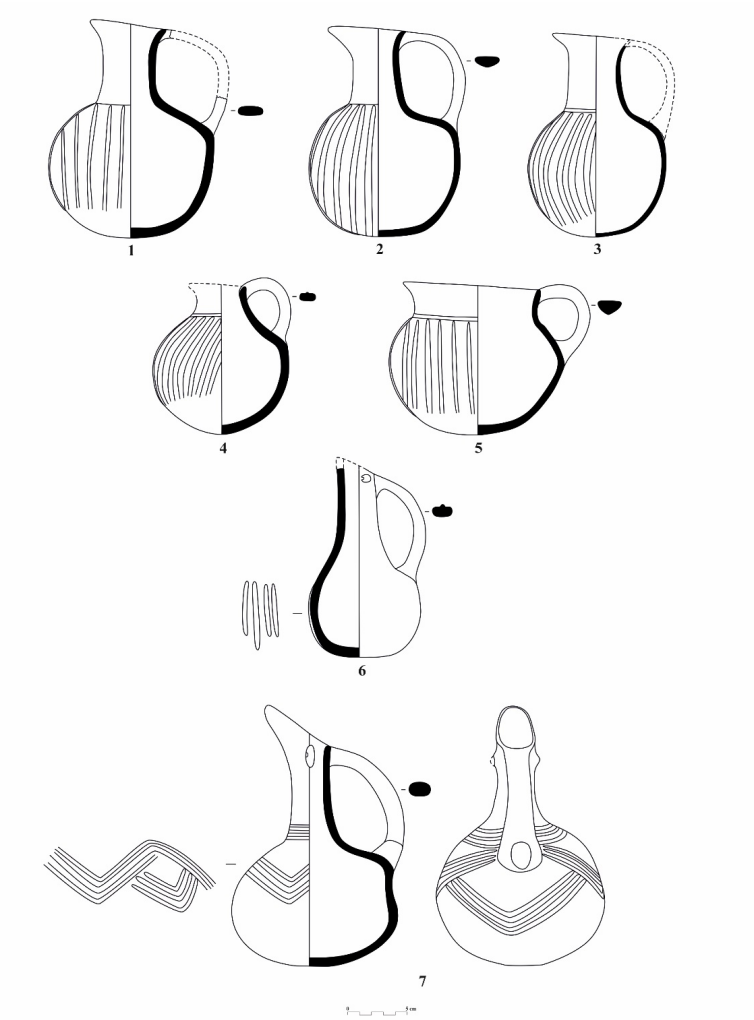

Fig. 5. Early Bronze Age I (1-5) and Early Bronze Age II (5-7), Beak Spouted Jugs (Drawing: F. Çongur)

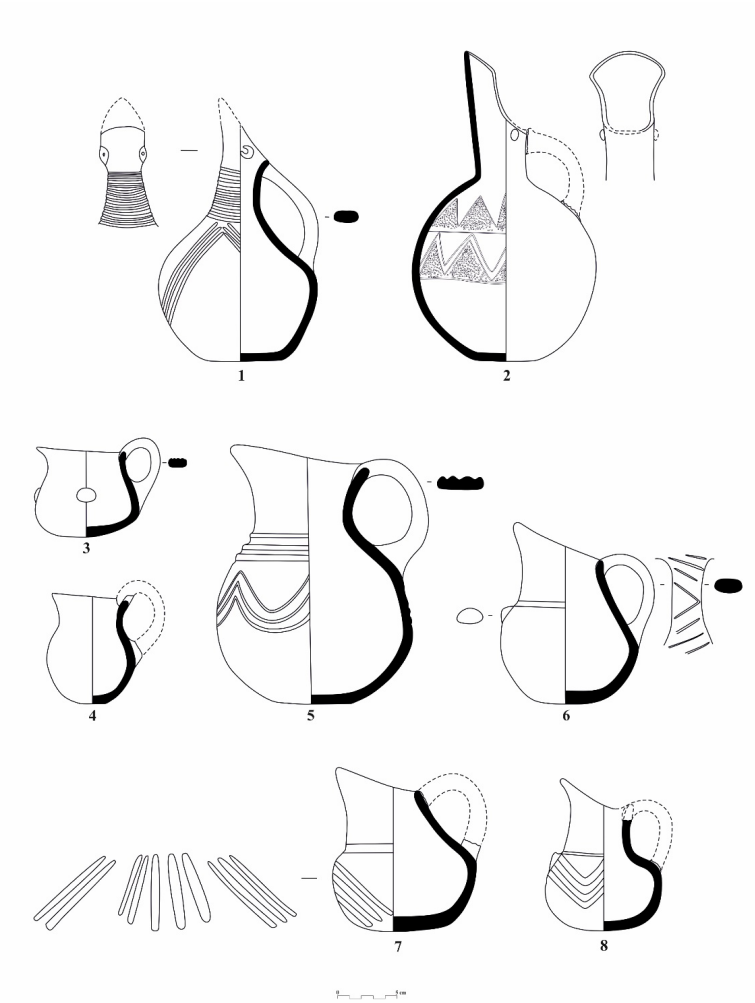

Fig. 6. Early Bronze Age II (1-8), Beak Spouted Jugs (Drawing: F. Çongur)

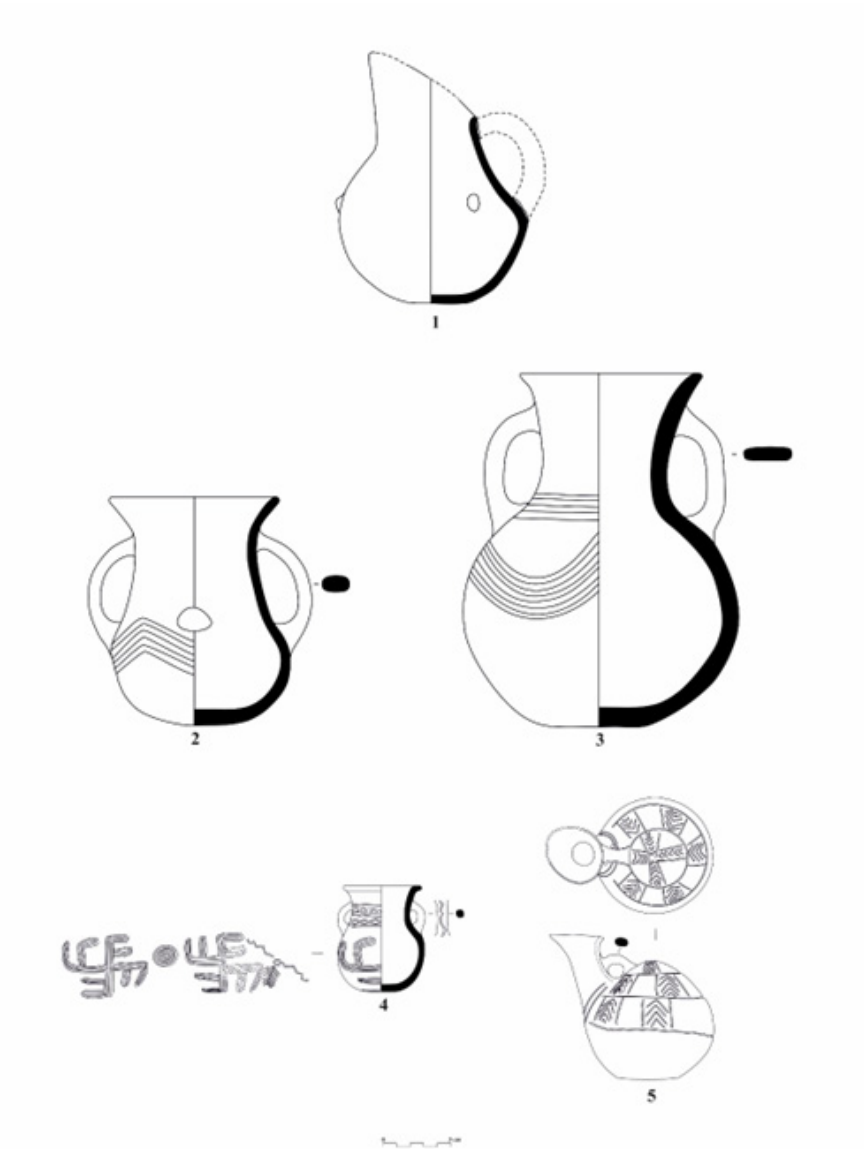

Fig. 7. Early Bronze Age II (1-4) and Early Bronze Age III (5), Beak Spouted Jug (1), Jars (2, 3), Miniature Vessel (4), Duck Vase (Askos) (5) (Drawing: F. Çongur)

Fig. 8. Early Bronze Age I (1-5) and Early Bronze Age II (6-13), Beak Spouted Jugs (Photo: Simge Güreş)

Fig. 9. Early Bronze Age II (1-6) and Early Bronze Age III (7), Beak Spouted Jugs (1-3), Jars (4, 5), Miniature Vessel (6), Duck Vase (Askos) (7) (Photo: Simge Güreş)

Anadolu Araştırmaları
Anatolian Research

İSTANBUL UNIVERSITY PRESS

AnAr, 28, 31–56
DOI: 10.26650/anar.2023.28.1238062 Research Article

The Proto-Hassuna Pottery of the Upper Tigris Basin, Evidence from Sumaki Höyük

Sidar Gündüzalp

[1]Dr. Sidar Gündüzalp, Independent Researcher, Istanbul, Turkiye

ORCID ID: S.G. 0000-0003-4465-6952

Corresponding author:
Sidar Gündüzalp ,
Bağımsız, Baysungur Sok. No.55 D.7 Kurtuluş, Şişli / İstanbul, Türkiye
E-mail: sidargunduzalp@outlook.com

Submitted: 17.01.2023
Revision Requested: 11.03.2023
Last Revision Received: 22.03.2023
Accepted: 08.04.2023

Citation: Gündüzalp, S. (2023). The proto-hassuna pottery of the upper tigris basin, evidence from sumaki höyük. *Anadolu Araştırmaları-Anatolian Research*, *28*, 31–56. https://doi.org/10.26650/anar.2023.28.1238062

ABSTRACT
The emergence of pottery has been regarded as the hallmark of the cultural changes explicitly related to the late 8th and the first quarter of the 7th millennium BCE in Southwest Asia. Accordingly, the initial pottery; mineral-tempered, hole-mouth-shaped, burnished and dark-surfaced vessels with lugs close to the mouth on both sides, appeared almost simultaneously in a series of settlements in Upper Mesopotamia and the Northern Levant in the first quarter of the 7th millennium BCE. Pottery production increased in the second quarter of the millennium, followed by the appearance of plant-tempered pottery after ca. 6.500 BCE. Plant-tempered pottery, spreading throughout Southwest Asia, symbolizes the diversification of pottery as much as we can speak of regional traditions. This study aims to define plant-tempered Proto-Hassuna pottery from Sumaki Höyük, located in the Upper Tigris Basin, to understand better the similarities and differences between the initial mineral-tempered and plant-tempered pottery groups, thus pointing out the possible regional characteristics of the assemblage.
Keywords: Upper Tigris, Neolithic, Pottery, Proto-Hassuna, Sumaki Höyük

Introduction

Pottery is an essential indicator of the cultural similarities and relationships between prehistoric societies and their subsistence strategies, social values, and attitudes. The invention of pottery had long been recognized as a marker of farming communities and the Neolithic way of life. Over the last decades, research has revealed that pottery was invented long before settled life and agriculture began. Although pottery was invented independently by hunter-gatherers in various regions of the world in the Upper Palaeolithic (Kuzmin, 2015; Close, 1995), the beginning of pottery use is still a vital distinction for the Neolithic period in Southwest Asia. Pottery production in Southwest Asia started approximately three thousand years after the Neolithic settled life emerged. Traditionally, the Neolithic in this region has been divided into two periods: Pre-Pottery and Pottery Neolithic. This distinction also underlines large-scale social changes in the last quarter of the 8th and first half of the 7th millennium BCE. Agriculture and animal husbandry became the primary modes of subsistence in this period. This transformation did not begin and was not limited to pottery production. However, after the invention[1] of the technique, it spread throughout Upper Mesopotamia and the Northern Levant and became an integral part of daily life.

A considerable amount of literature has been published on the beginning of pottery production in Southwest Asia (Tsuneki et al. 2017 and references herein). Research conducted in the last 20 years clearly outlines that pottery production began in the first centuries of the 7th millennium BCE. The initial pottery has been found in several sites throughout the Northern Levant and Upper Mesopotamia: Yumuktepe (Balossi-Restelli, 2017), Tell al Judaidah (Braidwood & Braidwood, 1960), Tell el-Kerkh (Miyake, 2003), Kumartepe (Le Mière, 2017), Mezraa-Teleilat (Özdoğan, 2009), Akarçay Tepe and Tell Halula (Cruells et al. 2017) in Upper and Middle Euphrates Valleys, Tell Sabi Abyad (Nieuwenhuyse 2017) and Tell Damishliyya (Akkermans 1988) in Balikh Valley, Tell Seker al-Aheimar (Nishiaki & Le Mière, 2005) in Habur Valley, Salat Cami Yanı (Miyake, 2011) and Sumaki Höyük in Upper Tigris Basin. Despite the differences in the cultural elements of these sites, Early Mineral Tempered Pottery has similar features: mineral tempered (generally volcanic minerals), hole-mouth-shaped, well-burnished, and mostly dark-surfaced vessels with lugs close to the mouth on both sides. A few mineral-tempered potsherds were found in the Initial Pottery Neolithic (hereafter PN) levels at almost all mentioned sites (except at Sumaki), which became more numerous towards the middle of the 7th millennium BCE. Because of their shapes, mineral tempers, and lugs, which could be used for placing and lifting pots on the fire, this initial mineral-tempered pottery was quite suitable for cooking (Le Mière, 2017) and even probably made for that purpose (Miyake, 2016).

1 The invention of pottery mentioned here is not referring to fired-clay vessels made for various purposes in the PPN, but it refers to a production cycle in which pottery technology shows a particular development and continuity, which is related to the daily practices and subsistence of the Neolithic societies.

According to the summarised data above, pottery production in Upper Mesopotamia and Northern Levant started in the first centuries of the 7th millennium BCE. It was produced for approximately 500 years without significant technological and typological change. Plant-tempered pottery traditions emerged in the second half of the millennium and rapidly spread throughout SW Asia. Plant-tempered pottery differs from the mineral-tempered tradition of the previous period in terms of the choice of temper, paste colour, surface treatments, form, size, and, hence, the purpose of use (Le Mière & Picon, 1998). Plant-tempered pottery symbolizes increased production, the diversification of ware types, and the birth of regional traditions, so-called Pre-Halaf in Northern Levant, Proto-Hassuna in Upper Mesopotamia -especially Tigris Basin- and Zagros Group in Western Iran (Bader & Le Mière, 2013).

Pre-Halaf is characterized by convex bodies, collar necks, painted surfaces, and incised decorations (Le Mière 2013: 325-327). The Proto-Hassuna pottery includes various sizes of carinated (double-ogee form) and everted-rimmed red slips, paint, or appliqué-decorated vessels. This group was accepted as the predecessor of Hassuna and was named Proto-Hassuna (Merpert et al. 1978: 49). Proto-Hassuna primarily refers to plant-tempered pottery that appeared in the Tigris Basin. However, after Braidwood (1945) identified Hassuna Ia as an early Neolithic phase, Proto-Hassuna and its characteristic plant-tempered pottery were adopted by Soviet archaeologists to encompass the initial Neolithic culture as a whole (Bader, 1993a). Although an earlier Pottery Neolithic phase has been identified over the last few decades, Proto-Hassuna is still a proper term for describing the Neolithic cultures that emerged in the last quarter of the 7th millennium BCE.

Aurenche and Kozlowski (1999: 141) suggested that closed-form vessels were dominant in the Proto-Hassuna, and open forms were dominant in Pre-Halaf. Nevertheless, some researchers have argued that the morphological differences between the two traditions may be related to vessel function rather than culture (Nieuwenhuyse, 2013). Finally, Zagros Group pottery in western Iran is uniquely painted and plant-tempered. However, it shares some features with Neolithic pottery groups in Mesopotamia (Bader & Le Mière, 2013). Because few sites represent continuous layers, the relationship between mineral and plant-tempered traditions is not fully understood. At some Neolithic sites in the Khabur and Euphrates valleys, plant tempers were used in small quantities and combined with volcanic minerals, then gradually replaced by them (Le Mière, 2009).

The coarse, unburnished, buff-coloured Proto-Hassuna pottery was first found in the layers just above virgin soil at Tell Sotto, Kültepe (Bader, 1989), Yarim Tepe (Merpert & Munchaev, 1987), Telul et-Thalathat (Fukai & Matsutani, 1981), Tell Kashkashok (Furuyama, 1991) and Umm Dabaghiyah (Kirkbride, 1972) dating back to the second half / last quarter of the 7th millennium BCE. Subsequent research has revealed many Proto-Hassuna sites in the Tigris Basin and provided more comprehensive information on the general characteristics

of the culture (Figure 1). However, fewer studies have been conducted on this period in the Upper Tigris. All three sites[2] -Salat Cami Yanı, Kendale Hecala (Ökse, 2022), and Sumaki (Erim-Özdoğan, 2011)- in the region have continuous layers from the first half to the end of the millennium and generate valuable data regarding the Proto-Hassuna pottery. This study aims to show the general characteristics of plant-tempered pottery from Sumaki Höyük in the Upper Tigris Basin, determine its place within the Proto-Hassuna culture, and reveal possible regional or interregional differences and similarities.

The Neolithic Occupation of Sumaki Höyük

Sumaki Höyük is one of the earliest Pottery Neolithic sites in the Tigris Basin and situated northwest of the lower Garzan River, one of Tigris's longest tributaries. The Neolithic settlement is located on low terraces, and seasonal streams flow north and south of the site (Figure 2). The Kıradağı basalt flow composed of Upper Miocene claystone, sandstone, and conglomerates located south of the settlement currently extends over the Şelmo Formation. The Neolithic layers are just below the Medieval occupation. The Neolithic cultural deposit is approximately 1.90 m thick. It was opened to 2180 m^2 in the three sectors, making Sumaki an essential site for a better understanding of the beginning and development of pottery production during the Neolithic. The site's layers are divided into seven architectural phases (N7-N1).

From the earliest N7 to N3, significant changes have been observed in the settlement patterns and building types. The last two layers cover approximately 1204 m^2 in these phases. The buildings in Phase N2 were temporary, rectangular, and single-roomed. No pottery was found in any of the buildings. The hearths and fire pits were similar to those of the preceding phases. Phase N1 corresponds to the end of the Neolithic period in Sumaki. The architecture of N1 differs from the earlier layers in terms of using stones as construction materials. The large basalt ground stones from earlier phases were reused to construct rows of foundations. No fire pits were found in this phase, and the lower floors of the seven oval or round hearths were paved with stones (Erim-Özdoğan & Sarıaltun, 2018).

According to thirteen ^{14}C dates obtained from phases N7-N3, it is possible to date the Neolithic occupation of Sumaki from the beginning to the end of the 7th millennium BCE (Gündüzalp 2021, Table 3.1). A single ^{14}C date ascribes the earliest phase N7 to 7327-7036 cal. BCE. However, Phase N7 is more accurately dated to the first quarter of the 7th millennium BCE, according to statistical modelling of ^{14}C dates, given the plateau of the carbon curve. On the other hand, radiocarbon dates indicate that mineral-tempered pottery was produced for an extended period, approximately 750 years. Although no absolute dates

2 Although no extensive archaeological excavations have been carried out, recent surveys indicate that Proto-Hassuna pottery can be found at other sites in the Upper Tigris Basin (Kodaş, 2022).

have been obtained from phases N2 and N1 thus far, pottery assemblages and small finds suggest they belong to the last centuries of the 7th millennium BCE.

During the first half of the 7th millennium BCE (Phases N7-N3), only Early Mineral Tempered Pottery was produced in Sumaki. There is no significant change in the typology and technology of the mineral-tempered pottery during the N7-N4 phases. A few necked jars first appeared in Phase N3, which dated back to 6534-6368 cal. BCE. Similar forms were also present in the plant-tempered Proto-Hassuna group in Phases N2-N1. The mineral-tempered necked jars do not differ from the other mineral-tempered pottery in terms of temper choice and construction technique.

On the other hand, there are no plant-tempered sherds in Phase N3. Very few mineral-tempered potsherds (n=147) were found in phases N2-N1. They are typologically and technologically similar to the wares produced in the previous phases, but their walls are slightly thicker than earlier ones. However, no evidence exists of a direct relationship between mineral and plant-tempered vessel groups.

General Features of the Proto-Hassuna Pottery from Sumaki Höyük

The latest settlement layers of Sumaki Höyük contain vast quantities of Proto-Hassuna pottery. The paste components, temper choice, building, and firing techniques of the Proto-Hassuna pottery are considerably different from those of the initial mineral-tempered pots. The most remarkable change lies in the produced amount; in about 200 years, three times more plant-tempered pottery than mineral-tempered pots was produced in over 700 years. This study is based on 32,184 potsherds (11,051 sherds studied in detail) found in open spaces in the N2 and N1 phases. The Proto-Hassuna pottery is divided into two groups according to their typology, size, and pastes conditions: Plant Tempered Plain Ware (80.55% of the assemblage) consists of relatively large vessels with thick-walled and coarse paste. The red slip is associated with the Red Slipped Ware (19.45% of the assemblage) and applied mainly on the exterior surface. The Red Slipped Ware vessels are small, quite elaborate and have thin walls. Small carinated bowls, oval- and open-shaped pots, carinated jars, oval cooking wares, and trays are other typical forms in the assemblage. The carinated vessels and open forms are characteristic of Proto-Hassuna pottery, and the small numbers of knobbed decorations close to the vessels' mouths are remarkable.

Morphology

Although Proto-Hassuna pottery is divided into two groups, they share many similar features. Chemical analyses showed that the plant-tempered pottery of Sumaki was produced from calcareous clays containing various types of calcium and high amounts of Fe, Ni, and Ba. (Gündüzalp et al. forthcoming). A large number of sherds (weighing 639.75 kg), and the

fact that the large vessels in the assemblage were unsuitable for transportation all suggest that the plant-tempered pottery was produced locally.

Paste condition is nearly the same in the two ware types. Most of the sherds have a porous and sandy paste. Sand grains are present in 53% of the Proto-Hassuna pottery from Sumaki and are less than 0.5 mm in diameter. It is uncertain whether sand was deliberately added to the vessel paste. Lime and mica particles are also visible. The lime particles are generally larger than mica particles. The proportion of lime particles in both Plain and Red Slipped wares ranges between 4 and 6% (Gündüzalp, 2021).

The Proto-Hassuna pottery is mostly plant-tempered. Only a few sherds contain small amounts of basalt, lime, and grit in their paste. Plant tempers were never added to the Early Mineral Tempered Pottery; thus, it is impossible to discuss the gradual transition from mineral to plant tempers at Sumaki Höyük. The plants used for temper were initially chopped in various sizes. The proportion of plants is above 50% in most sherds, and traces of burnt plants can be seen on the inner and outer surfaces of the vessels because they were not burnished. The proportion of temper with diameters larger than 3 mm is higher in the Plain Ware sherds than in the Red Slipped sherds.

Nevertheless, the quantity of temper is similar between the two types, and ware size and wall thickness are related to the size of the temper. The most distinct difference between the groups is the more frequent use of grit temper in Plain Ware, which might have been selected to increase porosity and improve resistance to thermal stress (Gündüzalp, 2023).

The Proto-Hassuna pottery from Sumaki was shaped using multiple techniques, while the most applied technique was sequential slab construction (Vandiver, 1985). The bases and bodies of the vessels were shaped mainly by connecting slabs with similar dimensions. Coils were applied only to the upper part of the body. Moulds might have been used to support the bodies of vessels at wide angles (Gündüzalp, 2023). These results are consistent with previous studies on plant-tempered Neolithic pottery from Southwest Asia (Vandiver, 1985; Petrova, 2022).

Typology and Function

Sumaki Höyük plant-tempered pottery has typical characteristics of the Proto-Hassuna culture; however, some features are unique to the site. More than 70% of the Sumaki samples consist of broken body fragments. Diagnostic sherds (rim, neck, base, and carination) make up 21.77% of the assemblage, and the proportion of sherds for which the vessel form can be determined is 10.44%. Proto-Hassuna pottery is divided into four primary vessel forms; bowls, pots, jars and oval vessels/trays (Table 1).

Carinated and oval open-shaped bowls constitute 17.33% of the sample (Figure 3-4). The average rim diameter of the bowls is approximately 10 cm. The proportion of bowls in the Red Slipped group (36.09% of the sample) is almost three times higher than that of the Plain Ware (12.66%). In other words, bowls are more prevalent in the Red Slipped group. There are no traces on the surface of the bowls to determine their function. Considering their size, the bowls were unsuitable for transport, storage, or cooking and were probably used for food consumption. Currently, it is difficult to determine the exact shape of the base of the bowls, as sherds rarely have a complete profile. The bowls were produced from the same paste and probably had similar functions in both ware groups.

Almost all pots (10.83% of the assemblage), including rectangular vessels, belonged to the Plain Ware group. The Oval Pots are elliptical and slightly low-bellied, similar to modern cooking earthen wares (Figure 5). The base of these pots is nearly round, and the rim is asymmetrical. The rims are relatively flat and slightly inclined inwards on both vessels' sides. The approximate volume of the Oval Pots is between 6–9l. The identified rim fragments are usually more than 7cm long, and many have finger flutings on their inner or outer surfaces. The finger flutings may have been made while pressing and rubbing larger slabs or strips to make them fit more securely into the body. There are no traces on these vessels' interior and exterior surfaces to determine their function. However, their oval-contoured bases, bodies, and open-mouth shapes are suitable for cooking as suggest the shapes of modern cooking pots. Such forms as in the Oval Pots from Sumaki were not found in other Proto-Hassuna sites in Upper Mesopotamia. However, the elliptical vessels with a rounded rim, recorded at Umm Dabaghiyah (Kirkbride, 1972) and the Late Neolithic site of Aknashen/Armenia (Harutyunyan, 2014) have vague similarities to Sumaki's Oval Pots.

Furthermore, Rectangular Vessels are characterized by shallow, straight, or steeply angled base turns with sides rising at nearly vertical angles (Figure 6). Depending on their size, body height changes between 10 and 14cm. These vessels had relatively thick walls; the average wall thickness was 2.7 cm. All these samples were in the Plain Ware group. Considering all their characteristics, it can be assumed that these vessels were used for cooking. However, their angular shapes reduce thermal stress resistance. There is no soot trace on the outer surfaces due to direct contact with fire. Therefore, if Rectangular Vessels were used for cooking, it is possible that cooking was carried out in ovens. Similar vessel types were found at Tell Kashkashok II (Matsutani, 1991), Telul eth-Thalathat Levels XV and XVI (Hori, 1981), and Tell Sotto (Bader, 1993b). It has also been reported that some rims and base fragments indicating rectangular shapes were found in Salat Cami Yanı Phase 2 (Miyake, 2011).

A single Carinated Pot (Red Slipped) was identified at Sumaki (Figure 7). The pot's form is slightly open, and the rim diameter is 20cm. The wide-angled carination is on the center of the body. This type of pot was found at almost all PN sites in the Upper Tigris.

The jars were the most common vessel form (67.16% (n=775) of the identified sherds) in the Proto-Hassuna assemblage, whereas they belong to 68.07% (n=629) of the Plain Ware group and 63.48% (n=146) of the Red Slipped Ware. Four jar types, which were divided into subgroups, were identified. Narrow Rimmed Jars (two sub-types were identified – Figure 8) comprise 25.04% of the identified sherds. Their relatively thin walls (average wall thickness being 1,10 cm), dimensions, narrowed rims, and possibly carinated or low-bellied bodies indicated that these jars were used for liquid(?) or food storage.

Globular Jars (Figure 9) constitute 2.92% of the Plain Ware and 7.39% of the Red Slipped Ware. The exact dimensions of the vessels could not be determined. However, the convex and slightly closed-rim fragments indicated that these jars had globular bodies. The average wall thickness of these vessels is 1.06 cm, and the average rim diameter is ~20 cm. The function of the vessels is uncertain.

Necked Jars (Figure 10) were the most commonly produced vessels in the Proto-Hassuna sample (31.72% of the identified sherds). There are two necked (short and long-necked) jar types. These jars are relatively big, carinated or low-bellied vessels, suggesting they could have been used for storage instead of transportation. The average rim diameter of the necked jars is ~18 cm, and the wall thickness is 1.08 cm. Although short-necked jars are typical of plant-tempered pottery traditions in SW Asia, they first appeared in the mineral-tempered pottery group during Phase N3 in Sumaki, dating back to 6.476-6.206 cal BCE. These jars have the same features as mineral-tempered pottery except for their shape, indicating a possible relationship between them. Both necked jars are characteristic of Proto-Hassuna and Pre-Halaf pottery and were found at all PN sites in SW Asia in the late 7th mill. BCE.

Flat Rimmed Jars were only observed in the Plain Ware group (6.59% of the identified sherds). The upper part of the rim was flattened and, in some cases, widened to be slightly curved. The body of the vessels probably rises steeply; the average wall thickness is 1.4 cm, and the rim diameter is 19.45 cm. Flat Rimmed jars first appeared in the Early Mineral Tempered Pottery group in Phase N3, and these jars are similar in both groups (Figure 11).

Oval Vessels/Trays (Figure 12) are shallow and splayed vessels with a height between 9 and 14cm, width between 14 and 18cm, and length between 25 and 40cm. The oval vessels' shape is similar to the Husking Trays, the well-known form dating back to the beginning of the 6th millennium BCE. The internal surfaces of the Husking Trays were crossed by scored patterns. It has been suggested that the Husking Trays were used for cereal processing (Lloyd & Safar, 1945) or bread baking (de Contenson, 1992; Voigt, 1983). Sumaki's Oval Vessels are smaller than the standard Husking Trays. The inner surfaces of the Oval Vessels were not crossed or incised, and no other traces could determine their function. However, Oval Vessels

are unsuitable for storage and transportation. They were only found in the Plain Ware group, as in other cooking vessels, indicating that Oval Vessels were used for cooking.

It is uncertain whether the Oval Vessels from Sumaki are precursors of Husking Trays. The fact that oval shapes are primarily associated with Husking Trays makes it challenging to understand their place in the early PN. The first examples of oval-turned and tray-shaped vessels are known from stone vessels from the PPN levels of Ali Kosh (Ali Kosh Phase) in the Deh Luran Plain in the Central Zagros (Hole et al. 1969: 107-Fig. 42s). In the second half of the 7th mill. BCE, plant-tempered oval-shaped vessels were found at Akarçay Tepe Level 1 (Arimura et al. 2000), Salat Cami Yanı Level 3 (Miyake, 2011), Umm Dabaghiyah (Kirkbride, 1972), Yarim Tepe I Levels 12-7 (Merpert & Munchaev, 1987), Telul eth-Thalathat Levels XV-XVI (Hori, 1981), and Tell Kashkashok II (Maeda, 1991). However, oval and shallow potsherds were found in the Later Manifestation group from the PN phase of Jarmo (McAdams, 1983) and the Buff Ware group from Level R of Tepe Guran (Mortensen, 2014).

One of the essential differences between plant-tempered Proto-Hassuna pottery and Early Mineral Tempered Pottery was the disappearance of lugs. There are seven lugs in the Plant Tempered Plain Ware group from Sumaki (Figure 13). On the other hand, lugs were not a functional addition because the jars, which have been used for long- or short-term storage, did not need to be transported or moved frequently. The Coarsely Made Plant Tempered Ware group at Tell Sabi Abyad had lugs close to the rim (Akkermans et al. 2006). A small number of vertical perforated lugs were found in the plant and basalt-tempered pottery at Tell Seker al-Aheimar (Nishiaki &Le Mière, 2017, Fig. 5.9-3), Salat Cami Yanı Phase 2 (Miyake, 2007), and Telul eth-Thalathat II (Fukai & Matsutani, 1981). Moreover, there are few horizontal lugs in the Hassuna Ia phase at Tell Hassuna (Lloyd & Safar, 1945), the Coarse Pottery group at Tell Kashkashok II (Matsutani, 1991), and Umm Dabaghiyah (Kirkbride, 1972).

The appearance of carinated forms is vital for Proto-Hassuna pottery. Two hundred and twenty two carination fragments, categorized as narrow and wide based on the rotation angle, were found in Sumaki Höyük (Figure 14). Twenty five of them belonged to bowls and pots. The other carination fragments were larger and probably belonged to the necked jars. The carinas were mainly located near the middle of the vessel's body. At the other Proto-Hassuna sites, especially at Umm Dabaghiyah and Tell Sotto, carinated jars have relatively small bases, their body opening with a wide angle and narrowing through to the rim with sharply angled carination. These vessels were probably used to store or preserve various liquids or foods. Because of the sharp body turns, they were fixed to the ground or placed in a pit. The carination angles at Sumaki Höyük were softer and more oval. This difference may be related to the function or how they are used.

Decoration

Pottery decoration in various ways has become one of the defining features of pottery traditions within the Proto-Hassuna in SW Asia. In particular, paint decoration became widespread in the late 7th millennium BCE and became one of the defining features of Hassuna, Samarra, and Halaf cultures in the 6th millennium BCE (Bader & Le Mière, 2013). The painted decoration is not typical in Proto-Hassuna pottery and varies from site to site. Although appliqué decoration has been accepted as a significant feature of Proto-Hassuna pottery, it has rarely been applied (Nieuwenhuyse, 2013).

A red slip is usually applied to the entire surface of the vessel and does not contain any motifs. In some examples, it was applied to limited areas on the inner or outer surface of the wares (Figure 15). In addition, the red slipped vessels are smaller and thinner than the plain ones. From this point of view, red slip is also a paint decoration. In addition to the red-slipped wares, 39 potsherds of Sumaki Höyük Proto-Hassuna pottery yielded three types of decoration: knobbed, appliqué/relief, and painted.

Knobbed decoration added near the rim of the vessels constitutes 84.61% (n=33) of the decorated sherds. This type was found only on bowls and jars and was not added to cooking wares. Because the knobs were found only on the broken body and rim fragments, it is uncertain whether the vessels were decorated with a single figure or more than one. The knobbed decoration was applied to most Proto-Hassuna sites in SW Asia. There was mostly a single knob, but two or three knobs were laid side-by-side in some examples. A similar knobbed decoration with Sumaki was found at Tell Hassuna Ia (Lloyd & Safar, 1945), Umm Dabaghiyah (Kirkbride, 1972), Tell Sotto (Bader, 1989), Yarim Tepe I (Merpert & Munchaev, 1987), Telul eth-Thalathat II (Hori, 1981), Tell Kashkashok II (Matsutani, 1991), Salat Cami Yanı Phase 3 (Miyake, 2011), and Mezraa-Teleilat Phase IIB (Aytek, 2008).

A skeuomorphic relationship can be established between the knobbed decoration of the Proto-Hassuna and the Early Mineral Tempered Pottery lugs. It is challenging to talk about a continuous connection between the two. However, the EMTP was produced at Sumaki Höyük during the 7th millennium BCE, even in small numbers in the Proto-Hassuna phases. We can speak of a connection between the two pottery cultures that influenced each other to a certain extent in the late 7th millennium BCE. In this respect, it can be assumed that the knobbed decorations near the rim have a skeuomorphic relationship with the lugs in the EMK group (Figure 16).

Relief and appliqué decorations were found only in four body sherds in Sumaki. Although appliqué and relief decorations are uncommon in Proto-Hassuna culture, the number of decorated sherds at Sumaki Höyük is significantly lower than at other Proto-Hassuna sites. The relief decorations resemble splayed lugs (Figure 17). Appliqué decorations

in the form of crescents/horseshoes (Figure 18) were present at all Neolithic sites where knobbed decorations were found. In addition, there are also examples where the crescent/horseshoe motif is painted on the vessel surface at Umm Dabaghiyah (Kirgbride, 1972), Tell Sotto (Bader, 1989), Tell Kaskashok II (Matsutani, 1991: Pl. 65.32), and Tell Shimshara (Mortensen, 1970: Fig. 96a-b) in the last quarter of the 7th millennium BCE. The 'T' shaped appliqué decoration is one of the typical figures of Proto-Hassuna, and different versions are known from Proto-Hassuna sites in the Tigris Basin.

Although paint decoration is typical in Proto-Hassuna pottery culture, only two painted body fragments are in the Sumaki Höyük sample (Figure 19). Because the body fragments are tiny, the decoration motif could not be entirely determined. However, a geometrical pattern resembles a filled triangle with vertical and horizontal lines.

Conclusions

Pottery production began in SW Asia in the first centuries of the 7th millennium BCE. The initial pottery was mineral tempered, well-burnished, mostly hole mouth-shaped, and spread over a wide area from the Upper Tigris Basin to the Mersin region. It was produced without significant technological or typological changes until the middle of the millennium. Although it is possible to mention some local differences in the use of temper and vessel forms, especially at sites in the northern Levant, mineral-tempered pottery was similar at all sites in the regions mentioned above.

Plant-tempered pottery traditions appeared during the second half of the 7th millennium BCE. This pottery rapidly spread throughout SW Asia, symbolizing the emergence of different ware types and regional traditions. The Proto-Hassuna pottery group in the Tigris and Khabur valleys does not have hole-mouth-shaped or steep-rising-sided jars. In addition, lugs, a typical feature of initial mineral-tempered pottery, almost disappeared. The plant-tempered pottery yielded several bowls, pots, and jars, each produced for specific purposes, in contrast to multi-purposed mineral-tempered pottery. In this respect, although Proto-Hassuna pottery is traditionally referred to as 'coarse' at many sites, it is more advanced than Early Mineral Tempered Pottery.

Most of the Proto-Hassuna sites do not have preceding periods (initial PN) in their stratigraphy, and therefore their earliest occupation started with plant-tempered pottery. Sumaki Höyük, one of the sites which contain both Early Mineral Tempered Pottery and Proto-Hassuna, has the advantage of being widely excavated and having a large pottery assemblage, making it an important site for understanding the relationship between the two pottery cultures. Studies in the Khabur Valley suggest a gradual transition between mineral- and plant-tempered pottery manifested in temper choices (Le Mière, 2009). At Sumaki Höyük, however, there was no gradual transition between the two groups using

tempers. One remarkable fact from the settlement is that the production of mineral-tempered vessels continued during the Proto-Hassuna layers (N2 and N1). Although there are few mineral-tempered potsherds from Phase N2-N1, they are typologically and technologically indistinguishable from the wares produced in the earlier phases of Sumaki. In this context, it is noteworthy that while there was a technological transformation in Upper Mesopotamia in the second half of the 7th millennium BCE, especially in temper and construction techniques, mineral-tempered pottery continued to be produced using the same technique. This result shows that two different construction and bodily techniques could have been applied together and that construction techniques could have changed according to the raw materials used.

On the other hand, there were some typological changes in mineral-tempered pottery in the second half of the 7th millennium BCE in Sumaki. The appearance of Short Necked Jars indicates introducing features specific to plant-tempered pottery. Although there was no continuous transition between the two, the Flat Rimmed Jars seen in both pottery groups from Sumaki suggest that the two pottery groups influenced each other typologically.

Although the Proto-Hassuna culture represents a regional tradition, it is not homogenous (Bader, 1993a). In terms of pottery, Oval Pots, Rectangular Vessels, and rounded carinas from Sumaki, which are thought to have been produced for cooking purposes, show some forms specific to the settlement. These vessels do not have lugs or handles, and there is no evidence of contact with fire on their exterior surfaces. Therefore, it can be concluded that there has been a change in cooking techniques with the emergence of plant-tempered pottery. However, whether this change is unique to Sumaki or a general feature of the Upper Tigris region is unclear. Further studies of pottery from other sites in the area shall provide a better understanding of these regional and interregional relationships.

Peer-review: Externally peer-reviewed.
Conflict of Interest: The author has no conflict of interest to declare.
Grant Support: The author declared that this study has received no financial support.

References

Akkermans, P. M. M. G. (1988). The Soundings at Tell Damishliyya, In M. N. van Loon (Ed.), *Hammam et-Turkman I, Report on the University of Amsterdam's 1981-84 Excavations in Syria I*, (pp. 16-68). İstanbul: Nederlands Historisch-Archeologisch Instituut Te Istanbul.

Akkermans, P. M. M. G., Cappers, R., Cavallo, C., Nieuwenhuyse, O., Nilhamn, B. & Otte, I. R. (2006). Investigating the Early Pottery Neolithic of Northern Syria: New Evidence from Tell Sabi Abyad, *American Journal of Archaeology*, *110/1*, 123-156.

Arimura, M., Balkan-Atlı, N., Borell, F., Cruells, W., Duru, G., Erim-Özdoğan, A., Ibanez, J., Maeda, O., Miyake, Y., Molist, M. & Özbaşaran, M. (2000). A New Neolithic Settlement in the Urfa Region, 1999, *Anatolia Antiqua*, *VIII*, 227-255

Aurenche, O. & Kozlowski, S. K. (1999). *La Naissance du Néolithique au Proche-Orient*, Paris, Éditions Errance.

Aytek, Ö. (2008). *Mezraa-Teleilat Kazısı Bulguları Işığında Güneydoğu Anadolu ve Kuzey Suriye İlk Çanak Çömlekli Dönem Bitkisel Katkılı Çanak Çömlek Sorunu*, (Master Thesis), İstanbul, İstanbul Üniversitesi Prehistory Department.

Bader, N. O. (1989). *The Initial Farmers of Upper Mesopotamia*, (Russian) Moscow, Nauka.

Bader, N. O. (1993a). Summary of the Earliest Agriculturalists of Northern Mesopotamia, In N. Yoffee, J. J. Clark (Eds.), *Early Stages in the Evolution of Mesopotamian Civilization*, (pp. 63-71). Tucson-London, The University of Arizona Press.

Bader, N. O. (1993b). The Early Agricultural Settlement of Tell Sotto, In N. Yoffee, J. J. Clark (Eds.), *Early Stages in the Evolution of Mesopotamian Civilization*, (pp. 41-54). Tucson-London: The University of Arizona Press.

Bader, N. O. & Le Mière, M. (2013). From Pre-Pottery Neolithic to Pottery Neolithic in Sinjar, In O. P. Nieuwenhuyse, P. Bernbeck, P. M. M. G. Akkermans, J. Rogasch (Eds.), *Interpreting the Late Neolithic of Upper Mesopotamia*, (pp. 513-520). Brepols Publishers.

Balossi-Restelli, F. (2017). Yumuktepe Early Ceramic Production: Dark versus Light Coloured Wares and the Construction of Social Identity, In A. Tsuneki, O. Nieuwenhuyse, S. Campbell (Eds.), *The Emergence of Pottery in West Asia*, (pp. 83-96). Oxford & Philadelphia: Oxbow Books.

Braidwood, R. J. (1945). Prefatory Remarks, In S. Lloyd, F. Safar (Eds.) Tell Hassuna Excavations by the Iraq Government General of Antiquities in 1943 and 1944, *Journal of Near Eastern Studies*, *4*, 255-259.

Braidwood, R. J., Braidwood, L. S. (1960). *Excavations in the Plain of Antioch I: The Earlier Assemblages Phases A-J*, Chicago Illinois: The University of Chicago Press.

Close, A. E. (1995). Few and Far Between: Early Ceramics in North Africa, In W. K. Barnett, J. W. Hoopes (Ed.), *The Emergence of Pottery: Technology and Innovation in Ancient Societies*, (pp. 23-37). Washington and London: Smithsonian Institution Press.

Cruells, W., Faura, J. M. & Molist, M. (2017). Akarçay Tepe and Tell Halula in the Context of the Earliest Production of Ceramics in West Asia, In A. Tsuneki, O. Nieuwenhuyse, S. Campbell (Eds.), *The Emergence of Pottery in West Asia*, (pp. 27-42). Oxford & Philadelphia: Oxbow Books.

de Contenson, H. (1992). *Préhistoire de Ras Shamra, Ras Shamra-Ougarit VIII*, Paris, Éditions Recherche sur les Civilisations.

Erim-Özdoğan, A. (2011). Sumaki Höyük: A New Neolithic Settlement in the Upper Tigris Basin, In M. Özdoğan, N. Başgelen, P. Kuniholm (Eds.), *The Neolithic in Turkey: The Tigris Basin*, (pp. 19-60). İstanbul: Archaeology and Art Publications.

Erim-Özdoğan, A. & Sarıaltun, S. (2018). Sumaki Höyük Batman / Beşiri. In F. Baş (Ed.), *Batman Müzesi Ilısu Barajı HES Projesi Arkeolojik Kazıları*, (pp. 55-88). Batman: Fikirzen Ajans Reklamcılık.

Fukai, S. & Matsutani, T. (1981). *Telul eth-Thalathat: The Excavation of Tell II*, The Institute of Oriental Culture, The University of Tokyo, The Tokyo University Iraq-Iran Archaeological Expedition, Report 17.

Furuyama, M. (1991). The Survey-The Hassuna 1a Period Constructions, In T. Matsutani (Ed.), *Tell Kashkashok the Excavations at Tell No. II*, (pp. 4-17). Tokyo: the University of Tokyo Press.

Gündüzalp, S. (2021). *Sumaki Höyük Verileri Işığında Yukarı Mezopotamya'da Çanak Çömlek Kullanımının Başlangıcı ve Gelişimi*, (Ph.D. Dissertation), İstanbul: İstanbul University Prehistory Department.

Gündüzalp, S. (2023). The Techniques of Proto-Hassuna Pottery Production at Sumaki Höyük, *Turkish Journal of Archaeological Sciences*, in press.

Gündüzalp, S., Thirion-Merle, V. & Le Mière, M. forthcoming. *The chemical and mineralogical analyses of Sumaki Höyük Neolithic Pottery*

Harutyunyan, A. (2014). On Neolithic Pottery from the Settlement of Aknashen in the Ararat Valley, In B. Gasparyan, M. Arimura (Eds.), *Stone Age of Armenia, Monograph of the JSPS-Bilateral Joint Research Project*, Center for Cultural Resource, (pp. 191-204). Kanazawa Japan: Kanazawa University.

Hole, F., Flannery, K. V. & Neely, J. A. (1969). *Prehistory and Human Ecology of the Deh Luran Plain: An Early Village Sequence from Khuzistan, Iran*, Memoirs of the Museum of Anthropology I, Ann Arbor, University of Michigan.

Hori, A. (1991). Remaining Objects: 1 Pottery, *Telul eth-Thalathat: The Excavation of Tell II, The Institute of Oriental Culture*, The University of Tokyo, The Tokyo University Iraq-Iran Archaeological Expedition, Report 17, 35-39.

Kirkbride, D. (1972). Umm Dabaghiyah 1971: A Preliminary Report. An Early Ceramic Site in Marginal North Central Jazira, Iraq, *Iraq*, *34/1*, 3-15.

Kodaş, E. (2022). Yukarı Dicle Vadisi'nde Bulunan Sere Şippe Höyük Üzerine İlk Gözlemler (Dargeçit / Mardin / Türkiye), *Anadolu Araştırmaları*, *26*, 1-25. https://doi.org/10.26650/anar.2022.1074847

Kuzmin, Y. V. (2015). The Origins of Pottery in East Asia: Updated Analysis (The 2015 state-of-the-art), *Documenta Praehistorica*, *XLII*, 1-11. https://doi.org/10.4312/dp.42.1

Le Mière, M. (2009). Question of Temper and its Implications, In L. Astruc, A. Gaulon, L. Salanova (Eds.), *Méthodes d'approche des premières productions céramiques*, (pp. 73-80). Rahden/Westf. VML GmbH.

Le Mière, M. (2013). Uniformity and Diversity of Pottery in the Jezirah and the Northern Levant During the Early Pottery Neolithic, In O. P. Nieuwenhuyse, P. Bernbeck, P. M. M. G. Akkermans, J. Rogasch (Eds.), *Interpreting the Late Neolithic of Upper Mesopotamia*, (pp. 323-330). Brepols Publishers.

Le Mière, M. (2017). The Earliest Pottery of West Asia: Questions Concerning Causes and Consequences, In A. Tsuneki, O. Nieuwenhuyse, S. Campbell (Eds.), *The Emergence of Pottery in West Asia*, (pp. 9-16). Oxford & Philadelphia: Oxbow Books.

Le Mière, M. & Picon, M. (1998). Les débuts de la céramique au Proche-Orient, *Paléorient*, *24/2*, 5-26.

Lloyd, S. & Safar, F. (1945). Tell Hassuna Excavations by the Iraq Government General of Antiquities in 1943 and 1944, *Journal of Near Eastern Studies*, *4*, 255-289.

Maeda, A. (1991). Artifacts from Layers 3 and 4, In T. Matsutani (Ed.). *Tell Kashkashok: The Excavations at Tell No.II*, (pp. 19-40). Tokyo: the University of Tokyo Press.

Matsutani, T. (Ed.) (1991). *Tell Kashkashok: The Excavations at Tell No.II*, Tokyo, the University of Tokyo Press.

McAdams, R. (1983). The Jarmo Stone and Pottery Vessel Industries, In L. S. Braidwood, R. J. Braidwood, B. Howe, C. A. Reed, P. J. Watson (Eds.). *Prehistoric Archaeology Along the Zagros Flanks*, (pp. 209-232). Chicago: The University of Chicago Oriental Institute Publications 105.

Merpert, N. I. & Munchaev, R. (1987). The Earliest Levels at Yarim Tepe I and Yarim Tepe II in Northern Iraq, *Iraq*, *49*, 1-36.

Merpert, N. I., Munchaev, R. & Bader, N. O. (1978). Soviet Investigations in the Sinjar Plain 1975, *Summer 1978*, 27-71.

Miyake, Y. (2003). Pottery, In T. Iwasaki, A. Tsuneki (Eds.). *Archaeology of the Rouj Basin. A Regional Study of the Transition from Village to City in Northwest Syria. Vol. 1*, (pp. 119-141). Tsukuba: University of Tsukuba Press.

Miyake, Y. (2007). Salat Camii Yanı: Dicle Havzasında Bulunan Çanak Çömlekli Neolitik Döneme Ait Yeni Bir Yerleşme, In M. Özdoğan, N. Başgelen (Ed.), *Türkiye'de Neolitik Dönem*, (pp. 37-46). İstanbul: Arkeoloji ve Sanat Yayınları.

Miyake, Y. (2011). Salat Cami Yanı. A Pottery Neolithic Site in the Upper Tigris Basin, In M. Özdoğan, N. Başgelen, P. Kuniholm (Eds.), *The Neolithic In Turkey: The Tigris Basin*, (pp. 129 149). İstanbul: Archaeology and Art Publications.

Miyake, Y. (2016). Origins of Pottery as Technological Innovation in Southwest Asia, In Ü. Yalçın (Ed.), *Anatolian Metal VII*, (pp. 115-125). Bochum: Blömeke Druck SRS GmbH.

Mortensen, P. (2014). The Excavations at Tepe Guran, In P. Mortensen (Ed.). *Excavations at Tepe Guran – The Neolithic Period*, (pp. 13-88). Paris: Acta Iranica 55, Peeters-Leuven.

Mortensen, P. (1970). *Tell Shimshara: The Hassuna Period*, København, Munksgaard.

Nieuwenhuyse, O. P. (2013). The Proto-Hassuna Culture in the Khabur Headwaters: A Western Neighbour's View, In Y. Nishiaki, K. Kashima, M. Verhoeven (Eds.), *Neolithic Archaeology in the Khabur Valley, Upper Mesopotamia and Beyond, Studies in Early Near Eastern Production, Subsistence, and Environment*, (pp. 110-138). Berlin: ex oriente.

Nieuwenhuyse, O. P. (2017). The Initial Pottery Neolithic at Tell Sabi Abyad, Northern Syria, In A. Tsuneki, O. Nieuwenhuyse, S. Campbell (Eds.), *The Emergence of Pottery in West Asia*, (pp. 17-26). Oxford & Philadelphia: Oxbow Books.

Nishiaki, Y. & Le Mière, M. (2005). The Oldest Pottery Neolithic of Upper Mesopotamia: New Evidence from Tell Seker al-Aheimar, the Khabur, Northeast Syria, *Paléorient*, *31/2*, 55-68.

Nishiaki, Y. & Le Mière, M. (2017). The Oldest Neolithic Pottery from Tell Seker al-Aheimar, Upper Khabur, Northeastern Syria, In A. Tsuneki, O. Nieuwenhuyse, S. Campbell (Eds.), *The Emergence of Pottery in West Asia*, (pp. 43-54). Oxford & Philadelphia: Oxbow Books.

Ökse, T. A. (2022). New Data on the Late Neolithic Pottery from the Northern Upper Tigris Region: The Ambar Dam Reservoir, In R. Özbal, M. Erdalkıran, Y. Tonoike (Eds.), *Neolithic Pottery from the Near East: Production, Distribution and Use*, The International Workshop on Ceramics from the Late Neolithic Near East 7-9 March 2019 Antalya Proceedings, (pp. 307-321). İstanbul: Koç University Press.

Özdoğan, M. (2009). Earliest Use of Pottery in Anatolia, In D. Gheorghiu (Ed.), *Early Farmers Late Foragers and Ceramic Traditions*, (pp. 22-43). Cambridge Scholar Publishing.

Petrova, N. Y. (2022). Neolithic Pottery Technology of the Sinjar Valley, Northern Iraq (Proto-Hassuna and Archaic Hassuna Periods), In R. Özbal, M. Erdalkıran, Y. Tonoike (Eds.), *Neolithic Pottery from The Near East: Production, Distribution and Use,* The International Workshop on Ceramics from the Late Neolithic Near East 7-9 March 2019 Antalya Proceedings, (pp. 213-228). İstanbul: Koç University Press.

Tsuneki, A., Nieuwenhuyse, O. & Campbell, S. (Eds.) (2017). *The Emergence of Pottery in West Asia*, Oxford & Philadelphia, Oxbow Books.

Vandiver, P. B. (1985). *Sequential Slab Construction: A Near Eastern Pottery Production Technology, 8.000-3.000 B.C.*, (PhD. Dissertation). Massachusetts, Massachusetts Institute of Technology.

Voigt, M. M. (1983). *Hajji Firuz Tepe, Iran: The Neolithic Settlement*, The University Museum Monograph 50, University of Pennsylvania, Hanover Pennsylvania: The Sheridan Press.

Figures

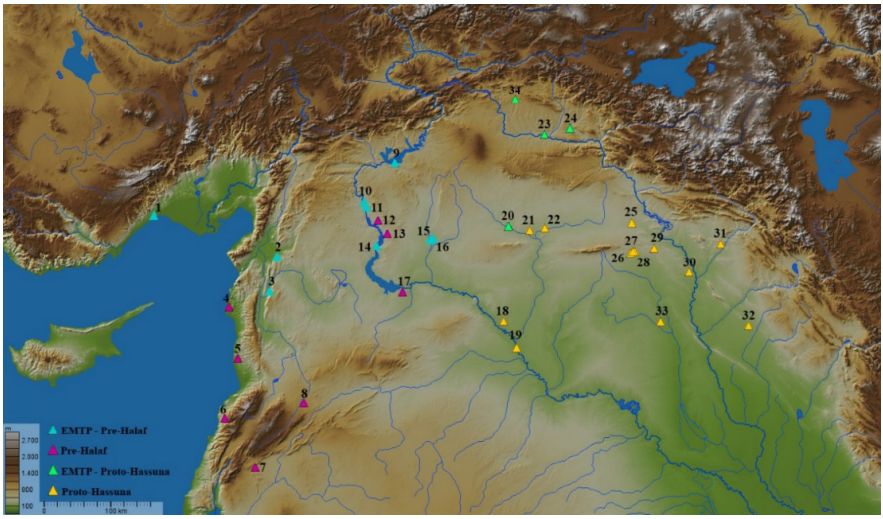

Figure 1: The map of Pottery Neolithic Sites: 1- Yumuktepe, 2- Judaidah, 3- Tell el-Kerkh, 4- Ras Shamra, 5- Tabbat al Hammam, 6- Byblos, 7- Tell Ramad, 8- Labweh, 9- Kumartepe, 10- Mezra-Teleliat, 11- Akarçay Tepe, 12- Dja'de, 13- Tell Kosak Shamali, 14- Tell Halula, 15- Tell Damishliyya, 16-Tell Sabi Abyad, 17- Abu Hureyra, 18- Tell es-Sinn, 19- Tell Bouqras, 20- Tell Seker al-Aheimar, 21- Tell Kashkashok, 22- Tell Hazna, 23- Salat Cami Yanı, 24- Sumaki Höyük, 25- Ginnig, 26- Kültepe, 27- Tell Sotto, 28- Yarım Tepe, 29-Telul eth-Thalathat, 30- Tell Hassuna, 31- Tell Nader, 32- Matarrah 33- Umm Dabaghiyah, 34- Kendale Hecala

Figure 2: Neolithic Settlement of Sumaki Höyük

Figure 3: Open-Shaped Bowls

Figure 4: Carinated Bowls

Figure 5: Oval Pots

Figure 6: Rectangular Vessels

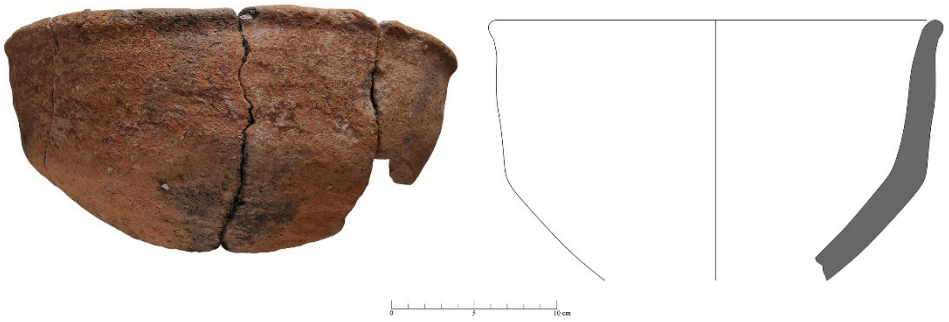

Figure 7: Carinated Pots

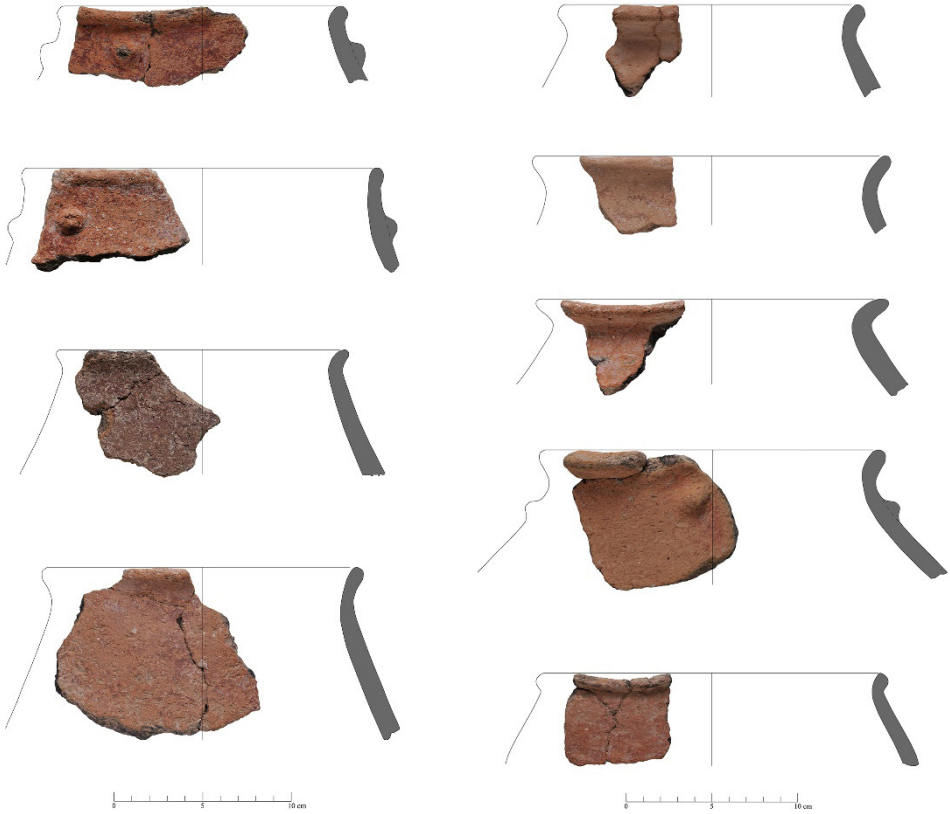

Figure 8: Narrow-Rimmed Jars

Figure 9: Globular Jars

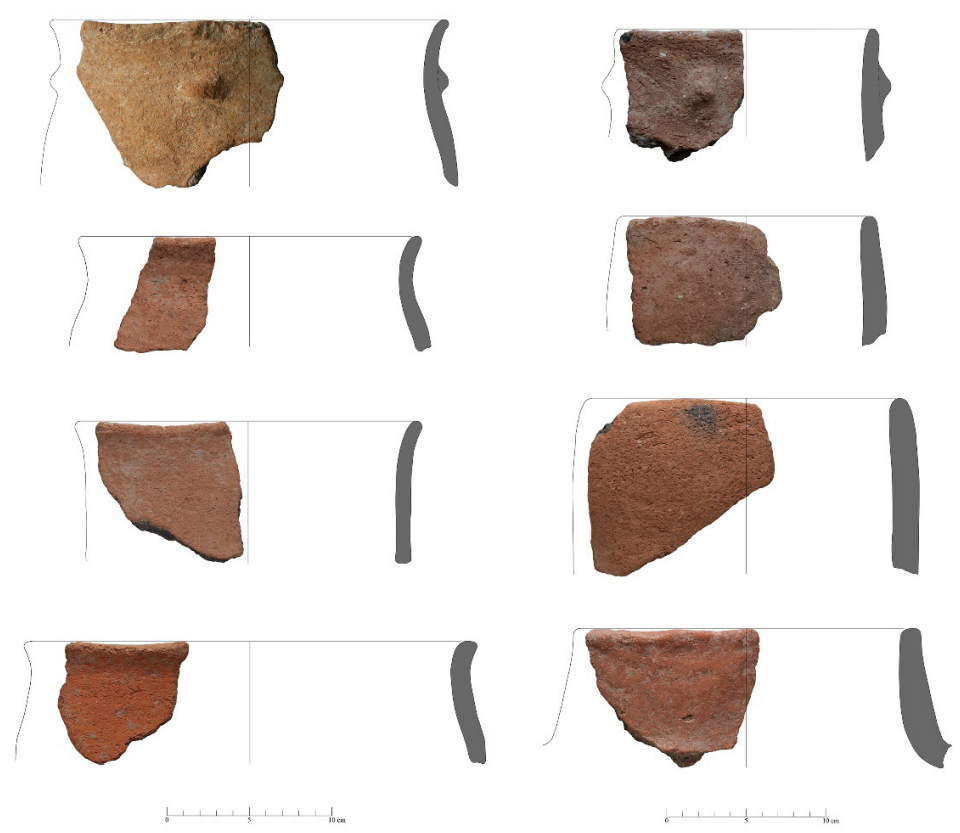

Figure 10: Necked Jars

Figure 11: Flat Rimmed Jars – Plant-tempered (right), Mineral-Tempered (Left)

Figure 12: Oval Vessels/Trays

Figure 13: Different Lug Types

Figure 14: Carinated Ware Fragments

Figure 15: Red-slipped sherd

Figure 16: a) EMTP Lugs from Phase 7, b) Proto-Hassuna Knobbed Decorations from Phase N2/N1

Figure 17: Relief Decoration

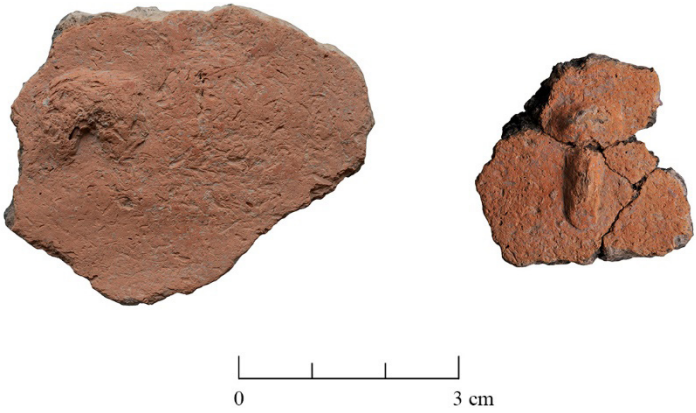

Figure 18: Applique Decorations

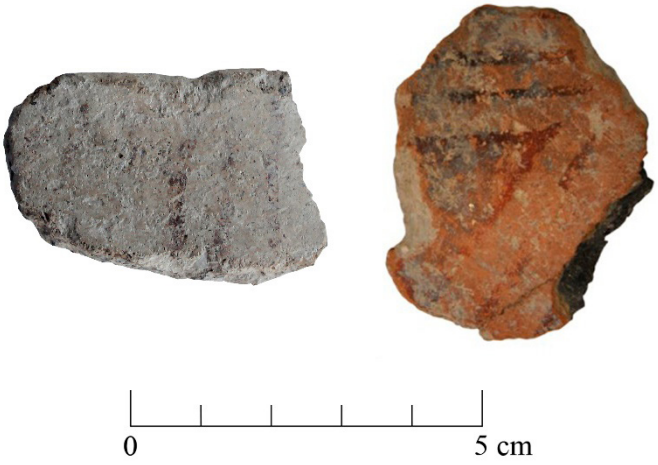

Figure 19: Painted Decorations

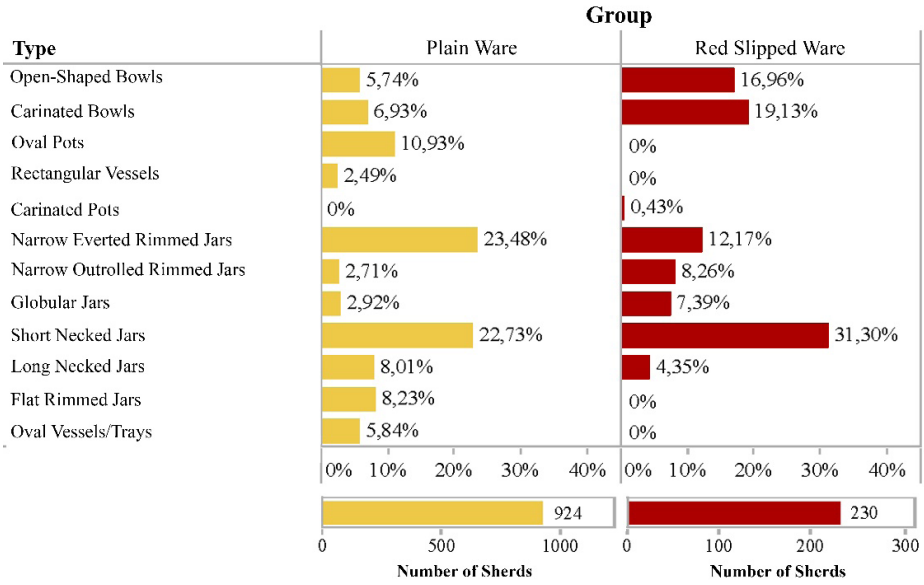

Table 1. Ware types of Proto-Hassuna Pottery

Anadolu Araştırmaları
Anatolian Research

İSTANBUL UNIVERSITY PRESS

AnAr, 28, 57–71
DOI: 10.26650/anar.2023.28.1263696 Research Article

New Insights on the Sealing Practices in Early Bronze Age Anatolia: A Case Study from Küllüoba, Eskişehir

Murat Türkteki[1]

[1]Bilecik Şeyh Edebali University, Faculty of Humanities and Social Sciences, Department of Archeology Bilecik, Turkiye

ORCID ID: M.T. 0000-0001-5584-3572

Corresponding author:
Murat Türkteki,
Bilecik Şeyh Edebali University, Faculty of Humanities and Social Sciences, Department of Archeology Bilecik, Turkiye
E-mail: muratturkteki@gmail.com

Submitted: 11.03.2023
Revision Requested: 08.04.2023
Last Revision Received: 15.04.2023
Accepted: 15.04.2023

Citation: Turkteki, M. (2023). New insights on the sealing practices in early bronze age Anatolia: A case study from Küllüoba, Eskişehir. *Anadolu Araştırmaları-Anatolian Research, 28*, 57–71. https://doi.org/10.26650/anar.2023.28.1263696

ABSTRACT
This paper presents a detailed examination of a cretula found in situ during the excavations at Küllüoba, situated in the westernmost part of Central Anatolia. A series of at least three sealings were impressed side by side on this piece of clay that covered the mouth of a bottle or a narrow-necked jar. The same seal, which created these sealings at the rim of the vessel, was also used to roll impressions on the bottom part of the cretula. The find, which is a first in Küllüoba, where excavations have been carried out for many years, is compared with the few examples found in Anatolia. Their similarities and differences are discussed in this paper. Although various types of stamp seals unique to Anatolia have been unearthed in many settlements where the Early Bronze Age (EBA) is well represented, the functions of sealings are scarce. The abovementioned cretula found in Küllüoba will play a part in re-examining the function of stamp seals that have no associated sealings discovered so far and in understanding the mechanisms of commerce and economics emerging in Anatolia during the Early Bronze Age.
Keywords: Early Bronze Age, Cretula, Sealing, Küllüoba

Introduction

The 3rd millennium BCE was a time of transformation that provides significant data on Anatolia's complex social structure and organized relationship networks. At this point in time, planned city settlements, defensive systems, impressive structures and finds, as well as class changes, are observed. The groundwork of the commercial order and the state system begins to appear but actually emerges in the next millennium as it is well known from the Assyrian trade colonies period and the Hittite Empire. Seals are associated with the emergence of control mechanisms in Southwest Asia. The earliest sealings in this context belong to the Halafian Culture, which stands out with its unique architecture and pottery traditions that spread widely, especially in Northern Mesopotamia. The earliest seal examples, roughly dated from 6300 BCE to the beginning of the Halafian period (Late Neolithic), were found at the settlement of Tell Sabi Abyad in Northern Syria (Duistermaat, 1996). Many seals and sealings were recovered from a burnt storage unit in the settlement. In this area, the sealings found were mostly impressed on vessels, basketry and pottery rather than doors (Duistermaat, 1996; Akkermans and Duistermaat, 1996).

Seals are chief indicators showing whether the stored goods were protected against theft and served as marks of a person's or group's ownership of their products. They are defined as objects made of stone, faience, bone, metal, glass, or wood and have surfaces carved with designs (Collon, 1990).

Stamp seals began to be used in Anatolia during the Neolithic period, particularly considering examples from Çatalhöyük (Türkcan, 2006) (7th millennium BCE). They continued to be employed throughout the ages, but their forms and intended purposes changed. Various researchers have suggested that in addition to serving as a control mechanism, seals may have also functioned as amulets, textile stamps, or objects bearing preliterate symbols (Atakuman, 2015; Çilingiroglu, 2009; Türkcan, 2006; Umurtak, 2009). Seals' use as a part of a control mechanism associated with production and consumption occurred during the Early Bronze Age (EBA) (Massa and Tuna, 2019).

A cretula can be defined both as a guarantee of the security of the sealed goods and as a document proving that an administrative procedure has been carried out. Cretulae, which were kept for recording purposes, were placed in temporary storage areas, also known as silos, and usually in large quantities after being removed from the containers in which they were sealed. This happened as a result of the recording and counting process (Fiandra & Frangipane, 2007).

The cretula is applied to protect the goods carried in the containers and to prove whether there was any tampering with the goods before they arrived at the destination. Containers

secured with cretulae may have been moved within the same settlement, from one warehouse or artisan workshop to another, or even from one sector to another within the same building, such as a public building. If the transported goods were sealed, the identification documents may not have functioned as administrative documents, as they were not required to form part of the registration and accounting system for the internal management of the goods (Fiandra & Frangipane, 2007).

Cretulae attached to a peg with string wrapped around the peg are generally identified as door sealings. A room or door sealing prevents unauthorised access or allows it to be detected, by documenting the identity of people accessing a certain area, unlike container sealing. According to the identification based on Arslantepe cretula samples, at least two types of door sealings have been identified (Fiandra & Frangipane, 2007).

In this study, the cretula discovered in the burnt section of a structure in Grid AG 22 located in the south-eastern part of the mound called the lower town, dated to the EBA II, was discovered during the 2021 season of the Küllüoba excavations. Excavations at Küllüoba have been ongoing since 1996 in the Seyitgazi District of Eskişehir. The socioeconomic structure and use of seals during this period will be evaluated based on this find. Although seals have served various purposes in Anatolia since the Neolithic period, they are now considered to be a part of the economic system since the beginning of the EBA. This study aims to examine in detail one of the few identifiable examples of at least some stamps being used for real sealing purposes. In this context, the seal is discussed in terms of being earlier than later examples known in the context of relations between distant regions and showing that some control mechanisms may have been active since the EBA II.

Küllüoba

The Küllüoba settlement is situated to the west of the Upper Sakarya basin, on a natural route that extends from the north to the south of Central Anatolia, and on a main route that connects the region to the Inner Aegean and Marmara regions (Figure 1).

According to recent research, the settlement has a long sequence of stratigraphy in which all three phases of the EBA are represented (Türkteki et al., 2021) and more specifically have demonstrated that the mound was inhabited from 3200 to 1950 BCE. During the Küllüoba excavations, a circular layout of approximately 50 m in diameter with adjoining houses all opening onto a central courtyard, dating to the beginning of the EBA, was revealed (Efe, 2003; Efe and Ay-Efe, 2007; Efe and Türkteki, 2011) (Figure 2). During the EBA II, there was an upper town with adjoining trapezoidal megarons and monumental public structures surrounded by a fortification wall. The upper town stands out in the settlement that spreads across a wide area in harmony with the topography of the mound (Efe and Fidan, 2008). During this period, a lower town generally consisting of relatively simple rectangular

structures, with single rooms appears (Figure 2). Due to a fire in this section of the site, it is better preserved and it enables the finds to be easily identified in terms of context (Efe, 2009). The cretula, the subject of this paper, was also discovered in the abovementioned lower town (Figure 3).

The total number of stamps and seals recovered to date from Küllüoba is relatively low (S. Ü. Türkteki, 2020). The most plausible reason for this is an insufficient amount of the structures' interior contexts have been excavated. In recent excavations of the cemetery area, two seals were discovered that were used as amulets (Türkteki, n.d.).

The Cretula

Made from a 4.5 cm x 2.6 cm piece of clay, the cretula (Figure 4) probably rested on the cover of a narrow-necked jar or the shoulder of a bottle (Figure 4D, Figure 5D, Figure 6). During previous excavation seasons at Küllüoba, bottle-shaped vessels from the EBA II were unearthed (Efe, 2014). Since the area in which the cretula was found suffered a fire, two-thirds of the cretula survives today. The same seal made three impressions on the piece of clay (Figure 4A). Of the three impressions, two are intact (Figure 5A2-A3), while the third is partially preserved (Figure 5A1) because it is situated on the side of the cretula. Above the three impressions are additional thin groove-like impressions that were made by rolling the same seal horizontally (Figure 4B, Figure 5E, 5B). The other impressions were either carved on the sides or made by a cylinder stamp. Considering that the impressed surface is very small, approximately 1.1 cm in diameter and the stamping surfaces of stamp seals are comparably larger, it is more likely that the seal used here is a cylinder-stamp seal. An example of a stamp-cylinder seal that creates similar negatives is from Troy (Schliemann, 1881, no 499-500) and the EBA layers of Zincirli (Luschan, 1943:Taf.39/e). It is thought that the stamp-cylinder seals originated in the northern Levant and spread from there. Few examples were found in Troy and the Aegean (Aruz, 2008)(Massa, 2016). Accordingly, the example in Küllüoba may indicate connections with the region in question.

When the negative of the seal on the cretula is examined, the presence of a plus or cross-shaped motif inside a circle is observed at the centre of the area that measures 1.1 cm. The outer edge of the seal is decorated all around with indentations, leaving deep grooves when impressed. At least two rows of small squares in a straight line were created by rotating the outer edge of the seal on its horizontal axis (Figure 4B, Figure 5E, 5B). Such application is also seen in an example from Demircihüyük (Baykal-Seeher and Obladen-Kauder, 1996, 286, fig.136.5). By applying these designs, the clay composing this section of the cretula was thinned, making it more susceptible to breaks while opening the vessel. As observed here, the cretula in question broke in this section for this reason. The sharp edges on the stamping surface indicate the seal was made of metal or stone. Although very few metal seals are

known from contemporary sites in and around Anatolia (Oğuzhanoğlu, 2019; Pullen, 1994; Umurtak, 2002), no cylinder stamp made from metal has been found so far. For this reason, it is not possible for the seal of the cretula to be metal.

On the other side of the cretula is a negative mark indicating it was probably placed on top of a rope (Figure 4C). As identified in Arslantepe, the cretulae all bear a seal impression on the obverse, while the reverse bears the impression of the part of the sealed object in physical contact with the clay (Fiandra & Frangipane, 2007). Additionally, some irregular marks suggest the clay was roughly worked (Figure 5C, 5F, 5G). These negatives also show the process during the sealing process which was described in detail by Fiandra & Frangipane: "*The closures of vases, sacks, and doors using pegs, were always performed by winding string, rope or ribbon around them, but never knotting precisely to make them easier to open again. The openings of vases, when they had not been covered with the straw or wicker lid, were covered with a piece of leather or cloth of various types. These coverings were held in place by ligaments wound but not tied around the neck. The ends of the ties were crossed or simply placed together and kept in place by the cretula*" (Fiandra & Frangipane, 2007).

As observed from the surface of the cretula, the stamping area is considerably small. Many seal examples bear "plus" or "cross" motifs. A close example of the plus or cross motif inside of a circle is also seen on a stamp seal found in Bademağacı. However, the motif does not conform to the general composition of the Bademağacı stamp seal (Umurtak, 2009, fig:6). Another cretula was found in Karataş-Semayük (Mellink, 1972, fig.5). The same motif is observed on a spindle whorl also found in Karataş-Semayük (Mellink, 1967, fig.57).

Context and Dating

Just south of the southeast entrance that served as the subsidiary gates of the EBA II upper town of Küllüoba, adjoining structures with their backs to the fortification wall were discovered in the southeast section of the settlement, (Efe and Türkteki, 2011; Türkteki et al., 2021). All five structures found here suffered a fire. Inside these single-room structures, architectural elements, such as hearths or ovens, grinding stones and a significant number of pottery pieces employed in daily activities were unearthed *in situ*. Unlike other buildings, the structure located among Grid AF-AG 22 has a large silo divided into two and a L-shaped corridor. Situated against the structure's western wall, this silo is divided into two by a mudbrick wall in the middle. The northern area measures 1.2 m x 2.3 m in width and length, respectively, and 1.15 m in depth, while the southern part measures 2.2 m x 2.4 m in width and 1.25 m in depth. The flat stones on the floor of both silos must have been used to fix wooden covers with the help of poles. Within these silos, period-specific pottery, such as beak-spouted pitchers and Demircihüyük bottles were found. The larger silo has a capacity of 6.6 m^3, while the smaller one has a capacity of 3.17 m^3. On the floor level of the structure,

comparably larger earthenware jars were discovered. In the next building phase, a wall was built to completely block the entrance to this corridor.

A silo or storage area was found in the northeast corner of the abovementioned L-shaped corridor. It was dug into the room's floor and completely plastered, with only a small opening left at the mouth. In the southeast corner of this structure with a south-facing entrance, a small vacant space of 1 m x 70 cm was formed by two flat stones facing each other. The sides of this small space were plastered and bear traces of a fierce fire. The cretula, the subject of this paper, was found in this space at a level of 929.46 m. In addition to the cretula found in this space, according to the botanical analysis, 11 grain fragments of wheat/barley (*Triticum/ Hordeum*) were also recovered. These 11 fragments of wheat/barely constitute the cereal group with the highest number of grains. As for pulses, only 2 lentil (*Lens culinaris*) seeds were found. Wild plants are very rare; only 5 wild wheat (*Poaceae*) seeds and 1 cleaver (*Galium*) seed were found.

When considered in its entirety, the structure, with its various types and sizes of silos, must have served as storage for the structures situated to its east or west. The small area where the cretula was found in the structure could also be considered a space where various products were stored in small vessels.

The pottery found in and around the deposit, where the cretula was found, and the radiocarbon results obtained from the structure's floor in the east played a significant role in dating the cretula. An animal bone, no. 373/1, was discovered in an oven at a level of 929.42m just east of the area where the cretula was found and was sampled for radiocarbon dating. The results yielded the uncalibrated date of 4085+/-26, and 1 sigma calibrated date range of 2699-2568 BCE. The median calibrated age obtained from the abovementioned radiocarbon test is 2627 BCE. Thus, the analysis suggests that the cretula is dated to the IVC-IVD layers, in other words, the middle of the EBA II period of Küllüoba.

Sealings from the Anatolian Peninsula

Although stamping was an old tradition practiced in Anatolia for ages, the practice of using stamps as tools of administration began in Mesopotamia and spread to Anatolia. This practice began in the Halafian period but was popularised during the Late Uruk period. It reached Anatolia via the Upper Euphrates and Cilicia, as shown by the Arslantepe sealings (Pitman, H., Frangipane, 2007) and the Tarsus seals and sealings (Goldman, 1956) (Palumbi, 2010). Although many excavations in the western part of the Anatolian peninsula have investigated the EBA, so far very few sealings have been found. Undoubtedly, the key reason for this is that without exposure to heat, the sealings cannot be preserved to survive to the present day. However, most excavations investigating the EBA in Anatolia were completed before modern archaeological techniques and soil screening was not done carefully. Yet,

the EBA-focused projects at Kültepe in recent years (Kulakoğlu and Öztürk, 2015; Öztürk, 2019) and the examples discovered during the Resuloğlu excavations (Ünar, 2020) indicate that this artefact type might not be scarce at all (Massa and Tuna, 2019).

Particularly, the examples found in the palace complex at Arslantepe are highly informative regarding the usage of sealings. Various types of sealings were used for sealing doors, sacks and baskets as well as registry tools were found in this complex (Fiandra and Frangipane, 2007). Unlike the sealings from Arslantepe that date to the end of the 4th millennium BCE, the earliest examples from the Anatolian peninsula include sealings from Alacahöyük, (Koşay, 1951:pl.108), Alişar (von der Osten, 1937:fig. 87), Demircihüyük (Baykal-Seeher and Obladen-Kauder, 1996:fig.136.5), and an example inside a multi-roomed structure at Bademağacı (G. Umurtak, 2010) dated to the beginning of the EBA II. All of these examples date to the beginning of the EBA II. A parallel example of these sealings is also known from Lemnos (Cultraro and Dova, 2004). Among these, the Demircihüyük example, due to the marks it bears from a stamp-cylinder seal, can be considered one of the earliest examples of commerce between distant regions (Baykal Seeher and Obladen Kauder, 1996). The closest parallel for the Küllüoba cretula is the Demircihüyük cretula. The Demircihüyük cretula has the same decorations on the "stamp" side and the "cylinder" side, and it is attached to a bulla, which is clearly not local to central Anatolia but likely comes from Upper Mesopotamia/ northern Levant. So, both Küllüoba and Demircihüyük, two sites very close to each other and contemporary, would have received containers sealed with cretulae originating from Syria, approximately at the same time.

Other examples are mostly dated to the end of the 3rd millennium BCE. These include examples from Resuloğlu (Ünar, 2020), Kültepe (Kulakoğlu and Öztürk, 2015; Öztürk, 2019), Kilisetepe (Collon, 2007), and examples out of context from Troy (Schmidt, 1902) and Boz Höyük (Massa and Tuna, 2019). The Resuloğlu examples (Ünar, 2020) are similar in terms of context to the Küllüoba example because they are also associated with silos and storage areas. In recent years, the examples found in layers 12 and 11b of Kültepe were classified as stoppers and labels (Öztürk, 2019). They are significant because they provide evidence of contact with distant regions and are associated with monumental/administrative structures.

Socio-Economic Structure and the Use of Seals in the Early Bronze Age

Compared to the surrounding regions, the Anatolian peninsula was forced to create a different economic model due to its narrow plains divided by mountains and limited irrigation systems. As a natural result of the geographical conditions, from the Neolithic period until the end of the 4th millennium BCE, low-input agricultural production was practised in the Anatolian peninsula. However, at the beginning of the 3rd millennium BCE, possibly due

to the movement of people into Anatolia, there was rapid population growth and change in land-use strategies (Özdoğan, 2022) (Maltas et al. 2022). At the same time, there was also a significant increase in the number of settlements. From the beginning of the period, defensive systems, monumental public buildings, and centres with economic and political control on a regional scale began to appear. Settlements, such as in Poliochni (Bernabò Brea, 1976), Troy (Blegen et al., 1950), Limantepe (Erkanal and Şahoğlu, 2016), and Hacılar Büyük Höyük (G. Umurtak and Duru, 2014), demonstrate that these centres had strong defensive systems and grand monumental architecture since the beginning of the EBA. When social complexity emerged in the early stages of this period, the economies of these centres still primarily depended on agricultural production. From narrow plains to wide plateaus, these geographically bounded areas constitute the political and cultural areas of the EBA communities (Sarı, 2011, 2012) (Efe, 2004). Therefore, organising the storage and security of the agricultural products grown within the area of their jurisdiction was done at these centres (Bachhuber, 2015). Despite the differences in settlement sizes and characteristics, all EBA I and II settlements had storage spaces associated with intense agricultural activities. The discovery of the central storage areas in Poliochni (Bernabò Brea, 1976; Kouka, 2002) and Demircihüyük (Korfmann, 1983) and the discovery of the structures with large storage areas in the settlements of Küllüoba (Efe and Fidan, 2008), Resuloğlu (Ünar, 2020) and Bademağacı (Umurtak, 2009) demonstrate the economic importance of agricultural products in most of the settlements during the EBA I and II. During this period, textile production became an industry (Özdoğan, 2022). However, it originally began as part of the Secondary Products Revolution (Sherratt, 1981) and continued intensively since the 4thmillennium BCE (Arbuckle, 2012). According to the zooarchaeological analyses that were completed at Küllüoba and Demircihüyük, sheep wool was preferred over sheep hair for wool production from the second half of the EBA onwards (Gündem, 2012) (Rauh, 1981). Although very few structures so far have been distinctly identified as workshops in EBA settlements, it would not be accurate to interpret all structures as houses (Bachhuber, 2015). For instance, all the structures in Demircihüyük are believed to have the same interior architectural layout (Korfmann, 1983). Although loom weights and the other products associated with textile production were found inside the structures indicating that production took place mainly in domestic homes, since no benches or platforms were found inside, it is suggested that these structures served as living spaces. However, excavations at Seyitömer Höyük demonstrated some spaces were used for pottery production and some as workshops for textile production (N. Ünan and Ünan, 2022). Therefore, it can be deduced, from the middle of the EBA onwards, that workshops for some crafts began to separate from domestic spaces.

In the middle of the 4th millennium BCE, it is thought that mining developed in the Anatolian peninsula CE and gradually became a systematic industry (Yener, 2021). As a result of this industry's development alongside social hierarchy, settlement plans changed

(Dedeoğlu, 2014). Mining settlements (Yener, 2021), (Yalçın et al., 2015), castles and agricultural centres located on plains also point to a specific settlement hierarchy. In the first half of the 3rd millennium BCE, interregional connections with distant regions, although limited, began. These initial connections can be seen between the Levant and the Aegean coastal region (Massa and Palmisano, 2018).

Parallel with all these socioeconomic developments, under the influence of Mesopotamia, the practice of sealing extended its traditional uses to the securing of products. At the end of the 3rd millennium BCE, the "elite class," which is the leading force behind these changes, emerged (Kouka, 2009; Massa and Fidan, 2017; Zimmermann, 2009, 2016). At this stage, organised trade relations based on exchanging raw materials, primarily metals, between distant regions were established (Efe, 2020; Massa and Palmisano, 2018; Şahoğlu, 2005). The seals provided both the control of the products sent to different regions and the registration of the shipment of these products. Thus, it also helped to keep the accounting of these products (Frangipane, 2012). In this context, a control mechanism was established in which seals were used before written records in tablet form due to the new economic and administrative structure.

Stamps, which date back to the Neolithic period in the Anatolian peninsula, also remained in use in the EBA. While many examples of stamp seals have been discovered so far, very few sealings that these stamp seals created have been found (Massa and Tuna, 2019). Pluses, crosses and nested chevrons are the most common motifs on stamp seals (Dede, 2014). Lattice, lozenge and spiral motifs are also observed. Problematically, the motifs on the discovered stamp seals do not match those on the sealings. Based on this, some researchers suggest that most objects considered to be seals, especially those with complex motifs, could actually have been used for decorative purposes (Massa and Tuna, 2019) (Rahmstorf, 2016). However, especially the seals and sealings recovered from Kültepe prove that many stamp seals, even those bearing complex motifs, were impressed on clay sealings (Kulakoğlu and Öztürk, 2015; Öztürk, 2019). The sealings found in Kültepe are clear evidence that the stamps whose sealings could not be found in many contemporary settlements were also used as seals. According to some researchers, these motifs could be symbols that had common meanings for preliterate societies (G. Umurtak, 2013).

Although there have been few examples unearthed from the Anatolian peninsula, all of this data and the sealing examples should be considered as strong evidence that stamp seals were used for security purposes since the beginning of the 3rd millennium BCE. In this context, the Küllüoba example is clear evidence. During the excavations, no such cretula has been discovered in any pithoi or large storage area (Efe and Fidan, 2008), such as complex I and complex II dated to EBA II. On the other hand, some data shows that special products were kept inside some structures, which later suffered a fire in the lower town of smaller,

single-room structures (Çizer, 2015). Some data on a pot of *erysimum crassipes* seeds, which is possibly a product for medical use, found inside a burnt structure next to the one where the cretula was discovered, was published in previous years (Çizer, 2012). In this context, it is likely that besides the ones stored in large vessels, various other products, perhaps as seeds saved for planting, were stored in smaller containers inside the abovementioned structures. It is possible that stamping was used only on such special products. The same argument was also made for the sealings recovered from the storage areas in Resuloğlu (Ünar, 2020).

Conclusions

Contrary to its surrounding regions, the small number of available examples of cretulae suggests that the use of seals was less common in Anatolia (Massa and Tuna, 2019). Since geochemical analysis of the clay used in Küllüoba has not yet been done, it is not possible to say whether the piece of clay used in making the cretula was locally or non-locally sourced. Accordingly, it is probable that the product kept inside the vessel was of high economic value and the cretula was used to ensure that the product inside was secure during its transport. Based on the negatives on the cretula, a cylinder-stamp seal must have made the impressions. The origins of stamp cylinders are from the northern Levant. This early example of a cretula found in Küllüoba points to the sealing practices in Anatolia which, as a result, emerged under Levantine influence.

When the EBA examples recovered from the Anatolian peninsula are considered, the sealings from Arslantepe stand out because they point to the practice of sealing doors and large vessels, unlike the other examples from Anatolia. Considering the other unearthed examples, all sealings must have been used on small vessels, mostly bottles or jars. Therefore, it is possible that the products inside these vessels differed from the other daily consumed agricultural products and comparably had a higher economic value (such as a different kind of seed, etc.).

There is also no data indicating that the sealings discovered in the Anatolian EBA were recorded and archived. The reason behind this is the differing economic structures between Mesopotamia, the Levant, and Anatolia (Özdoğan, 2011; Wengrow, 2011, Frangipane, 2010). In central and western Anatolia, luxury goods and metals, which also symbolise power, became more prominent among political and economic choices during the emergence of the elite. The survival of this elite class depends on the trade of raw metal and the protection of the routes where this trade takes place (Efe, 2002). However, the management of the basic staple economy seems to be given less importance by this ruling elite (Frangipane, 2012).

Peer-review: Externally peer-reviewed.
Conflict of Interest: The author has no conflict of interest to declare.
Grant Support: The author is grateful to Bilecik Şeyh Edebali University Research Foundation for supporting Küllüoba Excavation project no 2019-–01.BŞEÜ.04—03 and 2018-01.BŞEÜ.04-06.
Acknowledgement: Thanks to the reviewers for their constructive comments. Special thanks to Ashley Cercone for proofreading the text.

References

Akkermans, P. M. M. G., and K. Duistermaat. 1996. "Of Storage and Nomads. The Sealings from Late Neolithic, Sabi Abyad, Syria." *Paléorient* 22(2):17–44.

Arbuckle, Benjamin S. 2012. "The_rise_of_cattle_cultures_in_Bronze_Ag." 277–97.

Aruz, J. 2008. Marks of Distinction: Seals and Cultural Exchange Between the Aegean and the Orient (Ca. 2600-1360 B.C.). In *Corpus der Minoischen und Mykenischen Siegeln* (Issue 7). von Zabern.

Atakuman, Ç. 2015. "From Monuments to Miniatures: Emergence of Stamps AndRelated Image-Bearing Objects during the Neolithic." *Cambridge Archaeological Journal* 25(4):759–88.

Bachhuber, C. 2015. *Citadel and Cemetery in Early Bronze Age Anatolia*. London: Equinox.

Baykal Seeher, A., and J. Obladen Kauder. 1996. *Demircihüyük IV: Die Ergebnisse Der Ausgrabungen 1975-1978. Die Kleinfunde*. edited by M. O. Korfmann. Mainz am Rhein: Philip von Zabern.

Bernabò Brea, L. 1976. *Poliochni, Citta' Preistorica Nell'isola Di Lemnos, Vol.2*. Roma: L'Erma di Bretschneider.

Blegen, C. W., J. L. Caskey, and M. Rawson. 1950. "Troy: General Introduction, the First and Second Settlements. Excavations Conducted by the University of Cincinnati 1932-1938."

Çilingiroglu, Çiler. 2009. "Of Stamps, Loom Weights and Spindle Whorls: Contextual Evidence on the Function(s) of Neolithic Stamps from Ulucak, I˙zmir, Turkey." *Journal of Mediterranean Archaeology* 22(1):3–27. doi: 10.1558/jmea.v22i1.3.

Çizer, Ö. 2015. *Archaeobotanical Investigations of Plant Cultivation and Husbandry Practicesat the Early Bronze Age Settlement Küllüoba in West-Central Turkey: Considerations on Environment, Climate and Economy*. Oxford: Oxbow Books.

Çizer, Özgür. 2012. "Settlement Decline of EBA Küllüoba and Vicia Ervilia as Evidence for Increasing Aridity towards 4200 B . P ." (1989):72070.

Collon, D. 1990. *Interpreting The Past- Near Eastern Seals*. University of California Press.

Collon, Dominique. 2007. "Other Glyptic." Pp. 445–48 in *Excavations at Kilise Tepe 1994–98: From Bronze Age to Byzantine in Western Cilicia*, edited by N. Postgate and D. Thomas. London/Cambridge: British Institute at Ankara/McDonald Institute for Archaeological Research.

Cultraro, M., and A. Dova. 2004. "Lymnos, Myrina." Pp. 333–40 in *Corpus der minoischen und mykenischen Siegel. V: Kleinere griechische Sammlungen. Supplementum 3. Neufunde aus Griechenland und der westlichen Türkei*, edited by I. Pini. Mainz: P. von Zabern.

Dede, G. 2014. "Anadolu'da Bulunmuş Eski Tunç Çağı'na Ait Damga ve Silindir Mühürler." Yayınlanmamış Yüksek Lisans Tezi, Ankara Universitesi.

Dedeoğlu, F. 2014. "Yukarı Menderes Havzası Bölgesel Yerleşim Analizi: Erken Tunç Çağı 'nda Sosyo-Ekonomik Örgutlenmedeki Değişim ve Dönüşüm Süreçleri." Pp. 19–42 in *Yerleşim sistemleri ve mekan analizi*, edited by Ö. Çevik and B. Erdoğu. İstanbul: Ege Yayınları.

Duistermaat, K. 1996. "The Seals and Sealings." Pp. 339–401 in *Tell Sabi Abyad: the Late Neolithic Settlement*, edited by P. M. M. G. Akkermans. Leiden/Istanbul: Nederlands Historisch-Archaeologisch Instituut.

Efe, T. 2002. The Interaction Between Cultural/Political Entities and Metalworking in Western Anatolia during the Chalcolithic and Early Bronze Ages. In Ü. Yalçın (Ed.), *Anatolian Metal II. Der Anschnitt* (pp. 49–65).

Efe, T. 2003. "Pottery Distribution Within the Bronze Age of Western Anatolia and Its Implications upon Cultural, Political (and Ethnic?) Entities." Pp. 87–104 in *Archaeological essays in honour of Homo Amatus: Güven Arsebük için Armağan Yazıları*, edited by M. Özbaşaran, O. Tanındı, and A. Boratav. Istanbul: Ege Yayınları.

Efe, T. 2009. "Küllüoba Da Erken İTÇ III Yapısında Ele Geçirilmiş Olan Kesik Gaga Ağızlı Bir Küp." Pp. 269–73 in *Altan Çilingiroğlu'na Armağan. Yukarı Deniz'in Kıyısında Urartu Krallığı'na Adanmış bir Hayat*, edited by H. Sağlamtimur, E. Abay, Z. Derin, A. Ü. Erdem, A. Batmaz, F. Dedeoğlu, M. Erdalkıran, M. B. Baştürk, and E. Konakçı. İstanbul: Arkeoloji ve Sanat Yayınları.

Efe, T. 2014. "Selected EB II Pottery Receovered in the Two Burnt Rooms at Küllüoba near Eskişehir." Pp. 115–28 in *armizzi. Studies in Honor of Engin Özgen*, edited by A. Engin, B. Helwing, and B. Uysal. Ankara: Phoibos Verlag.

Efe, T. 2020. "Once Again on Early Bronze Age Trade and Trade Routes in Western Anatolia." Pp. 121–33 in *From Past to Present. Studies in Memory of Manfred O. Korfmann, Studıa Troıca Monographien 11*, edited by E. Blum, Stephan W. E., Efe, Turan., Kienlin, T L., Pernicka. Bonn: Verlag Dr. Rudolf Habelt Gmbh Bonn.

Efe, T., and D. Ay-Efe. 2007. "The Küllüoba Excavations and the Cultural/Political Development of Western Anatolia Before the Second Millennium B.C." in *Vita/Hayat Belkıs Dinçol ve Ali Dinçol' a Armağan*, edited by M. Doğan-Alparslan, M. Alparslan, and H. Peker. Istanbul: Ege Yayınları.

Efe, T., and E. Fidan. 2008. "Complex Two in the Early Bronze Age II Upper Town of Küllüoba near Eskişehir." *Anatolica* 34:67–102.

Efe, Turan. 2004. "Kültür Gruplarından Krallıklara: Batı Anadolu'nun Tarihöncesi Kültürel ve Siyasal Gelişim Profili." *Colloquium Anatolicum* III:15–29.

Efe, Turan ; Türkteki, Murat. 2011. "Early Bronze Age Architecture in the Inland Western Anatolian Region." Pp. 198–207 in *Across: the Cyclades and Western Anatolia during the 3rd Millennium BC*, edited by P. Şahoğlu, Vasif ; Sotirakopoulou. İstanbul: Kitap Yayınevi.

Erkanal, H., and V. Şahoğlu. 2016. "Liman Tepe, an Early Bronze Age Trade Center in Western Anatolia:Recent Investigations." Pp. 157–67 in *Early Bronze Age Troy: Chronology, Cultural Development, and Interregional Contacts. Proceedings of an International Conference held at the University of Tübingen, May 8-10, 2009*, edited by E. Pernicka, S. Ünlüsoy, and S. Blum. Bonn: Dr. Rudolph Habelt GMBH.

Fiandra, E., and M. Frangipane. 2007. "Cretulae: The Object, Its Use and Its Functions." Pp. 15–24 in *Arslantepe Cretulae: An Early Centralised Administrative System Before Writing* , edited by M. Frangipane, P. Ferioli, E. Fiandra, R. Laurito, and H. Pittman. Roma: Universita' di Roma «La Sapienza».

Frangipane, M. 2010. Different models of power structuring at the rise of hierarchical societies in the Near East: primary economy versus luxury and defence management. In D. Bolger & L. Maguire (Eds.), *Development of pre-State communities in the ancient Near East* (pp. 79–86). Oxbow.

Frangipane, M. 2012. The Evolution and Role of Administration in Anatolia: A Mirror of Different Degrees and Models of Centralisation. In M. E. Balza, M. Giorgieri, & C. Mora (Eds.), *Archives, Depots, And Storehouses in the Hittite World New Evidence and New Research* (pp. 111–126). Studia Mediterranea 23, Italian University Press.

Goldman, H. 1956. "Excavations at Gözlü Kule, Tarsus: From the Neolithic through the Bronze Age." 2.

Gündem, C. Y. 2012. "The Subsistence Economy in Inland Northwestern Anatolia during the Chalcolithic and Early Bronze Age." *Mimarlar, Arkeologlar, Sanat Tarihçileri, Restoratörler Ortak Platformu* 7:250–300.

Korfmann, M. O. 1983. *Demircihüyük I: Die Ergebnisse Der Ausgrabungen 1975-1978: Architektur, Stratigraphie Und Befunde*. edited by M. O. Korfmann. Mainz am Rhein: Philip von Zabern.

Koşay, H. Z. 1951. *Alacahöyük Kazısı 1937-1939*. Türk Tarih Kurumu Yayınları.

Kouka, Ourania. 2002. *Siedlungsorganisation in Der Nord- Und Ostägäis Während Der Frühbronzezeit (3. Jt. v.Chr.)*. Vol. 58. Raden Westfalia: Verlag Leidorf GmbH.

Kouka, Ourania. 2009. "Cross-Cultural Links and Elite Identities: The Eastern Aegean/Western Anatolia and Cyprus from the Early Third Millennium through the Early Second Millennium BC." Pp. 31–47 in *Cyprus and East Aegean: Intercultural Contacts from 3000 to 500 BC, Proceedings of the International Archaeological Symposium – Pythagoreion Samos, 17th -18th October 2008*, edited by V. Karageorghis and O. Kouka. Nicosia: A.G. Leventis Foundation.

Kulakoğlu, F., and G. Öztürk. 2015. "New Evidence for International Trade in Bronze Age CentralAnatolia: Recently Discovered Bullae at Kültepe-Kanesh." *Antiquity* 89(343):1–4.

Luschan, von Felix. 1943. *Die Kleinfunde von Sendschirli, Ausgrabungen in Sendschirli V*. Berlin: Verlag von Walter de Gruyter & Co.

Massa, M. (2016). *Networks before Empires: cultural transfers in west and central Anatolia during the Early Bronze Age*. Unpublished Phd Thesis.

Massa, M., and E. Fidan. 2017. "Metallurgy and Elites: Assessing Metal Production in Bronze Age Inland Western Anatolia, within Its Socio-Economic Context." in *Anatolian Metal VIII*, edited by Ü. Yalçın. Bochum: Bergbau Museum.

Massa, M., and Y. Tuna. 2019. "A Clay Stopper from Boz Höyük (Afyon) in the Context of the Western and Central Anatolian Early Bronze Age Sealing Practices." *Anatolian Studies* 69:59–75.

Massa, M, and A. Palmisano. 2018. "Change and Continuity in the Long-Distance Exchange Networks between Western/Central Anatolia, Northern Levant and Northern Mesopotamia, c.3200–1600 BCE." *Journal of Anthropological Archaeology* 49(January):65–87. doi: 10.1016/j.jaa.2017.12.003.

Mellink, M. J. 1967. "Excavations at Karataş-Semayük in Lycia, 1966." *American Journal of Archaeology* 71(3):251–67.

Mellink, M. J. 1972. "Excavations at Karataş-Semayük and Elmalı, Lycia, 1971." *American Journal of Archaeology* 76(3):257–69.

Oğuzhanoğlu, U. 2019. A Lead Seal from the Laodikeia-Kandilkırı Excavatıons and An Overall Assessment of Seal Use in South-Western Anatolia During the Early Bronze Age. *Oxford Journal of Archaeology*, *38*(1), 39–64.

Özdoğan, M. 2011. "The Dynamics of Cultural Change in Anatolia." Pp. 21–30 in *Anatolian Metal V*, edited by Ü. Yalçın. Bochum: Deutschen Bergbau-Museum.

Özdoğan, Mehmet. 2022. "Bütüncül Bir Bakış Açısıyla İlk Tunç Çağı Ya Da Yerleşik Yaşamın Kurumsallaşması." Pp. 1–18 in *MÖ 3. Binyıl'da Anadolu*, edited by M. Işıklı, E. Fidan, A. Türker, and M. A. Yılmaz.

Öztürk, G. 2019. "Yeni Kazılar Işığında Mö. 3. Binyıl'ın Sonunda Ve Mö. 2. Binyıl'ın Başında Kültepe Mühür Ve Mühür Baskıları." Yayınlanmamış Doktora Tezi, Ankara Universitesi.

Palumbi, G. 2010. "The Early Bronze Age." Pp. 51–56 in *Yumuktepe: a journey through nine thousand years*, edited by I. Caneva and G. Köroğlu. İstanbul: Ege Yayınları.

Pitman, H., Frangipane, M. 2007. "The Fourth Mıllennıum Glyptıcs At Arslantepe. pp. 175–354 in *Arslantepe Cretulae: An Early Centralised Administrative System Before Writing*, edited by M. Frangipane. Universita' di Roma "La Sapienza."

Pullen, D. 1994. A Lead Seal from Tsoungiza, Ancient Nemea, and Early Bronze Age Aegean Sealing Systems. *American Journal of Archaeology*, *98*(1), 35–52.

Rahmstorf, L. 2016. "Emerging Economic Complexity in the Aegean and Western Anatolia during Earlier Third Millennium BC." Pp. 225–76 in *Of Odysseys and Oddities: Scales and modes of interaction between prehistoric Aegean societies and their neighbours*, edited by B. P. C. Molloy. Oxford: Oxbow.

Rauh, H. 1981. "Knochenfunde von Säugetieren Aus Dem Demircihöyük (Nordwestanatolien)." University of München.

Şahoğlu, V. 2005. "The Anatolian Trade Network and the Izmir Region during the Early Bronze Age." *Oxford Journal of Archaeology* 24(4):339–60.

Sarı, D. 2011. "Evolution Culturelle et Politique de l'Anatolie de l'Ouest Au Bronze Ancien et Au Bronze Moyen." Paris/İstanbul.

Sarı, D. 2012. "İlk Tunç Çağı ve Orta Tunç Çağı'nda Batı Anadolu'nun Kültürel ve Siyasal Gelişimi." *MASROP E-Dergi* 7:112–249.

Schliemann, H. 1881. *Ilios: Stadt und Land der Trojaner. Forschungen und Entdeckungen in der Troas und besonders auf der Baustelle von Troja*. Brockhaus.

Schmidt, H. 1902. *Trojanischer Altertümer*. Berlin: Reimer.

Sherratt, Andrew. 1981. "Plough and Pastoralism: Aspects of the Secondary Products Revolution." Pp. 261–305 in *Pattern of the Past: Studies in honour of David Clarke*, edited by I. Hodder, G. Isaac, and N. Hammond. Cambridge: CUP.

Stein, Gil J. 1994. "Economy, Ritual and Power in Ubaid Mesopotamia." *Chiefdoms and Early States in the Near East: The Organisational Dynamics of Complexity* 35–46.

Türkcan, A. U. 2006. "Some Remarks on Çatalhöyük Stamp Seals." Pp. 175–85 in *Changing Materialities atÇatalhöyük: Reports from the 1995–99 Seasons*, edited by I. Hodder. Cambridge: McDonald Institute.

Türkteki, Murat; Sarı, Deniz; Şahin Fatma; Türkteki, Sinem, Tuna, Yusuf. 2021. "Anadolu'da Bir İlk Tunç Çağı Kenti: Küllüoba, Genel Değerlendirme ve 2020 Yılı Çalışmaları An Early Bronze Age City in Anatolia: Küllüoba, General Evaluation and 2020 Season Work." *Lycus Journal* June(3):105–28.

Türkteki, Sinem Üstün. 2020. "Early Bronze Age Sealing Tradition of Küllüoba Höyük in the Context of Anatolian Sealing Practice." 7–29.

Umurtak, G. 2002. “Some Observations on a Lead Stamp Seal from the Bademağacı Excavations.” *Anatolica* 28:159–69.

Umurtak, G. 2010. “Questions Arising from a Bulla Found in the EBA II Settlement at Bademağacı.” *Adalya* 13:19–27.

Umurtak, G. 2013. “Some Comments on a Few Intriguing Seals Found in the EBA Settlements at Hacılar Büyük Höyükand a Seal from Burdur Museum.” *Adalya* XVI:49–59.

Umurtak, G. ,. 2009. “A Study of Three Numerical (!) Tablets and a Stamp Seal from the Early Bronze Age Settlement at Bademağacı Höyük.” *Adalya* XII:1–10.

Umurtak, G., and R. Duru. 2014. “Hacılar Büyük Höyük Kazıları 2013.” *Arkeoloji ve Sanat* 145:1–20.

Ünan, Nazan, and Serdar Ünan. 2022. “Seyitömer Höyük Erken Tunç Çağı III (D Evresi Yerleşimi Üzerine Bir Ön Değerlendirme.” Pp. 49–324 in *Seyitmer Höyük Kurtarma Kazısı 1989-2021*, edited by S. Ünan. Bilgin Kültür Sanat Yayıncılık.

Ünar, Aslı. 2020. “ Orta Anadolu’da Erken Tunç Çağı’nda Tahıl Depolamanın Işığında Ekonomik ve Siyasi Örgütlenme.” Ege Üniversitesi.

von der Osten, H. 1937. The Alishar Hüyük: Seasons of 1930-32. In *Oriental Institute Publications* (Vol. 1, Issue 28). Chicago University Press.

Wengrow, D. 2011. “‘Archival’ and ‘Sacrificial’ Economies in Bronze Age Eurasia: An Interactionist Approach to the Hoarding of Metals.” Pp. 135–44 in *Interweaving Worlds: systemic interactions in Eurasia, 7th to the 1st millennia BC*, edited by T. C. Wilkinson, S. Sherratt, and J. Bennet. Oxford: Oxbow.

Yalçın, Ü., G. Yalçın, A. Maass, and Ö. İpek. 2015. “Prähistorischer Kupferbergbau in Derekutuğun.” Pp. 147–84 in *Anatolien - Brücke der Kulturen. Aktuelle Forschungen und Perspektiven in den deutsch-türkischen Altertumswissenschaften*, edited by Ü. Yalçın and H.-D. Bienert. Bochum: Bergbau-Museum.

Yener, A. K. n.d. *Göltepe Excavations. An Early Bronze Age Mining Town: The Production of Tin in the Central Taurus Mountains, Turkey. Volume 1, Parts 1 and 2, Volume 2*. Phıladelphıa: Institute for Aegean Archaeology Press.

Zimmermann, T. 2009. “Frühmetallzeitliche Eliten Zwischen Ostägäis Und Taurusgebirge Im 3. Jahrtausend v. Chr. –Versuch Einer Kritischen Bestandsaufnahme.” Pp. 1–30 in *Aufstieg und Untergang: Zwischenbilanz des Forschungsschwerpunktes* , edited by M. Egg and M. Quast. Mainz: Römisch-Germanisches Zentralmuseum .

Zimmermann, T. 2016. “Early Bronze Age Elites: A Fresh Look at Some Old and New Evidencefrom West and Central Anatolia.” Pp. 277–90 in *Early Bronze Age Troy:Chronology, CulturalDevelopment andInterregional Contacts: Proceedings of an International Conference held at the University of Tübingen May 8–10, 2009*, edited by E. Pernicka, S. Ünlüsoy, and S. Blum. Bonn: Dr. Rudolph Habelt GMBH.

Figure 1: Sites mentioned in text.

Figure 2: Küllüoba Settlement plan.

Figure 3: Photo showing the context of the cretula

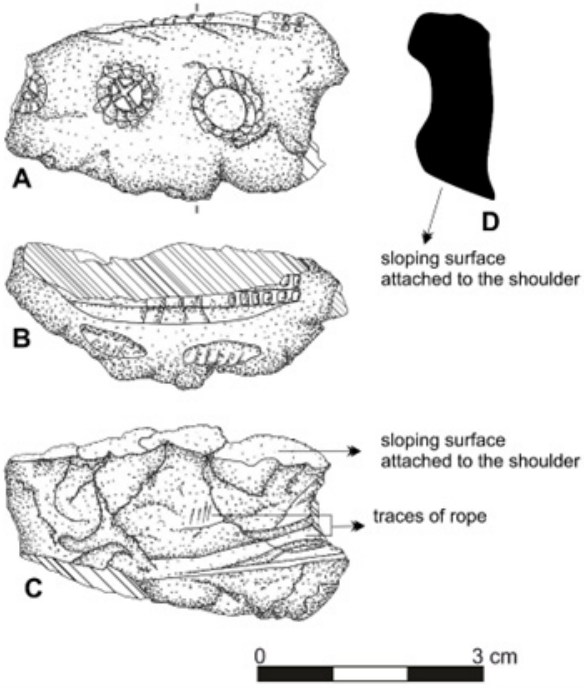

Figure 4: Drawing of the cretula

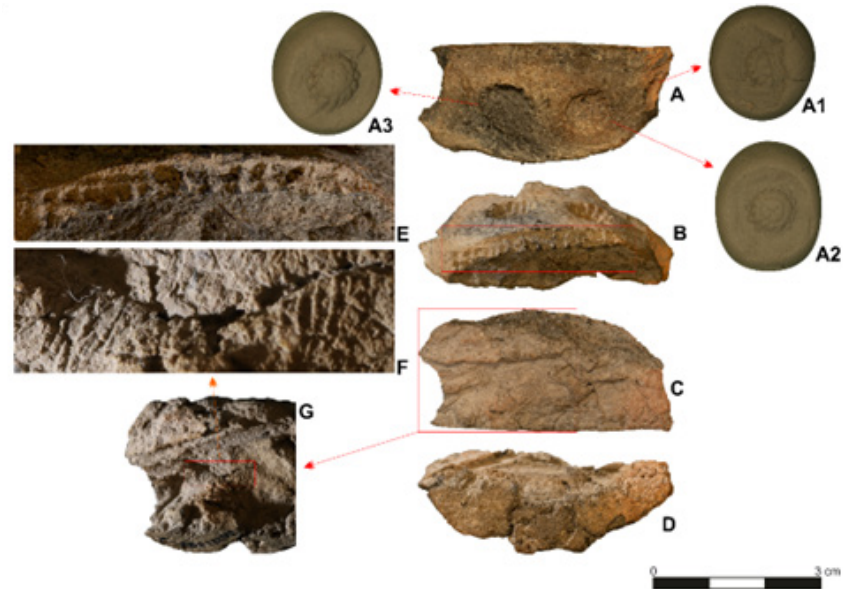

Figure 5: Photo of the cretula and negative of the sealing

Figure 6: Reconstruction proposal regarding cretula posture

Anadolu Araştırmaları
Anatolian Research

İSTANBUL UNIVERSITY PRESS

AnAr, 28, 73–84
DOI: 10.26650/anar.2023.28.1239491 Research Article

River Ordeal in Hittite Written Documents

Sezer Seçer Fidan[1]

[1]Ph.D. Student, Istanbul University, Faculty of Letters, Department of Ancient History, Istanbul, Turkiye

ORCID ID: S.S.F. 0000-0001-7959-8698

Corresponding author:
Sezer Seçer Fidan,
Istanbul University, Faculty of Letters, Department of Ancient History, Istanbul, Turkey
E-mail: sezersec@gmail.com

Submitted: 19.01.2023
Revision Requested: 18.02.2023
Last Revision Received: 21.02.2023
Accepted: 12.03.2023

Citation: Seçer Fidan, S. (2023). River ordeal in Hittite written documents. *Anadolu Araştırmaları-Anatolian Research*, *28*, 73–84. https://doi.org/10.26650/anar.2023.28.1239491

ABSTRACT
Ordeal practice, which has an important place in the Laws of the Ancient Near East, can be defined as the act of judging. However, such trials were carried out to understand whether a crime had indeed been perpetrated by a certain person rather than to pass judgement on that person. The reason this act is known as the river ordeal is that rivers and River Gods played the dominant role in it. The practice of river ordeals is mentioned in important law texts, such as the Ur-Nammu Laws, the ana ittišu series, as well as the Code of Hammurabi. It can also be seen in certain texts from the Assyrian and Babylonian periods as well as in some from Nuzi, Ugarit, and Elam. Hittite laws do not mention the river ordeal. However, thanks to some letters or royal instructions, we understand that this practice was indeed used by the Hittites as well. This paper aims to examine the Hittite written sources which can be related to the river ordeal.
Keywords: Anatolia, Hittite Laws, River Ordeal, Crime, Judgment

Introduction

Although the word *ordeal* in Near Eastern Law is defined as a means of judgment, this word mainly describes finding out whether a crime was indeed perpetrated by a particular person rather than judging that person (Duymuş Florioti, 2016: 94). The oldest traces of the "river ordeal" are encountered for the first time around 5000 years ago in Mesopotamia (Frymer-Kensky, 1979: 61; Lafont, 2005: 200; van Soldt, 2003-2005: 124). This form of divine judgment in Mesopotamia refers specifically to the determination of crime. However, it is understood that the practice of "river ordeal" was referred to in connection with the crimes of magic and adultery.

The term "river ordeal" first appeared in the Urukagina Laws of the Early Dynastic Period, and then in the Ur-Nammu Laws during the 3rd Dynasty of Ur (Tosun and Yalvaç, 1989: 40-41; Roth, 1997: 17 vd.; Öz, 2015: 196, 197), in the Kültepe Tablets from the Old Assyrian Period (Michel-Garelli, 1996: 277-290; Günbattı, 2000: 73-88)[1], in the Code of Hammurabi from the Old Babylonian Period (Dinçol, 2003, 2), and in many texts from the New Assyrian Period (Akyüz, 2020: 169).

These documents reveal that the practice of river ordeal first began to be used in Mesopotamia, especially in connection with the crimes of magic and adultery. In the written documents this practice is expressed as "*ANA* ^{D}ÍD *illak* ^{D}ÍD *išalliamma* / he will go (and) dive into the river" (Sevimli, 2004: 268). The River God who is included in the texts written in Sumerian with the pattern "^{D}ÍD" and "^{D}Nârum/Nârim" in Akkadian, undertake the duty of the judge during the ordeal (Gelb, 1957: 190; Parpola, 2007: 74, 251). It is known that this practice was frequently used in Mesopotamia, especially for crimes of magic and adultery as a crime detection method. Generally, the act of a river ordeal seems to have been practised for two reasons. The first of these is the application for the verification or proof of an existing claim while the second is for punishment. However, river ordeal was not applied to every crime. It was the practice used especially in cases where it was difficult to verify the claim, in other words, when there was no eyewitness to the incident.

The Hittite Laws do not contain the expression 'river ordeal' or a related statement. However, a form of punishment that we can call river ordeal is indirectly mentioned in some other texts.

River Ordeal in Hittite Texts

Hittite Laws found in the archives of Boğazköy, the capital city of the Hittites, consist of two series containing a total of 200 paragraphs. However, it is argued that there should be

1 In the Kültepe Tablets, the expressions "*ana nârim/id alākum, ana nârim nadānum, ana nârim šalû*", that is, going to the river, diving into the river, giving to the river, are used when talking about the river ordeal.

at least one more tablet (Dinçol, 2013: 520). The expression *"the third tablet, if a man"* on the label of the archives in Boğazköy supports this view (ABoT 52, Dinçol, 2013: 522). In addition to this, in the texts of these laws, no evidence included the practice of river ordeal. Of course, this does not mean that the Hittites did not know of or did not apply this practice. It is possible to catch clues about the practice of river ordeals in Hittite written sources other than the law texts. Thanks to a text belonging to the Assyrian Trade Colonies Period, it is understood from tablet **no: Kt n/k 504 (dub. Kt. 93/k 145)** found in Kültepe/Kaneš that the river ordeal was used in Anatolia before the Hittite Period. The translation of the relevant part of the text describing Anatolia's oldest known river ordeal in this form are as follows (Günbattı, 2000: 75; Günbattı, 2017: 127).

Transl.[2]

"Karum said: "Let him (Aššur-taklāku) be ready (and) swear3 on the dagger of God Aššur or go to the river like a local of your city!"

Based on this narrative, it is claimed that the *indigenous people* of Kültepe in the Assyrian Trade Colonies Period were aware of the river ordeal and this could have been a traditional practice (Günbattı, 2000: 86; Günbattı, 2017: 127; Bayram and Kâhya, 2018: 84). However, some scholars suggest that the river ordeal practice may have been brought to Anatolia by Assyrian merchants (Duymuş Florioti and Demirci, 2013: 38).

After this period, the practice of a river ordeal (van den Hout, 2003-2005: 129, 130) appears in Hittite written documents. Expressions found in these texts, such as "don't go to the river", "transfer to the river" or "go to the river god" seem to indicate the existence of the river ordeal practice. For instance, an instruction text for palace employees (KUB 13.3 II 14'-19' CTH 265.1) states "make you responsible for the river" which suggests that this process was also practised by the Hittites. It can be understood from other texts that those who came out clean from the river would continue to serve the king, while those who came out unclean were found guilty and punished (Dinçol, 2003: 24). The translation of the relevant parts of the text is as follows (Marazzi, 2010: 204; Miller, 2013: 80, 81):

KUB 13.3 Obv. II 14'-19'

*"On a day when (my) temper gets the best of (me), the king, and I call all of you kitchen personnel, and I put you through the river (*ÍD-*i māniyahmi), then he who is (proven to be)*

2 **Obv. 19-22**: 19 *um-ma kâ-ru-um-ma* / *li-zi-iz* 20 <İGİ> GÍR *ša A-šur* / *li-it-ma* 21 *ù-ul* / *ki-ma* DUMU *a-li-kâ* 22 *a-na i-id* / *li-li-ik*

3 "*mahar patrim ša Aššur tamā'um* swear to God Aššur" It is an important element used in the determination of the crime of the person in question. Swearing is frequently used in Ancient Anatolia (Westbrook, 2003: 88). It also takes place in the Neo-Assyrian Period (Faist, 2014: 194, 195).

pure (parkuēšzi), he is a servant of the king, while he who is (proved to be) impure (papriszi), I, the king, will have no need of him. They (i.e. the gods) will allot him an evil fate, together with his wife (and) his sons".

This text can be regarded as proof of the Hittite use of the river ordeal. This is very important because the narratives of river ordeal in Hittite documents served the purpose of reminding people of previous incidents in which the river ordeal had been practised. This was supposed to be a warning to prevent possible crimes in the future. For example, in the third column of the same text, an earlier occurrence of the practice is mentioned, and the palace staff were strictly warned thereby (Marazzi, 2010: 205 and Miller, 2013: 17).

KUB 13.3 Rev. III 21-31

"*Furthermore, you who are water carriers, you must be very careful concerning the water, and you must always filter the water with a sieve. One time I, the king, in the city of Šanaḫuitta, found a hair in the washbasin, and (my), the king's, ire was raised, and I became enraged at the water carriers (and said): "This is disgusting!" Arnili (responded) so: "Zuliya was the overseer!" And the king (continued) thus: "Zuliya shall go through the river (ordeal)! If he is (shown to be) innocent, then let him purify his soul. But if he is (shown to be) guilty, then he will die." So, Zuliya went through the river(ordeal), and he was (shown to be) guilty. And they "dealt with" him in the city of Šuresta*".

In tablet **KBo 50.282 1'-11'** (CTH 265.2) a parallel text of the above-mentioned situation is conveyed in more detail (Marazzi, 2010: 201, 202; Miller, 2013: 82-85).

"Arnili (responded) so: "Z[uliya] was [the oversee]r!" And the king (continued) thus: "[Zuliya] shall go [through] the river(ordeal)! If he is (shown to be) inno[cent], then [may] you [b]e innocent as well. [But] if he is (shown to be) gui[lty], [then] you shall go too!" And when they went, Zuliya was (shown to be) guilty, [and] the othe[r was also guilty], [so that] they ["de]alt with" [the]m in […] the city of Šurista."

In the continuation of the text, it is understood that the Hittite king blamed the water carrier who is named Zuliya. The king applied to the river ordeal stating that he had seen a hair in the bathing water and that Zuliya, an officer responsible for keeping the water clean, had neglected his duty. The king clearly states that Zuliya will go to the River God (^{D}ÍD *pai-*) and that if he is not guilty he must cleanse his soul, but if he is unclean, he will die. In the parallel text found in the tablet - as can be followed above - it is understood that Zuliya and other responsible persons who may have caused the incident went through an interrogation. Finally, officer Zuliya was found guilty when he was thrown into the river. According to the narrative in the text, both Zuliya and the other people responsible were sent to the city of Šurista to serve their sentences. One of the important implications here is that, unlike river

ordeals in certain law texts in the Ancient Near East[4], during the Hittite Period, the person who was found guilty in the river ordeal was not left to die in the river. Instead, it appears that the person was punished elsewhere. The person was not left to die in the river, which shows us that that the people of the time were aware that the water of the river would also be polluted due to this dirty action.

We can evaluate the practice of not leaving the criminal to die in the river by perusing the following paragraph found in Hittite law (§166-167):

"*If anyone sows his own seed on top of another man's seed, his neck shall be placed upon a plow. They shall hitch up two teams of oxen. They shall turn the faces of one team one way, the other team the other. Both the offender and the oxen will be put to death, and the party who first sowed the field shall reap it for himself. This is the way they used to proceed. But now they shall substitute one sheep for the man and 2 sheep for the oxen. He shall give 30 loaves of bread and 3 jugs of ... beer, and reconsecrate (the land?). And he who sowed the field first shall reap it."* (Hoffner, 1997: 133, 134; Dinçol, 2003: 30-31; Dinçol, 2013: 522).

Although it may seem strange at first that the oxen, who are partners in the person's crime, are killed in this article, the incident recalls the action of the judges who gave the death penalty to break the pen (Dinçol, 2009: 110). This is because the oxen are now religiously polluted and they can no longer be used as offerings or plough a fertile field. In light of the Hittites' understanding of religious cleanliness, such thinking is quite understandable. According to a new version of the text of these laws, even the field where such a crime took place was subjected to decontamination (§167 KBo 6.26-CTH 292). In the light of this information, the reason why the water carrier Zuliya was not left to die in the river becomes more understandable. According to their religious beliefs, Hittites probably assumed that leaving a person to die in a river would pollute the water.

Given that the land irrigated by the rivers was agricultural land and that it yielded rich produce, the water of those rivers needed to be kept clean from a religious point of view. Apart from this, the Hittites needed to keep the rivers/waters clean and pure for reasons such as the existence of the River Gods, the various offerings being made to the river and the use of river water in purification processes (Gerçek, 2020: 261-164).

4 For example, in the Code of Hammurabi, it is understood that if the person whose crime would be determined by the river ordeal is thrown into the river, and if the river pulls the person down (in other words, if he is found guilty) he is left to die in the river (Tosun and Yalvaç, 1989: 185; Öz, 2015: 197).

In addition, apart from the two instruction texts in question, there is some information about the river ordeal in text no. **KBo 3.28II 10'-19'5** (CTH 9.6 (ed.), hethiter.net/: CTH 9.6 (INTR 2012-07-10)) which is a palace history fragment dated to the Hittite Imperial Period (Soysal, 1989: 33; Dardano, 2002: 365; Marazzi, 2010: 211).

KBo 3.28 Obv. II 10'-19'

"But now if a prince in any way trespasses against the person (lit., "head") of the king, the latter (i.e. the king) [summons] him to [the river god] and let him (there) go! If he finds himself innocent (lit., "he is purified"), let him be admitted into your presence (lit., "let him see[d] your eyes")! But if he refuses (to submit to) the ordeal of the river, let him stay at home. [If] (you) are indulgent and you want to take him into account, take him into account, but if you don't want to take him into account, let him stay at home, don't put him in prison! May you not hurt (him), do not hurt him give death, do not offer it] (to public judgment), otherwise you will give cause for concern to the gods (lit., "you will make the gods fall ill") in heaven and you will give cause for concern also to men (lit., "with faces") on 'earth. § Many were found guilty of my father's person (lit., "head") with the river god and the king's father did not keep them alive. Kizzuwa also found himself guilty with regard to the person of my father with the god of the river: my father did not keep Kizzuwa alive. (Dardano, 2002: 365; Marazzi, 2010: 211).

In this tablet, whose upper edge is broken, the rebellion of the prince of Purushanda, one of the important cities of Anatolia, is mentioned. According to the text, the prince, who appears to have commited a crime against the king, was sentenced to the river ordeal. However, the prince was given a chance not to accept the river ordeal. If the prince did not accept the practice, there would be no imprisonment or murder, but according to the text, he would be allowed to stay at home. In the subsequent parts of the text, the king mentions that an official named Kizzuwa, who had committed the same crime during his father's time, was killed. In recounting this incident his aim was to intimidate the prince.

Important information about river ordeals can be obtained from some of the broken tablet fragments which were examined by Laroche (1973), who studied the Hittite river ordeals, and Frymer-Kensky (1979) who also studied river ordeals throughout the Near East. The relevant parts of the tablets are as follows: (Marazzi, 2010: 204, 205)

5 10' *ki-nu-na ma-a-an* DUMU-*aš A-NA* SAG.DU LUGAL *ú-ua-aš-ta-i ku-it-ki a-pa-ša-an A[-NA* ^{D}ÍD] 11' *[ha] l-za-a-i na-aš pa-it-* ⌜*tu*⌝ *ma-a-na-aš pár-ku-eš-zi nu ša-a-ku-ua-at-te-et ú-uš[-ki-it-tu]* 12' *[t]ák-ku* ^{D}ÍD-*ia-ma? mi-im-ma-i na*<-aš> É-*ši-pát e-eš-tu ge-en-zu-ua-i[-ši ma-a-an]* 13' *na-an ka-pu-u-e-ši na-an ka-pu-u-i ták-ku na-at-ta-ma ka-pu-u-e-ši* 14' *na-aš* É-*iš-ši-pát e-eš-tu A-NA* É.EN.NU.UN *le-e da-it-ti* 15' *i-da-lu-ma-an le-e i-ia-ši hé-en-kán-še le-e ták-ki-iš-ši uš-ša-n[i-]a-ši-an]* 16' *le-e ne-pí-ši* DINGIR^{DIDLI} *iš-tar-ni-ik-ši! ták-na-a-ma mi-e-nu-uš iš-tar-ni-ik[-ši]* 17' *at-ta-aš-ma-aš har-ša-ni-i* ^{D}ÍD-*ia me-ek-ke-eš pa-ap-re-eš-kir šu-uš A-BI* LUGAL 18' *na-at-ta hu-iš-nu-uš-ke-e-et mKi-iz-zu-ua-aš- pát A-NA* SAG<.DU> *A-BI-IA* ^{D}ÍD-*ia* 19' *pa-ap-ri-it-ta ša-an at-ta-aš-mi-iš mKi-iz-zu-ua-an na-at<-ta> hu-e-<eš->nu-ú-ut* (Dardano, 2002: 365).

KBo 28.102 (CTH 208): The 14th line of this text, which is a fragment of an Akkadian letter, contains the phrase "…] ⌞*A-NA*⌟ ᴰÍD *a-*⌞*li-ik*⌟ "…] he will go to the river god". However, it is not known by whom, when and to whom the letter was written.

KBo 7.53 (CTH 470): The phrase "]x ᴰÍD *an-* ⌜*da*?⌝ /]x into/in the River God" is found on the 17th line on the reverse of a tablet with a ritual fragment dating to the Middle Hittite Period.

KUB 43.35 (CTH 275): There are some statements that we can relate to a river ordeal between the lines 2-9 of a text that is an instruction and protocol fragment dating to the Middle Hittite Period: 2' when I go [to .....3' he will prove] guilty and h[e.....]will listen to [..... 4' inno]cent you? He will return from the "god river" [..... / 8' ...] who do not jud[ge.... 9'...]of the "river god" doesn't g[o?...

KBo 18.66 (CTH 209): The text is dated to the Middle Hittite Period (Arnuwanda I?). In this text, which is a fragment of a letter in Hittite, the identities of the sender and the recipient are unknown. However, the expression "*I-N*]*A* ᴰÍD = *ia pehute*[*r* /] x *mān parkuiš*[*zi* /é" ('and they take it to the river god x') proves his innocence and the phrase in lines Rev. 8-9 of this letter, which seems to have been written by an authorized person, is closely related to the river ordeal.

KUB 31.74 (CTH 23.3.A): The date and the subject of the tablet, which provides information about Alluwamna, are not clear. Although Marazzi suggests dating it to the early Middle Hittite Period ((ed.), hethiter.net/: CTH 23.3 (INTR 2012-07-11), new studies point to the Imperial Period (https://www.hethport.uni-wuerzburg.de/hetkonk/hetkonk_abfrage.php). In the second column of the obverse of the text, between lines 9-11, a river ordeal appears to be quoted. Among these lines, the expression found in line 9, "*happa anda šešten*/ (stay in the river)", is very important (Marazzi, 2010: 211). Although there has been some discussion about whether the word "*happa*-" refers to a river or just a water concept, it can be assumed that the word "*happa*-" should correspond to a river based on the phrasing in the following lines (10' *Whoever will be innocent/clean is your servant* [... 11' *and dies! And you, Gods/ River Gods*)[6].

Conclusion

In conclusion, when we look at the texts before the Hittite written sources, it can be seen that the practice of river ordeal was known by most Ancient Near Eastern societies. Thanks

6 *hapa*-: ÍD, NĀRU, river, stream, (Friedrich and Kammenhuber, 1991: 197-198; Puhvel, 1991: 114, 115; Ünal, 2007: 166). It is known that hapa- is also used as a suffix. According to the studies of O. Soysal, it is stated that when the Hittite names are eliminated, the place name can be defined as "…river", while when Hattic is added to the names, it gives the expression "god" due to the intervening š(a)+pill form. For details of the study, see (Soysal, 2010: 783-792).

to a tablet dating back to the Assyrian Trade Period, uncovered at Kültepe, it has been proven that this practice also existed in pre-Hittite Anatolia. With regard to the Hittite texts, it is possible to follow the river ordeal practice in almost all periods of the Hittites. However, unlike the Near East, the information about the aforementioned practice is obtained from different text groups, not from Hittite laws.

Texts from the pre-Hittite period mention two reasons why the "river ordeal" was practised. The first was to verify or prove an existing claim and the second was punishment. Certainly, the river ordeal was not used for every type of crime. Instead, it was preferred in cases where it was very difficult to prove the accusation. It is also seen that the penalty for throwing someone into the river was given for various crimes in different periods (Faist, 2014: 197). When we look at the pre-Hittite law texts, it seems obvious that the river ordeal was applied mostly because of adultery, witchcraft, the refusal of a spouse, the failure of a woman to fulfil her duties, disputes between merchants or problems arising from debts. It can be argued that it was practised in cases such as rebellion against the king, or failure when serving the king (Öz, 2015: 196-201). When it comes to the Neo-Assyrian Period[7] after the Hittites, it can be observed that this method was used because of problems experienced in opposing authority or theft, murder or inheritance sharing, which can be considered as rather individual crimes. Considering the genders of those punished by river ordeal, this practice was often applied to men. However, it is also known that more women were sent to the river in cases of adultery[8].

Among all the documents examined about the river ordeal, the most striking difference seen in the Hittite and Neo-Assyrian sources is the rejection of the river ordeal. This actually meant an admission of guilt (Akyüz, 2020: 168) because if a person refused to be tried in the river, he showed that he knew of his crime and was afraid of the result. Thus, the person who admitted his guilt was punished in court. However, this practice is not mentioned in previous periods which shows that in early periods, the practice of a river ordeal had been used as a method of punishment as well as a way of detecting crime. In addition, the act of "*taking an oath*", which we can see in Kültepe and New Assyrian texts, is another practice applied to avoid the river ordeal.

In the texts, it is not clearly stated how and where the person thrown into the river was punished if he was found guilty. Despite these questions, the only answer we have is contained

7 Expressions that come to the fore in relation to the river ordeal in the Neo-Assyrian Period; *hursān*/river ordeal (SAA 18: 182) and *hursān itūra*/returning from the river judgment. See also Akyüz, 2020.

8 For the Ur Nammu Laws paragraphs 7-11 (Roth, 1997: 17 vd.; Tosun-Yalvaç, 1989: 40); for the series ana-ittišu paragraph 1 (Tosun-Yalvaç, 1989: 48); for the Code of Hammurabi paragraphs 120 and 132 (Tosun-Yalvaç, 1989: 198; Dinçol, 2003: 14; Öz, 2015: 197) and for the Middle Assyrian Laws paragraphs 17 and 24 (Tosun-Yalvaç, 1989: 248, 249).

in the second article of the Code of Hammurabi. In the text in question, the expression "the river pulls the person" can be found. This expression probably means that the person died in the river. From the expression "the river cleans the person" from the same article, it can be concluded that the person somehow managed to stay on the surface of the water (Öz, 2015: 197). Neither this article nor the other documents from the Hittite and the Neo-Assyrian Period mention whether the criminal died during the river ordeal or not. However, it can be assumed that the person found guilty was left to die in the river, as no further punishment was given.

The River Gods, who played a judgmental role in the river ordeal, are mentioned in many different text groups in Hittite written texts. We can list them as mythological texts, political texts, prayer texts and ritual texts. However, in all these texts, the River Gods have always come to the fore with different features. These are a group of gods that are associated with fertility in mythological texts and are a kind of bridge connecting the underground and the earth. They are among the witness gods in political texts, and are in the category of gods whose worship and offerings should not be left out in prayer texts, and whose purifying and creative powers were needed in ritual texts. Although there is no direct mention of River Gods in Hittite texts, they were mentioned in legal texts, in other words, in text groups where the trial, crime and punishment can be observed. Since there is no evidence that the person on trial was left to die in the river during the execution of the Hittite river ordeal, it is clear that the River Gods were in the position of detecting the crime in these text groups, although it cannot be said if they carried out the punishment or not. Another piece of information supported in the light of all these data is how important water resources and water cult practices were for the Hittites.

Acknowledgements: This article benefited from, and developed out of, the doctoral thesis titled "River Gods in Hittite Written Sources", which is being prepared by the author under the supervision of Assoc. Prof. Dr. Meltem Doğan-Alparslan in the Department of Ancient History, Istanbul University. I would like to give special thanks to Assoc. Prof. Dr. Meltem Doğan-Alparslan for her support in the creation of this article, and also thanks to Dr. Savaş Sarıaltun and Dr. Nihan Naiboğlu for the English translation and proofreading of this article. I am also indebted to editorial board member and journal referees for their constructive comments that have greatly improved my paper.

Peer-review: Externally peer-reviewed.
Conflict of Interest: The author has no conflict of interest to declare.
Grant Support: The author declared that this study has received no financial support.

References

Akyüz, F. (2020). Asur Belgelerinde Nehir Ordali/River Ordeal in the Assyrian Documents, *OANNES-Uluslararası Eskiçağ Tarihi Araştırmaları Dergisi* 2/2, 165-177.

Bayram, S. and Kâhya, Ö. (2018). Asur Ticaret Kolonileri Çağı'nda Anadolu'daki Hukuki Uygulamalar Üzerine Bazı Değerlendirmeler, *Akademik Tarih ve Düşünce Dergisi*, Cilt 5, (17 Ek Özel Sayı), 75-92.

Dardano, P. (2002). 'La main est coupable', 'le sang devient abondant': sur quelques expressions avec des noms departies et d'éléments du corps humain dans la littérature juridico-politique de l'Ancien etdu Moyen Royaume hittite, *Orientalia Nova Series* 71/4, 333-392.

Dinçol, A. (2009). Hitit Yasalarının Ana Çizgileri, *Hititolojiye Giriş* (Ed. M. Alparslan), Türk Eskiçağ Bilimleri Enstitüsü, İstanbul (pp. 107-119).

Dinçol, B. (2003). *Eski Önasya Toplumlarında Suç Kavramı ve Ceza*, Türk Eskiçağ Bilimleri Enstitüsü Yayınları 22, Ege Yayınları, İstanbul.

Dinçol, B. (2013). Hitit Yasaları, *Hititler Bir Anadolu İmparatorluğu/ Hittites an Anatolian Empires*, (Eds. M. Doğan-Alparslan & M. Alparslan), YKY, İstanbul, (pp. 520-529).

Duymuş Florioti, H. H. and G. Demirci (2013). Çivi Yazılı Kanun Metinlerinde İlginç Bir Suç Tespit ve Cezalandırma Yöntemi: Suya Atılma/ An Interesting, Method of Crime's Determining and Punishing in the Cuneiform Legacy Texts: Throwing to Water, *Tarih Araştırmaları Dergisi*, C. 32, S. 54, 25-40.

Duymuş Florioti, H. H. (2016). *Eski Yakındoğu Üzerine Notlar*, Archeology and Art Publications, İstanbul.

Faist, B. (2014). The Ordeal in The Neo-Assyrian Legal Procedure, *Alter Orient und Altes Testament. Veröffentlichungen zur Kultur und Geschichte des Alten Orients* 412, 189-200.

Friedrich, J. and A. Kammenhuber (1998). Hethitisches Wörterbuch. Zweite, völlig neu bearbeitete Auflage auf der Grundlage der edierten hethitischen Texte. Band III: Ḫ. Lieferung 13, (HW^2 III/13) Heidelberg.

Frymer-Kensky, T. S. (1979). The Judicial Ordeal in the Ancient Near East, Vol.2, PhD Yale University (University Microfilms International 8002726).

Gelb, I.J. (1957). Glossary of Old Akkadian Materials fort he Assyrian Dictionary, No. 3, The University of Chicago Press, Chicago.

Gerçek, N. İ. (2020). Rivers and River Cults in Hittite Anatolia, *Cult, Temple, Sacred Spaces, Cult Practices and Cult Spaces in Hittite Anatolia and Neighbouring Cultures, (StBoT 66),* (Eds. Görke S. & Steitler Ch.W.), (pp. 253-279).

Günbattı, C. (2000). Eski Anadolu'da 'Su Ordali', *Archivum Anatolicum/Anadolu Arşivleri* 4, 73-88.

Günbattı, C. (2017). Kültepe-Kaniş, Anadolu'da İlk Yazı, İlk Belgeler, Kayseri Büyükşehir Belediyesi Kültür Yayınları, Kayseri.

Hoffner, H. A. (1997). *The Laws of the Hittites*, *Critical Edition*, Leiden-New York-Köln.

Lafont, B. (2005). Mezopotamya Nehir Tanrılarının Yargılaması, *Eski Yakındoğu*, (Der. J. Bottero), Dost Kitabevi Yayınları, Ankara, (pp. 200-209).

Laroche, E. (1973). Fleuve et ordalie en Asie Mineure hittite, *Festschrift Heinrich Otten*, (Hrsg. Neu, E., C. Rüster), Wiesbaden, (pp. 179-189).

Marazzi, M. (2010). Pratiche ordaliche nell'Anatolia hittita, *ana turri gimilli – Studi dedicati al Padre Werner R. Mayer, S. J. da amici e allievi*, Roma, (pp. 197-230).

Michel, C. and P. Garelli (1996). Heurts avec une principauté anatolienne, *Festschrift für Hans Hirsch zum 65. Geburtstag gewidmet von seinen Freunden, Kollegen und Schülern (1996), (Wiener Zeitschrift für die Kunde des Morgenlandes 86),* Wien, (pp. 277-290).

Miller, J. L. (2013). Royal Hittite Instructions and Related Administrative Texts, (SBL 31), Atlanta.

Öz, E. (2015). Eski Mezopotamya'da Hukuk Kurallarının Oluşumu Sürecinde Adalet Anlayışı ve Bazı Hukuki Sorunların Çözümünde Nehir/Su Ordali Uygulaması, *Cahit Günbattı'ya Armağan/Studies in Honour of Cahit Günbattı,* (Eds. Albayrak, İ, Erol H., and Çayır M.), Ankara, (pp. 185-202).

Parpola, S. (2007). Assyrian-English-Assyrian Dictionary, The Neo-Assyrian Text Corps Project, University of Helsinki, Helsinki.

Puhvel, J. (1991). Hittite Etymological Dictionary, Vol.3-H, Mouton de Gruyter, Berlin, New York.

Roth, M. T. (1997). Law Collections from Mesopotamia and Asia Minor, Scholars Press, Atlanta.

SAA 18 (2003). Reynolds, F., The Babylonian Correspondence of Esarhaddon and Letters to Assurbanipal and Sîn-šarru-iškun from Northern and Central Babylonia, (State Archives of Assyria XVIII), Helsinki.

Sevimli, Ş. (2004). Anadolu Antik Hitit Uygarlığı İnsanının Değerler Sisteminde Su Kullanımı, *Ulusal Su Günleri 6-8 Ekim 2004, Bildiriler*, İzmir, (pp. 264-271).

Soysal, O. (1989). Mursili I. - Eine historische Studie. PhD Dissertation, Würzburg, Würzburg.

Soysal, O. (2010). Eski Anadolu Toponomisi'nde Değişik Yorumlara Açık Bir Yapım Öğesi Hakkında: Hititçe –aš+ḫapa "... nehir(i)" ya da Hattice š(a)ḫap "tanrı"?, *VII. Uluslararası Hititoloji Kongresi Bildirileri, Çorum 25-31 Ağustos 2008/Acts of the VIIth International Congress of Hittitology, Çorum, August 25-31, 2008*, (pp. 783-792).

Tosun, M. and Yalvaç, K. (1989). Sümer, Babil, Assur Kanunları ve Ammi-Şaduqa Fermanı, TTK, Ankara.

Ünal, A. (2007). Hititçe Çok Dilli El Sözlüğü I-II, Verlag Dr. Kovač, Hamburg.

van den Hout, Th. (2003-2005). Ordal. B. Bei den Hethitern, *Reallexikon der Assyriologie* 10, 129-130.

van Soldt, W. H. (2003-2005). Ordal. A. Mesopotamien, *Reallexikon der Assyriologie* 10, 124-129.

Westbrook, R. (2003). Evidentiary Procedure in the Middle Assyrian Laws, *Journal of Cuneiform Studies* 55, 87-97.

(ed.), hethiter.net/: CTH 9.6 (INTR 2012-07-10).

(ed.), hethiter.net/: CTH 23.3 (INTR 2012-07-11.

https://www.hethport.uni-wuerzburg.de/hetkonk/hetkonk_abfrage.php.

CTH	Content	Text Nr.	Term	Translation	Period
9.6	Fragments about palace history 1	KBo 3.28	^{D}ÍD *mimma-*	Rejecting the River God	Hittite Imperial Period
			^{D}ÍD-*ia paprai-*	Being found guilty by the River God	
23.3.A	Fragments about Alluwamna	KUB 31.74	*happa anda šeš-*	Lying in the river	Imperial Period
208	Akkadian Letter Fragments 1	KBo 28.102	*A-NA* ^{D}ÍD alik	Going to the River God	k.A.
209	Hittite Letter Fragments 1	KBo 18.66	*I-NA* ^{D}ÍD=*ia pehute-*	Going to the River God	Middle Hittite Period
265.1	Instructions for court personnel	KUB 13.3	ÍD-*i māniiah-*	Delivering to the river	Imperial Period
			parkueš-/parkuš-	Being clean, or proved innocent	
			paprai-/papre-/papri-	Being polluted, or dirty	
			hapā pai-	Going to the river	
265.2	Instructions for court personnel	KBo 50.282	^{D}ÍD *pai-*	Going to the River God	Imperial Period
			hapā pai-	Going to the river	
275	Fragments of instructions and protocol	KUB 43.35	^{D}ÍD EGIR	Returning to the River God	Middle Hittite Period
470	Ritual fragments	KBo 7.53	^{D}ÍD *anda*	Into the River God	Middle Hittite Period

Figure: Hittite texts and expressions about the River Ordeal

Anadolu Araştırmaları
Anatolian Research

İSTANBUL UNIVERSITY PRESS

AnAr, 28, 85–96
DOI: 10.26650/anar.2023.28.1293944 Research Article

Formation in the Highlands of Eastern Turkey: An Overview From the Bronze to Iron Ages

Aylin Ü. Erdem[1]

[1]Ege University, Faculty of Letters, Department of Archeology, Department of Protohistory and Near East Archeology, İzmir, Turkiye

ORCID ID: A.Ü.E. 0000-0002-5584-9357

Corresponding author:
Aylin Ü. Erdem,
Ege Üniversitesi, Edebiyat Fakültesi, Arkeoloji Bölümü, Protohistorya ve Önasya Arkeolojisi Anabilim Dalı, 35100 Bornova İzmir-Türkiye
E-mail: aylinerdem@gmail.com

Submitted: 08.05.2023
Revision Requested: 19.06.2023
Last Revision Received: 02.07.2023
Accepted: 03.07.2023

Citation: Erdem, A.U. (2023). Formation in the highlands of eastern Turkey: An overview from the bronze to iron ages. *Anadolu Araştırmaları-Anatolian Research, 28*, 85–96. https://doi.org/10.26650/anar.2023.28.1293944

ABSTRACT
Archaeological data from the highlands of Eastern Turkey unfortunately does not provide tangible evidence for the transformation of the earliest village communities into the institutional societies of the Urartian State period. The first cities, advanced agricultural activities, mass production and developed commercial activities, however, started to appear after the establishment of the Urartian State, as a result of central authority and institutionalization. There is a sharp difference between the pre-Urartian and Urartian State periods, which makes it difficult to understand the stages of the state transformation process.
This article discusses political and social changes and stages of state formation through the archaeological data, chronologically. The emergence of the first elites in the Eastern Anatolian plateaus goes back to the Middle Bronze Age with the appearance of the kurgan burials, which is mostly observed in Northeastern Anatolia. After a while, another organizational process started in the Van Lake Basin during the Late Bronze-Early Iron Age, which is characterized by the construction of fortresses and cemeteries including bronze and iron weapons. This means the state formation in the region and the establishment of the Urartian State rises from the organizational process of the semi-nomadic tribes dealing with animal husbandry during the Early Iron Age, rather than farmer societies engaged in agriculture. In other words, the state formation in the Eastern Anatolian highlands did not develop from the agricultural model of "village, city and state". Rather, it is observed in the form of "village, state and city".
Keywords: Eastern Turkey, Animal Husbandry, Iron Age, Urartian State, State Formation

Introduction

The term "Highlands of Eastern Turkey" is used to designate the part of Eastern Turkey which includes the sub-regions: the Erzurum-Kars Region and the Lake Van Basin. It is bordered by the lands of Transcaucasia and Northwest Iran in the east. The sea level in this mountainous area ranges between 1500-3000 meters. Climatic conditions are characteristically harsh and the landscape is generally covered by snow during the winter periods. Animal husbandry is the primary mode of subsistence and semi-nomadic tribes dominated the region until recently.

Although the settlement history of the highlands of Eastern Turkey goes back to the Late Chalcolithic Period, we have little information about communities and the earliest village types before the Early Bronze Age[1]. The stratigraphic data obtained from the mounds are insufficient to illuminate the period between the Early Bronze Age and the Urartian period. This makes it difficult to reveal the historical sequence of the region's transformation from the first village communities to the complex societies. In other words, the Middle Bronze, Late Bronze and Early Iron Age periods appear like a chronological gap in the construction of the cultural sequence of the region. However, this gap in the mounds is filled with another archaeological source, graves and fortresses. At this point, the Middle Bronze Age burials and the Late Bronze-Early Iron Age burials and fortresses provide information about the lifestyle in the region.

From this point forward, archaeological investigations do not witness a gradual settlement development process culminating in the formation of the Urartian State in the Iron Age. Rather, they reflect unusual types of socio-political developments. In this paper, the stages of socio-political organization and state formation will be discussed according to the archaeological evidence, chronologically.

1st Stage: "Egalitarian" Communities in the Early Bronze Age

The Early Bronze Age (EBA) in Turkey is represented by the emergence of urbanism with the existence of cities, citadels, palaces and rich grave goods, according to the evidences from the settlements and the graves. These evidences are interpreted as the appearance of a ruling class, social hierarchy and specialization for the EBA societies. However, the Eastern Anatolian highlands (the Erzurum-Kars Region and the Lake Van Basin) present a different structure from the rest of Anatolia, where the rural economy was predominant. According to the archaeological evidence, the Eastern Anatolian highlands were completely dominated by the Early Transcaucasian Culture (Kura-Araxes Culture) from the Southern Caucasian lands during the Early Bronze Age.

1 However, the Late Chalcolithic period is better known in Iran and Transcaucasia from the point of craft production and material distribution. For detailed information, see Helwing 2016:51-78.

Archaeological excavations both in Transcaucasia and Eastern Anatolia indicate that this culture was characterized by a distinctive pottery tradition and architecture during the 3rd millennium BC. It is characterized by handmade monochrome pottery, especially with the black burnished pottery tradition together with other colors such as grey, brown and buff. Architectural remains indicate that the houses were built from mudbrick walls in rectangular and/or oval plans. Architectural evidence and other finds from both settlements and graves do not present any trace of a public structure, religious or administrative, or status objects indicative of a social hierarchy (Işıklı 2011, pp. 79-95; Işıklı 2015, pp. 257-275). The structures in the settlements are entirely associated with domestic purposes. Thus, many scholars use the term "egalitarian"[2] for the Early Transcaucasian Culture which existed for more than a thousand years, roughly between 3000-2000 BC (Işıklı 2011, pp. 9-95; Işıklı 2015, pp. 257-275; Palumbi 2016, p. 23). In other words, there is no clear inequality in the socioeconomic structure of the communities in this culture. The emergence of village settlements in the Eastern Anatolian highlands is represented by excavations at such sites as Sos, Karaz, Pulur in the Erzurum Region, Dilkaya and Karagündüz in the Van Region during the Early Bronze Age (Sagona and Sagona 2000, pp. 56-127; Çilingiroğlu 1993, pp. 469-489; Sevin, Özfırat and Kavaklı 2000, pp. 847-867) (Fig. 1).

The rural economy of these communities was dominated by sedentary agriculture and animal husbandry. All the archaeological evidence from the settlements and graves indicates that the early village period in the Eastern Anatolian highlands in the 3rd millennium BC point to an un-hierarchic social and economic model. There is no sign related to a political organization. However, a few exceptional structures in the sites at Transcaucasia, such as Shengavit, Kvatskhelebi and Mokhra Blur diverge from this general pattern. The "defense wall" at Shengavit for example, is the feature in Transcaucasia that might be interpreted as the result of coordinated collective labor in this period (Palumbi 2016, pp. 17-21). Similar fortified settlements are also observed in North-Western Iran, too (Kroll 2017, pp. 253-261). This means, although this period is largely identified with the egalitarian communities, the unusual existence of a defense wall, at least, implies some sort of communal organization could have existed in Transcaucasia and Northwest Iran.

2nd Stage: Lighting the Fuse in Northeast Anatolia: Appearance of the First Rural Elites in the Middle Bronze Age

The Middle Bronze Age in the Eastern Anatolian highlands represents a departure from the traditions of the Early Bronze Age. There is an interruption of the stratigraphy of the mound settlements that indicates a chronological interruption after the Early Bronze Age

2 The term egalitarian refers to the communities who have equal opportunities from the point of social and economic aspects. This term is mostly used for the hunter-gatherer groups. For detailed information about the egalitarian groups in the Early Mesopotamia, see Frangipane 2007: 151-176.

layers, upon which Early Iron Age remains of relatively impoverished construction are built. Above these, sophisticated Middle Iron Age Urartian architecture is found. This means, in essence, that these settlements do not shed much light on the period between the Early Bronze Age and Urartian State period or the sociopolitical developments leading up to the emergence of a strong state in the area. The long intervening period, the Middle Bronze Age, must be understood in the light of burials on the pastures instead of settlements in the plains.

In Eastern Anatolia, the Middle Bronze Age is entirely represented by the burials on the plateau. These reflect radical changes in the way of subsistence, which is completely based on the semi-nomadic pastoral economy (Özfırat 2001, p. 16; Sevin 2004a, p. 105; Özfırat 2014a, p. 26). Scholars explain this period with a radical climate change, which caused the people to move to the plateaus during the Middle Bronze Age (Özfırat 2001, p. 16; Sevin 2004a, p. 105).

A similar situation is observed in Transcaucasia where the Middle Bronze Age is also mainly represented by graves. The appearance of Kurgan burials for the first time at the end of the Early Bronze Age (Early Kurgan Culture) and their continuation into the Middle Bronze Age (Trialeti Culture) are generally assumed to represent a major change in socioeconomic and political structures (Kushnareva 2003, p. 111). During the Middle Bronze Age in Transcaucasia, Kurgan burials are noteworthy for their bigger size and rich burial gifts. Especially, kurgans at Trialeti, Vanadzor, Zurtaketi, Tsalka, Karashamb and Kirovakan are conspicuously furnished with gold and silver artifacts and high-quality painted vessels (Kushnareva 2003, p. 230-233; Puturidze 2003, p. 126; Rubinson 2003, p. 130; Özfırat 2001, p. 18-64). Because of the kurgan burials and their rich context, the appearance of the first elites/ruling class in this area dated to the Middle Bronze Age. These burials not only point to a ruling class, but also to social classes in general and craft specialists such as goldsmiths and potters (Puturidze 2003, p. 126).

Kurgan burial customs of Transcaucasia spread into northwest Iran and northeast Anatolia in the Middle Bronze Age (Bahşeliyev 1997, p. 29; Özfırat 2003, p. 350). The existence of kurgan burials in Anatolia, especially in northeast Anatolia, has been identified in the villages of Küçük Çatma and Köprüköy in the province of Erzurum and more than 30 kurgans in Bozkurt Kurgan in the province of Ağrı-Doğubeyazıt (Figs. 1, 2). These are mostly small, with diameters of 8-12 m and heights of 0.60-2.00 m. and no precious objects were found except for a few necklace beads. Pottery made up the majority of the finds (Özfırat 2009, p. 636; Özfırat 2014b, pp. 52-53; Özfırat 2014c, p. 211) (Fig. 2).

All this archaeological evidence permits some inferences about the sociopolitical organization and state formation in the Middle Bronze Age both in Transcaucasia and Northeast Anatolia. The development of a new burial tradition (kurgans) and the appearance

of status objects in these burials indicates that egalitarian village communities of the Early Bronze Age transformed into hierarchic societies associated with status and wealth differentials in the Transcaucasian lands. This process can be divided two phases according to the kurgan burials. The initial stage is characterized with smaller kurgans with lesser burial gifts at the end of the Early Bronze Age (Early Kurgan Culture Period). The second phase is represented by the bigger-sized kurgans and rich burial gifts in the Trialeti Culture in the Middle Bronze Age. As for Northeast Anatolia, although kurgan burials are smaller and do not contain rich burial gifts (Özfırat 2009, pp. 636-63; Köroğlu 2000, pp. 2-11; Özfırat 2014c, pp. 211), the kurgan burial tradition itself indicates similar sociopolitical development processes were at work. However, it is clear that they are less pronounced in comparison to the Transcaucasian examples. The two-phase development process does not appear to apply to Northeast Anatolia where only small-sized kurgans are found (Fig. 2). Although the underlying reason for Anatolia's backwardness is not certainly known, there is no doubt that the advanced metal industry must have provided a great advantage to the Transcaucasian elites in Near Eastern trading activities. In any case, the existence of the kurgan burials in Northeast Anatolia can be accepted as the indicator of the first rural elites in the region because the kurgan burial type is itself an esoteric tradition reflecting status and wealth. This means that, unlike the Early Bronze Age with its egalitarian communities, the Middle Bronze Age sees the first appearance of the rural elites in Northeast Anatolia (Fig. 4). However, these rural elites in Northeast Anatolia did not play a major role in the state formation process of the Eastern Anatolian Highlands. The kurgan burial tradition disappeared around the beginning of the Early Iron Age[3], and the vanguard of the developmental process shifted to the Lake Van Basin[4].

3rd Stage: The Shifting Winds to the Lake Van Basin: Roots of the State Formation in the Early Iron Age

During the Early Iron Age, the initial process of the state formation was reshaped in the Lake Van Basin instead of Northeast Anatolia. In other words, although the first steps toward more hierarchical societies were taken in Northeast Anatolia during the Middle Bronze Age under the influence of Transcaucasian cultures, the societies based on more elaborate formal institutions were developed in the Lake Van Basin somewhat later. Sources of archaeological information other than kurgans are available for the region during the Early Iron Age. However, it should be noted that the archaeological evidence is still not particularly abundant for the period (Konyar 2022). No grave or status object related to a ruler has yet been discovered in Early Iron Age in East Anatolia. Although some metal objects were found,

3 The continuation of kurgan burials into the Late Bronze Age-Early Iron Age is known from Bozkurt Kurgan excavations, but they also do not contain rich burial gifts (Özfırat 2014a: 17-43).

4 However, it should be noticed that the effects of Transcaucasian cultures never ended up in East Anatolia which continued into the Urartian Kingdom period.

for example jewelry and weapons from the cemeteries of Dilkaya, Karagündüz, Yoncatepe, Ernis and Çatak (Sevin and Kavaklı 1996a, pp. 1-20; Köroğlu 2003, pp. 231-244; Köroğlu and Konyar 2005, pp. 25-38; Erdem 2011, pp. 59-68; Özfırat 2014b, pp. 54-55; Kuvanç et all 2016, pp. 149-194), they are not a direct indication of a ruler or a leader (Baştürk 2015, pp. 6-8; Erdem 2018, pp. 29-36) (Fig. 3). The metal objects, of course, are not comparable to the precious metal artifacts found in the MBA kurgan burials in Transcaucasia. If archaeological evidence is not by itself, conclusive, Assyrian written documents make it absolutely clear that organized political societies existed in Eastern Anatolia during the Early Iron Age (Çilingiroğlu 1994, pp. 1-13). These texts of the 13th century BC mention *Uruadri Lands* consisting of 8 kingdoms and 51 cities, and *Nairi Lands* with 60 kings (Grayson 2002a, 2002b; Salvini 2006). The rapid political and social development of this area was thus reflected by numerous tribal leaders in these areas, which later records allow us to locate in the areas around Lakes Van and Urmia (Fig. 1). Moreover, Assyrian records also document the existence of strongholds on the top of the hills. Indeed, archaeological surveys in the region indicate the presence of fortresses dating to the Early Iron Age such as Yürek, Papaz, Aşıkhüseyin, Panz, Şorik, Meydantepe, and Aliler (Belli and Konyar 2003, pp. 6-89; Konyar 2022). These fortresses are the earliest evidence of the fortress-based settlement system of the region[5].

Cumulatively, this evidence -the existence of organized tribes (chiefdoms) and conflicts; development of metal weapons; and appearance of fortress-based settlements for the first time- reflects a transformation toward state-organized societies although the population was still substantially engaging with animal husbandry and living a semi-nomadic style (Köroğlu 2021, pp. 71-72). Unimpressive architectural remains on the mounds of the lowlands in contrast to the fortresses on the top of the hills, which are thought to have served for controlling pastures for the animals (Belli and Konyar 2003, p. 92), further clarifies the organization of the tribes during the Early Iron Age was adapted to the conditions of animal husbandry.

Concluding Remarks: Urartian State Formation

Socially differentiated societies in the Eastern Anatolian highlands first appear in the Middle Bronze Age in its northeastern part with kurgan burials. Although these burials do not contain any status objects, the presence of the kurgan burials themselves indicates the existence of varying social status in a population otherwise living as clans without other traces of military or political organization. No further development toward social complexity was in this part of the land.

5 A fortress-based settlement system is the main characteristic of the Urartian period. There are some differences between the Urartian and Early Iron Age fortresses which are another subject of research and will not be discussed here. For detailed information, see Belli and Konyar 2003; Konyar 2022.

During the Early Iron Age, another organizational system appeared in the Lake Van Basin[6]. In the Early Iron Age, underground chamber tombs with burial gifts such as jewelry, ornaments and weapons made of bronze and iron (Sevin and Kavaklı 1996a, pp. 1-20; Sevin and Kavaklı 1996b, pp. 9-45; Sevin 2004b, pp. 358-373; Çilingiroğlu 1991a, pp. 29-38; Çilingiroğlu 1991b; Çilingiroğlu 1994, pp. 469-491; Kuvanç et all 2016, p. 160) and fortresses on the mountains distinguish the archaeological record. All these data point to the emergence of a more elaborate social and political organization in the Early Iron Age Lake Van Basin (Fig. 4). According to the Assyrian texts, the population was living in the chiefdom/*aşiret* form and with a militaristic structure. Therefore, the chiefdoms in the Early Iron Age completely differ from the Bronze Age ones in the northeast[7]. However, there is no distinction between the two periods in terms of subsistence, which was based on animal husbandry.

In the Early Iron Age, the semi-nomadic lifestyle is attested by sparse archaeological remains in mound settlements and the presence of fortresses guarding the pastures in the mountains.[8] It is known that semi-nomadic tribes turned into a confederation at the end of the Early Iron Age and later succeeded in establishing the Urartian State. This clearly indicates that the Urartian State traces its roots to the semi-nomadic lifestyle based on animal husbandry. We have no information about agricultural activities in East Anatolia until the Urartian State was established. This model of state formation, where sedentary agriculture was inconsequential, implies a completely different development pattern than the traditional one in which field agriculture plays a prominent role. In other words, Urartu's political organization and state formation were first generated in a society dominated by animal husbandry, and after the establishment of the state, fostered agricultural activities such as building canals, dams, fields and gardens, as documented by written documents of Urartian kings[9]. The earliest cities of the area emerged during the Urartian period and were constructed by the state. The contrast to the model of linear development "from village to city and state" on the basis of agricultural development clearly does not apply here. Rather, it is observed in the form of "village, state and city".

In conclusion, semi-nomadic tribes, consisting of different ethnic groups, took a major part in the political changes and state formation in the highlands of Eastern Turkey. Thus,

6 This note refers to the organization in the Lake Van Basin which was completely in the local character. The effects of Transcaucasia, Mesopotamia and Syria can still be observed within the archaeological contexts until the end of the Urartian period.

7 For detailed information about the formation stages of a military system during the Early and Middle Iron Ages, see Batmaz 2012:41.

8 The conflicts between the tribes for the controlling of the pastures was known in the Eastern Anatolian lands until recent times. For detailed information, see Erdem 2011:63-64.

9 For detailed information about the Urartian economy and sociopolitical organization, see Zimansky 1985; Çiftçi 2017:28-90.

Urartian state formation in Eastern Turkey presents a different model, which was directly developed by the semi-nomadic tribes engaged with animal husbandry on plateaus, instead of agricultural activities. Undoubtedly, different ethnic groups were also influential in the establishment of the Urartian State.

Acknowledgment: I would like to thank Paul Zimansky for the English editing and constructive criticism of the paper.

Peer-review: Externally peer-reviewed.
Conflict of Interest: The author has no conflict of interest to declare.
Grant Support: The author declared that this study has received no financial support.

References

Bahşeliyev, V. (1997). *Nahçıvan Arkeolojisi*, İstanbul.

Baştürk, M. B. (2015). Considerations on the Belief Systems on the Early Iron Age Peoples in Lake Van Basin, *International Symposium on East Anatolia-South Caucasus Cultures*, vol. 2, Cambridge: 2-11.

Batmaz, A. (2012). War and Identity in the Early History of Urartu, in Çilingiroğlu, A., Sagona (eds), *Anatolian Iron Ages 7, ANES, Supplement 39*, Leuven: 23-50.

Belli, O. and Konyar, E. (2003). *Doğu Anadolu Bölgesi'nde Erken Demir Çağ Kale ve Nekropolleri*, İstanbul.

Çiftçi, A. (2017). *The Socio Economic Organisation of the Urartian Kingdom*, Leiden.

Çilingiroğlu, A. (1991a). The Early Iron Age Dilkaya, in Çilingiroğlu A., French, D. (eds), *Anatolian Iron Ages 2. The Proceedings of the Second Anatolian Iron Ages Colloquium held at Van*, Ankara: 29-38.

Çilingiroğlu, A. (1991b). Van-Dilkaya Höyüğü Kazıları Kapanış, *XIV. Kazı Sonuçları Toplantısı-I*, Ankara: 469-489.

Çilingiroğlu, A. (1994). *Urartu Tarihi*, Ege Üniversitesi Yayınları, İzmir.

Erdem, A. Ü. (2011). Doğu Anadolu'nun Demir Çağ Aşiretleri, *Tüba-ar 14*: 59-68.

Erdem, A. Ü. (2018). A Consideration of Status and Wealth in the Lake Van Basin According to the Early Iron Age Burials, *TÜBAAR (Special Issue)*: 29-36.

Frangipane, M. (2007). Different Types of Egalitarian Societies and the Development of Inequality in Early Mesopotamia, *World Archaeology 39/2*: 151-176.

Grayson, A. K. (2002a). *Assyrian Rulers of the Third and Second Millennia BC (To 1115 BC), The Royal Inscriptions of Mesopotamia, Assyrian Periods Vol. 1*, Toronto-Buffalo-London.

Grayson, A. K. (2002b). *Assyrian Rulers of the First Millennium BC (1114-859 BC), The Royal Inscriptions of Mesopotamia, Assyrian Periods Vol. 2*, Toronto-Buffalo-London.

Helwing, B. (2016). Networks of Craft Production and Material Distribution in the Late Chalcolithic. Metallurgical Evidence from Iran and the Southern Caucasus, in Rova, E., Tonussi, M. (eds), *At the Northern Frontier of Near Eastern Archaeology*, Brepols.

Işıklı, M. (2011). *Doğu Anadolu Erken Transkafkasya Kültürü. Çok Bileşenli Gelişkin Bir Kültürün Analizi*, İstanbul.

Işıklı, M. (2015). Geç Prehistorik Çağda Doğu Anadolu Yaylasında Ölüm: Kura-Aras Kültürü Ölü Gömme Uygulamaları Üzerine Gözlemler, İstanbul: 257-275.

Konyar, E. (2022). *Urartu: Aşiretten Devlete*, İstanbul.

Köroğlu, K. (2000). Çıldır Kurganları, *Arkeoloji ve Sanat Dergisi 96*: 2-11.

Köroğlu, K. (2003). The Transition from Bronze Age to Iron Age in Eastern Anatolia, in Fischer, E., Genz, H., Jean, E. and Köroğlu, K. (eds), *Identifying Changes: The Transition from Bronze to Iron Ages in Anatolia and its Neighbouring Regions*, İstanbul: 231-244.

Köroğlu, K. and Konyar, E. (2005). Van Havzası'nda Erken Demir Çağ Problemi, *Arkeoloji ve Sanat Dergisi 119*: 25-38.

Köroğlu, K. (2021). Urartu'da Kentleşme: Doğuda Devletin Değişim Çabası, *Aktüel Arkeoloji 78:* 68-81.

Kroll, S. (2017). Fortified Kura-Arax Settlements in North-Western Iran, in Avetisyan, P. S., Grekyan Y. H. (eds), *Bridging Times and Space. Papers in Ancient Near Eastern, Mediterranean and Armenian Studies. Honouring Gregory E. Areshian on the occasion of his sixty-fifth birthday*, Oxford: 253-261.

Kushnareva. Kh. (1997). *The Southern Caucasus in Prehistory: Stages of Cultural and Socioeconomic Development from the Eight to the Second Millennium B.C.*, Philadelphia.

Kuvanç, R., Ayaz, G., Işık, K., Erdoğan, S., and Genç, B. (2016). A New Iron Age Chamber Tomb Near Çatak, South of Lake Van, *ANES 53*: 149-194.

Özfırat, A. (2001). *Doğu Anadolu Yayla Kültürleri*, İstanbul.

Özfırat, A. (2003). Doğu Anadolu Yüksek Yaylası'ndan M.Ö. 2. Binyıl Kurganları, *Belleten LXXIII/268*: 343-356.

Özfırat, A. (2009). Bozkurt Kurgan Mezarlığı Kazıları, *Belleten LXVI/246*: 635-644.

Özfırat, A. (2014a). Ağrı Dağı ve Van Gölü Havzası Yüzey Araştırması (Muş, Bitlis, Van, Ağrı, Iğdır İlleri ve İlçeleri), in Özfırat, A., Coşkun, N. (eds), *Mustafa Kemal Üniversitesi Fen-Edebiyat Fakültesi Arkeoloji Bölümü Kazı ve Araştırmaları*, Antakya: 17-43.

Özfırat, A. (2014b). Bozkurt Kurgan Nekropolü Kazısı, in Özfırat, A., Coşkun, N. (eds), *Mustafa Kemal Üniversitesi Fen-Edebiyat Fakültesi Arkeoloji Bölümü Kazı ve Araştırmaları*, Antakya: 45-70.

Özfırat, A. (2014c). Bozkurt Kurgan Mezarlığı Kazısı (2007-2013), *Kazı Sonuçları Toplantısı 36/2*, Ankara: 209-226.

Palumbi, G. (2016). The Early Bronze Age of the Southern Caucasus, *Oxford Handbooks Online*: 1-44.

Puturidze, M. (2003). Social and Economic Shifts in the South Caucasian Middle Bronze Age, in Smith, A., Rubinson, K. (eds), *Archaeology in the Borderlands. Investigations in Caucasia and Beyond*, California: 111-127.

Rubinson, K. S. (2003). Silver Vessels and Cylinder Sealings: Precious Reflections of Economic Exchange in the Early Second Millennium BC", *Archaeology in the Borderlands. Investigations in Caucasia and Beyond*, California: 128-143.

Sagona, A. and Sagona, C. (2000). Excavations at Sos Höyük, 1998-2000: Fifth Preliminary Report", *Ancient Near Eastern Studies 37*: 56-127.

Salvini, M. (2006). *Urartu Tarihi ve Kültürü*, İstanbul.

Sevin, V. (2004a). Doğu Anadolu Orta ve Son Tunç Çağı, *Arkeoatlas 3*: 104-129.

Sevin, V. (2004b). Son Tunç/Erken Demir Çağ Van Bölgesi Kronolojisi: Kökeni Aranan Bir Devlet-Urartu, *Belleten* LXVIII-252: 355-400.

Sevin, V. and Kavaklı, E. (1996a). Van/Karagündüz Erken Demir Çağı Nekropolü", *Belleten LX-227*, Ankara: 1-20.

Sevin, V. and Kavaklı, E. (1996b). *Bir Erken Demir Çağ Nekropolü Van/ Karagündüz*, İstanbul.

Sevin, V., Özfırat, A. and Kavaklı, E. (2000). Van-Karagündüz Höyüğü Kazıları (1997 Yılı Çalışmaları), *Belleten 63*: 847-867.

Zimansky, P. (1985). *Ecology and Empire: The Structure of the Urartian State*, Chicago.

Figures

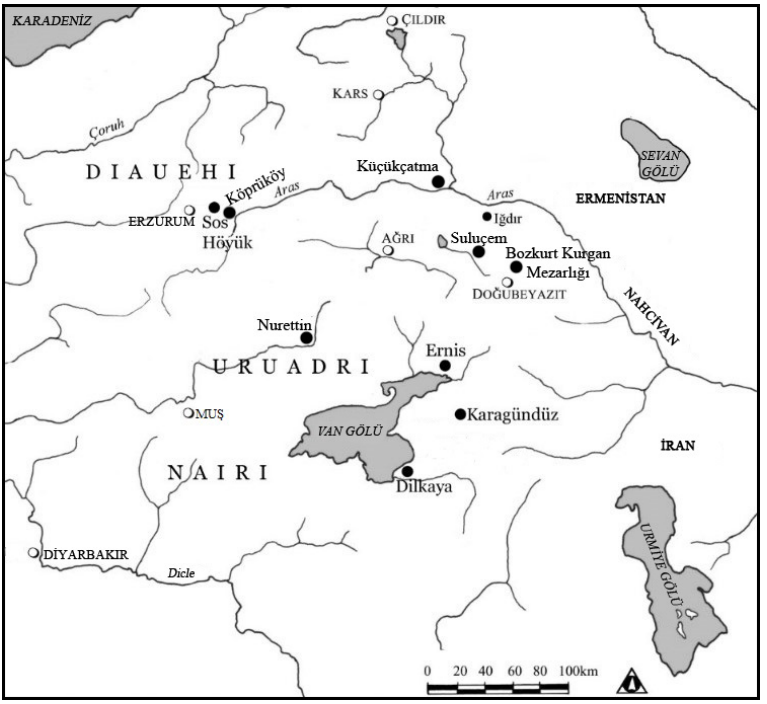

Fig. 1: Map of the sites mentioned in the text (Erdem 2018: Fig.1)

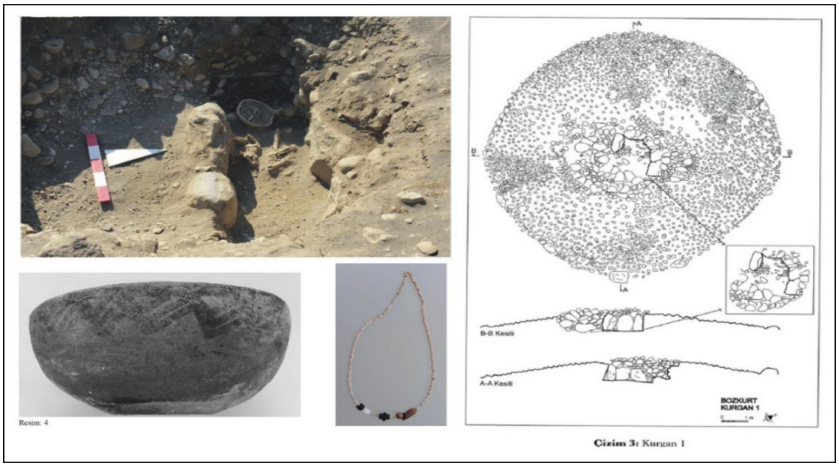

Fig. 2: Kurgan Burial from Northeast Turkey (Özfırat 2014b: Res. 7, 8, 9)

Fig. 4: Burial Gifts from Karagündüz Cemetery (Sevin and Kavaklı 1996b: Figs. 2-5)

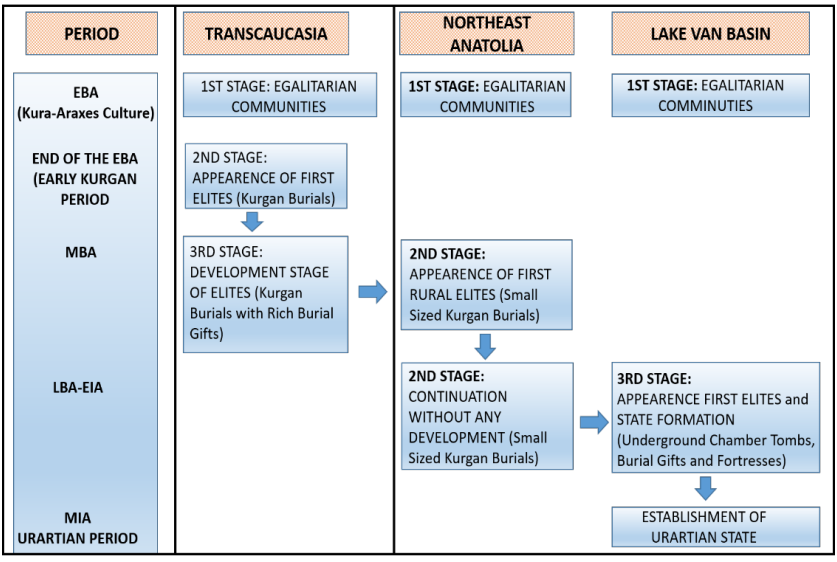

Fig. 5: Stages of State Formation in Eastern Turkey

Anadolu Araştırmaları
Anatolian Research

İSTANBUL UNIVERSITY PRESS

AnAr, 28, 97–118
DOI: 10.26650/anar.2023.28.1223621 Research Article

Preliminary Evaluations on a Group of Embossed Skyphoi Unearthed in Blaundos

Cüneyt Öz[1]

[1]Asst. Prof. Dr., Dicle University, Faculty of Literature, Department of Archaeology, Diyarbakır, Turkiye

ORCID ID: C.Ö. 0000-0003-4229-1398

Corresponding author:
Cüneyt Öz,
Dicle University, Faculty of Literature, Department of Archaeology, Diyarbakır, Turkiye
E-mail: cuneyt.oz@outlook.com

Submitted: 23.12.2022
Revision Requested: 07.03.2023
Last Revision Received: 23.03.2023
Accepted: 23.03.2023

Citation: Oz, C. (2023). Preliminary evaluations on a group of embossed skyphoi unearthed in blaundos. *Anadolu Araştırmaları-Anatolian Research*, *28*, 97–118. https://doi.org/10.26650/anar.2023.28.1223621

ABSTRACT

This article covers the twenty-eight embossed skyphoi found between 2018 and 2020 during the excavations of the ancient city of Blaundos, located within the borders of Sülümenli Village of Ulubey District of Uşak Province. While the majority of the skyphoi were discovered on the western, southern, and northwestern slopes of the city, some of them were unearthed during the excavations carried out in the propylon and the main street. These skyphoi were evaluated in seven different groups: pinecone, imbricated leaf, long petal, floral, figured, embossed dot, and other pieces. The clay, slip, form, and decoration features of the skyphoi in Blaundos are similar to the Laodikeia and Tripolis samples from which the Lycos Skyphoi were produced. Therefore, the dating suggested for the skyphoi from Laodikeia and Tripolis, ranging from the second half of the 1st century BCE to the end of the 1st century CE, has also been proposed for the Blaundos skyphoi. The Lycos Skyphoi, which were produced as the contemporaries of Lead-Glazed Ceramics, and thought to have continued to be in use until the end of the 1st century CE, were not produced only for the local needs of the Lycos Valley settlements. The presence of skyphos of this type in Blaundos indicates that they were also exported to the neighboring cities. The limited number of finds of Lycos Skyphoi in Anatolia must be related to the preference for Lead-Glazed Ceramics, which were more popular in the period they were produced.

Keywords: Lydia, Blaundos, Late Hellenistic Pottery, Embossed Pottery, Lycos Skyphoi

Introduction

Blaundos[1] is located 2 kilometers northeast of Sülümenli Village of the Ulubey District of Uşak Province. Blaundos, a medium-sized city built on a hill surrounded by deep canyons on three sides, has a strategic location close to the Phrygia border in the Lydia Region (Can et al., 2020, p. 393). According to what Diodorus the Sicilian tells, the oldest history of the city dates back to the 5th century BCE (Diod. Sic. XIII.104.6). Although it is thought that the city was founded by the Macedonians[2] in the last quarter of the 4th century BCE or the first quarter of the 3rd century BCE, there is not sufficient data to prove these dates[3]. Blaundos, which was annexed to the Pergamon Kingdom with the Peace of Apameia in 188 BCE, is among the cities where Pergamon cistophorus coins were minted (Filges, 2006, p. 21). Remains in Blaundos (Filges, 2001, p. 231-240; Filges, 2002, p. 263-270; Filges, 2004, p. 79-86), finds[4] and inscriptions (Filges, 2006, p. 321-350) have revealed that the city had its heyday in the 1st century CE (Can, 2017, p. 77). In an inscription found in Ephesus, Blaundos is also mentioned as one of the 28 cities of the Sardis-centered Phrygia conventus (Filges, 2006, p. 14; Can, 2017, p. 77). The city minted its own coins from the middle of the 1st century CE to the middle of the 4th century (Filges, 2006, p. 284-303). It was connected to the diocese center in the ancient city of Sebaste, located in the Selçikler Village of Sivaslı District, in the 5th century CE (Akbıyıkoğlu, 1997, p. 29). The fact that bishops (Quien, 1740, p. 889-890; Ramsay, 1897, p. 617) who attended different councils in Blaundos were included in the church records until the 12th century CE indicates that the city was active until the mentioned date. (Filges, 2006, p. 27). It is assumed that the city was abandoned after this date. At the beginning of the 19th century, the Sülümenli Village was established near the area where the theater of the ancient city was located, and the village was moved to its current location in 1938 (Can, 2017, p. 77).

Considered to be the continuation of the mold-made relief bowls of the Late Hellenistic-Early Roman Period, they are thought to have been produced as a different version in terms of form, lining, and ornament repertoire in Hierapolis, Laodikeia and Tripolis and around the Lycos Valley[5]. The name "*Lycos Skyphoi*" is suggested for these skyphoi produced in

1 For detailed information on the name of the city, see. Can, 2017, p. 74; Kileci & Can, 2020, p. 298.

2 The expression "*Blaundeon Macedonian* (Macedonian Blaundians)" in the inscription, which is thought to come from the 3rd century CE city, proves that the city was founded by the Macedonians (Can, 2017, p. 75).

3 Ceramics and other remains unearthed during excavations and surveys illustrate that the city was inhabited during the Hellenistic Period. For detailed information, see. Filges, 2006; Can, 2017, p. 76-77.

4 For sculptures, see Filges, 2006, p. 269-284; For coins, see Filges, 2006, p. 284-303; For ceramics, see Filges, 2006, p. 304-311.

5 *Hierapolis:* Semeraro, 2003, p. 83-89; Semeraro, 2005, p. 83-98; Semeraro, 2016, p. 200, Fig. 11: 4-5, 9; *Laodikeia:* Duman, 2010, p. 138 ff.; Duman, 2014, p. 163-164; *Tripolis:* Ok, 2018, p. 133 ff. For other settlements where the Lycos Skyphoi are located, see also. Ok, 2018, p. 133, Fig. 30.

the cities of the Lycos Valley (Duman, 2010, p. 150; Duman, 2014, p. 163). Accordingly, the subject of this study is a group of embossed skyphos fragments[6] belonging to the Skyphoi of Lycos found during the excavations and surveys carried out in Blaundos between 2018 and 2020.

Lycos Skyphoi

Lycos Skyphoi are generally ring-shaped drinking vessels with a pointed rim, a flat or slightly concave rim, a sharp groove/profile in the transition from the rim to the body, and two handles attached to the rim and body in the form of a ring (Duman, 2014, p. 160)[7]. The body, which slants straight from the rim, is connected to the base with a slightly concave bulge at the bottom (Duman, 2014, p. 170, Fig. 9). The dense and well-sifted clays of skyphos are tempered with lime, mica and grit (Ok, 2018, p. 136-137, Fig. 32). While the clays are generally brown, pinkish gray, pink, reddish-yellow or, yellowish-red, their glossy and matte-rough slips are in red, brown, reddish-yellow and reddish-brown tones. The slip of some of the Tripolis samples yielded blackening due to firing (Ok, 2018, Cat. No. 183, 187, 191, 211, 255, 258). Their rim diameters generally vary between 8-10 cm, and there are also pieces reaching 17 centimeters (Duman, 2014, p. 160). The relief decorations on the skyphoi are similar to lead-glazed ceramics and mold-made embossed bowls (Megara Bowls), which were popular ceramics of the Hellenistic Period. Similar to the method followed in the classification of mold-made embossed bowls (Courby, 1922, p. 325 ff.; Rotroff, 1982, p. 14 ff.; Öz, 2022, p. 118-124), the classification of skyphoi was made according to the ornaments on their bodies (Duman, 2014, p. 161). Pinecones, imbricated leaves, long petals and long petal-ram heads, raised dots, and floral and figured decorations are noticeable on the skyphoi (Duman, 2010, Lev. LI-LXI; Duman, 2014, p. 170-172, Fig. 1-27; Ok, 2018, p. 140, Fig. 36). Lycos Skyphoi were used from the second half of the 1st century BCE to the end of the 1st century CE (Semeraro, 2003, p. 87; Semeraro, 2005, p. 83-98; Duman, 2014, p. 164; Panarelli, 2016, p. 313, Fig. 31: 2-3; Ok, 2018, p. 198).

Embossed Skyphoi Found in Blaundos

A total of twenty-eight embossed skyphos fragments were found during the excavations and survey studies in Blaundos (Figs. 1-3)[8]. The grouping of the skyphoi is similar[9] to the grouping of the mold-made embossed bowls, one of the popular ceramics of the Hellenistic

6 Filges used the definition of barbotine glass/cup (Barbotine-Becher) for similar skyphos fragments he found during his survey in the city. (Filges, 2006, p. 308, Fig. 261).

7 Handles with thumb rest supported skyphoi found in Tripolis were evaluated as a subtype of Lycos Skyphoi (Ok, 2018, p. 177 ff.).

8 There is no doubt that this number will increase as the excavations continue.

9 For the classification of mold-made embossed bowls, also see Courby, 1922, p. 325 ff.; Rotroff, 1982, p. 14 ff.

Period, according to the decorations on them. In the samples in Blaundos, the classification made by Duman (Duman, 2010, p. 141; Duman, 2014, p. 161) and Ok (Ok, 2018, p. 139 ff.) is based on six different sub-headings: pinecone, imbricated leaf, long petal, floral, figured and embossed decorated skyphos. Other skyphoi were evaluated under the heading of other pieces.

Pinecone Decorations (Fig. 1: 1-6, Cat. No. 1-6)

There are six samples of pinecone-decorated skyphos (Fig. 1: 1-6). Two of them are rim-body (Fig. 1: 2-3), while others consist only of body parts (Fig. 1: 1, 4-6). Their rims are pointed and upright, and the outer rim passes into the body with a slightly concave profile. Inside, there is a sharp groove at the transition from the rim to the body and the upper part of the body has a vertical profile, while the bottom is slightly inclined to join the base (Fig. 1: 2-3). The protrusion on the body of Cat. No. 3, most of which is broken, probably belongs to the handle (Fig. 1: 3). The body of one the embossed skyphoi found in Filges' surface survey of the city contains handle impressions that allow us to understand how the handles of Blaundos skyphoi might have looked, despite most of them being broken. Looking at this piece (Filges, 2006, Fig. 261), just like those of Laodikeia (Duman, 2014, Fig. 19) and Tripolis (Ok, 2018, Lev. 27: 192, 32: 235, 36: 266) it appears that it had a small vertical ring handle. While the pinecone decorations in Cat. No. 1, 2, 5, and 6 look similar except for minor differences, the pinecone in Cat. No. 4 differs[10] due to being inside a thin eggshell[11] (Fig. 1: 4). The pinecones formed by juxtaposing square and rectangular embossed shapes were made closed (Figs. 1: 1-2, 4-6). The skyphos fragment in Cat. No. 3 has no pinecone decoration; however, there is a relief ornamentation of rows of rings made in the form of a contour (Fig. 1: 3). This ornament just like Cat. No. 6 (Fig. 1: 6), is mostly used with pinecone decorations (Semeraro, 2005, p. 92, Fig. 3: 2, 4; Duman, 2010, Lev. LI: H3, Duman, 2014, p. 170, Fig. 3, 6; Ok, 2018, p. 406, Lev. 23: 158). Therefore, pinecones in Cat. No. 3 are included in the ornamental group. Cat. No. 2 has a contour of leaf motifs side by side under the rim (Fig. 1: 2), and Cat. No. 5 has ivy branches and leaves combined with a flower of six branch along with a pinecone (Fig. 1: 5). Samples of such decoration are seen in Hierapolis (Semeraro, 2003, Pl. LVIII: 9; Semeraro, 2005, p. 92, Fig. 3: 5), Laodikeia (Duman, 2014, p. 170, Fig. 5-6) and Tripolis (Ok, 2018, p. 405, Lev. 22: 151-157).

Dense textured and non-porous, reddish-yellow, light brown, reddish brown, and red clays are tempered with small amounts of small-scale lime and small amounts of silver mica. Their semi-smooth slip is in dark reddish brown and red tones (Cat. No. 1-6).

10 A similar motif is also seen on Lead Glazed Ceramics (Jones, 1950, Fig. 152: 640; Rotroff & Oliver, 2003, Pl. 129: 735).

11 This outer shell is called the 'U' shaped leaf (Duman, 2014, p. 161, 170, Fig. 6).

Imbricated Leaf Decorations (Fig. 1: 7-11, Cat. No. 7-11)

Five samples of imbricated leaf patterns were recovered in Blaundos (Fig. 1: 7-11). Three of them are rim-body parts (Figs. 1: 7, 9, 11), while the others are just body parts (Fig. 1: 8, 10). The vertical rims of the skyphos are pointed. The transition from rim to body on the outside is sharper in Cat. No. 7 than in Cat. No. 9 (Fig. 1: 7, 9). The groove on the inside that makes an elbow at the transition from the rim to the body in Cat. No. 9 is crafted sharper (Fig. 1: 9). In both samples (Fig. 1: 7, 9) the trunk rises upright. The leaf motifs seen on the samples in this group vary within themselves. Leaf motifs which are pointed at both ends with a single core in the middle are seen in Cat. No. 7 (Fig. 1: 7), while single-core motifs are visible in Cat. No. 8 and 9 (Fig. 1: 8-9), and multi-veined leaf motifs in Cat. No. 10 and 11[12] (Fig. 1: 10-11).

These types of vessels are defined as imbricated leaf ornaments since they are processed in the form of fish scales side by side and overlapping each other[13]. Artifacts that are similar to the leaves in Cat. No. 8 and 9 are also seen on bowls with molded reliefs (Laumonier, 1977, Pl. 108: 229, 9262) and they are defined as ferns (Kossatz, 1990, p. 7; Öz, 2022, p. 120). It can be said that these leaves on skyphos, which are considered as Cat. No. 8 and 9, are also fern leaves (Fig. 1: 8-9). This type of decoration sample has been encountered in Sardis[14], Laodikeia (Duman, 2010, Lev. LII: H9-10; Duman, 2014, p. 171, Fig. 12), Hierapolis (Semeraro, 2003, Pl. LVIII: 3-4, 6-7; Semeraro, 2005, p. 93, Fig. 4: 2-3, 5) and in Tripolis (Ok, 2018, p. 407, Lev. 24: 164, 25: 176).

Dense textured and non-porous clays are pinkish white, light brown and reddish yellow in color. They contain a very small amount of small-scale lime and silver mica additives. Their slip is in red and reddish-brown tones (Cat. No. 7-11).

Long Petal Decorations (Fig. 2: 1-2, Cat. No. 12-13)

There are two samples of long-petalled skyphoi (Fig. 2: 1-2). One of them is the rim-body (Fig. 2: 2) and the other is the body part (Fig. 2: 1). The vertical rim of Cat. No. 13 is pointed. A slightly concave profile is seen in the transition from the rim to the body. The ends of the long petal are oval in Cat. No. 12. Whether or not there is a series of dots between the leaves is unclear[15] (Fig. 2: 1). The left margin contour line of the long petal on the body of Cat. No.

12 Similar leaf motifs have been favorably used on mold-made relief bowls (Laumonier, 1977, Pl. 108: 25-26, 75, 5156, 8979, 9084).

13 For samples of mold-made embossed bowls, also see Öz, 2022, p. 119-120, Fig. 3: 4-11.

14 A similar sample found at Sardis was evaluated under the Lead Glazed Ceramics group (Rotroff & Oliver, 2003, p. 173, Pl. 131: 745).

15 The use of dots between long petals is also common in mold-made relief bowls (Öz, 2022, p. 123, Fig. 4: 1-2).

13 is finished with a series of embossed dots[16]. The middle of the petals in question is made as a convex relief. Samples of this type of decoration are seen in Laodikeia (Duman, 2014, p. 171, Fig. 15), Hierapolis (Semeraro, 2003, Pl. LVIII: 2; Semeraro, 2005, p. 93, Fig. 4: 6) and Tripolis (Ok, 2018, p. 409, Lev. 26: 181-183).

Dense textured and non-porous, a small amount of silver mica added clays are in reddish brown and red tones. The slips are red.

Floral Decorations (Fig. 2: 3-5, Cat. No. 14-16)

There are three samples of floral-decorated skyphoi. All of these belong to skyphos body parts (Fig. 2: 3-5). An ivy leaf combined with rosette flower motifs formed with six-dot embossments is seen in Cat. No. 14, while a sequence of Ionian kymation and leaves (one of which may be an acorn leaf) are seen in Cat. No. 5, and floral decorations consisting of Ionian kymations and ivy branches and leaves are seen in Cat. No. 16 (Fig. 2: 3-5). Similar floral ornaments are found in Tripolis (Ok, 2018, p. 413, Lev. 30: 216), Hierapolis (Semeraro, 2003, Pl. LVII: 4) and Laodikeia (Duman, 2014, p. 172, Fig. 20, 23).

The dense textured and non-porous clays of floral decorated skyphoi are in red, light brown and reddish yellow tones, with little silver mica additive, and their slip is red.

Figural Decorations (Fig. 2: 6, Cat. No. 17)

Only one sample belonging to this group was recovered. There is a relief thought to belong to a human or mythological figure on the skyphos body fragment (Fig. 2: 6). It is thought that this figure, which has survived from the waist down, may belong to the winged Eros. The projections visible on the back of the figure must be wings (Fig. 2: 6). Delineating the calves as slightly swollen points to the Eros typology. On the body of the skyphos, apart from the winged Eros, there is an ivy leaf with veins in the middle. Nothing similar to this decoration was found. There is a relief of Eros holding a grape on a bowl fragment examined in Megara Bowls in Kyme (Bouzek & Jansovà, 1974, Fig. 8: M30, Pl. 5: 30). This shows that the decoration repertoire of the mold-made relief bowls continued to be in use on the skyphoi as well. Duman mentions that figurative decoration does not appear on the Lycos Skyphoi (Duman, 2010, p. 141). He notes that figured decorations are rare in Semeraro, and that there are heads (Silenus head etc.) and animals amongst them (Semeraro, 2003, p. 84, 86). However, in recent studies, another sample with a Gladiator depiction was found in Tripolis (Ok, 2018, p. 146-147, 416, Lev. 33: 253). Contrary to thought, there may well be more samples of figured decoration in Lycos Skyphoi together with this piece found in Blaundos.

16 It is found in samples where the dot sequence is applied to the right edge (Semeraro, 2003, Pl. LVI: 4; Duman, 2010, Lev. LIV: H23; Duman, 2014, p. 171, Fig. 16; Ok, 2018, p. 409, Lev. 26: 184-187). In addition, long petals were used with different motifs (Duman, 2014, p. 171, Fig. 18-19; Ok, 2018, p. 410-412, Lev. 27: 195-197, 28: 202, 29: 210).

Its dense textured, non-porous and well-sifted clay is pure and red in color. Its glossy and slippery slip is also clay-colored.

Embossed Dot Decorations (Fig. 2: 7-9, 3: 1-3, Cat. No. 18-23)

Six of these samples, which constitute the largest group among the Lycos Skyphoi, were found in Blaundos. Samples belonging to this group are the second most dense group of skyphoi (Figs. 2: 7-9, 3: 1-3). Four of them are the rim-body (Fig. 2: 7, 9, 3: 1, 3), one is the body (Fig. 2: 8), and the other is the body-base piece (Fig. 3: 2). The pointed rims of the skyphoi in this group are vertical. In the transition from the rim to the body, there is a sharp concave groove after the elbow-shaped bulge. The transition from the rim to the body in Cat. No. 18 and 23 is provided by a protruding groove. The base of the skyphos in Cat. No. 22 in Blaundos, which is represented by a single sample, takes the form of a double ring base. A second embossed ring is seen inside the base (Fig. 3: 2). The embossed dots on the studied skyphoi are thick, thin, rectangular (Fig. 2: 7-9, 3: 2) and square (Fig. 3: 1). However, the raised dots in Cat. No. 23 resemble a pointed triangle (inverted nail?) (Fig. 3: 3). There is no contour decoration on the rim of the Blaundos embossed dot decorated skyphoi[17]. Samples decorated with this motif are encountered in Priene (Zahn, 1904, p. 408-409, Abb. 532, 533: 47), Sardis (Rotroff & Oliver, 2003, Pl. 131: 743-744), Laodikeia (Duman, 2010, Lev. LVII-LIX: H37-50; Duman, 2014, p. 172, Fig. 25-27), Tripolis (Ok, 2018, p. 417-418, Lev. 34-35: 254-265) and Hierapolis (Semeraro, 2003, Pl. LVIII: 14).

Dense textured and non-porous, a small amount of silver mica added clays are in shades of pinkish white, light brown and reddish brown. Their slip is red, brown and reddish brown. On the slip of Cat. No. 20, blackening is seen intermittently due to firing.

Other Pieces (Fig. 3: 4-8, Cat. No. 24-28)

There are five items of this type of skyphoi in Blaundos that did not match any group. Four of them are the rim-body (Fig. 3: 4-7) and one is the body part (Fig. 3: 8). The vertical rims of the specimens are pointed. There is a sharp groove in the transition from the rim to the body. The body rises upright (Fig. 3: 4-7). Three rim-body fragments examined under the sub-category of other samples have a border decoration with Ionian kymation on the rim (Figs. 3: 4-5, 7).

There is a decoration on the rim of Cat No. 26, which is thought to be a relief ring and a long petal. It was studied under this heading, as it could not be determined whether the decoration on this skyphos fragment was a long petal (Fig. 3: 6). On the last sample

17 For the artifacts with relief dot decorations with contour decoration on the rim, see Duman, 2014, p. 172, Fig. 25-26; Ok, 2018, p. 418, Lev. 35: 264.

belonging to this group, there is a horizontal version[18] of the double-armed spiral motif, which is generally seen upright on skyphoi (Fig. 3: 8, Cat. No. 28). A similar horizontal sample was found in Tripolis (Ok, 2018, p. 414, Lev. 31: 232). Pinecones (Semeraro, 2005, p. 92, Fig. 3: 3, 5; Ok, 2018, p. 405, Lev. 22: 153), imbricated leaves (Ok, 2018, p. 408, Lev. 25: 175), floral (Semeraro, 2003, Pl. LVII: 1-6; Semeraro, 2005, p. 92, Fig. 3 : 1; Duman, 2014, p. 172, Fig. 21; Ok, 2018, p. 413-415, Lev. 30: 223, 31: 227-228, 231, 32: 239, 245) and embossed dots (Duman, 2014, p. 172, Fig. 26; Ok, 2018, p. 418, Lev. 35: 264) are seen on the bases of skyphoi with an Ionian kymation border around the rim.

The dense textured and non-porous clays of skyphos belonging to other samples are pink, red, reddish brown and gray in color, and are tempered with small amounts of lime and silver mica. Their slip is in red and reddish-brown tones. Unlike the others, the slip of Cat. No. 28 is shiny and smooth.

Production, Dating And Origin

Considered as the continuation of Mold Made Embossed Bowls (Megara Bowls) and Lead Glazed Ceramics, these skyphoi have been found in a limited number of areas in Anatolia (Hochuli-Gysel 1977; Duman, 2014, p. 162-163; Ok, 2018, p. 196)[19]. The fragments of skyphos recovered in this type at Sardis were examined under the title of Lead Glazed Ceramics (Rotroff & Oliver, 2003, Pl. 131: 743-745), and were dated to 50 BCE – 50 CE (Rotroff & Oliver, 2003, p. 171). A parallel sample found in Priene has been discussed under the title of embossed ceramics (Zahn, 1904, p. 408-409, Abb. 532, 533: 47). An embossed-dot-decorated skyphos in Perge dated to the Augustan Period[20] (Atik, 1995, p. 51-52, Abb. 22: 58) is similar to the Laodikeian samples. Although a skyphos which has remained intact and was found in the Roman period layer during the excavations in Tarsus/Gözlü Kule resembles the Lycos Skyphoi in terms of form, there are differences in details (Duman, 2014, p. 163). This sample was examined under the subheading of Unfinished Vases, No Glaze in the section of Lead Glazed Ceramics (Jones, 1950, p. 263, Fig. 153, 199: 669)[21]. One of the production sites of Lycos Skyphoi is Hierapolis, where molds were found (Semeraro, 2003, p. 86, Pl. LIX: 1-2, 5). The embossed skyphoi uncovered in Hierapolis were evaluated in two main types according to variations in the bases (Semeraro, 2003, p. 86, Pl. LVI: 1-5) and were

18 For the descriptions of the vertical double-armed spiral, see Semeraro, 2003, Pl. LVIII: 8-9; Duman, 2014, p. 170, Fig. 2; Ok, 2018, p. 413-414, 416, Lev. 30: 220, 31: 225, 33: 247, 252.

19 Some researchers state that these skyphoi were inspired from Arretine bowls (Waagé, 1948, p. 30, Fig. 16: 27-31).

20 Since the skyphos in Perge is associated with the Lead Glazed Ceramics found in Tarsus/Gözlü Kule and Miletus, it is dated to the Augustan Period (Atik, 1995, p. 52).

21 Perge and Tarsus, the cities where the Lycos Skyphoi are located in Anatolia, are the centers where Lead Glazed Ceramics are produced (Oransay, 2001, p. 50-54; Tekkök *et al.*, 2009, p. 101-121; Akyay-Meriçboyu, 2005, p. 103-107). Therefore, it is quite understandable that the skyphoi found here abouts are evaluated in the Lead Glazed Ceramics category.

dated to the interval from the middle of the 1st century BCE to the Julius-Claudian Period (Semeraro, 2003, p. 87). However, similar skyphos fragments which have been recently excavated in the Hierapolis Theater were dated to the 2nd – 1st century BCE (Polito, 2007, p. 159), while those in Ploutonion were dated to the first half of the 1st century CE (Panarelli, 2016, p. 313, Fig. 31: 2-3). Other places where these skyphos were produced based on the molds are Laodikeia (Duman, 2014, p. 170, Fig. 6) and Tripolis (Ok, 2018, p. 189-195, 423-424, Lev. 40: 288-292, 41: 293-296). The skyphoi found in both cities were grouped according to their decorations, and it was understood that the decoration repertoire of the samples in Tripolis was more diverse (Ok, 2018, p. 133-148). The skyphos fragments found in the Asopos Hill, North Necropolis and Stadium area in Laodikeia were evaluated together with the contextual finds and dated to between the middle of the 1st century BCE and the end of the 1st century CE (Duman, 2014, p. 163-164). The samples in Tripolis yielded between the second half of the 1st century BCE and the 1st century CE (Ok, 2018, p. 198).

The clay of the embossed skyphos in Hierapolis is hard/tight textured and generally red in color. Their glossy or matte slips are in red and reddish-brown tones (Semeraro, 2003, p. 86)[22]. Loose, hard and tightly textured clays of Laodikeia samples are predominantly brown, pinkish gray, reddish-yellow, pink and yellowish-red in color and tempered with lime, mica, grit, and sand[23]. Their glossy and matte-rough slip is in red, brown, reddish-yellow and reddish-brown tones (Duman, 2010, p. 139; Duman, 2014, p. 160). The clays of the skyphos in Tripolis have a hard and firm texture and are in shades of brown, reddish/yellowish-brown, yellow, pink and red. The clay contains lime, grit and mica. Their slip is glossy, semi-matte/rough and in brown and red tones (Ok, 2018, p. 136-138). The slip of some skyphoi found in Tripolis bears blackening due to firing (Ok, 2018, Cat. No. 183, 187, 191, 211, 255, 258).

The dense and non-porous clays of skyphos recovered in Blaundos are red, brown, reddish-yellow, pink, reddish-brown and pinkish-white. While the clay contents include silver mica and lime, well-sieved pure samples are the majority (Cat. No. 2-4, 6-7, 11-12, 14, 16-22, 24-25). Their slip is in red, brown, and reddish-brown tones. The slip of Cat. No. 20 has blackening due to firing (Fig. 2: 9). When the clay, slip, form and decoration features of the skyphos in Blaundos are examined, one can see that they reveal closer similarities with the Laodikeia and Tripolis samples. Therefore, the period between the second half of the 1st century BCE and the end of the 1st century CE, which is mentioned for the skyphoi of Laodikeia and Tripolis, can also be suggested for the skyphoi of Blaundos.

22 Clay and slip colors may differ according to the firing and stages of the process the bowls.

23 There are the samples of clay without any additives (Duman, 2010, p. 300, 302, 307, Cat. No. H16, H22, H35).

Conclusions

Blaundos is an important city on the Phrygia border of the Lydian Region, which took its place on the stage of history from the 5th century BCE to the 12th century CE. Twenty-eight embossed skyphos fragments, most of which were found on the surface of the western, southern, and northwestern slopes of the city between 2018 and 2020, and some of them were unearthed during the excavations carried out on the propylon and the main street, were examined and evaluated within the scope of this study (Fig. 1-3). According to the classification made by Duman (Duman, 2010, p. 141; Duman, 2014, p. 161) and Ok (Ok, 2018, p. 139 ff.) six different groups were identified as pinecone, imbricated leaf, long petal, floral, figured and relief dot decorated skyphoi. The skyphoi, which could not be included in any group, were discussed under the category of other pieces.

In the places where skyphoi were discovered during the excavations in the city, no connection with any context could be established, because the skyphoi were unearthed from a mixed deposit or surface. Thus, the proposed dates for the Lycos Skyphoi group to which they belong were taken into account in the dating of the skyphoi. The Lycos Skyphoi reported from Laodikeia and Tripolis, together with the contextual finds, were dated to the second half of the 1st century BCE and the end of the 1st century CE (Duman, 2014, p. 163-164; Ok, 2018, p. 198). The same interval is suggested for the samples in Blaundos.

Lycos Skyphoi, which are considered as the continuation of Lead Glazed Ceramics and Mold Made Embossed Bowls, are the products of the Lycos Valley cities of Hierapolis, Laodikeia, and Tripolis (Semeraro, 2003, p. 86, Pl. LIX: 1-2, 5; Duman, 2014, p. 170, Fig. 6; Ok, 2018, p. 189-195, 423-424, Lev. 40: 288-292, 41: 293-296). The clay, slip, form, and decoration features of the Lycos Skyphoi found in Blaundos demonstrate parallels with the skyphoi of Laodikeia and Tripolis. Hence, they must have been imported from the said *poleis*, and similar ones were manufactured in proportion to the city's needs and demands.

The Lycos Skyphoi, which were produced as the contemporaries of the Lead Glazed Ceramics (Duman, 2014, p. 164), and whose production continued for a certain period, until the end of the 1st century CE, were not supplied only for the local needs of the Lycos Valley settlements. The discovery of skyphos fragments of this type in Blaundos indicates that they were exported to neighboring cities. It has also been understood that this type of skyphoi, which was excavated in Sardis, Priene, Perge, Tarsus/Gözlü Kule at the same time, and studied under the Lead Glazed or Embossed ceramic group, were exported not only to neighboring but also to the other cities in Anatolia. The limited number of Lycos Skyphoi finds in Anatolia implies that Lead Glazed Ceramics (Oransay, 2001, p. 47-55; Akyay-Meriçboyu, 2005, p. 99-126), which were more popular in the period they were produced, must have been preferred.

Catalog

Abbreviations used in the catalog: Cat. No.: Catalog Number, Fig.: Figure, R.D.: Rim Diameter, B.D.: Base Diameter, P.H.: Preserved Height.

Munsell Soil Color Chart (2015) color catalog was used to determine the clay and slip colors.

Cat. No./ Fig.: 1/ 1:1

Location of the Find/Grid-Square: Main Street/ 880,430

Dimensions: R.D: 8 cm (inside), P.H.: 4 cm

Clay: 7.5 YR 6/6 (reddish yellow), dense textured, non-porous, little lime added clay. **Slip:** Outer: 10 R 5/8 (red), Inner: 10 R 4/8 (red).

Description: Broken embossed skyphos rim-body fragment.

Decoration: Pinecone

Comparison: -

Cat. No./ Fig.: 2/ 1:2

Location of the Find/Grid-Square: West Slope/ Surface

Dimensions: P.H.: 2 cm

Clay: 2.5 YR 4/8 (red), dense, non-porous, well-sifted clay. **Slip:** 2.5 YR 4/8 (red), inner surface is slightly slippery.

Description: Broken embossed skyphos body fragment.

Decoration: Pinecone and leaf.

Comparison: -

Cat. No./ Fig.: 3/ 1:3

Location of the Find/Grid-Square: South Slope/ Surface

Dimensions: R.D.: 6.2 cm, P.H.: 2.6 cm

Clay: 10 YR 7/4 (very pale brown), dense, non-porous, well-sifted clay. **Slip:** 7.5 YR 4/3 (brown).

Description: Broken embossed skyphos rim-body fragment.

Decoration: Ring motif.

Comparison: -

Cat. No./ Fig.: 4/ 1:4

Location of the Find/Grid-Square: Northwest Slope, Surface

Dimensions: P.H.: 2.9 cm.

Clay: 5 YR 6/6 (light reddish-brown), dense, non-porous, well-sifted clay. **Slip:** Outer: 7.5 YR 5/6 (red), Inner: 10 R 5/8 (red).

Description: Broken embossed skyphos body fragment.

Decoration: Pinecone in Ionian kymation

Comparison: *Decoration:* Semeraro, 2003, Pl. LVIII: 9; Semeraro, 2005, p. 92, Fig. 3: 5; Duman, 2014, p. 170, Fig. 5-6; Ok, 2018, p. 405, Lev. 22: 151-157.

Cat. No./ Fig.: 5/ 1:5

Location of the Find/Grid-Square: West Slope/ Surface

Dimensions: P.H: 4.4 cm

Clay: 2.5 YR 5/8 (red), dense-textured, non-porous, tempered clay with a small amount of small-scale lime, a small amount of small size silver mica. **Slip:** Outer: 2.5 YR 3/3 (dark reddish-brown), Inner: 2.5 YR 4/6 (red).

Description: Broken embossed skyphos body fragment.

Decoration: Ivy branches and leaves combined with pinecone and six-branch flower.

Comparison: -

Cat. No./ Fig.: 6/ 1:6

Location of the Find/Grid-Square: West Slope/ Surface

Dimensions: P.H.: 2.1 cm

Clay: 7.5 YR 6/4 (light brown), dense, non-porous, well-sifted clay. **Slip:** 10 R 4/8 (red).

Description: Broken embossed skyphos body fragment.

Decoration: Pinecone and ring motif.

Comparison: -

Cat. No./ Fig.: 7/ 1:7

Location of the Find/Grid-Square: Main Street/ 880,430

Dimensions: R.D..: 10 cm, P.H.: 5.1 cm

Clay: 5 YR 8/2 (pinkish-white), dense, non-porous, well-sifted clay. **Slip:** 10 R 4/8 (red).

Description: Broken embossed skyphos rim-body fragment.

Decoration: Imbricated leaves.

Comparison: *Decoration:* Semeraro, 2003, Pl. LVIII: 6-7; Semeraro, 2005, p. 93, Fig. 4: 5; Duman, 2010, Lev. LII: H10; Duman, 2014, p. 171, Fig. 12.

Cat. No./ Fig.: 8/ 1:8

Location of the Find/Grid-Square: West Slope, Surface

Dimensions: P.H.: 3.8 cm.

Clay: 10 YR 8/2 (very pale brown), dense-textured, non-porous, slightly lime clay. **Slip:** Outer: 2.5 YR 5/6 (red), Inner: 5 YR 4/3 (reddish-brown).

Description: Broken embossed skyphos body fragment.

Decoration: Imbricated leaves.

Comparison: *Decoration:* Duman, 2010, Lev. LII: H9; Ok, 2018, p. 407, Lev. 24: 164.

Cat. No./ Fig.: 9/ 1:9

Location of the Find/Grid-Square: Northwest Slope, Surface

Dimensions: R.D.: 8 cm (inside), P.H: 3.3 cm

Clay: 7.5 YR 6/4 (light brown), dense, non-porous, well-sifted clay. **Slip:** 10 R 5/6 (red).

Description: Broken embossed skyphos rim-body fragment.

Decoration: Imbricated leaves.

Comparison: -

Cat. No./ Fig.: 10/ 1:10

Location of the Find/Grid-Square: West Slope, Surface

Dimensions: P.H: 5 cm

Clay: 7.5 YR 6/6 (reddish-yellow), dense-textured, non-porous clay with little lime and silver mica additive. **Slip:** Outer: 10 R 4/8 (red), Inner: 2.5 YR 4/6 (red).

Description: Broken embossed skyphos body fragment.

Decoration: Imbricated leaves.

Comparison: *Decoration:* Semeraro, 2003, Pl. LVIII: 3-4; Semeraro, 2005, p. 93, Fig. 4: 2-3; Ok, 2018, p. 408, Lev. 25: 176.

Cat. No./ Fig.: 11/ 1:11

Location of the Find/Grid-Square: Northwest Slope, Surface

Dimensions: R.D.: 10 cm, P.H: 2.8 cm

Clay: 7.5 YR 6/4 (light brown), dense, non-porous, well-sifted clay. **Slip:** 10 R 5/6 (red).

Description: Broken embossed skyphos rim-body fragment.

Decoration: Imbricated leaves.

Comparison: *Decoration:* Semeraro, 2003, Pl. LVIII: 3-4; Semeraro, 2005, p. 93, Fig. 4: 2-3; Ok, 2018, p. 408, Lev. 25: 176.

Cat. No./ Fig.: 12/ 2:1

Location of the Find/Grid-Square: South Slope/ Surface

Dimensions: P.H.: 2.9 cm

Clay: 10 R 5/8 (red), dense, non-porous, well-sifted clay. **Slip:** 7.5 R 4/6 (red).

Description: Broken and missing embossed skyphos body fragment.

Decoration: Long petal and dot.

Comparison: *Decoration:* Duman, 2010, Lev. LIV: H24; Duman, 2014, p. 171, Fig. 17; Ok, 2018, p. 410, Lev. 27: 188-189.

Cat. No./ Fig.: 13/ 2:2

Location of the Find/Grid-Square: Main Street/ 860.440

Dimensions: R.D.: ?, P.H: 3.8 cm

Clay: 5 YR 6/4 (light reddish-brown), dense, non-porous, small amount of silver mica added clay. **Slip:** 10 R 5/8 (red).

Description: Broken embossed skyphos rim-body fragment.

Decoration: Long petal and dot.

Comparison: Ok, 2018, p. 409, Lev. 26: 182; *Decoration:* Semeraro, 2003, Pl. LVIII: 2; Duman, 2010, Lev. LIV: H2O-22; Duman, 2014, p. 171, Fig. 15; Ok, 2018, p. 409, Lev. 26: 181-183.

Cat. No./ Fig.: 14/ 2:3

Location of the Find/Grid-Square: Main Street/ 870,430

Dimensions: P.H: 2 cm

Clay: 7.5 YR 6/4 (light brown), dense, non-porous, well-sifted clay. **Slip:** 10 R 4/8 (red).

Description: Broken embossed skyphos body fragment.

Decoration: Ivy leaf and rosette flower.

Comparison: *Decoration:* Duman, 2014, p. 172, Fig. 20.

Cat. No./ Fig.: 15/ 2:4

Location of the Find/Grid-Square: South Slope/ Surface

Dimensions: P.H: 2.8cm

Clay: 2.5 YR 5/8 (red), densely textured, non-porous, little silver mica added clay. **Slip:** 10 R 4/6 (red).

Description: Broken embossed skyphos body fragment.

Decoration: Ionian kymation and leaves (acorn leaf?).

Comparison: -

Cat. No./ Fig.: 16/ 2:5

Location of the Find/Grid-Square: West Slope/ Surface

Dimensions: P.H.: 4.9 cm

Clay: 5 YR 6/6 (reddish-yellow), dense, non-porous, well-sifted clay. **Slip:** 10 R 5/8 (red).

Description: Broken embossed skyphos body fragment.

Decoration: Ionian kymation and ivy leaf.

Comparison: *Decoration:* Semeraro, 2003, Pl. LVII: 4; Duman, 2014, p. 172, Fig. 23; Ok, 2018, p. 413, Lev. 30: 216.

Cat. No./ Fig.: 17/ 2:6

Location of the Find/Grid-Square: Main Street/ 880,430

Dimensions: P.H: 2.9 cm

Clay: 2.5 YR 4/8 (red), dense, non-porous, well-sifted clay. **Slip:** 2.5 YR 4/8 (red), glossy and slippery slip.

Description: Broken embossed skyphos body fragment.

Decoration: Winged Eros? and ivy leaf.

Comparison: -

Cat. No./ Fig.: 18/ 2:7

Location of the Find/Grid-Square: South Slope/ Surface

Dimensions: R.D: 8 cm (inside), P.H: 2.5 cm

Clay: 5 YR 6/4 (light reddish-brown), dense, non-porous, well-sifted clay. **Slip:** 10 R 4/8 (red).

Description: Broken embossed skyphos rim-body fragment.

Decoration: Embossed dots.

Comparison: Rotroff & Oliver, 2003, Pl. 131: 743; Ok, 2018, p. 417-418, Lev. 34: 258, 35: 261.

Cat. No./ Fig.: 19/ 2:8

Location of the Find/Grid-Square: Northwest Slope/ Surface

Dimensions: P.H: 1.9cm

Clay: 10 YR 8/2 (very pale brown), dense, non-porous, well-sifted clay. **Slip:** 2.5 YR 4/6 (red).

Description: Broken embossed skyphos body fragment.

Decoration: Embossed dots.

Comparison: -

Cat. No./ Fig.: 20/ 2:9

Location of the Find/Grid-Square: West Slope/ Surface

Dimensions: R.D.: 8 cm (inside), P.H.: 2.2 cm

Clay: 2.5 Y 7/4 (pale brown), dense, non-porous, well-sifted clay. **Slip:** Outer: 7.5 YR 4/2 (brown), Inner: 5 YR 4/4 (reddish-brown). There is some blackening on the surface.

Description: Broken embossed skyphos rim-body fragment.

Decoration: Embossed dots.

Comparison: Ok, 2018, p. 418, Lev. 35: 260.

Cat. No./ Fig.: 21/ 3:1

Location of the Find/Grid-Square: Main Street/ 880,430

Dimensions: R.D.: 10 cm, P.H: 2.8 cm

Clay: 7.5 YR 8/2 (pinkish-white), dense, non-porous, well-sifted clay. **Slip:** Outer: 2.5 YR 4/8 (red), Inner: 2.5 YR 4/4 (reddish-brown).

Description: Broken embossed skyphos rim-body fragment.

Decoration: Embossed dots.

Comparison: Duman, 2010, Lev. LVIII: H43; Ok, 2018, p. 418, Lev. 35: 263.

Cat. No./ Fig.: 22/ 3:2

Location of the Find/Grid-Square: Main Street/ 880.440

Dimensions: B.D.: 6 cm, P.H 2.9 cm

Clay: 7.5 YR 6/4 (light brown), dense, non-porous, well-sifted clay. **Slip:** Outer: 5 YR 4/4 (reddish-brown), Inner: 2.5 YR 5/6 (red).

Description: Broken embossed skyphos base-body fragment.

Decoration: Embossed dots.

Comparison: Ok, 2018, p. 418, Lev. 35: 265.

Cat No./ Fig.: 23/ 3:3

Location of the Find/Grid-Square: Northwest Slope/ Surface

Dimensions: R.D: 11 cm (inside), P.H: 3.1 cm

Clay: 7.5 YR 6/4 (light brown), dense, non-porous, small amount of silver mica added clay. **Slip:** 10 R 5/8 (red).

Description: Broken embossed skyphos rim-body fragment.

Decoration: Embossed dots.

Comparison: Rotroff & Oliver, 2003, Pl. 131:743.

Cat. No./ Fig.: 24/ 3:4

Location of the Find/Grid-Square: Main Street/ 870.440

Dimensions: R.D: 8 cm (inside), P.H: 2.2 cm

Clay: 5 YR 8/4 (pink), dense, non-porous, well-sifted clay. **Slip:** Outer: Color change between 2.5 YR 4/8 (red) – 2.5 YR 3/4 (dark reddish-brown), Inner: 10 R 5/8 (red).

Description: Broken embossed skyphos rim-body fragment.

Decoration: Ionian kymation.

Comparison: -

Cat No./ Fig.: 25/ 3:5

Location of the Find/Grid-Square: South Slope/ Surface

Dimensions: R.D: 8 cm (inside), P.H: 2 cm

Clay: 2.5 Y 7/2 (light gray), dense, non-porous, well-sifted clay. **Slip:** Outer: 10 R 4/4 (weak red), Inner: 10 R 4/6 (red).

Description: Broken embossed skyphos rim-body fragment.

Decoration: Ionian kymation.

Comparison: -

Cat. No./ Fig.: 26/ 3:6

Location of the Find/Grid-Square: Propylon/ 870.440

Dimensions: R.D.: 10 cm (inside), P.H.: 2.6 cm

Clay: 5 YR 6/4 (light reddish-brown), dense-textured, non-porous, little lime added clay. **Slip:** 10 R 5/6 (red).

Description: Broken embossed skyphos rim-body fragment.

Decoration: Long petal? and the ring array.

Comparison: -

Cat. No./ Fig.: 27/ 3:7

Location of the Find/Grid-Square: West Slope/ Surface

Dimensions: R.D.: 9 cm, P.H.: 2.3 cm

Clay: 7.5 YR 7/4 (pink), densely textured, non-porous, little silver mica added clay. **Slip:** 2.5 YR 4/6 (red).

Description: Broken embossed skyphos rim-body fragment.

Decoration: Ionian kymation.

Comparison: -

Cat. No./ Fig.: 28/ 3:8

Location of the Find/Grid-Square: West Slope/ Surface

Dimensions: P.H.: 1.9 cm

Clay: 2.5 YR 5/6 (red), densely textured, non-porous, little silver mica added clay. **Slip:** 10 R 5/6 (red), glossy and slippery lining on the inner surface.

Description: Broken embossed skyphos body fragment.

Decoration: Double spiral.

Comparison: *Decoration:* Ok, 2018, p. 414, Lev. 31: 232.

Acknowledgement: I would like to express my gratitude to the head of the Blaundos Archaeological Excavation, Prof. Dr. Birol CAN, who gave me the permit for studying the skyphoi. I am also grateful to Archaeologist Elif ÖZ, who prepared the catalog by drawing the artifacts.

Peer-review: Externally peer-reviewed.
Conflict of Interest: The author has no conflict of interest to declare.
Grant Support: The author declared that this study has received no financial support.

References

Antique References

Diod. Sic. (=Diodorus Siculus, Bibliotheca historica)

Diodorus Siculus, Diodorus of Sicily in Twelve Volumes, with an English translation by C. H. Oldfather. Vols. 4-8. London: Harvard University Press, 1989.

Modern References

Akbıyıkoğlu, K. (1997), "1995 Yılı Blaundos (Sülümenli) Kazısı", *Müze Kurtarma Kazıları Semineri*, *VII*, Ankara, 29-48.

Akyay-Meriçboyu, Y. (2005), "Kurşun Sırlı Keramiklerin Üretim Merkezleri", *TÜBA-AR*, *VIII*, 99-126.

Atik, N., (1995), *Die Keramik aus den Südthermen von Perge*. Tübingen: Ernest Wasmuth.

Bouzek, J., & Jansovà, L. (1974), "Megarian Bowls", J. Bouzek (Ed.), *Anatolian Collection of Charles University (Kyme I)* (pp. 13-76). Praha: Universita Karlova.

Can, B. (2017), "Blaundos Antik Kenti", R. M. Czichon, Ş. Söyler, B. Can, İ. Çavuş (Eds.), *Yüzey Araştırmaları ve Kazılar Işığında Uşak* (pp. 73-82). İstanbul: Zero Books.

Can, B., Söyler, Ş., & Keklik Dündar, G. (2020), "Blaundos Antik Kenti 2018 Yılı (İlk Sezon) Çalışmaları", *41. Kazı Sonuçları Toplantısı*, *1*, Ankara, 393-409.

Courby, F. (1922), *Les Vases Grecs à reliefs*. Paris: E. De Boccard.

Duman, B. (2010), *Laodikeia Hellenistik ve Erken Roma Dönemi Seramiği*. (Unpublished PhD dissertation). Selçuk Üniversitesi, Sosyal Bilimler Enstitüsü, Konya.

Duman, B. (2014), "Lykos Laodikeia'sından Yerel Üretim Bir Grup Seramik: Lykos Skyphosları", C. Şimşek (Ed.), *10. Yılında Laodikeia (2003-2013 Yılları)* (pp. 159-172). İstanbul: Ege Yayınları.

Filges, A. (2001), "Blaundos", *Araştırma Sonuçları Toplantısı*, *18*(1), Ankara, 231-240.

Filges, A. (2002), "Blaundos 2000", *Araştırma Sonuçları Toplantısı*, *19*(1), Ankara, 263-270.

Filges, A. (2004), "Bericht Über die Arbeiten in Blaundos im Jahr 2002", *Araştırma Sonuçları Toplantısı*, *21*(1), Ankara, 79-86.

Filges, A. (2006), *Blaundos Berichte zur Erforschung einer Kleinstadt im lydisch-phrygischen Grenzgebiet*. Tübingen: Ernst Wasmuth Verlag.

Hochuli-Gysel, A. (1977), *Kleinasiatische glasierte Reliefkeramik (50 v. Chr. bis 50 n. Chr.) und ihre oberitalischen nachahmungen*, Bern: Verlag Stämpfli & Cie AG.

Jones, F. F. (1950), "The Pottery", H. Goldman (Ed.), *Excavations at Gözlü Kule, Tarsus I. The Hellenistic and Roman Periods* (pp. 149-296). Princeton: Princeton University Press.

Kossatz, A. U. (1990), *Funde aus Milet. Teil 1: Die megarischen Becher*. Berlin: De Gruyter.

Kileci, Ş., & Can, B. (2020), "A New Honorific Inscription from Blaundos: Tiberius Claudius Lucius, the Priest of Dionysos Kathegemon", *Adalya*, *23*, 297-309.

Laumonier, A. (1977), *Exploration Archéologique de Delos XXXI. La céramique hellénistique a reliefs 1. ateliers 'ioniens'*. Paris: Diffusion De Boccard.

Ok, M. (2018), *Tripolis Hellenistik ve Roma Dönemi Seramiği*. (Unpublished PhD dissertation). Pamukkale Üniversitesi, Arkeoloji Enstitüsü, Denizli.

Oransay, A. (2001), "Antik Çağ'da Anadolu'da Kurşun Sırlı Seramikler", *I. Uluslararası Eskişehir Pişmiş Toprak Sempozyumu Bildiriler Kitabı* (pp. 47-55). Eskişehir.

Öz, C. (2022), "Myra Tiyatrosu'nda Ele Geçen Hellenistik Dönem Kalıp Yapımı Kabartmalı Kâseler", *Cedrus*, *X*, 113-138.

Panarelli, P. (2016), "Il cosiddetto 'Santuario delle Sorgenti' (Ploutonion): le attività di scavo 2008-2011", F. D'Andria, M. P. Caggia & T. Ismaelli (Eds.), *Hierapolis di Frigia VIII, 1. Le Attività delle campagne di scavo e restauro 2007-2011* (pp. 293-320). İstanbul: Ege Yayınları.

Polito, C. (2007), "Teatro (Regio VIII): campana di scavo 2003. Rapporto preliminare", F. D'Andria & M. P. Caggia (Eds.), *Hierapolis di Frigia I. Le Attività delle campagne di scavo e restauro 2000-2003* (pp. 157-168). İstanbul: Ege Yayınları.

Quien, M. L. (1740), *Oriens Christianus, In Quatuar Patriarchatus Digetus; Quo Exhibentur Ecclesiae, Patriarchae, Caeterique Praesules Totius Orientis*. Paris: Ex Typographia Regia.

Ramsay, W. M. (1897), *The Cities and Bishoprics of Phrygia*. Oxford: Clarendon Press.

Rotroff, S. I. (1982), *The Athenian Agora XXII. Hellenistic Pottery: Athenian and Imported Mold Made Bowls*. Princeton: The American School of Classical Studies at Athens.

Rotroff, S. I. & Oliver, Jr. A. (2003), *The Hellenistic Pottery from Sardis: The Finds Through 1994*. Cambridge: Harvard University Press.

Semeraro, G. (2003), "Hiérapolis de Phrygie. Les céramiques à reliefs hellénistiques et romaines", C. Abadie-Reynal (Ed.), *Les céramiques en Anatolie aux époques hellénistiques et romaines. Actes de la Table Ronde d'Istanbul, 23-24 mai 1996* (pp. 83-89). Paris.

Semeraro, G. (2005), "Per un approccio contestuale alla lettura delle immagini: le ceramiche a rilievo di Hierapolis di Frigia", *Mélanges de l'école française de Rome. Antiquité*, *117*(1), 83-98.

Semeraro, G. (2016), "Ricerche nel Santuario di Apollo (2007-2011)", F. D'Andria, M. P. Caggia & T. Ismaelli (Eds.), *Hierapolis di Frigia VIII, 1. Le Attività delle campagne di scavo e restauro 2007-2011* (pp. 191-222). İstanbul: Ege Yayınları.

Tekkök, B., Akyol, A. A., Kadıoğlu, Y. K. & Demirci, Ş. (2009), "The Importance of Archaeometric Analysis on Ceramics from Archaeological Excavations: The Example of Early Roman Glazed Ware from Tarsus and Troia (Ilion)", *SERES I, International Ceramic, Glass, Porcelain, Enamel, Glaze and Pigment Congress, 12-14 October 2009* (pp. 101-121), Eskişehir, Turkey.

Waagé, F. O. (1948), "Hellenistic and Roman Tableware of North Syria", F. O. Waagé (Ed.), *Antioch on the Orontes IV/1. Ceramic and Islamic Coins* (pp. 1-60). Princeton: Princeton University Press.

Zahn, R. (1904), "Thongeschirr", T. Wiegand & H. Schrader (Eds.), *Priene. Ergebnisse der ausgrabungen und untersuchungen in den jahren 1895-1898*. Berlin: Georg Reimer.

Figures

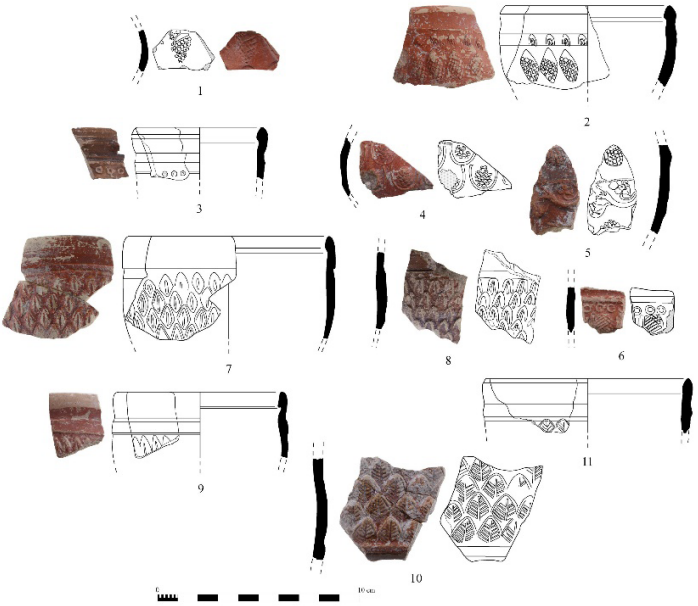

Figure 1: Pinecone (1-6) and Imbricated-leaf (7-11) Decorated Skyphoi (© C. Öz)

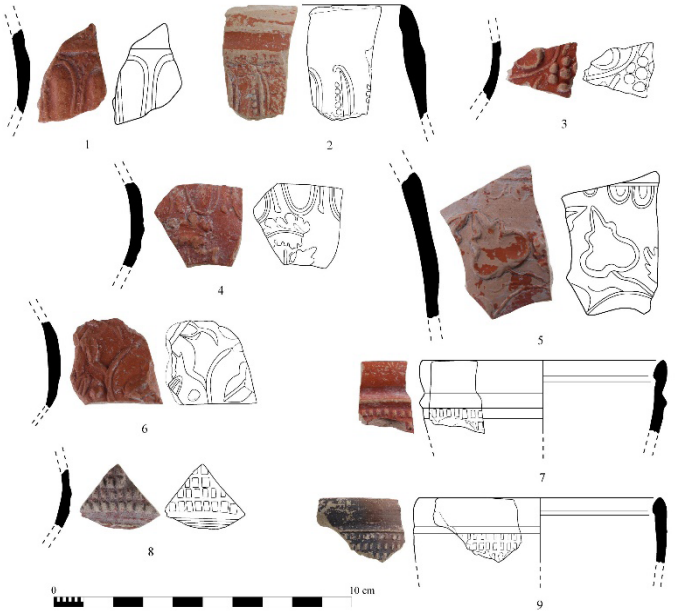

Figure 2: Long Petal (1-2), Floral (3-5), Figural (6) and Embossed Dot (7-9) Decorated Skyphoi (© C. Öz)

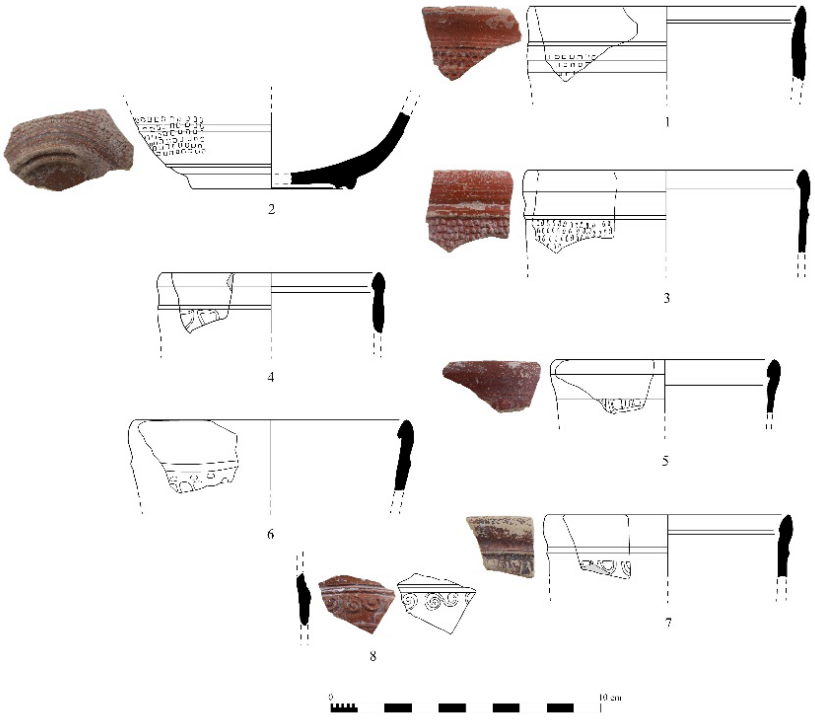

Figure 3: Embossed Dot Decorated Skyphoi (1-3) and Other Pieces (4-8) (© C. Öz)

Anadolu Araştırmaları
Anatolian Research

İSTANBUL UNIVERSITY PRESS

AnAr, 28, 119–142
DOI: 10.26650/anar.2023.28.1256264 Research Article

An Evaluation of the Original Identity Problem and Structural Design of Zerzevan Castle

Aytaç Coşkun[1], E.Deniz Oğuz-Kırca[2]

[1]Dicle University, Faculty of Literature, Department of Archaeology, Diyarbakır, Turkiye
[2]Member of the Zerzevan Archaeological Excavation Team, Diyarbakır, Turkiye

ORCID ID: A.C. 0000-0002-2392-7218; E.D.O.K. 0000-0003-0202-5327

Corresponding author:
Aytaç Coşkun,
Dicle University, Faculty of Literature, Department of Archaeology, Diyarbakır, Turkey
E-mail: aytaccoskun@gmail.com

Submitted: 25.02.2023
Revision Requested: 26.04.2023
Last Revision Received: 03.05.2023
Accepted: 06.06.2023

Citation: Coşkun, A., Oğuz-Kırca, E.D. (2023). An evaluation of the original ıdentity problem and structural design of Zerzevan Castle. *Anadolu Araştırmaları-Anatolian Research*, *28*, 119–142. https://doi.org/10.26650/anar.2023.28.1256264

ABSTRACT

This study deals with the mature period of a Roman hilltop fortress (3rd-6th centuries AD) established at Zerzevan which is part of Upper Mesopotamia, now lying in Diyarbakır Province, Southeast Turkey. The site of Zerzevan was constructed according to predetermined rules and principles, with certain standards. It is possible that the Roman army, which specialized in organizing its frontiers with robust fortifications, hosted legionaries from different regions here.

The main method of research is based on a combination of field evidence and textual data, giving priority to preliminary results of the excavations carried out on the site since 2014. Theories about the characterization of the site corresponding to the typical requirements of a border garrison approach the idea of an *Auxilia*/ Tactical Fortress, usually built by the legionaries (instead of an above-standard size *Castrum Romanum*) which could have been customized according to various factors arising from the geo-political conditions of the region. In this context, it must have been built as a local line of defense utilized in the outer boundaries of the Roman Empire, to meet the minimum requirements of a standard size base and/or outpost. The integrity of the site supports the hypothesis that it could have been ranked as a secondary order castrum in the operational chain of command and order of the Roman army.

Keywords: Zerzevan, Castle, Roman, Castrum, Upper Mesopotamia

Introduction

The easternmost frontiers of the Roman Empire reached as far as southeast Anatolia. The region often witnessed power struggles between the Romans and Parthians/ Sassanids. One of the sites that must have been subjected to these battles is Zerzevan Castle, which is located within the borders of Demirölçek Village, 13 km southeast of the Çınar district of Diyarbakır (Fig.1[1]). The excavations initiated in the area played a considerable role in understanding the Assyrian, Persian, Parthian and Roman periods of the region.

Zerzevan overlooks the floodplains of the Tigris, in immediately south of ancient Amida (Ammianus 18.9)[2] which is equated with present day Diyarbakır. In a broader context, the entirety of the Diyarbakır Province stretches over the sub-region between Tigranokerta (Silvan) and Nisibis (Nusaybin) which is bordered by the Taurus range in the north and deserted in the south (with smaller streams in the south-southeast) and east of the Karacadağ volcanic mass. This zone, which also encompasses the shallow sites neighboring today's Zerzevan, is both favorable for agriculture and livestock activities. Situated on a hilltop amidst Diyarbakır and Mardin, the topographical position enabled the fortified spot to monitor and dominate a wide area where the Taurus range terminates.

The garrison at Zerzevan is located on a rocky hill 124 meters above the plain level. It was a strategic point for watching the road from Amida (Diyarbakır) to Dara (Mardin). The road was part of an ancient trade route, which dates back to the Assyrian (882-611 B.C) and Persian (550-331 B.C) periods. The findings from the Parthian Period (140-85 BC) indicate that the area was also occupied in this interval. In light of the architectural remains and materials unearthed during excavations, the main military settlement was established (along with construction of core buildings) in the Severan period (198-235 AD). The fort walls (correctly termed "ramparts") and associated structures were restored during the rule of Anastasios I (491-518 AD) and Justinian I (527-565 AD) while some of them were reconstructed before the present final state was obtained. The Roman site was abandoned in the 7th century with the advent of Islamic armies.

The Perpetual Problem of Identity

The ancient road running from Edessa (Şanlıurfa) to Nisibis (Nusaybin) was used by the Sassanid ruler Shapur II during his campaign against Constantius II in 359 AD when he set out to capture Amida (Dillemann, 1962, 290; Coşkun, 2019, 21). After this, garrison "cities"

1 For the Imperium Romanum, https://i.redd.it/mgth7fiv10u71.jpg

2 Legio Parthica V was based in Amida (Ammianus.18.9.1; 3-4). Information also conveyed in Buckingham, 1827, 384-390.

were established to ensure border security in the east. Dara is a fine example that grew out of a small settlement before it was officially founded by Anastasios I (491-518 AD) under pressure from Sassanid. The construction was completed around 503-507 AD (Erdoğan, 2014). Procopius gave an account of the early Medieval age military operations, mentioning that during the reign of Justinian I (527-565 AD) the fortresses between Dara and Amida were rebuilt for impregnability and rose to prominence (Procopius.*De Aedificiis*.2.3). Interestingly, he never addressed a place that corresponded to Zerzevan among the reconstructed sites (Dewing 1914; Deichmann and Peschlow, 1977, 34). This suggests that the garrison could have been built before Justinian I. The general opinion is that particular importance was attached to fortifications for border security during this period (Kütük, 2014, 154).

The geographical environs of Zerzevan are barely referred to in the literature. A rare case involved the appellation of Charcha/ Kurkh (marked at the place where Zerzevan hill stands) in some of the texts (Comfort and Marciak, 2018, 32-33 (see C.figure.3, F.figure 6)). Pertinent to its modern name, there emerged suggestions that the ancient name may be Samachi/ Sammachi (Dillemann, 1962, 159; Deichmann and Peschlow, 1977, 33; Marciak, 2014, 39) or Sardebar (Henderson, 1903, 99-21) (both names appearing in *Tabula Peutingeriana*). The site should be defined not only as a place where men-at-arms were lodged but also with the civilian settlers who were engaged in agriculture and permanently served the troops and/or were sheltered in times of emergency.

The ruins of Zerzevan were first visited in 1766 by Carsten Niebuhr, who indicated the site as Kasr Zerzaua and talked briefly about its visible structures. He did not mention an inscription which might have related to the origins of the fortress. He did not witness any later settlement activity, either (Niebuhr, 1780, 323; Ritter, 1844, 389; Deichmann and Peschlow, 1977, 8, fn.1, 30). Eduard Sachau, who traveled from Mardin to Diyarbakır in 1880 also gave concise but non-detailed descriptions of the area and left confirming knowledge that the place called Zarzaua hosted a settlement (Sachau, 1883, 434*ff*.; Deichmann and Peschlow, 1977, 8, fn.1, 31; for appellation, Preusser, 1911, 54). Conrad Preusser stopped at the castle and provided rough information around 1910 (Preusser, 1911, 54 *ff*.; Deichmann and Peschlow, 1977, 31). In 1911, Samuel Guyer wrote his observations with short anecdotes as a memoir with his sister Hanna Schätti-Guyer who joined his voyages. Guyer spoke of the presence of a village not seen by the previous travelers (Guyer, 1968, 156). It seems likely that it corresponds to Demirölçek Village, at about 1 km distance from the settlement, which was founded by the final "inhabitants" of Zerzevan Castle.

The name Zerzevan is derived from the Kurdish words Zêr/gold, Zîv/silver and it may have been named later as an adaptation of Zarzaua. The villagers living in the surrounding area today called the site as the "golden city". Or it could be associated with the name of

the time god, Zervan/Zurvan, in the Persian belief with which Mithras[3] is closely related (Dhalla, 1914; Eliade, 2003; Kızıl, 2013). A Mithraeum (Coşkun and Oğuz-Kırca, 2022, 95-104) recently excavated in the area points to the possibility that it was used as a space for worshipping and fulfillment of certain rituals in the Persian period. It is highly possible that Zervan turned into Zerzevan over time. However, it is still difficult to propose a Roman name, for now (Coşkun, 2017b; Coşkun, 2019).

Key Findings and Archaeological Evidence

Archaeologically, the Parthian period (140-85 BC) marks the beginning in which the site was used frequently. The site (Figs. 2-3) has remained intact and survived to date with the architectural ruins from the 3rd century. Residential quarters and daily utensils brought to light the usage of the domiciles and fort components respectively, beginning from this period. In another category, a wide array of ceramic finds (Fig.4) between the 3rd-7th centuries were uncovered at different localities within the site.

The usage of local limestone, corroborated through the results of archaeometric analyses (see Dursun and Coşkun, 2020), are traceable from the architectural elements. The monumental forms, particularly those with military and religious functions, are indicators of considerable workmanship and well-organized labor in which the local population may have participated.

The ruins, which are spread over 6 hectares on the surface, are intensely observed. Inside the fortified area lies the major architectural remains: A watch and defense tower (the Southern Tower, Fig.5a), a grand church (Fig.5b), administrative complex, an arsenal (Fig.5d) and a rock altar fall in the southern sector. In the north lies the core of the street system, the barracks that formed the residential quarters, a giant double-chambered vaulted cistern and several other small size ones, an underground church, a complex of structures forming the Mithraeum sacred area (Fig.6), as well as many others whose functions have not yet been determined. Along with a *necropolis* (Fig.5c), a main water channel route and offering bowls left outside the ramparts, the site totals approximately ten thousand decares of land (Coşkun, 2016, 101-102).

The main entrance (Fig.7) is accessed from the east by two big bastions, which could be equated with a round plan *Porta Praetoria*. The site is surrounded by ramparts with varying heights of 12-15 m, a thickness of 2.1 - 3.2 m, built in the *opus quadratum* technique with

3 Equivalent figures of Mithras were encountered in the 2nd millennium records of Mesopotamia; the king praying to Samas, the god of justice and the sun, appearing on the throne, in the Code of Hammurabi Stele which was found in the Elamite city of Susa and taken to the Louvre Museum. Here, the appearance of Samas instead of Marduk is the best proof of his interest in justice (Tosun and Yalvaç, 1975, 3, 8). In addition, the Sumerian God, Utu, might have undertaken similar duties.

cut stones (*i.e.*, Kretzschmer, 2010) (bonded with *opus caementicum*) whereas some of the walls were worked *in-situ* in the eastern and southern section being carved into the bedrock. The cut stones were enchased until a certain height was reached (Dursun and Coşkun, 2020, 2-5). Ten bastions and two towers were identified at regular intervals on the 1200 meter (including the gates and bastions) fortification wall. At the same time, outwardly protruding retaining walls are set between the bastions (Fig.8). The fact that the appearance of bastions, the only entrance to the castle accompanied by an ancient road are traced in the eastern wall section is owed entirely to the topographical feature that made the site vulnerable to any attack. The large three-story Southern Tower is preserved up to 19.2 m. The original height was determined to be 21 m (Coşkun, 2016, 103-104; Coşkun, 2017b, 93). The excavations revealed an underground passage sealed with flat blocks and mortar against impending sieges.

The area, which descends towards the north, where the streets and alleys become visible, was the residential quarter consisting of single or multi-chambered two story houses and/or barracks (Fig.9), also designed for horses, livestock and warehouses. A five roomed structure-"Building A" (9.6 x 12.4m) constructed in the middle sector, between the arsenal and the vaulted cistern was probably used by a high rank administrator, presumably a commander (Fig.10). The largest structure of the garrison, the Administrative Complex (Fig.11) with rows of chambers in the south, has not yet been excavated (Coşkun, 2017a, 125 *ff.*; Coşkun, 2019, 47-48).

The grand church that survived to the present must have been built later as the number of congregations living here and around increased. In the meantime, a bronze baptismal bucket, a privileged item currently exhibited in the Diyarbakır Archaeological Museum, was probably obtained from this part of the site[4]. To the north of the grand church was a large structure called the Arsenal, with an elongated narrow form and two chambers that were once roofed with barrel vaults (Deichmann and Peschlow, 1977, Taf. 13,1; Coşkun, 2019, 42)[5]. Surgical elements were excavated in and around this building, which was not far from the administrative quarter.

The giant vaulted cistern (11,2x22.5 m) which functioned as the main reservoir attached to the eastern walls, and the main canal running from the south (only a 616 m portion remains which provides evidence) form the backbone of the garrison's hydraulic distribution system, supported by 63 recordable cisterns scattered across the site, mostly inside or adjacent to the residential units (Coşkun, 2016, 105; Coşkun, 2017b, 95; Coşkun, 2019, 55-59).

4 The church-owned bucket (which was taken from the İstanbul Archaeological Museum) with the ancient Greek inscription on the surface *"ΥΠΕΡ ΕΥΧΗC ΚΑΙ CΩΤΗΡΙΑC ΑΝΤΙΠΑΤΡΟΥ ΚΑΙ ΠΑΝΤΟC ΤΟΥ ΟΙΚΟΥ ΑΥΤΟΥ ΚΥΡΙΟC ΦΥΛΑΞΙ CΑΙ (for the granting of the wish- or vow- of Antipatros and his family. God bless you)"* is dated to the sixth century A.D. Joubin 1898, 55; Devambez, 1937, 47, Taf 24; Fıratlı, 1955, 50, Fig.15, 37; Deichmann-Peschlow 1977, 39; Pleket and Stroud, 1977; Pitarakis, 2015, 354-355, Cat.112.

5 The eastern wall, which was standing until 1975, was demolished. Deichmann and Peschlow, 1977, Taf. 13,1; Coşkun 2019, 42.

Milestones of Roman Defensive Planning and Construction

The research at Zerzevan Castle began to shed light on the ways in which the Romans established their military headquarters and settlements near the Tigris River frontiers and in what ancient inscriptions recognize as the Mesopotamian sub-lands.[6] The steps that were probably used for building fortifications in the outer borders: a general survey of the ground and selection of a spot which had a good command and visibility of the entire zone, mathematical work for inter planning was conducted and construction and engineering activity was started. In the next step, a decision was made to determine the direction of a water line as well as the easy supply of fodder (Polybius.*Histories*.6.26-6.27). To Vegetius, an adequate supply of water, wood (especially for fire) and fodder were as important as choosing the safest place, particularly in case of a nearby enemy, often under the stress caused by time constraints.

The garrisons were square or rectangular structures within geometrical plans and street lines and networks suitable for terrain and settlements. A typical *castrum Romanum* was built by specially trained legionnaires (Legiones/ Legio) (Vegetius.*De re militari*; Cassius Dio. *Historia Romana*.78.9) but these type enclosures sometimes differed from short-term camps which were erected in a few hours by members of a Roman legionary branch. The size of camp was not too large for a small force nor was it too small for a big army. Besides quadrangular forms, a variety of shapes such as semicircular or even triangular camps could be made where the situation was dependent on the nature of the site and the circumstances. According to Polybius, a Roman camp was set up in the perfect square (τετράγωνον *ἰσόπλευρον*) where ramparts and barracks were built at regular intervals (measuring ca. 200 feet) in order to ease the marching of the soldiers and prevent crowding. The whole area would measure ca. 4 *plethra*/ ca. 0,38 ha (Polybius.*Histories*.6.26-6.27)[7]. The orientation of the *Praetorium* was always built toward the marching route of the enemy or facing east (Vegetius.*De re militari*.I.22-24).

Not all of the *castra* presented similar patterns but could have been customized according to specific needs. Although highly variable in size, legionary fortresses followed a specific template, often presenting the silhouette of a playing card. There was not perfect uniformity with all encampments but the basics of a fairly common plan eased the physical and psychological access and organization of the inner territorium. The baselines built by the ancient engineers and architects and those who articulated the art of combat and construction of the edifices, especially in continental Europe and parts of Anatolia and Upper Mesopotamia, notice that the *castra* had three to four principal gates (Campbell, 2006, 33-

6 Indicatively Ammianus (25.9) who identifies Mesopotamia with the Roman administrative unit.

7 As there is no strict agreement on their classification, these were close to smaller size marching camps (Jones, 2017, 523).

49) and towers appearing at regular distances. The lack of *fossa* (double row of ditches) (Vitruvius.*De Architectura*.1.5), or a *clavicula* system in Zerzevan was clearly not needed as it easily provided a natural defense field.

Two Main Buildings

The streets demonstrated an integrity with a pre-planned grid system, forming the backbone of the *castrum* in the "T" form by *Via praetoria* (defining or defined by the location of the main gate) and *Via principalis* (running in front of the headquarters), with the most appropriate lines and alleys (E.g., Chester in north-west England. Lander, 1984, 58-60; Campbell, 1999. On Hellenistic defensive designs, Wycherley 2011, 58; Lander 1984; Campbell, 2006). The two core buildings (Figs.9-10) lying at the heart of a typical *castrum*, the *Praetorium* (commander's residence) and *Principia* (headquarters/administrative complex) were erected side by side or very close to each other (Lander, 1984, 59. *cf*. Chester). The orientation of the *Principia* determined the orientation of the *castrum*. The main gate defined as the *Porta Praetoria* was mostly found in the parallel orientation. The rear gate, namely *Porta decumana* directly headed for and reached the *Principia* while many *castra* possessed *Via quintana* that ran parallel to the *Via principalis* without connection to the gates. The gates to the right and left on the long sides were called the *Porta dextra* and *Porta sinistra*, respectively (Lander, 1984; Campbell, 2006).

Something normally accepted and expected was that the *Principia*, which included an open courtyard in the front and offices behind, stood at the intersection point of the T form street system. In this case, Building A, which currently appears on the said point, demonstrates a villa plan with a visible infrastructure (with traces of sewage or drainage as well as a cistern above the ceiling level). It possessed plumbing fixtures over the floor (Campbell, 2006, 37-40; 49-50). The largest structure with sequential rooms is hypothesized to correspond to a *Principia* located at the front of the grand church facing south. It lies closer to the entrance point of the castle. The Roman *Principia* exhibited a more complex design with a *praetentura* (with barracks and storage areas, often lying in front) and *retentura* (welcoming the *scholae* which were reserved for officers and tribunes). This complex of buildings usually retained a basilica with a corridor and a commander speaking platform and, a *sacellum* or an *aedes* (sanctuary) in the center of which the legion standards were preserved; with an underground section (strongroom or a "safe" room) where the securities, mainly cash were kept. The literature suggested, within the boundaries of possibility, that similar stuff was stored in a special segment at the basement of this building. Future excavations are expected to provide more comprehensive information.

Near the *Principia* were the "public" hygiene rooms or lavatories (Campbell, 2006, 37-41; Goldsworthy, 2013) and an *armamentarium*, often with elongated rooms, and a

valetudinarium (equivalent to a dispensary). The arsenal at Zerzevan seems to match an *armamentarium* in both form and shape. A *valetudinarium* also seems plausible, with several surgical items unearthed at the spot in question. Apart from these, other functional buildings such as the *fabricae* (workshops), *tabernae* (shops for craftsman and artisans like the blacksmiths, carpenters, butchers, shoemakers, etc.), *horrea*, *macellum*, basically the cisterns which were fed by a *castellum* and/or the *tubuli fictiles*, and often a *therme* outside the inner territorium were found in a standard *castrum (*Campbell, 2006, 41-49; Goldsworthy, 2013).

A *centuriae* zone (one for the *centurion* and others for the soldiers) furnished with tents or barracks were constructed in consideration of the legionaries and their families who lodged with their horses and, with enough stables as well as a *gyrus* area for training or a *basilica exercitatoria*. Some of the barracks were reserved for the cavalry who lodged with their mounts. The rear part of Building A, the nearest place to the vaulted cistern, appears to have orderly arranged two story building blocks with high entrances (suitable for a cavalry's horse's height). If the location of the *Praetorium* is correct, nothing could be more reasonable than assigning the barracks quarters to the *centuriae* category. This zone is also acknowledged as the location of the best troop's barracks due to their positioning closest to the *Porta Praetoria (*Campbell, 2006, 50-54; Marcu, 2009, 13-14, 29-30).

The giant vaulted cistern replaced the function of a typical Roman *castellum divisorum*, a design that was detailed according to miscellaneous needs (Coşkun, 2017b, 96; Coşkun, 2019, 62-63). The scattered pattern of the water distribution system is compatible with the topographical limits, with the *castellum* at the forefront. Its proximity to the distinguished structures, mainly the *Praetorium* does not appear to be accidental. Based purely on written information and in the absence of a *therme*, the *latrinae* or general purpose hygiene complex can be found in the immediate vicinity of the *Porta Praetoria* or the unexcavated space between this entrance and the *Principia*. The placement of sitting benches unearthed in the rear sections of the two story buildings matching the *centuriae* zone, seem to be meaningful. In the absence of a public *therme*, functioning private baths in the barracks must be reconsidered.

Discussion

Before it took its present final state, Zerzevan must have undergone several stages. It was refortified or built against the Sassanid attacks[8]. In its current state, Zerzevan retains the conjugate image and function of *Castra Romana* which are documented in continental Europe, *cf*. Chester (Deva) in the UK, Castra Regina in Regensburg, Novaesum (Neuss) near the West bank of Rhine, Germany, and Inchtuthil in Scotland, etc. (Carrington, 1977, 36-42; Dietz and Fischer, 1996; Campbell, 2006: 33; Shirley, 1996, 111-127; Campbell, 2006, 24,

8 Reminding the case at Nicaea/ İznik, see Schneider, 1943; Foss and Winfield, 1986.

39; Gechter, 2007, 207-213). However, the plan is considered to have the status and format of an *Auxilia*, adjusted to the topography of the area. There is scant knowledge about the hill fort type constructions or those located on flat terrain, (*i.e.,* Danube (Pannonia), North Africa or Iberian Peninsula) (Campbell, 2006, 17, 22; Lander, 1984, 8-10) vis-a-vis riverside forts in the European region. A parallel site in terms of its natural layout and appearance could be Balad Sinjar (Parker, 2000, 122-138) at Singara in the south-east of Nisibis (modern Sinjar in northern Iraq), which was a fortress of *Legio I Parthica,* one of the eastern frontiers of Rome.

Notable legionnaire headquarters identified in ancient passages in Anatolia (Parker, 2000, 122; Uzunoğlu, 2012, 96-97)[9] were established in Melitene (Malatya) (Gabriel, 1940, 264-269; Mitford, 1998, 16); Zeugma that hosted Legio IV Scythica which were deployed by Marcus Antonius against the Parthians (Cassius Dio.*Historia Romana*.51.23.3; Campbell, 1999) at Belkıs (Wagner, 1977, 517-540; Görkay, 2017)[10]; Samosata (Adıyaman) and Satala (Gümüşhane) (Lightfoot, 1998, 273-284; Hartmann *et al*. 2006). Garrison cities formed a link in the eastern *limes* chain of castles on the Sassanid border. Important stations located between the Northern Mesopotamian Plain and the Eastern Anatolian Plateau included Amida (Diyarbakır), Edessa (Urfa) and Carrhae (Harran) as fortified settlements and newly established outposts. Dara (modern Oğuz Village), situated between Amida and Nisibis (Ahunbay, 1991, 391-392), is a good example.

In fact, evidence in Anatolia is inconclusive due to some under-reported cases or sites like Amida that have been completely modified. Ancyra (ancient Ankara) is one of these instances. The oblong hilltop fortification at Ancyra, where the outer ramparts measure ca. 350 m in the N-S, 180 m in the E-W axis, with wall heights of 14-15 m, (Strabo 4.1.13; 12.5.2; Görkay, 2011, 206), expanded its borders after the occupation of the Galatians by the Romans in the 2nd century B.C and overflowed today's boundaries (Foss, 1977; Serin, 2011).[11] This *castrum* was one of those which had its share of Sassanid attacks in the 7th century (İdil, 1997). Unlike the case of Ancyra which was built with spolia blocks removed from ancient city structures (Kadıoğlu and Görkay, 2011), Zerzevan revealed no dramatic change in the current appearance of the ramparts. When the Sassanids occupied Ancyra and the city was devastated in the beginning of the 7th century, the settlement shrank to the inner castle (Eyice 1993). Such was not the case in Zerzevan. Zerzevan presents itself as a unique body in regional geography, which as far as is known, does not go beyond the pre-designed insulae. When compared to sites in the region, such as Amida, Dara, and Zenobia-Halabiya the architectural fit sought in this context of ramparts and towers appears to be more or

9 For those who organized at this level by establishing headquarters as well as many other legions stationed in Anatolia, Parker, 2000, 122; Uzunoğlu, 2012, 96-97.

10 Over the region, Zeugma legion settlement is closest to that of Amida and Dara but is representative of a civic case (Görkay, 2017, 149, 165).

11 For third century A.D city walls, specifically Kadıoğlu and Görkay, 2011, 536-538.

less similar to that of Zenobia-Halabiya at Deir-Ezzor in northeast Syria (Blétry, 2020, 137-146). Regarding the Roman road network in northern Mesopotamia where physical evidence is still poor, the Tabula Peutingeriana and Antonine Itinerary, especially for the Osrhoene region (corresponding to western Mesopotamia/ east of Euphrates) provides somewhat better sources for understanding the ancient situation between the Euphrates and Tigris Rivers where milestones and forts were surveyed. Roadside forts seen between Doliche (Dülük, Gaziantep) and Samosata, are similar to the positioning of Zerzevan between Amida and Nisibis. Eskihisar may be another site which guarded the route between the legionary bases of Zeugma and Samosata, in the eastern bank of the Euphrates (Guyer, 1939, 183-190). Epigraphic evidence as well as stamped tiles have enlightened scholars that a *praetorium* structure at Eskihisar was built by Legio IV Scythica, in the 2nd century A.D (Wagner, 1983, 112-114). Ancient outposts located at regular intervals were also reported east of Edessa in late Ottoman records (Taylor, 1868, 353). In any case, Zerzevan's local features differ significantly from its "counterparts", which used similar masonry techniques, especially in the defensive parts.

Presumably, Zerzevan changed hands between the Romans and the Sassanids. A pitfall of this study could be the construction of "ideational landscapes" (Wilkinson, 2003, 6) as the social territorium of Zerzevan exceeded idealized frontier outposts. We will never know for sure. But physical limits always exist, as long as geography allows for a hypothetical answer for the decision to establish such an outpost at a location distant or separate from the neighboring legionary strongholds in the Syrian Province. In the absence of a deep waterline for transportation and related logistical concerns, the Roman army must have considered terrestrial solutions for this area. The auxiliary fortifications which are mentioned in the *Itinerarium Antonini Augusti* and *Tabula Peutingeriana* (Tigranokerta, Amida, Nisibis lying to the immediate southeast of the Tigris arc), are all situated within a day's walking distance (ca. 20km) from each other (Mitford, 1977, 507; also, Löhberg, 2006). Rather than directly identifying the fortification as a legionary base, the articulation of *Auxilia* (Kaya, 2005, 88-90) whose members were recruited from local forces could be a reasonable answer in the absence of an inscription or any other clear evidence for a direct appellation of present-day Zerzevan, as emphasized above. Its physical proximity to both the legionary fortresses of Nisibis and Resaina on the modern borders of Syria and Turkey, and to Singara in northern Iraq, makes the situation more understandable.

Zerzevan stands out with its layout (Fig.3, Fig.8) adapted to topographical conditions. It was a quasi-oval (not rigidly circular) geometric shape designed with regularly spaced bastions and/or towers, as conveyed by Vitruvius. The customization of the plan was easily recognizable with the separately placed *Praetorium* and the *Principia*. However, the positioning of Building A and the Administrative Complex, do not abide by the principles

in an ideal or fairly standard *castrum* plan (Table 1). But we maintain a second assumption that (in the beginning of ongoing excavations) the street system could have changed over time. If not, Zerzevan should be cited as a prime example of how a hilltop castle can be manipulated according to practical and geographical factors as well as factors yet to be identified. Deviating from recorded history and other excavated sites, the *Porta dextra* and *Porta sinistra* are located on the north and south wings of the main axial orientation in Zerzevan. Looking at the overall picture, the *Via praetoria* and *Via principalis* changed roles in accordance with the current situation of the two main buildings and the *Porta Praetoria*, affecting the "classical" position of the *porta dextra* and *porta sinistra*. Also, two candidates which replaced the function of a *Porta decumana* and *Via quintana* now on the front/ west of the arsenal (where *tabernae, macellum*, etc. could have been planned) may be stressed. The passage discovered under the Southern Tower might be substituting for a *Porta decumana*.

Conclusion

In the light of these archaeological finds, the frequent use of the garrison at Zerzevan can be traced back to the Assyrian period while the current picture which emerged in the 3rd-4th centuries A.D was shaped by Rome. Situated close by the eastern *limes* in the Mesopotamian borderland, Zerzevan could be named Samachi, Sardebar or something that denotes a kind of home to a local society about which we still do not have a complete idea. As one of the best preserved Roman outposts, it represents a standard legouesque formation, customized according to a variety of physical conditions and not yet completely fixed. Nevertheless, it overlaps with a good many elements of a Roman *castrum* with a certain level of institutionalization, resulting from the complementarity of defensive features in a non-linear but still T form grid system of streets and residential areas. But more than that, it is a magnificent prototype that shows how a typical Roman garrison in a specific region, such as Upper Mesopotamia, could be designed by constructing equivalent elements whose functions did not change from those required for an outpost. Hence, it is a unique case study in terms of its distinctive layout. Through this opportunity, we can witness an original construction scheme with a meticulously designed outpost, the equivalent of a medium-sized *castrum* outside continental Europe. The layout and construction had the same function to fit with the changing topography and localities.

It would make no sense to call it Samachi or to identify it with any other local name. What purpose it served should matter to the scholarly world. Its *terra incognita* character reinforces the idea that it may have been missioned as an *Auxilia* (neither an overnight camp nor a fully conscripted legionary castle), where local forces were often referred as second order Roman bases. Excavations are expected to shed further light in the future. In addition to permanent and/or patrolling forces in frequent contact with the Sassanid borders, local or Romanized

groups and allies recruited from across the region may have acted as military reinforcements on demand or in emergency cases.

Peer-review: Externally peer-reviewed.
Conflict of Interest: The authors have no conflict of interest to declare.
Grant Support: The authors declared that this study has received no financial support.

References

Ancient sources

Ammianus Marcellinus. *History (vol I)*. Rolfe, J.C., trans., London, 1939.

Lucius Cassius Dio. *Historia Romana (Roman history)*, Cary, E., trans., the Loeb Classical Library, 1968.

Marcus Vitruvius Pollio. *De architectura (mimarlık üzerine on kitap)*. Şevki Vanlı Mimarlık Vakfı, Güven, S., trans., Şevki Vanlı Mimarlık Vakfı, 1990; *the ten books on architecture (1-10)*. Morgan M.H., trans., Dover Publications, 1960.

Polybius. *Histories*. Shuckburgh, E.S., trans., Macmillan. 1889, reprint Bloomington, 1962.

Procopius of Caesarea. *De aedificiis (on buildings)*, Dewing, H.B., trans., the Loeb Classical Library, 1949.

Publius Flavius Vegetius Renatus. *De re militari (epitoma rei militaris)*, Lang, C. (ed.), Stuttgart, 1872. 2nd ed. Leipzig, 1885; Milner, N.P., trans. Liverpool, 1993, 2nd revised ed., 2011.

Strabo. *Geographika: antik Anadolu coğrafyası (books 12-14)*. Pekman, A., trans, Arkeoloji ve Sanat Yayınları, 2005.

Modern Sources

Ahunbay, M. (1991). Dara- Anastasiopolis. *KST, 12,* 391–399.

Blétry, S. (2020). The fortifications of Zenobia reinterpreted. In E.E.Intagliata, S.J.Barker, & C. Courault (Eds.), *City walls in late antiquity* (pp. 137-147). Oxbow Books.

Buckingham, J.S. (1827). *Travels in Mesopotamia (including a journey from Aleppo to Bagdad by the route of Beer, Orfah, Diarbekr, Mardin, & Mousul; with research on the ruins of Niniveh, Babylon, and other ancient cities) (vol.1)*. Henry Colburn.

Campbell, J.B. (1999). Legio. *DNP*, 7, 7–22.

Campbell, D.B. (2006). *Roman legionary fortresses 27 BC– AD 378*. Osprey Publishing.

Carrington, P. (1977). The planning and date of the Roman legionary fortress at Chester. *Journal of the Chester Archaeological Society, 60*, 35–42.

Comfort, A., & Marciak, M. (2018). *How did the Persian king of kings get his wine? the upper Tigris in antiquity (c.7000 bce to 636 ce)*. Archaeopress.

Coşkun, A. (2016). Zerzevan kalesi 2014 yılı kazı çalışmaları: ilk sezon. *KST, 37 (1),* 101-128.

Coşkun, A. (2017a). 2015 yılı Zerzevan kalesi kazı çalışmaları (2. sezon). *KST 38 (1)*, 125-150.

Coşkun, A. (2017b). Zerzevan castle in the light of recent archeological research. *Anadolu (Anatolia), 43*, 91-110.

Coşkun, A. (2019). *Zerzevan kalesi-Roma'nın sınır garnizonu / Zerzevan castle - Roman border garrison*. Diyarbakır Valiliği.

Coşkun, A., & Oğuz Kırca, E.D. (2022). Beyond the Roman east: an archaeological evaluation of the Mithraeum based on its architectural authenticity at castrum Zerzevan (Diyarbakır, Turkey). *Journal of Ancient History and Archaeology, 9 (2)*, 94-105.

Deichmann, F.W., & Peschlow, U. (1977). *Zwei spätantike Ruinenstätten in nordmesopotamien*. Bayerische Akademie der Wissenschaften.

Devambez, P. (1937). *İstanbul müzeleri. Asariatika Müzesi: tunç eserler rehberi - guide illustre de bronzes*. İstanbul.

Dewing H. B. (1914). *Procopius, history of the wars, I*. New York.

Dietz, K., Fischer, T. (1996). *Die Römer in Regensburg*. Regensburg.

Dhalla, M.N. (1914). *Zoroastrian theologoy from the earliest times to the present day*. New York.

Dillemann, L. (1962). *Haute Mésopotamie orientale et pays adjacents: contribution a la géographie historique de la région, du Ve s. avant l'ére chrétienneau VIe s. de cette ére*. Paris.

Dursun, F., & Coşkun, A. (2020). A preliminary study on material properties of the *Zerzevan* castle, Turkey. *Materials Science and Engineering, 949*, 1-8.

Eliade, M. (2003). *Dinsel inançlar ve düşünceler tarihi*, çev. A. Berktay. Kabalcı Yayınevi.

Erdoğan, N. (2014). *Anastasiopolis- Dara Antik Kenti*. Mardin.

Eyice, S. (1993). P.Guillaume de Jerphanion ve Ankara kalesi. *Ankara Dergisi*, 2 (5), 9-31. Ankara Büyükşehir Belediyesi.

Fıratlı, N. (1955). *A short guide to the Byzantine works of art*. İstanbul.

Foss, C. (1977). Late antique and byzantine Ankara. *Dumbarton Oaks Papers, 31*: 27-87.

Foss, C., Winfield, D. (1986). *Byzantine fortifications: an introduction*. University of South Africa.

Gabriel, A. (1940). *Voyages archéologiques dans la Turquie* orientale. Paris.

Gechter, M. (2007). Der Römische militärplatz Neuss (Novaesium). In G. Uelsberg (Ed.), *Krieg und frieden–Kelten, Römer und Germanen* (pp. 207–213). Begleitbuch Zur Gleichnamigen Ausstellung im Rheinischen Landesmuseum.

Goldsworthy, A. (2013). *Armia Rzymska na wojnie 100 p.n.e. – 200 n.*e. Oświęcim.

Görkay, K. (2011). *Roman city walls (3rd century city walls), Roman Ancyra*. İstanbul.

Görkay, K. (2017). *Zeugma lejyon yerleşkesi: yeni araştırmalar, sonuçlar ve ön değerlendirmeler*. *Anadolu (Anatolia), 43*, 147-179.

Guyer, H.S. (1968). *Reise durch Mesopotamien*. Zürich.

Guyer, S. (1939). Eski Hisar, ein römisches lagerkastell im gebiet von Edessa. In *Mélanges syriens offerts à monsieur René Dussaud par ses amis et ses élèves* (pp. 183-190). Paris.

Hartmann, M., Drahor, M.G., Speidel, M.A., & Çiğdem, S. (2006). New research at the Roman legionary camp at Satala, northeast Anatolia; geophysical and archaeological survey. *AST, 21,* 197–204.

Henderson, B. 1903. Controversies in Armenian topography I: the site of Tigranocerta. The *Journal of Philology, 28*, 99-121.

İdil, V. (1997). *Ankara: the ancient sites and museums*. Ankara.

Jones, R. (2017). Roman frontier studies 2009. In N. Hodgson, J.P. Bidwell, & J. Schachtman (Eds.), *Proceedings of the XXI international congress of Roman frontier studies (limes congress) held at Newcastle upon Tyne*, August 2009 (pp. 521-531). Archaeopress Publishing.

Joubin, A. (1898). *Musee imperial Ottoman. bronzes et bijoux*. İstanbul.

Kadıoğlu, M., & Görkay, K. (2011). Roma döneminde Ankyra. In Y. Kurt (Ed.), *Tarihte Ankara uluslararası sempozyumu bildirileri* (pp. 531-541). Ankara Üniversitesi Dil ve Tarih-Coğrafya Fakültesi.

Kaya, M.A. (2005). Roma lejyonerleri ve Anadolu. *Tarih Araştırmaları Dergisi, 24 (37)*, 87-98.

Kızıl, H. (2013). Zurvanizm'in kuruluşu ve Sasaniler dönemindeki etkileri. *EKEV Akademi Dergi, 56*, 295-310.

Kretzschmer, F. (2010). *Resimlerle antik Roma'da mimarlik ve mühendislik*, çev. İlkgelen, Z.Z. Arkeoloji ve Sanat Yayınları.

Kütük, A. (2014). İmparator I. Justinianos'un ilk yıllarında Bizans imparatorluğunun Mezopotamya sınırı (527-532). *Tarih Okulu Dergisi, 18*, 141-164.

Lander, J. (1984). *Roman stone fortifications: variation and change from the first century a.d. to the fourth*. Bar International Series.

Lightfoot, Ch.S. (1998). Survey work at Satala, a Roman legionary fortress in north-east Turkey. In R. Matthews (Ed.), *Ancient Anatolia. fifty years' work by the British institute of archaeology at Ankara* (pp. 273-284). London.

Löhberg, B. (2006). *Das itinerarium provinciarum Antonini Augusti*. Frank & Timme.

Marciak, M. (2014). The cultural landscape of Sophene from hellenistic to early Byzantine times. *Göttinger Forum für Altertumswissenschaft, 17*, 13-56.

Marcu, F. (2009). *The internal planning of Roman forts of Dacia*. Mega Publishing House.

Mitford, T.B. (1977). *The Euphrates frontier in Cappadocia. Studien zu den 129 militärgrenzen Roms II*, 38 (501-511). Köln.

Mitford, T.B. (1998). The roman frontier on the upper Euphrates. In R. Matthews (Ed.), *Ancient Anatolia: fifty years' work by the British institute at Ankara* (pp. 255-272). London.

Niebuhr, C. (1780). *Voyage en Arabie & en d'autres pays circonvoisins*. Amsterdam.

Parker, S.T. (2000). Roman legionary fortresses in the east. In R.J. Brewer (Ed.), *Roman fortresses and their legions. papers in honour of G.C. Boon* (pp. 121–138). Society of Antiquaries of London/National Museums & Galleries of Wales.

Pitarakis, B. (2015). *Hayat kısa, sanat uzun- Bizans'ta şifa sanatı/ life is short, art long – the art of healing in Byzantium.* İstanbul.

Pleket, H. W., & Stroud, R.S. (1977). Samachi (kale'i Zerzevan; 45 km s. of Amida). inscription on a bronze bucket, 6th cent. A.D. *Supplementum Epigraphicum Graecum, 27*.

Preusser, C. (1911). *Nordmesopotamische baudenkmäler altchristlicher und islamischer zeit*. Leipzig.

Ritter, C. (1844). *Die erdkunde von Asien 7-2*. Berlin.

Sachau, E. (1883). *Reise in Syrien und Mesopotamien*. Leipzig.

Serin, U. (2011). Late antique and Byzantine Ankara: topography and architecture. In *Marmoribus vestita. miscellanea in onore di Federico Guidobaldi* (pp. 1257-1280). Pontificio Istituto di Archeologia Cristiana.

Schneider, A.W. (1943). Die Römische und Byzantinische denkmäler von İznik-Nicaea. *Istanbuler Forschungen, 16*. Berlin.

Shirley, E.A.M. (1996). The building of the legionary fortress at Inchtuthil. *Britannia, 27*, 111–128.

Taylor, J.G. (1868). Journal of a tour in Armenia, Kurdistan and upper Mesopotamia. *Journal of the Royal Geographical Society, 38*, 281-361.

Tosun, M., & Yalvaç, K. (1975). *Sumer, Babil, Assur kanunları ve Ammi-Şaduqa fermanı*. Türk Tarih Kurumu.

Uzunoğlu, H. (2012). Anadolu'da Roma lejyonları. In N.E. Akyürek Şahin, B. Takmer, & F. Onur (Eds.), *Eskiçağ yazıları 2* (pp. 93-128). Arkeoloji ve Sanat Yayınları.

Wagner, J. (1977). Legio IIII Scythica in Zeugma am Euphrat. *Limes, 10*, 517-539. Köln.

Wagner, J. (1983). Provincia Osrhoene. In S. Mitchell (Ed.), *Armies and frontiers in roman and byzantine Anatolia* (proceedings of a colloquium held at university college) (pp. 103-129). Swansea, April 1981. Oxford, BAR International Series.

Wilkinson, T.J. (2003). *Archaeological landscapes of the near east*. The University of Arizona Press.

Wycherley, R.E. (2011). *Antik çağda kentler nasıl kuruldu?* Arkeoloji ve Sanat Yayınları.

Table 1: Comparative Review of the Major Components of A Roman Fortress and Zerzevan

	Standard *Castrum Romanum*	Zerzevan (Late Roman)
Zonal command & visibility	ok	ok
Geometry of general layout	perfect square/oval	elongated oval
Size	up to 50 ha	6 ha
Height/ thickness of rampart system	varying; early stone walls reached 4,5-5 m, widths of 3-9 m	12-15 m high, 2.1 - 3.2 thick
Masonry technique	miscellaneous timber built forts (43 AD-early 2nd century in general) stone with earthen ramparts, co-usage of brick, turf, timber (from 2nd century)	opus quadratum bonded with opus caementicum
Watch & defense tower	ok	one standing
Fossa	ok	X
Towers/ bastions located at regular intervals	ok	ok
Supply of water	ok	ok
Number of principal gates	3-4	1 excavated
Orientation of Porta Praetoria	marching route of enemy/for NA situations- east	east
T form street system	ok	ok/ as much as possible given the current state of excavations
Grid plan	ok	ok
Via praetoria	running from porta praetoria to Principia	E-W axis
Via principalis	running from porta principalis dextra to sinistra	N-S axis
Porta dextra	on long sides	on short sides
Porta sinistra	on long sides	on short sides
Principia	intersection point of T form street system	in the middle-south sector, lying afar
Complex of buildings	ok	ok
Main spaces	praetentura & retentura	multi-chambered complex
Structures inside or in connection	basilica, speaking platform, aedes with strongroom	grand church, others not excavated
Closer facilities	common latrinae, armamentarium, valetudinarium, fabricae, tabernae, macellum, horrea, etc.	arsenal matching armamentarium possible space for dispensary
Praetorium	near the Principia	intersection point of T form street system, close by Porta Praetoria
Villa plan	ok	ok
Private infrastructure	ok	ok
Orientation of castrum	according to Principia	according to administrative complex/ east
Via quintana	ok	possibly

Porta decumana	directly heading for Principia	replaced by a hidden passage running from the Southern tower (as if sourcing by a porta dextra?) to Principia?
Centuriae	orderly arranged quarters of barracks	orderly arranged two story buildings with high entrances
Housing	best troops lodged close to Porta Praetoria	at the rear part of Building A, near Porta Praetoria
Therme	ok outside ramparts	X (if not earthed inside) some private baths? at the rear section of two-story buildings neighboring the vaulted cistern
Water structures	miscellaneous	main canal, vaulted cistern, secondary cisterns
Gyrus, basilica exercitatoria	ok	X
Necropolis	ok outside ramparts	ok outside ramparts

Figures

Figure 1: Geographical location of Zerzevan Castle (https://i.redd.it/mgth7fiv10u71.jpg)

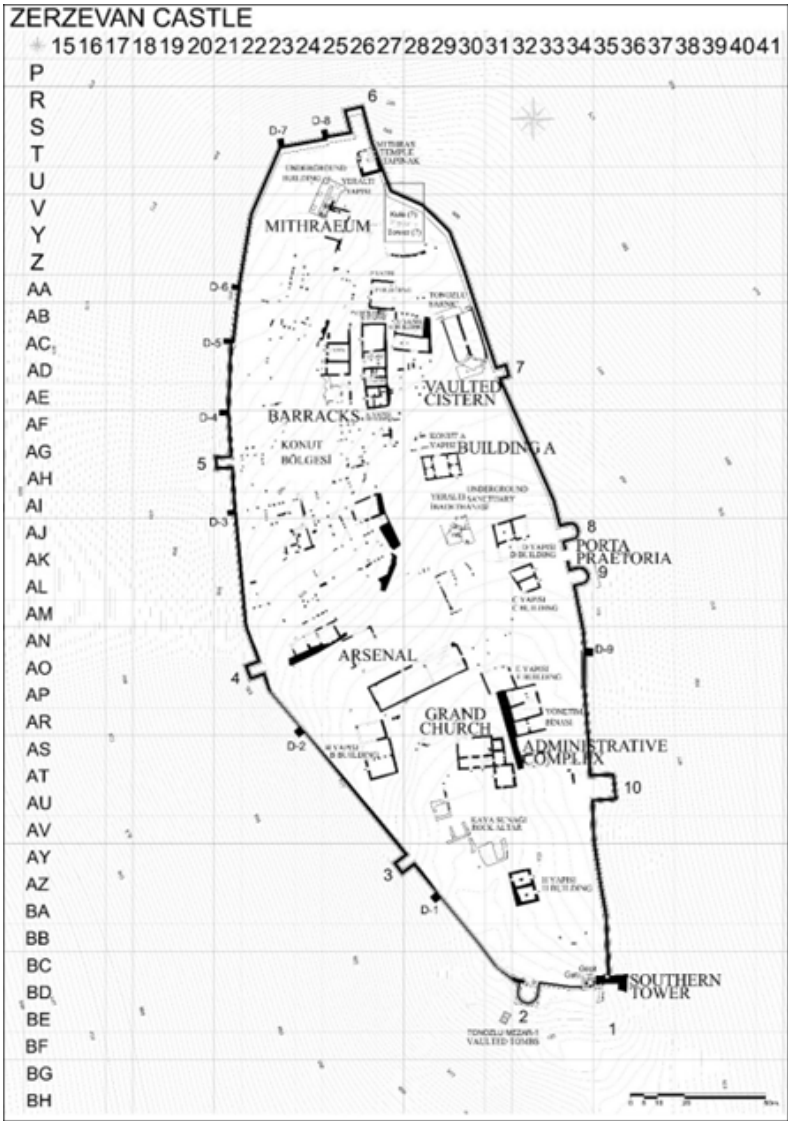

Figure 2: Plan of Zerzevan Castle (Excavation Archive)

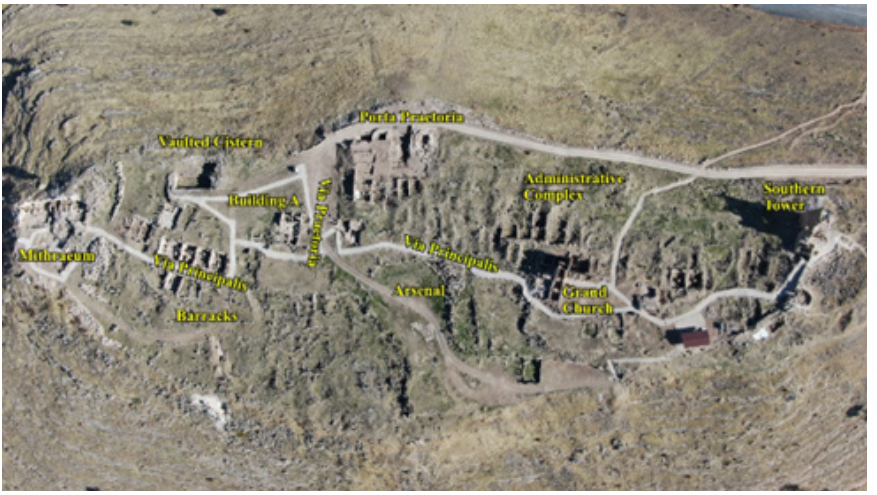

Figure 3: Main architectural buildings marked on aerial view (Excavation Archive)

Figure 4: Samples of ceramic finds (Excavation Archive)

Figure 5: Southern Tower (a), Grand Church (b), inner image of a rock tomb (c); aerial view of the Arsenal (d) (Excavation Archive)

Figure 6: Aerial view of the Mithraeum (Excavation Archive)

Figure 7: The location of the main gate/*Porta Praetoria* on aerial view (Excavation Archive)

Figure 8: A photograph from the walls (top left) and 3D reconstruction of the rampart system (Excavation Archive)

Figure 9: Photograph from the inner space of a barrack (top right); location of the quarter of barracks on aerial view (Excavation Archive)

Figure 10: Aerial view image of the plan of "Building A" (Excavation Archive)

Figure 11: Aerial view of the "Administrative Complex" in front of the Grand Church (Excavation Archive)

Anadolu Araştırmaları
Anatolian Research

İSTANBUL UNIVERSITY PRESS

AnAr, 28, 143–158
DOI: 10.26650/anar.2023.28.1245449 Research Article

Living Amidst the Ruins: The Yuruks in the Archaeology and History of Lycia

S. Gökhan Tiryaki[1]

[1]Akdeniz University, Faculty of Letters, Department of Archeology, Antalya, Turkiye

ORCID ID: S.G.T. 0000-0001-5946-4369

Corresponding author:
S. Gökhan Tiryaki,
Akdeniz University, Faculty of Letters, Department of Archeology, Antalya, Turkiye
E-mail: gtiryaki@akdeniz.edu.tr

Submitted: 01.02.2023
Revision Requested: 12.05.2023
Last Revision Received: 12.05.2023
Accepted: 18.05.2023

Citation: Tiryaki, S.G. (2023). Living amidst the ruins: The yuruks in the archaeology and history of Lycia. *Anadolu Araştırmaları-Anatolian Research*, *28*, 143–158. https://doi.org/10.26650/anar.2023.28.1245449

ABSTRACT
The history of Lycian archaeology has a long tradition dating back to the late 18th century. In contrast to the earlier periods spanning from prehistory to Late Antiquity , however, Lycia in the Ottoman period has been generally overlooked by archaeologists, being dismissed as either uninteresting or not worthy of study. This is due, not to a lack of body of knowledge, but to intellectual and ideological boundaries on what constitutes the archaeological past of Lycia, and/or what its relevance to the archaeology of Anatolia could be. In this regard, all the historical narrations identifying Ottoman Lycia make particular reference to the Nomads and illustrate them as either the barbaric destroyers or the glorious conquerors of Greco-Roman antiquities. In doing so, they push the Yuruks into an eccentric, ambitious, or exclusive past and thus marginalise them as permanent 'others' in the long-term history of the region. Hence, the present paper shifts the research focus from history to archaeology, and based on comparative analysis, it provides theoretical and practical insights into the cross cultural interactions between the Yuruks and Greco-Roman antiquities in Lycia. Contrary to previous works, I argue here that the Yuruks were one of the components that composed the long-term history of Lycia, and they contributed to the preservation of Lycian heritage by providing different concepts, meanings, and contexts to the surviving antiquities.
Keywords: Archaeology, Antalya, Lycia, Antiquities, Yuruks

Introduction

Lycia is an exonym used in classical antiquity that refers to the southwestern part of Anatolia, extending between Caria and Pamphylia (Fig.1). Flanked by the highest peaks of the Western Taurus to the north and the Mediterranean Sea to the south, it lies within the borders of the Antalya, Muğla, and Burdur provinces of modern Turkey.

The characteristics of its physical and cultural geography that are typical of both Mediterranean and Alpine landscapes have made Lycia an attractive area for archaeological research. This research has a long tradition dating back to the late 18th century and has produced a substantial body of knowledge that has advanced our understanding of the history of the area, spanning from prehistory to the Byzantine period. In contrast to the earlier periods, however, the Ottoman period, during which the region was attached to the Teke Province (Fig. 2) and widely inhabited by Nomads (Yuruks), has been generally overlooked by archaeologists, being dismissed as either uninteresting or not worthy of study. Therefore, current research accumulation is lacking any comprehensive information about the relationships and interactions between the Yuruks and the classical landscape of Lycia. As a result, the field has been largely influenced by historians whose perspectives and areas of focus are distinct from those of archaeologists. (Tütüncü-Çağlar 2017, 111).

In the light of this, the primary purpose of this paper is to bring the Yuruks back into the archaeological research agenda in Lycia and thus into the long-term history of Mediterranean Anatolia. In this sense, the main question addressed here is whether the Ottoman period represents one of "decline and decay" in the cultural landscape of the region.

Within the scope of this general frame, the rest of the study has been divided into four sections. The following part presents an overview of the research accumulated thus far. The third section focuses on the way of life and subsistence of the Yuruks through current archaeological and historical records. In the next section, archaeological evidence is used to provide a better understanding of how the Yuruks perceived, interpreted, and re-purposed the ruins of the distant past. The final part argues that the boundaries isolating both the Yuruks and the Ottoman period from Lycian archaeology are artificial, creating a major historiographical problem that needs to be overcome.

The Nomads (=Yuruks) in Modern History and Archaeology

The nineteenth century saw the emergence of nationalism and also of archaeology as a professional discipline (Diaz-Andreu 2007, 61.). Throughout the period, the Ancient Greek and Roman pasts were perceived as the roots of pan-European civilization (Diaz-Andreu 2007, 99-130; Trigger 2006, 61-67; Shaw 1998, 61pp.). The increase in the political potential of antiquities gave way to the integration of archaeology into nationalism in the construction

of the modern state, and as a form of colonial discourse it served for the production and the maintaining of an imaginary past for European imperial powers (Diaz-Andreu—Champion 2014.). The role of archaeologists conducting research in the margins of Europe, particularly in the vast area of the Ottoman Mediterranean, was supposedly to reveal the past Golden Ages of European civilisation. However, any traces of the present—of an Ottoman present—were considered 'annoying and debasing the illustrious ancient tradition' (Uzi-Caroll 2002, 5; Todorova 1996, 45). As the nineteenth century passed, the difference between core Europeans and the 'Others' -including the countries of Mediterranean Europe- became rationalized through racial terms, the first, the European, being seen as containing a superior, all-white, dolichocephalic, Aryan race (Diaz-Andreu 2007, 128).

The description of nomadic tribes living in the vast geography of the Ottoman State corresponds to this period of time as well. In this regard, history written about the Yuruks in Lycia, in particular, and about Anatolia, in general, is not complicated. To summarize the general trends we can take a closer look at mainstream scholarly publishing from the late 19th century to the recent past.

F. von Luschan, an anthropologist, ethnographer, and archaeologist, was one of the pioneering figures who published several papers in the late 19th and early 20th centuries based broadly on anthropometric surveys in Lycia (von Luschan 1886, 1889, 1911). Luschan wrote much about the cultural habits of the Nomadic tribes, and identified the Yuruks first with Gypsies (von Luschan 1886, 167-171), later noting that 'this was a mere suggestion, and it might well be that their resemblance to the Gipsies is only quite accidental' (von Luschan 1911. 227). Almost in the same period, Th. Bent, British explorer and archaeologist, reported his personal observations following his travels in Lycia, Pamphylia, and (Rough) Cilicia (Bent 1891.). In his work, Bent divided the nomads into two groups as 'Tahtagees Yourouks' and 'Pastoral Yourouks', referring to their races, and noted that they were more akin to the Kurds than to the Persians or Armenians. (Bent 1891, 276).

In the early 20th century, W.M. Ramsay, well-known British authority in archaeology and geography of ancient Anatolia, prepared an extensive study on racial diversity in Asia Minor and focused on the cultural habits of the Yuruks as well. Contrary to previous assumptions, Ramsay identified the Yuruks as a group of Central Asian nomads who have preserved many of their cultural habits that differ from other nomadic groups in Anatolia. According to Ramsay, they were truly nomadic and did not conform to the old settled and peaceful Anatolian type, which resulted in the dismantling of the settled and peaceful Greco-Roman way of life in Turkey (Ramsay 1917, 30 pp.). It is also worthy of note that during the early republican period, Turkish archaeologists and historians followed parallel pathways to their contemporaries, likely due to the political realities of the period (Ergin 2010.), of course with some minor revisions. These responses were reactive in nature and sought to transform the

historical role of the Yuruks from 'barbarous Asiatic destroyers' into the 'glorious Asiatic conquerors' of the Greco-Roman past of the country. These narrations describe the Yuruks as Asiatic nomads who spread into the coastal Mediterranean region after the conquest of Anatolia and they did not only move their cultural identity to Anatolia, but also contained their philosophy of life in their newly settled lands. Thus the Yuruks of the Oghuz tribes, who influenced the ethnic structure of Anatolia, played a key role in the expansion of the Turkish conquest to the west (Halaçoğlu 2009, VII; Ak 2015, 8).

Reconsideration of 'Asiatic Nomadism" in Ottoman Lycia

Following a long silence in the historical records of the Late antiquity , Seljuk, and Early Ottoman periods (Flemming 1964; Foss 1996, 19-32; Kiel 2012, 185-226) the Tax Registers of Teke Sancak, -also known as Tahrirs or Tahrir Defters (Gümüşçü 2008.)-, are the earliest sources that give comprehensive information on the population, economy, and settlements of the region during the 15th and 16th centuries (Armağan 1997.; Karaca 2002.; Kiel 2012, 199). These documents include taxpayers and tax resources and enable us to obtain a detailed picture of the physical and human geography of the Teke province, from flora and fauna to settlement and economy, all of which are unique and valuable (Karaca 2002, 162-202).

The Tahrir documents reveal that Lycia was divided into three primary kazas (sub-districts) in the 16th century. Administrative records from 1568 indicate that Western Lycia was attached to the Kaş and Kalkanlu sub-districts, while Central and Northern Lycia, -also known as Milyas-, were associated with the Elmalu (Ustaoğlu 2016, 152) (Fig. 2). Lists of tax payments also make it evident that each of these regions was home to a particular group of people registered under the name of 'Yuruk'. Even though the origin of the word Yuruk is still under discussion, there is consensus in scholarly research that it is derived from the Turkish verb "yürümek /yörümek," which means "to walk/to move", as opposed to "oturak" ("to sit down/to settle" or "to be sedentary"). The word first began to be used in the 15th century. H. İnalcık underlines that the term "yuruk" was originally invented and used by the Ottoman chancery as an administrative-financial context to refer to the nomads from various origins living in Western Anatolia and the Balkans, who were subject to a special status among the reāyā-ra'īyat (tax-paying subjects) (İnalcık 2012, 471-473).

Several issues related to the Yuruks become clear through the particular information provided by the Teke Tahrirs. The first is about the origin of the Yuruks, a topic of great debate even to the present day (İnalcık 2014, 471-472). Based on the names mentioned in the tax-paying lists, it is evident that the Teke Yuruks are mainly composed of Oghuz and Kurdish tribes (Karaca 2002, 169-189; see also Table 21). Moreover, there were also other tribes mentioned in the same lists bearing probably Greek, Arabic, or Armenian names [Durnos, Duşe (Dushe), Karpenk, Rumcalar (=Rumish), Urbâlar (=Arabs)] that may indicate

they were of distinct origins. However, there is a lack of complementary studies to confirm this assertion (Karaca 2002, 169-189, see also Table 21). In any event, the available pieces of evidence are crucial and suggest that the statements that all the "Yuruks" living in the Teke Sancak in the Ottoman period were of Central Asian origin need to be revisited.

Another critical point is the association of the nomadic lifestyle in Mediterranean Anatolia with the Yuruks and their Central Asian roots. However, the Tahrirs present a more nuanced perspective that challenges this oversimplified view. Specifically, they demonstrate that the Yuruks practiced a form of nomadism that entailed the movement between summer and winter pastures, primarily depending on the climate, rather than a purely nomadic existence. Moreover, an analysis of the tax registers between 1455 and 1580 reveals that their economic activities were primarily agricultural rather than solely based on livestock farming (Karaca 2002, 171).

This is indeed a form of nomadism, known as vertical transhumance, being exercised in the wide area of the Mediterranean Basin and characterized by short-distance movements of herds of domestic herbivores between seasonal grasslands at different altitudes (Greenfield 1999, 9; Liechti-Biber 2016; Emiroğlu-Aydın 2009, 813). As highlighted by S. Aydın, the land use strategy of the Yuruks represents a fundamental distinction from traditional Asiatic practices, which do not depend on climate and which involve a year-round horizontal migration over long distances across wide steppes (Aydın 2006, 113). In his recent publication focused on the spatial configurations and settlement patterns of transhumant cultures in the Turkish province of Antalya and the Italian province of Abruzzo, R. Kavas (2016) arrives at a conclusion that aligns with that of Aydın. According to Kavas, there are shared characteristics in both countries defining the significant continuities that reinforce the idea of a common "Mediterranean" identity (Kavas 2016, 389).

Based on both studies, it can be inferred that the semi-sedentary way of life in the Taurus region exhibits characteristics that are more closely related to the Mediterranean cultural sphere than to those of the Asian Steppes. This conclusion is further reinforced by archaeological evidence that highlights the long-standing history of transhumance in Lycia. In that respect, the remains recovered from Ayvasıl (today Kocapınar/Elmalı) reveal that the site was used seasonally and the main habitation area remained in the lowland plains (Minzoni-Deroche 1987, 148; Taşkıran 2006, 763; Becks 2016, 27.). Archaeological excavations in Karataş in Elmalı also indicate that the Semahöyük Plain hosted a small village established by the semi-nomadic groups that probably moved between the coastal and inland regions during the Early and Middle Bronze Ages (Massa 2016, 109-110). Recent archaeological surveys conducted around Akdağ and Elmalı Dağ have yielded interesting findings, particularly that seasonal settlements were probably in use in the first half of the Iron Age (French 2012, 50-59). According to Herodotus, the Xanthians migrated to the highland pastures during the summer

months (Hdt. 1.176). Epigraphic documents dated to the Hellenistic and Roman periods present that disputes over the use of summer pastures (probably Girdev [=Kerdobata]) in the Akdağ (Kragos) and Semahöyük in Elmalı) were among the main administrative problems for the Lycians (Şahin 2014, 215-219). Moreover, the diary of St. Nicholas and archaeological research in the periphery of Myra evidenced that the transhumance culture prevailed in Lycia during the Eastern Roman Period (Ševçenko & Ševçenko 1984; Robinson 2007, 118; Terroy 2019, 6). Ultimately, the memoirs of Y. Pehlivanides serve as a compelling illustration that large populations in Antalya persisted in practicing transhumance for diverse economic reasons throughout the 19th and 20th centuries (Pehlivanidis 1989, 140-143; 155-156)

The 'Others' Living Amidst the Ruins

As emphasized by Diaz-Andreu (2007, 61-67), the defeat of the Napoleonic venture in Europe and the implementation of new regulations for banning the export of ancient works of art in Italy (1820) and Greece (1827) resulted in the Ottoman Empire becoming the primary source of antiquities for European museums. As a small port on the Mediterranean coast of southwest Anatolia, Antalya suffered most in this period. The city was flooded by state-sponsored European researchers and expeditions from the early 19th century to the end of the Italian occupation in 1921. During that period, the 'Greek and Roman cities' of Lycia -previously unknown to Europeans- were discovered, archaeological, epigraphic, and numismatic data was collected (Duggan 2019; 115-168) and many antiquities, -from coins to spectacular monuments-, were dismantled and taken to European museums.

It is noteworthy that the plundering of antiquities in the Ottoman Empire was often rationalized by means of claims of protection. W. Shaw notes that these arguments depended on the perceived inability of non-European races to appreciate and protect the arts of antiquity, appropriated as part of the imaginary pan-European past (Shaw 2003, 37). According to Shaw Europeans considered the practise of collecting antiquities from the lands of the Ottoman Empire as transferring antiquities from barbaric hands that presumably neglected and even destroyed them into the hands of scholars who coddled, studied, and preserved them (Shaw 2003, 38).

Contrary to this general frame, however, there are sufficient archaeological and historical records in the research corpus that give us an opportunity to examine whether the Yuruks caused the devastation of Greco-Roman antiquities in Lycia. Hence, below I will follow the trace of this evidence to better understand how the Yuruks perceived, interpreted, re-purposed and re-functioned the remains of the distant past.

The case of the ancient city of Limyra serves as an apt starting point, as it was the site of the oldest religious and assembly center for the Yuruks in the Teke Sancak. Associated later with Kâfi Baba, the Tekke (derwish monastery/lodge) was founded in the middle of the 14th

century by Abdal Mûsâ, who was believed to be a reincarnation of Hacı Bektâş-ı Velî, and was reborn in Teke (Köprülü 1988, 64; Bauer 1999, 117). Archaeological investigations show that one of the four major Bektashi centers and the first assembly space in the Lycian lands was built right next to the Kaineus Tomb and Necropolis III just outside the eastern Byzantine city (Fig. 3). Located by the sources of the Limyros spring, this particular place was at the heart of Limyra, where the long-standing religious centre, the Limyreion Chresmos, had served the Lycians (Bauer 1999, 117- 122; Borchhardt 1999, 24).

The awqaf records in Tahrirs present detailed information on the location of dervish lodges and zawiyahs, particularly in North Lycia (Elmalı) that make clear that the scene in Limyra is not exceptional. Accordingly, Çeke Dede Lodge (Karaca 2002, 380) served in the Ernez village, known to us as the ancient city of Arneai. Kilerci Baba Tomb (Karaca 2002, 279) located in Gilevgi Village, on the mound of Gilevgi Höyük dates back to the Bronze Age (Melaart 1954, 192). Kuyucu Baba Tomb (Durgun 2018, 213), which was also used as a small mosque, was located in the Müren/Gölova and hosts a magnificent Archaic tomb and ancient ruins (Tiryaki 2015.). Halil Baba Zawiyah, who was a student of Ümmi Sinan, was built on the mound of Semahöyük (Mellink 1984.). Hacı Baba Zawiyah was located in the ancient city of Soklai, contemporary Söğle (Melaart 1954, 192). Baltasıgedik Mahmut Dede Tomb was built on an ancient pavement road that connected Gökpınar- Elmalı (Akarassos) and Bayınıdır (Terponella) and was at the centre of the necropolis (Ekiz 2001, 29).

The sites dedicated to these holy figures have both tangible and intangible (symbolic) functions that give insight into cross cultural interaction and relationships between the Yuruks and the distant past. It is also clear that these spatial encounters were not brought about in order to alienate antiquity nor to humiliate, demonize, and ultimately erase the "pagan" culture, which, in contrast, is preached in the Song of Roland, and which was widely circulated in mediaeval Europe (Akbari 1999). On the contrary, the Yuruks preserved these cultural spaces by including them in social and religious life. This also means that the ancient sites were physically perceived, mentally (re)designed, and eventually transformed into memory spaces through new narratives. Furthermore, this transformation is important since it includes the consent of the followers. Thus, the interest of the faithful visitors to these sites encouraged the preservation of antiquities in Lycia and also allowed the allocation of new meanings, contexts, and functions.

Besides this, there is also complementary information on the settlements, transportation networks, and toponyms that disprove the assumption that the Yuruks were indifferent towards the archaeological landscape of the region or that they deliberately destroyed the Greco-Roman antiquities. In this respect, the tax registers and additional archival records help to revive the historical geography of Teke Sancak by providing the names of geographical locations related to the Yuruks according to administrative-fiscal categories. The analysis of the

toponyms from the 15th to 19th centuries shows the Yuruks were well aware of the historical landscape of the region and described the archaeological ruins in several ways. It is apparent that they used the original site names in some cases such as Adrasan [Atrassas]; Andifli [Antiphellos]; Ernez [Arneai]; Belen [Belos]; Budalye [Podalia]; Demre [Myra]; Elbis [Elbis]; Fırnaz [Phurnos], Finike [Phoinikous]; Gedelma [Kadrema]; Gendeve [Kandyba]; Girdev [Kerdobata]; Gödeme [Kendema]; Gömbe [Komba], Kozarası [Kosara]; Seyret [Seroita]; Söğle [Soklai]; Soura [Sura] (Tiryaki 2022, Tablo 1). Alternatively, they used their own terms for particular sites that include the remains of ancient periods, which we have attested today as archaeological sites. These well-known terms are *üyük* (mound); *viran* (ruin); *harab* (ruin); *ören* (ruin); *hisar* (castle); *asar* (antique), *gavuristan* (the place where the pagans lived once), *körüstan* (the place where the pagans lived once) etc, as can be seen in Semayük (Elmalı); Kozlucaeyük, Sulucaeyük, Yassıeyük (Kaş); Avşar Harabesi (Apollonia); Asartepe (Kyeneai); Av Asarı (Aperlai); Gavuristanlık (Akalissos); Körüstan (Korba); Güzören (Pygela) and İthisar (Hippokume) (Tiryaki 2022, Table 1). Furthermore, some specific characteristics of ancient sites or ruins were used in the identification of famous sites such as: Yanartaş [Chimaira]; Çıralı Dağ [Chimaira Oros]; Deliktaş [Korykos/Olympos]; İblistaşı [Uylupınar]; Aytaş or sometimes Kalkantaş [İslamlar/Elmalı] (Tiryaki 2022, Tablo 1). Moreover, the names of Arvas; Ayvasıl; Dire; Gilevgi; İlya; Kortan; Müren; Mürmür; Mursal; Rumşa; Serkiz; Tepese and Tula (Tiryaki 2022, Table 1) could be derived from their original names, but to date there has been no archaeological or epigraphical proof for this.

Furthermore, the testimonies of travellers who visited Lycia between the 18th and early 20th centuries drew vivid pictures of the habitations and transportation networks used by the Yuruks. As is understood from these accounts the ancient cities of Antiphellos, Arykanda, Rhodiapolis, Kyaenai, Korydalla, Ksanthos, Limyra, Patara, Phellos, Sidyma and Tlos were settled by the Yuruks as their winter quarters (Fig. 4-5) (Başgelen 2008.; Duggan 2017, 2108, 2019; Greenhalgh 2013, 2019.) and they also used the ancient Lycian transportation networks in their movement to the summer pastures (Fig. 6) (Yücel 1958, 196 (Map 7); Saraçoğlu 1989, 531, 570; French 2014, 19, 21-22 [D. Lycia]).

In this sense it can be highlighted here that both archaeological excavations and surveys in the mentioned sites have not reported any destruction level attributed to the Yuruks to date (Borchhardt 1999, 9-24; Bayburtluoğlu 2005, 15-25; des Courtils, 2003, 38-39, Çevik 2008, 11-69; Işık 2011, 145.). This is also true for the plundered Lycian monuments (Greenhalgh 2013, 356-358.; id. 2019, 305-306; Szemethy 2011, 345-347) since the drawings, photographs and exhibition conditions of the Nereids and Heroon of Trysa (Fig. 6) prove that antiquities in those cities were not exposed to damage until the visit of Europeans in the 19th century (Işın 2016, 6-21). As a result, it is worth mentioning that there is no evidence in the current research of deliberate destruction in Lycia comparable with that of mediaeval Europe, where

Roman amphitheatres and walls in the cities of Trier, Nimes, Le Man, and Poitiers were destroyed. (Schnapp 1996, 105).

Conclusion

What then can be concluded from the present review on both the Yuruks and their relationships or interactions with the antiquities of Lycia? The critical point to start with, I suppose, is the unpopularity of the Yuruks in the history of archaeology of Lycia. This is, indeed, not related to a lack of body of knowledge, but to the intellectual and ideological boundaries of what constitutes the archaeological past of Lycia, and of what the relevance to archaeology of Antalya could be. In fact, these boundaries are 'a major historiographical problem" (Baram-Caroll 2002.) that isolate the Ottoman period from the history of Lycia, and cause the marginalization of the Yuruks within a shroud of uncertainty, perceiving them as either barbarous Asiatic destroyers or glorious Asiatic conquerors of Greco-Roman past. In doing so, they push the Yuruks into an eccentric, ambitious, or exclusive past and thus make them permanent "others" in the long term history of the region. However, the problem with such assumptions is not that they lack factual basis but rather that broad generalizations derived from conjectural facts are untrue and logically invalid. In other words, these assumptions have indeed weak and fragile grounds that stem not from historical facts but from ficticious accounts that were produced to serve the construction of 'other' by the nationalistic mind-sets of the 19th and early 20th centuries. Therefore, to bring both the Yuruks and the Ottoman period back into the archaeological research agenda, and thus into the long-term history of Antalya, one must bypass early modern historiography, which seems to have shadowed our broader understanding of the past. In fact, once these synthetic borders are crossed, the complexity of cultural interactions gets deeper, and different contexts emerge that force our perspectives to change.

In this regard, it should be underscored that all the statements identifying the "Yuruks" as a particular ethnic group or tribe have no historical basis . The term was used by local record offices in a general sense for nomads of various ethnic origins, such as Oghuz, Kurds, and perhaps others. Besides that, in contrast to the repetitive narration, it also seems logical to think that the semi-nomadic way of life in western Taurus is neither of Asian origin nor was it introduced into the lands of Lycia by Turkic tribes. Rather, the body of evidence is sufficient enough to demonstrate that the Yuruks practiced a transhumant land use strategy in the region, which is characteristic of subsistence in the entire Mediterranean Basin, going back to prehistoric periods in Lycia, as well.

Moreover, the relationship between the Yuruks and the physical remains of Greco-Roman antiquities is far more nuanced than has been described in previous studies. To make this clear, I have attempted to offer patterns of interactions through the particular archaeological evidence such as settlements, transportation networks, religious centres, cemeteries, and

mausoleums of derwishes. These are shared, negotiated, and contested cultural places that reveal how deeply the Yörüks were connected to the cultural landscape of the region. Furthermore, by following their footprints in the abandoned ancient cities, necropolis, mounds, and classical toponyms, it became clear that they were well aware of the historical and cultural landscape of the region and made use of its remnants without hesitating over their pagan connotations. These spaces were maintained with continued care and with the updating of cultural statements and affiliations, as we have seen in the case of Bektashi lodges and zawiyehs found elsewhere in Lycia. Hence, it is also crucial to underline that there is nothing in the research corpus implying that the re-functioning of antiquities caused their deliberate destruction for various reasons such as religion, origin, or cultural habit.

All of these and other pieces of information and evidence confirm that the Yuruks were one of the groups of people that composed the long-term history of Lycia. Therefore, isolating the Yuruks as well as the Ottoman period from the long-term history of Antalya as "other" seems to be both misleading and mistaken.

Peer-review: Externally peer-reviewed.
Conflict of Interest: The author has no conflict of interest to declare.
Grant Support: The author declared that this study has received no financial support.

References

Ak, M. (2015). Teke Yörükleri (1800-1900). İstanbul: Türk Tarih Kurumu Yayınları.

Akbari, S. (1999), Imagining Islam: The Role of Images in Medieval Depictions of Muslims, *Scripta Mediterranea,* 19-20, 9-27.

Armağan A.L. (1996). *XVI. yüzyılda Teke Sancağı: Tapu-Tahrir Defterlerine Göre*. Unpublished Ph.D. Dissertation, Ankara University, Ankara, Turkey

Armağan A.L. (1997). XVI. Yüzyılda Teke Sancağındaki Konar-Göçerlerin Demografik Durumu Üzerine Bir Araştırma. *Ankara Üniversitesi Dil ve Tarih-Coğrafya Fakültesi Tarih Bölümü Tarih Araştırmaları Dergisi*, 19 (30), 1-35.

Aydın, S. (2006). Toroslarda Yaylacılık ve Türkmenlerin Önemi. *Kebikeç. İnsan Bilimleri İçin Kaynak Araştırmaları Dergisi*, 21, 111–134.

Baram, U.-Caroll, L. (2002). The Future of Ottoman Past. In Baram. U.-Caroll, L. (eds.), *A Historical Archaeology of the Ottoman Empire Breaking New Ground* (3-36) New York: Kluwer Academic Publishers.

Başgelen, N. (2008). 1892 Krickl Fotoğraflarında Kumluca, Rhodiapolis, Korydalla ve Yörükler. In N. Çevik (ed.), *Arkeolojisi, Tarihi, Doğası ve Tarımıyla Kumluca- Rhodiapolis*. (s. 75-79). Antalya: Kumluca Belediyesi,.

Bayburtluoğlu, C. (2004). Lykia. AKMED. Gezi – Rehber Dizisi 1. Antalya.

Bauer, W. T. (1999). Kâfi Baba Türkmen Tekkesi. In J. Borchhardt (ed.). *Zemuri Taşları. Likya Bölgesi'nde Limyra Antik Kentinin Gizemli Sularında Yapılan Arkeolojik Araştırmalar* (117-122). İstanbul: Arkeoloji ve Sanat Yayınları.

Becks, R. (2016). The Prehistory of Lycia/Tarih Öncesinde Likya. In Dündar, E. – İşkan, H. (eds.), *From Lukka to Lycia The land of Sarpedon and St. Nicholas/ Lukka'dan Likya'ya. Sapedeon vge Aziz Nikolaos'un Ülkesi* (26-35). İstanbul. Yapı Kredi Yayınları.

Bent, Th. (1891). The Yourouks of Asia Minor. *The Journal of the Anthropological Institute of Great Britain and Ireland*, 20, 269-276

Borchhardt J. (1999). Çevre Görünümü ve Lykia Tarihi. In J. Borchhardt (ed.). Zemuri Taşları. Likya Bölgesi'nde Limyra Antik Kentinin Gizemli Sularında Yapılan Arkeolojik Araştırmalar (1-25). İstanbul: Arkeoloji ve Sanat Yayınları..

Costello, E. – Svensson E. (2018). Transhumant Pastoralism in Historic Landscapes: Beginning a European Perspective.. In E. Costello-E.Svensson (eds.), *Historical Archaeologies of Transhumance Across Europe*. (1-14). New York: Routledge.

Çevik, N. (2008). Rhodiapolis ve Kumluca Sınırındaki Diğer Antik Yerleşimler. In Çevik, N. (ed.), *Arkeolojisi, Tarihi, Doğası ve Tarımıyla Kumluca- Rhodiapolis*. (11-69). Antalya: .Kumluca Belediyesi Kültür Yayınları.

Courtils, J. Des (2003). *Dünya Kültür Mirası Kentlerinden Ksanthos ve Letoon Rehberi*. İstanbul: Arkeoloji ve Sanat Yayınları.

Crosland, J. (1999), *The Song of Roland*, Old French Series, Cambridge: Ontario

Diaz-Andreu, M. (2007). *A World History of Nineteenth-Century Archaeology: Nationalism, Colonialism, and the Past*. Oxford: Oxford University Press.

Duggan, T. M. P. (2017). 19th Century Ottoman Lycia, British Travellers' Record of the Cingans - Zincani, the Yurook - Yourooks and Turcomen nomads, on Leeches, erroneous titles and dates. *Cedrus*, 5, 463-530.

Duggan, T. M. P. (2018). European antiquarian, "epigraphic-archaeological" research in "hitherto unexplored" Ottoman Lycia in the first half of the 19th c.. In Arslan, M. – Baz, F. (Eds.), Arkeoloji, Tarih ve Epigrafinin Arasında: A. Vedat ÇELGİN'in 68. Doğum Günü Onuruna Makaleler. İstanbul. (277-317) İstanbul: Ege Yayınları.

Duggan, T. M. P. (2019). *On Early Antiquarians in Asia Minor to the Start of the 19th c*. *Gephyra*, 17, 115-169.

Durgun, H. (2018). *Elmalı Kazası (1839-1914)*. Ankara:Türk Tarih Kurumu Yayınları.

Ekiz, A. (2001). *Dünden Bugüne Elmalı*, Antalya: Elmalı Tanıtım ve Yardımlaşma Derneği,.

Emiroğlu K. - Aydın S. (2009) *Antropoloji Sözlüğü*. Ankara: Bilim ve Sanat Yayınları.

Ergin, M. (2010). Archaeology and the Perception of Greek, Roman and Byzantine Eras in Early Republican Turkey. In Redford, S- Ergin, N. (eds), *Perceptions of the Past in the Turkish Republic (Classical and Byzantine Periods)*. (13–35) Leuven. Peeters.

Flemming, B. (1964). *Landschaftsgeschichte von Pamphylien, Pisidien und Lykien im Spätmittelalter*. Franz Steiner Verlag: Wiesbaden

Foss, C. (1996). *Cities, Fortresses and Villages of Byzantine Asia Minor*. Brookfield, Vt.: Variorum.

French, D. (2012). Kabalian Highlands before Balboura: Settlement and Connection. The Early-Mid First Millennium. In Coulton, J. J. (ed.), *The Balboura Survey and Settlement in Highland Southwest Anatolia, Vol. I. Balboura and the History of Highland Settlement* (50-59).Ankara. British Institute at Ankara.

Güçlü, M. (2007). Selçuklulardan Cumhuriyet'e Kumluca (Antalya) Bölgesi. *Selçuk Üniversitesi Türkiyat Araştırmaları Dergisi*, 22, 219-250.

Gerstel, Sh. E. J. (2015). *Rural Lives and Landscapes in Late Byzantium: Art, Archaeology, and Ethnography.* Cambridge: Cambridge University Press

Greenfield, H.J. (1999). "lntroduction", In Bartosiewicz, L. – Greenfield, H. J. (eds.), *Transhumant Pastoralism in Southern Europe: Recent Perspectives from Archaeology, History and Ethnology* (9-12) Budapest: Archaeolingua Alapitvany,

Greenhalgh, M. (2013). *From the Romans to the Railways: The Faith of Antiquities in Asia Minor.* Technology and Change in History, 13. Leiden: Brill.

Greenhalgh, M. (2019). *Plundered Empire: Acquiring Antiquities from Ottoman Lands*. Heritage and Identity, 6. Leiden: Brill.

Hellenkemper, H.– Hild, F., (2004). Tabula Imperii Byzantini 8: Lykien und Pamphylien, Wien

Işık, F. (2015). Patara 7.1 Kum'dan Kent'e Patara Kazılarının 25 yılı /From Sand into a City 25 Years of Patara Excavations, İstanbul: Ege Yayınları.

Gümüşçü, O. (2008). The Ottoman Tahrir Defters as a Source for Historical Geography. *Belleten,* 72 (265), 911-942.

İnalcık, H. (2014). The Yörüks: Their Origins, Expansion and Economic Role. *Cedrus,* 2, 467-495.

Karaca, B. (2002). *XV ve XVI. Yüzyıllarda Teke Sancağı*, Isparta: Fakülte Kitabevi

Kavas, R. (2016). Akdeniz Yaylalarında Transhümant Mekân Örüntülerinin Karşılaştırmalı Analizi: Belgeler Işığında Antalya (Türkiye) ve Abruzzo (İtalya). *Adalya*, 19, 363-396.

Kiel, M. (2012). Gölhisar and the Highlands drom the Seljuks to the Ottoman. In Coulton, J.J. (ed.), *The Balboura Survey and Settlement in Highland Southwest Anatolia, Vol. I*. (185-226.) London, British Institute at Ankara.

Köprülü, O.F. (1988). Abdal Mûsâ. *TDV İslam Ansiklopedisi*, C.1, (64-65)

Landskron, A. (2016). *Das Heroon von Trysa, 13 B. Ein Denkmal in Lykien zwischen Ost und West: Untersuchungen zu Bildschmuck, Bauform und Grabinhaber*. Wien, Holzhausen

Liechti, K.- Biber, J.P. (2016), Pastoralism in Europe: Characteristics and Challenges of Highland-Lowland Transhumance, *Revue Scientifique et Technique,* 35 (2), 561-275

Massa, M. (2016). *Networks before Empires: Cultural Transfers in West and Central Anatolia during the Early Bronze Age*. Unpublished PhD Thesis. Institute of Archaeology University College London

Melaart, J. (1954). Preliminary Report on a Survey of Pre-Classical Remains in Southern Turkey. *Anatolian Studies*, 4, 175-240

Mellink, M. J. (1984). The Prehistoric Sequence of Karataş-Semayük, *VI. Kazı Sonuçları Toplantısı*, 103-106

Minzoni-Déroche, A. (1987). Kocapinar, site moustérien d'Anatolie, étude de l'industrie. *Bulletin de la Société préhistorique française*, 84/9, 272-277.

Pehlivanidis, G. (1989). *Attáleia kai Attaleiótes, Pamfylía, Lykía, Pisidía, Kilikía II*. Athína, Atlantîs Yayınları.

Ramsay, W.M. (1917). *The Intermixture of Races in Asia Minor: Some of its Causes and Effects*, London: Pub. for the British academy by H. Milford.

Robinson, T. (2007). Crossing Boundaries: Transhumance in the South-West Tauros in Antiquity. In Elton, R.- Reger, G. (eds.), *Regionalism in Hellennistic and Roman Asia Minor*. (117-126) Pessac: Ausonius Éditions.

Schnapp, A. (1996). *The Discovery of the Past: The Origins of Archaeology*. London: British Museum Press,

Shaw, W. (2003). *Possessors and Possessed: Museums, Archaeology, and the Visualization of History in the late Ottoman Empire*. London: University of California Press.

Ševçenko, I- Ševçenko N.P. (1984). *The Life of Saint Nicholas of Sion*. Hellenic College Press, Michigan, USA

Szemethy, H. (2011). Archaeology and Cultural Politics: Ottoman-Austrian Relations. In Bahrani Z. - Celik Z. - Eldem E. (eds.), *Scramble for the Past. A Story of Archaeology in the Ottoman Empire, 1753-1914* (331-375) Istanbul

Şahin, S. (2014). S*tadiasmus Patarensis. Itinera Romana Provinciae Lyciae / Likya Eyaleti Roma Yolları*, İstanbul: Arkeoloji ve Sanat Yayınları.

Taşkıran, H. (2006). Likya Bölgesi'nin Paleolitik Dönemi. In Dörtlük, K.- Varkıvanç, B.- Kahya, T.-des Courtils, J.- Doğan-Alparslan, M.- Boyraz, R. (eds), *III. Uluslararası Likya Sempozyumu, 07-10 Kasım 2005, Antalya/The IIIrd International Symposium on Lycia*. 07-10 November 2005, Antalya. (761-768). Antalya: Suna-İnan Kıraç Akdeniz Medeniyetleri Araştırma Enstitüsü,

Terroy, K. (2019). Questioning Late Antique Prosperity: The Case of Lycia (southwest Turkey). *Byzantine and Modern Greek Studies*, 43/1, 1-23

Tiryaki, S. G. (2015). Milyas Araştırmalarına Katkılar: Müğren Tümülüsü Boyalı Mezar Odası. *Cedrus*, 331-50

Tiryaki, S. G. (2022). Batı Antalya'da Yörükler ve Antik Çağ. *Tarih Kültür ve Sanat Araştırmaları Dergisi,* 11/3, 54-68

Trigger, B. (1996). *A History of Archaeological Thought*. New York: Cambridge University Press.

Tütüncü-Çağlar, F. (2017) The Historiography of Ottoman Archaeology: A Terra Incognita for Turkish Archaeologists. *Tarih ve Coğrafya Araştırmaları Dergisi*, 3/1, 109-122

Ustaoğlu, Z. (2016). *XVI. Yüzyılda Alaiye, Hamid ve Teke Sancaklarında Nüfus ve Yerleşme*. Unpublished Ph.D. Dissertation, Gazi University, Ankara, Turkey

Ünal, M. A. (1996). XV. ve XVI. yüzyılda Teke Sancağında Cema'at ve Aşiretler. *Süleyman Demirel Üniversitesi Fen-Edebiyat Fakültesi Sosyal Bilimler Dergisi*, 2, 221-238.

Von Luschan, F. (1886). Wandervölker Kleinasiens. *Abhandlungen der Berliner Gesellschaft für Antropologie, Ethnologie und Urgeschichte*, 167-171

Von Luschan, F. (1889). Antropologische Studien, In E. Petersen - F. Von Luschan (eds.), *Reisen in Lykien, Milyas und Kibyratis, Band II*. (198-226).Wien: Gerold.

Von Luschan, F. (1891). Die Tachtadschy und andere Überreste der alten Bevölkerung Lykiens. *Archive Für Anthropologie*, 19, 31-53

Von Luschan, F. (1911). The Early Inhabitants of Western Asia. *Journal of Royal Anthropological Institute*, 41, 221-224

Figures

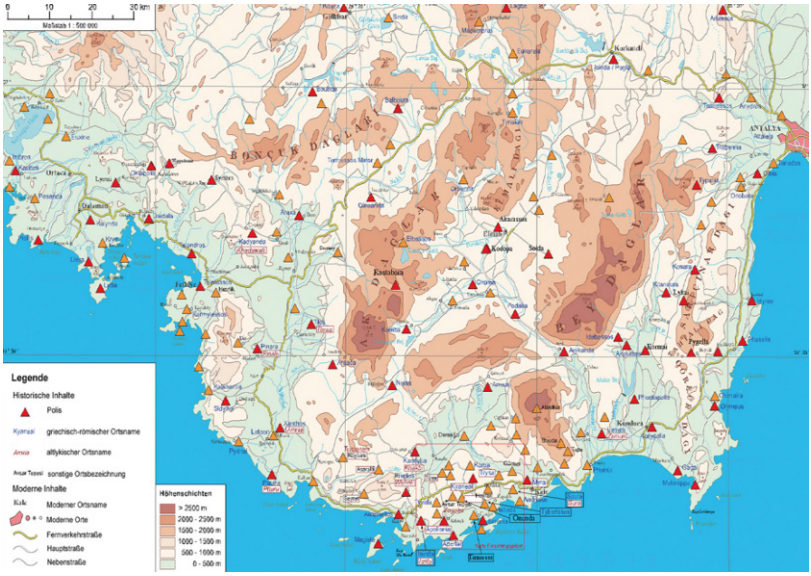

Figure 1: Map of Ancient Lycia (Kolb 2019, 15.1)

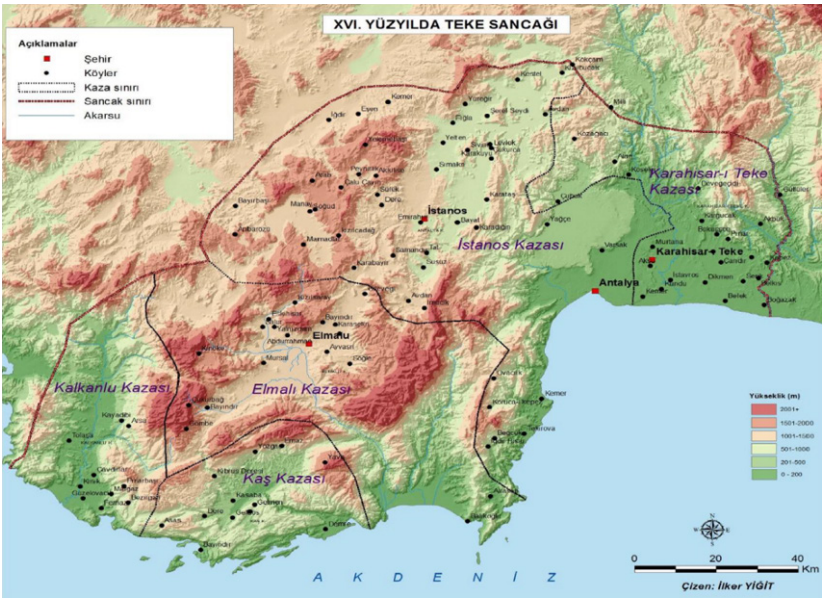

Figure 2: Map of Teke Province in the 16th century (Ustaoğlu 2016, 152)

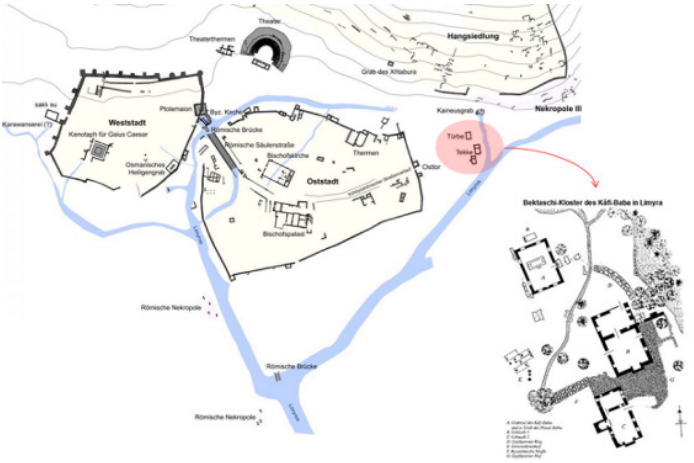

Figure 3: Kâfi Baba Tekke in Limyra (Bauer 1999, 119)

Figure 4: *(left)* The Yuruk encampment in Tlos (Duggan 2017, 514-515); *(right)* the Yuruk huts in Sidyma (von Luschan 1881, 193)

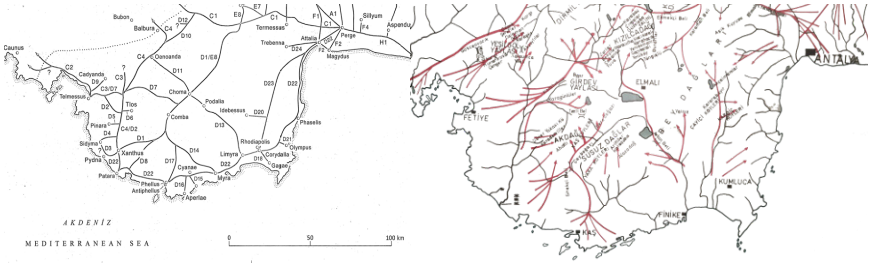

Figure 5: (*left)* Map of Roman Roads in Lycia (French 2014, 5.1.1); (*right)* Yuruks Migration and Transportation Networks (Saraçoğlu 1989.)

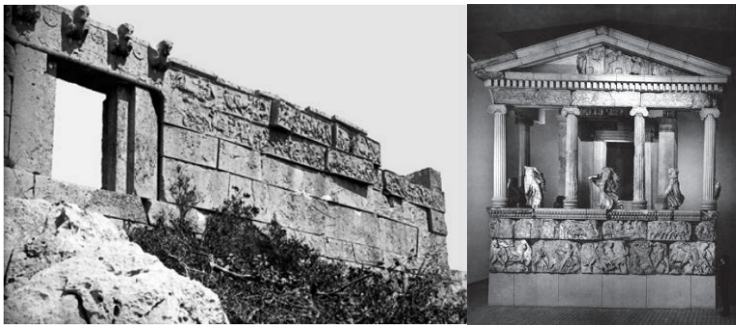

Figure 6: *(left)* Trysa Heroon (Landskron 2013, Taf. 4.2); (*right)* the Nereids Monument (Işın 2016 8)

Anadolu Araştırmaları
Anatolian Research

İSTANBUL UNIVERSITY PRESS

AnAr, 28, 159–162
DOI: 10.26650/anar.2023.1309423 Book Review

Review of Mount Ağrı - Bozkurt Kurgan Cemetery Excavation Book

Ağrı Dağı - Bozkurt Kurgan Mezarlığı Kazısı: Mezarlık, Höyük, Kaleler ve Geç Kalkolitik Dönemden Urartu Krallığı'na Doğubayazıt Ovası (Aynur Özfırat). Istanbul: Ege Publications, 2022. 183 pages. ISBN 9786258056402.

Ali Çifci[1]

Keywords
Mount Ararat, Bozkurt Kurgan Cemetery, Eastern Anatolia, Urartian Kingdom

Submitted: 03.06.2023 •**Accepted:** 23.06.2023

Corresponding author: Ali Çifci, Marmara Üniversitesi, İnsan ve Toplum Bilimleri Fakültesi, Tarih Bölümü, İstanbul, Türkiye
E-mail: cifciali1@gmail.com ORCID: 0000-0002-1404-9820

Citation: Cifc, A. (2023). Review of Mount Ağrı - Bozkurt Kurgan Cemetery Excavation Book [Review of the book Ağrı Dağı - Bozkurt Kurgan Mezarlığı Kazısı: Mezarlık, Höyük, Kaleler ve Geç Kalkolitik Dönemden Urartu Krallığı'na Doğubayazıt Ovası by Aynur Özfırat]. *Anadolu Araştırmaları-Anatolian Research, 28*, 159–162. https://doi.org/10.26650/anar.2023.1309423

The book, which is bilingual in Turkish and English, consists of six chapters with a presentation, a short introduction to the work done on Mount Ararat, a foreword and acknowledgements. The book deals with the results of the excavations and surveys carried out between 2007 and 2013 in Bozkurt Village, which is located on the Iğdır Plain-Aras Valley Pass at the northern end of Doğubayazıt Plain. Although many archaeological excavations and surveys have been carried out in the Eastern Anatolia Region, these studies mostly focus on Middle Iron Age (Urartian) archaeology (Çifçi 2017: 23-24; Çifçi 2020: 17-18; Çifçi 2022). Hence, archaeological excavations and surveys in Mount Ararat and its surrounding areas provide us with a unique opportunity to study various periods from Chalcolithic to the Middle Iron Ages.

Archaeological studies in Doğubayazıt and its surrounding areas begin with the Karakoyunlu-Bulakbaşı (Iğdır) excavations at the end of the 19th century and then continued with the Melikli-Kültepe, Iğdır and Kertenkele-Gökçekaynak citadel and cemetery excavations.[1] However, these excavations were either published only as brief reports or not at all. In addition, our knowledge of the Kurgan culture is mostly based on limited data obtained from surveys – apart from the short-term studies carried out in Kars Küçükçatma and Erzurum Köprüköy at the beginning of the 20th century and at Çıldır (Köroğlu 2000). Hence, archaeological results from the Bozkurt Kurgan Cemetery excavation are important in terms of understanding the settlement areas outside the Lake Van Basin and the cultural phases of various periods – in this case, Kurgan Culture.

The geography of the region is given in the first chapter, after a brief introduction to the archaeological studies on Mount Ararat and its surrounding (pp. 2-13) areas. However, the geographical features of the region, such as the physical, climate, hydrology and vegetation, are described in the sixth chapter under the name of "Geographical structure and Holocene Paleogeography of the South-western Foothills of the Büyük Ağrı Mountain" (pp. 125-138). It would have been more appropriate to include this section as the first chapter in which the features of the region such as physical geography and climate are explained.

The second part of the book is concerned with general information about the Eastern Anatolian Kurgan culture (pp. 19-24). The archaeological materials that presented in the relevant section of this book clearly show that the kurgan type burial tradition maintained its importance as a common burial type in the region from the second half of the 3rd millennium BC to the beginning of the first millennium BC.

The third chapter of the book (pp. 29-84) presents the Bozkurt Kurgan cemetery, which spreads over a wide area at the northwest end of the Doğubayazıt Plain, along with the excavation finds, as well as the recorded data obtained during the surface surveys carried

1 See the selected bibliography section of the work in question on pages 119-123.

out in the region. In this section, after a short introduction, information about the excavation areas, photographs, finds and drawings of these burial areas as well as finds are given in squares, close to full pages. In this part of the book, the figures numbers are given as a list until the introduction in continuations with the first two chapters, but then in the rest of this part, the figure sequences and footer information are not given. In the fourth chapter, written by the same author, the figure numbers and footer information are given again, from where the third chapter introduction left off. However, it is seen that this order does not continue again in the 5th and 6th chapters of the book. These last two chapters in the book have a separate picture sequence number within themselves.

In total 32 Kurgan graves were excavated in the area called Cemetery 1. 11 of these graves are dated to the Middle Bronze Age, and three of them to the Late Bronze-Early Iron Age. But, there is no data on the dating of the remaining burials. In addition to these kurgan burials, a chamber grave (OM1) dated to the Urartian period (p. 82-84) was also unearthed in the same area.

The plans and remains for the Bozkurt Fortress I (Late Bronze-Early Iron Age, pp. 75-76) and Hasan Bey-Bardaklı Fortress (Early Iron Age, pp. 77-78) are briefly discussed in this part of the book. There are images of these two sites as well. However, interestingly, the pottery remains, which form the basis of their dating, were not included. Another structure emphasized in this section is the Bozkurt Outpost-Road Station (Fortress II) (pp. 79-81). Remains of a small square planned structure, known as Fortress II (Kale II), measuring 40 x 30 m, were evaluated as an Urartian outpost/road station. This approach is based on the idea that sites such as Norşuntepe and Zülümtepe, which are stated to be on a highway claimed to exist between the centre of the Urartu Kingdom and the provinces of Elazığ-Bingöl in the west, are accommodation or road stations (Sevin 1989; Çifçi and Gökce 2021). However, since no archaeological excavations have been carried out in such structures until now, it is hard to make a definite judgment about the purpose of such construction. In addition, the visuals – photographs and drawings – and the location descriptions presented in the study indicate that Fortress I and Fortress II could be a single structure rather than two as proposed.

The fourth chapter is devoted to the evaluation of the results of the archaeological excavations and surveys carried out in the Bozkurt Village of Doğubayazıt. The mound, fortresses and kurgan cemeteries found in the ruins of Bozkurt Village, were presented as a "settlement complex". Although these ruins in Bozkurt Village are categorized into different structure types with different names, it is a right approach to evaluate these building groups as a whole. The evaluations in this section are arranged chronologically, based on the studies carried out in the region. In this context, firstly, the results of the excavations in the Melecami mound are given. The Kurgan cemetery (Cemetery 1) was extensively studied and did not contain an architectural layer, since it was spread over the area where the mound was located

(pp. 91-92). However, despite the absence of architectural layers, the settlement area is dated to the Chalcolithic and Early Bronze Age based on the ceramic remains found among the excavated kurgan tombs on the mound. Although there are no remains of the Middle Bronze Age in the region, kurgans representing this period have been excavated in Cemetery 1.

In this section, the Late Bronze-Early Iron Age periods were defined as the "Pre-Urartian period" and the three kurgan tombs excavated in Cemetery 1, along with the Bozkurt Fortress I and Cemetery 2, which were examined during the survey, are dated to this period. It is unusual to define this period as the "Pre-Urartian period" which is generally presented as the Early Iron Age in the relevant Turkish literature. Once again away from the common usage of term "grooved" types of pottery of the Early Iron Age the study refers to it as "Nairi-grooved ware".

The sixth and last part of the book is devoted to the examination of human and animal bones found in the Bozkurt Kurgan excavation. Human or animal bone remains were found in 10 excavated kurgans. Seven of these skeletons belong to an adult, a child and a newborn baby.

The Eastern Anatolia Region is mostly known for Urartian studies. Hence, the Bozkurt Kurgan and the excavations carried out in the Murat Tepe mound (Özdemir and Kılıç 2021) in the Solhan district of Bingöl province in recent years, provide new data apart from the core region of the Urartian Kingdom. The study in question is an important work in terms of getting to know the kurgan culture, which is known for its surveys in limited areas in Turkey, but stands out with the studies carried out in the South Caucasus and Northwest Iran, and to evaluate the results together. Although there is no list of abbreviations and indexes in the book, the chapters in it are supported with visuals such as many maps, drawings and photographs. In addition, in the last part of the book, there are plenty of pictures of the excavation. As a result, despite some shortcomings, the book will make significant contributions to the development of Eastern Anatolian regional archaeology as a whole.

References

Çifçi, A. 2022. "Murat Nehri Kıyısında Bir Urartu Yerleşimi: Murat Tepe Kitabı Üzerine Değerlendirmeler" *Anadolu Araştırmaları* 25: 149-152.

Çifçi, A. 2020. "Urartian Studies During the Foundation of Modern Nation States: Archaeological Traditions, Ideologies and Perceptions" *Ancient West and East* 19: 1-42.

Çifçi, A.; Gökce, B. 2021. "'I Have Made a Highway of Biainili': Transportation and Road Networks in the Territories of the Urartian Kingdom" *Altorientalische Forschungen* 48/2: 221-232.

Köroğlu, K. 2000. "Çıldır Kurganları / The Kurgans of Çıldır" *Arkeoloji ve Sanat* 96: 2-11.

Özdemir, A.; Kılıç, Z. (Eds.) 2021. *Murat Nehri Kıyısında Bir Urartu Yerleşimi: Murat Tepe*. İstanbul: Ege Yayınları.

Sevin, V. 1989. "Urartular'a ait Dünyanın en Eski Karayolu" *Anadolu Araştırmaları* 11: 47-63.

Anadolu Araştırmaları
Anatolian Research

İSTANBUL UNIVERSITY PRESS

AnAr, 28, 163
DOI: 10.26650/anar.2023-01e

Erratum

ERRATUM TO: Prof. Dr. Elmar Schwertheim / 09.07.1943 – 05.11.2022

DOI: 10.26650/anar.2022.27.272204

Erratum 1: The author and institution information of the commemorative article titled "Prof. Dr. Elmar Schwertheim" has been corrected.

Mustafa H. Sayar
Istanbul University, Faculty of Letters, Department of History, Istanbul, Türkiye. E-mail: mhsayar@istanbul.edu.tr
ORCID: 0000-0001-6339-9002

The correct is:

Engelbert Winter[1], Klaus Zimmermann[2]
[1]University of Münster, Ancient History, Almanya. ORCID: 0000-0003-3942-8779
[2]Westfälische Wilhelms Üniversitesi, Almanya. ORCID: 0000-0001-6431-9756

DESCRIPTION

Anatolian Research –Anadolu Araştırmaları is the publication of Istanbul University, Faculty of Letters. It is an open access, international, peer-reviewed journal published published biannually in June and December. The journal was founded in 1955. Manuscripts submitted for publication should be in English, German, French or Italian.

AIM AND SCOPE

Anatolian Research – Anadolu Araştırmaları aims to contribute to the dissemination of scientific knowledge through publication of high quality articles in accordance with the international publishing standards.

The journal publishes studies which examine Anatolia and its related regions from prehistoric times to late antiquity. The areas of study covered in the scope of the journal are Ancient History, Archeology, Art History, History of Architecture, Anthropology, Epigraphy, Numismatic, Historical Geography and Archeometry.

EDITORIAL POLICIES AND PEER REVIEW PROCESS

Publication Policy

The subjects covered in the manuscripts submitted to the journal for publication must be in accordance with the aim and scope of the journal. The journal gives priority to original research papers submitted for publication.

General Principles

Only those manuscripts approved by its every individual author and that were not published before in or sent to another journal, are accepted for evaluation.

Submitted manuscripts that pass preliminary control are scanned for plagiarism using iThenticate software. After plagiarism check, the eligible ones are evaluated by editor-in-chief for their originality, methodology, the importance of the subject covered and compliance with the journal scope.

The editor hands over the papers matching the formal rules to at least two national/international referees for evaluation and gives green light for publication upon modification by the authors in accordance with the referees' claims. Changing the name of an author (omission, addition or order) in papers submitted to the journal requires written permission of all declared authors. Refused manuscripts and graphics are not returned to the author.

Open Access Statement

The journal is an open access journal and all content is freely available without charge to the user or his/her institution. Except for commercial purposes, users are allowed to read, download, copy, print, search, or link to the full texts of the articles in this journal without asking prior permission from the publisher or the author. This is in accordance with the BOAI definition of open access.

Copyright Notice

Article Processing Charge

All expenses of the journal are covered by the Istanbul University. Processing and publication are free of charge with the journal.

There is no article processing charges or submission fees for any submitted or accepted articles.

Peer Review Process

Only those manuscripts approved by its every individual author and that were not published before in or sent to another journal, are accepted for evaluation.

Submitted manuscripts that pass preliminary control are scanned for plagiarism using iThenticate software. After plagiarism check, the eligible ones are evaluated by Editor-in-Chief for their originality, methodology, the importance of the subject covered and compliance with the journal scope. Editor-in-Chief evaluates manuscripts for their scientific content without regard to ethnic origin, gender, citizenship, religious belief or political philosophy of the authors and ensures a fair double-blind peer review of the selected manuscripts.

The selected manuscripts are sent to at least two national/international referees for evaluation and publication decision is given by Editor-in-Chief upon modification by the authors in accordance with the referees' claims.

Editor-in-Chief does not allow any conflicts of interest between the authors, editors and reviewers and is responsible for final decision for publication of the manuscripts in the journal. Reviewers' judgments must be objective. Reviewers' comments on the following aspects are expected while conducting the review.

- Does the manuscript contain new and significant information?
- Does the abstract clearly and accurately describe the content of the manuscript?
- Is the problem significant and concisely stated?
- Are the methods described comprehensively?
- Are the interpretations and consclusions justified by the results?
- Is adequate references made to other Works in the field?
- Is the language acceptable?

Reviewers must ensure that all the information related to submitted manuscripts is kept as confidential and must report to the editor if they are aware of copyright infringement and plagiarism on the author's side.

A reviewer who feels unqualified to review the topic of a manuscript or knows that its prompt review will be impossible should notify the editor and excuse himself from the review process.

The editor informs the reviewers that the manuscripts are confidential information and that this is a privileged interaction. The reviewers and editorial board cannot discuss the manuscripts with other persons. The anonymity of the referees is important.

PUBLICATION ETHICS AND PUBLICATION MALPRACTICE STATEMENT

Anatolian Research – Anadolu Araştırmaları is committed to upholding the highest standards of publication ethics and pays regard to Principles of Transparency and Best Practice in Scholarly

Publishing published by the Committee on Publication Ethics (COPE), the Directory of Open Access Journals (DOAJ), to access the Open Access Scholarly Publishers Association (OASPA), and the World Association of Medical Editors (WAME) on https://publicationethics.org/resources/guidelines-new/principles-transparency-and-best-practice-scholarly-publishing

All parties involved in the publishing process (Editors, Reviewers, Authors and Publisher) are expected to agree on the following ethical principles.

All submissions must be original, unpublished (including as full text in conference proceedings), and not under the review of any other publication synchronously. Each manuscript is reviewed by one of the editors and at least two referees under double-blind peer review process. Plagiarism, duplication, fraud authorship/denied authorship, research/data fabrication, salami slicing/salami publication, breaching of copyrights, prevailing conflict of interest are unnethical behaviors.

All manuscripts not in accordance with the accepted ethical standards will be removed from the publication. This also contains any possible malpractice discovered after the publication. In accordance with the code of conduct we will report any cases of suspected plagiarism or duplicate publishing.

Research Ethics

Anatolian Research – Anadolu Araştırmaları adheres to the highest standards in research ethics and follows the principles of international research ethics as defined below. The authors are responsible for the compliance of the manuscripts with the ethical rules.

- Principles of integrity, quality and transparency should be sustained in designing the research, reviewing the design and conducting the research.
- The research team and participants should be fully informed about the aim, methods, possible uses and requirements of the research and risks of participation in research.
- The confidentiality of the information provided by the research participants and the confidentiality of the respondents should be ensured. The research should be designed to protect the autonomy and dignity of the participants.
- Research participants should participate in the research voluntarily, not under any coercion.
- Any possible harm to participants must be avoided. The research should be planned in such a way that the participants are not at risk.
- The independence of research must be clear; and any conflict of interest must be disclosed.
- In experimental studies with human subjects, written informed consent of the participants who decide to participate in the research must be obtained. In the case of children and those under wardship or with confirmed insanity, legal custodian's assent must be obtained.
- If the study is to be carried out in any institution or organization, approval must be obtained from this institution or organization.
- In studies with human subject, it must be noted in the method's section of the manuscript that the informed consent of the participants and ethics committee approval from the institution where the study has been conducted have been obtained.

Author Responsibilities

It is authors' responsibility to ensure that the article is in accordance with scientific and ethical standards and rules. And authors must ensure that submitted work is original. They must certify that the manuscript has not previously been published elsewhere or is not currently being considered for publication elsewhere, in any language. Applicable copyright laws and conventions must be followed. Copyright material (e.g. tables, figures or extensive quotations) must be reproduced

only with appropriate permission and acknowledgement. Any work or words of other authors, contributors, or sources must be appropriately credited and referenced.

All the authors of a submitted manuscript must have direct scientific and academic contribution to the manuscript. The author(s) of the original research articles is defined as a person who is significantly involved in "conceptualization and design of the study", "collecting the data", "analyzing the data", "writing the manuscript", "reviewing the manuscript with a critical perspective" and "planning/ conducting the study of the manuscript and/or revising it". Fund raising, data collection or supervision of the research group are not sufficient roles to be accepted as an author. The author(s) must meet all these criteria described above. The order of names in the author list of an article must be a co-decision and it must be indicated in the **Copyright Agreement Form**.

The individuals who do not meet the authorship criteria but contributed to the study must take place in the acknowledgement section. Individuals providing technical support, assisting writing, providing a general support, providing material or financial support are examples to be indicated in acknowledgement section.

All authors must disclose all issues concerning financial relationship, conflict of interest, and competing interest that may potentially influence the results of the research or scientific judgment.

When an author discovers a significant error or inaccuracy in his/her own published paper, it is the author's obligation to promptly cooperate with the Editor to provide retractions or corrections of mistakes.

Responsibility for the Editor and Reviewers

Editor-in-Chief evaluates manuscripts for their scientific content without regard to ethnic origin, gender, citizenship, religious belief or political philosophy of the authors. He/She provides a fair double-blind peer review of the submitted articles for publication and ensures that all the information related to submitted manuscripts is kept as confidential before publishing.

Editor-in-Chief is responsible for the contents and overall quality of the publication. He/She must publish errata pages or make corrections when needed.

Editor-in-Chief does not allow any conflicts of interest between the authors, editors and reviewers. Only he has the full authority to assign a reviewer and is responsible for final decision for publication of the manuscripts in the journal.

Reviewers must have no conflict of interest with respect to the research, the authors and/or the research funders. Their judgments must be objective.

Reviewers must ensure that all the information related to submitted manuscripts is kept as confidential and must report to the editor if they are aware of copyright infringement and plagiarism on the author's side.

A reviewer who feels unqualified to review the topic of a manuscript or knows that its prompt review will be impossible should notify the editor and excuse himself from the review process.

The editor informs the reviewers that the manuscripts are confidential information and that this is a privileged interaction. The reviewers and editorial board cannot discuss the manuscripts with other persons. The anonymity of the referees must be ensured. In particular situations, the editor may share the review of one reviewer with other reviewers to clarify a particular point.

MANUSCRIPT ORGANIZATION

Language

Articles in English, German, French and Italian are published. Submitted manuscript must include an abstract both in the article language and in English, and an extended abstract in English as well. However extended abstract in English is not required for articles in English.

Manuscript Organization and Submission

All correspondence will be sent to the first-named author unless otherwise specified. Manuscpript is to be submitted online via http://dergipark.gov.tr/login that can be accessed at https://dergipark.org.tr/en/pub/iuanadolu and it must be accompanied by a Title Page specifying the article category (i.e. research article, review etc.) and including information about the manuscript (see the Submission Checklist). Manuscripts should be prepared in Microsoft Word 2003 and upper versions. In addition, Copyright Agreement Form that has to be signed by all authors must be submitted.

1. Manuscripts should be prepared using the Article Template. Due to double blind peer review, manuscript file must not include any information about the author.
2. A title page including author information must be submitted together with the manuscript. The title page is to include fully descriptive title of the manuscript and, affiliation, title, e-mail address, ORCID, postal address, phone, mobile phone and fax number of the author(s) (see The Submission Checklist).
3. Before the introduction part, there should be an abstract of 120-200 words both in the language of the article and in English. An extended abstract in English between 600-800 words, summarizing the scope, the purpose, the results of the study and the methodology used is to be included following the abstracts. If the manuscript is in English, extended abstract is not required. Underneath the abstracts, 5 keywords that inform the reader about the content of the study should be specified in the language of the article and in English.
4. The manuscripts should contain mainly these components: title, abstract and keywords; extended abstract, sections, references, tables and figures.
5. **Article Types**

   Research Article: Original research articles report substantial and original scientific results within the journal scope. Original research articles are comprised of Abstract, Key Words, Introduction, Methods, Results, Discussion, Conclusion, References and Figures, Tables and Graphics.

   Abstract: The abstracts in the language of the article and in English must be between 120- 200 words and state aim, method, result and conclusions of the study. If the article is in German, French or Italian, an extended abstract of 600-800 words in English must be written as well following the abstracts.

   Introduction: This section must contain a clear statement of the general and specific objectives as well as the hypotheses which the work is designed to test. It should also give a brief account of the reported literature. It should clearly state the primary and secondary purposes of the article. Only, the actual references related with the issues have to be indicated and data or findings related with the current study must not be included in this section.

   Methods: This section must contain explicit, concise descriptions of all procedures, materials and methods (i.e. data sources, participants, scales, interviews/reviews, basic measurements, applications, statistical methods) used in the investigation to enable the reader to judge their accuracy, reproducibility, etc. This section should include the known findings at the beginning of the study and the findings during the study must be reported in results section.

   Results: The results should be presented in logical sequence in the text, tables, and figures, giving the main or most important findings first. The all the data in the tables or figures should not be repeated in the text; only the most important observations must be emphasized or summarized.

   Discussion: The findings of the study, the findings and results which support or do not support the hypothesis of the study should be discussed, results should be compared and

contrasted with findings of other studies in the literature and the different findings from other studies should be explained. The new and important aspects of the study and the conclusions that follow from them should be emphasized. The data or other information given in the Introduction or the Results section should not be repeated in detail.

Conclusions: Conclusions derived from the study should be stated.. The conclusions should be linked with the goals of the study but unqualified statements and conclusions not adequately supported by the data should be avoided. New hypotheses should be stated when warranted, but should be labeled clearly as such.

Figures, Tables and Graphics: Figures, tables and graphics materials should be ".jpg, .tiff or .jpeg" format and they should be submitted with the article. These materials should be min. 300 pixels and they must not be bigger than page size. The illustrations should not exceed 10 pages. All illustrations should be labelled and a list of figures with captions, legends, and credits should be provided on a separate page.

Review Article: Reviews prepared by authors who have extensive knowledge on a particular field and whose scientific background has been translated into a high volume of publications with a high citation potential are welcomed. These authors may even be invited by the journal. Review article should contain title, abstract and keywords; body text with sections, and references.

6. References should be in accordance with American Psychological Association (APA) style 6th Edition.
7. Authors are responsible for all statements made in their work submitted to the journal for publication.

REFERENCES

Reference Style and Format

Istanbul University Journal of Women's Studies - İstanbul Üniversitesi Kadın Araştırmaları Dergisi complies with APA (American Psychological Association) style 6th Edition for referencing and quoting. For more information:

- American Psychological Association. (2010). Publication manual of the American Psychological Association (6th ed.). Washington, DC: APA.
- http://www.apastyle.org

Accuracy of citation is the author's responsibility. All references should be cited in text. Reference list must be in alphabetical order. Type references in the style shown below.

Citations in the Text

Citations must be indicated with the author surname and publication year within the parenthesis. If more than one citation is made within the same paranthesis, separate them with (;).

Samples:

More than one citation;
(Esin, et al., 2002; Karasar, 1995)
Citation with one author;
(Akyolcu, 2007)
Citation with two authors;
(Sayıner & Demirci, 2007)

Citation with three, four, five authors;

First citation in the text: (Ailen, Ciambrune, & Welch, 2000) Subsequent citations in the text: (Ailen, et al., 2000)

Citations with more than six authors;

(Çavdar, et al., 2003)

Citations in the Reference

All the citations done in the text should be listed in the References section in alphabetical order of author surname without numbering. Below given examples should be considered in citing the references.

Basic Reference Types

Book

a) Turkish Book

Karasar, N. (1995). *Araştırmalarda rapor hazırlama* (8th ed.) [Preparing research reports]. Ankara, Turkey: 3A Eğitim Danışmanlık Ltd.

b) Book Translated into Turkish

Mucchielli, A. (1991). *Zihniyetler* [Mindsets] (A. Kotil, Trans.). İstanbul, Turkey: İletişim Yayınları.

c) Edited Book

Ören, T., Üney, T., & Çölkesen, R. (Eds.). (2006). *Türkiye bilişim ansiklopedisi* [Turkish Encyclopedia of Informatics]. İstanbul, Turkey: Papatya Yayıncılık.

d) Turkish Book with Multiple Authors

Tonta, Y., Bitirim, Y., & Sever, H. (2002). T*ürkçe arama motorlarında performans değerlendirme* [Performance evaluation in Turkish search engines]. Ankara, Turkey: Total Bilişim.

e) Book in English

Kamien R., & Kamien A. (2014). *Music: An appreciation.* New York, NY: McGraw-Hill Education.

f) Chapter in an Edited Book

Bassett, C. (2006). Cultural studies and new media. In G. Hall & C. Birchall (Eds.), *New cultural studies: Adventures in theory* (pp. 220–237). Edinburgh, UK: Edinburgh University Press.

g) Chapter in an Edited Book in Turkish

Erkmen, T. (2012). Örgüt kültürü: Fonksiyonları, öğeleri, işletme yönetimi ve liderlikteki önemi [Organization culture: Its functions, elements and importance in leadership and business management]. In M. Zencirkıran (Ed.), *Örgüt sosyolojisi* [Organization sociology] (pp. 233–263). Bursa, Turkey: Dora Basım Yayın.

h) Book with the same organization as author and publisher

American Psychological Association. (2009). *Publication manual of the American psychological association* (6th ed.). Washington, DC: Author.

Article

a) Turkish Article

Mutlu, B., & Savaşer, S. (2007). Çocuğu ameliyat sonrası yoğun bakımda olan ebeveynlerde stres nedenleri ve azaltma girişimleri [Source and intervention reduction of stress for parents whose children are in intensive care unit after surgery]. *Istanbul University Florence Nightingale Journal of Nursing, 15*(60), 179–182.

b) English Article

de Cillia, R., Reisigl, M., & Wodak, R. (1999). The discursive construction of national identity.

Discourse and Society, 10(2), 149–173. http://dx.doi.org/10.1177/0957926599010002002

c) Journal Article with DOI and More Than Seven Authors

Lal, H., Cunningham, A. L., Godeaux, O., Chlibek, R., Diez-Domingo, J., Hwang, S.-J. ... Heineman, T. C. (2015). Efficacy of an adjuvanted herpes zoster subunit vaccine in older adults. *New England Journal of Medicine, 372,* 2087–2096. http://dx.doi.org/10.1056/NEJMoa1501184

d) Journal Article from Web, without DOI

Sidani, S. (2003). Enhancing the evaluation of nursing care effectiveness. *Canadian Journal of Nursing Research, 35*(3), 26–38. Retrieved from http://cjnr.mcgill.ca

e) Journal Article wih DOI

Turner, S. J. (2010). Website statistics 2.0: Using Google Analytics to measure library website effectiveness. *Technical Services Quarterly, 27,* 261–278. http://dx.doi.org/10.1080/0731713 1003765910

f) Advance Online Publication

Smith, J. A. (2010). Citing advance online publication: A review. *Journal of Psychology.* Advance online publication. http://dx.doi.org/10.1037/a45d7867

g) Article in a Magazine

Henry, W. A., III. (1990, April 9). Making the grade in today's schools. *Time, 135,* 28–31.

Doctoral Dissertation, Master's Thesis, Presentation, Proceeding

a) Dissertation/Thesis from a Commercial Database

Van Brunt, D. (1997). *Networked consumer health information systems* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 9943436)

b) Dissertation/Thesis from an Institutional Database

Yaylalı-Yıldız, B. (2014). *University campuses as places of potential publicness: Exploring the politicals, social and cultural practices in Ege University* (Doctoral dissertation). Retrieved from Retrieved from: http://library.iyte.edu.tr/tr/hizli-erisim/iyte-tez-portali

c) Dissertation/Thesis from Web

Tonta, Y. A. (1992). *An analysis of search failures in online library catalogs* (Doctoral dissertation, University of California, Berkeley). Retrieved from http://yunus.hacettepe.edu.tr/~tonta/yayinlar /phd/ickapak.html

d) Dissertation/Thesis abstracted in Dissertations Abstracts International

Appelbaum, L. G. (2005). Three studies of human information processing: Texture amplification, motion representation, and figure-ground segregation. *Dissertation Abstracts International: Section B. Sciences and Engineering, 65*(10), 5428.

e) Symposium Contribution

Krinsky-McHale, S. J., Zigman, W. B., & Silverman, W. (2012, August). Are neuropsychiatric symptoms markers of prodromal Alzheimer's disease in adults with Down syndrome? In W. B. Zigman (Chair), *Predictors of mild cognitive impairment, dementia, and mortality in adults with Down syndrome.* Symposium conducted at the meeting of the American Psychological Association, Orlando, FL.

f) Conference Paper Abstract Retrieved Online

Liu, S. (2005, May). *Defending against business crises with the help of intelligent agent based*

early warning solutions. Paper presented at the Seventh International Conference on Enterprise Information Systems, Miami, FL. Abstract retrieved from http://www.iceis.org/iceis2005/abstracts_2005.htm

g) Conference Paper - In Regularly Published Proceedings and Retrieved Online

Herculano-Houzel, S., Collins, C. E., Wong, P., Kaas, J. H., & Lent, R. (2008). The basic nonuniformity of the cerebral cortex. *Proceedings of the National Academy of Sciences, 105,* 12593–12598. http://dx.doi.org/10.1073/pnas.0805417105

h) Proceeding in Book Form

Parsons, O. A., Pryzwansky, W. B., Weinstein, D. J., & Wiens, A. N. (1995). Taxonomy for psychology. In J. N. Reich, H. Sands, & A. N. Wiens (Eds.), *Education and training beyond the doctoral degree: Proceedings of the American Psychological Association National Conference on Postdoctoral Education and Training in Psychology* (pp. 45–50). Washington, DC: American Psychological Association.

i) Paper Presentation

Nguyen, C. A. (2012, August). *Humor and deception in advertising: When laughter may not be the best medicine.* Paper presented at the meeting of the American Psychological Association, Orlando, FL.

Other Sources

a) Newspaper Article

Browne, R. (2010, March 21). This brainless patient is no dummy. *Sydney Morning Herald, 45.*

b) Newspaper Article with no Author

New drug appears to sharply cut risk of death from heart failure. (1993, July 15). *The Washington Post,* p. A12.

c) Web Page/Blog Post

Bordwell, D. (2013, June 18). David Koepp: Making the world movie-sized [Web log post]. Retrieved from http://www.davidbordwell.net/blog/page/27/

d) Online Encyclopedia/Dictionary

Ignition. (1989). In *Oxford English online dictionary* (2nd ed.). Retrieved from http://dictionary.oed.com

Marcoux, A. (2008). Business ethics. In E. N. Zalta (Ed.). *The Stanford encyclopedia of philosophy.* Retrieved from http://plato.stanford.edu/entries/ethics-business/

e) Podcast

Dunning, B. (Producer). (2011, January 12). *in Fact: Conspiracy theories* [Video podcast]. Retrieved from http://itunes.apple.com/

f) Single Episode in a Television Series

Egan, D. (Writer), & Alexander, J. (Director). (2005). Failure to communicate. [Television series episode]. In D. Shore (Executive producer), *House;* New York, NY: Fox Broadcasting.

g) Music

Fuchs, G. (2004). Light the menorah. On *Eight nights of Hanukkah* [CD]. Brick, NJ: Kid Kosher.

SUBMISSION CHECKLIST

Ensure that the following items are present:

- ✓ Confirm that the category of the manuscript is specifed.
- ✓ Confirm that "the paper is not under consideration for publication in another journal".
- ✓ Confirm that disclosure of any commercial or financial involvement is provided.
- ✓ Confirm that last control for fluent English was done.
- ✓ Confirm that journal policies detailed in Information for Authors have been reviewed.
- ✓ Confirm that the references cited in the text and listed in the references section are in with APA 6th.

- Copyright Agreement Form
- Permission of previous published material if used in the present manuscript
- Title page
  - ✓ The category of the manuscript
  - ✓ The title of the manuscript both in the language of the article and in English
  - ✓ All authors' names and affiliations (institution, faculty/department, city, country), e-mail addresses
  - ✓ Corresponding author's email address, full postal address, telephone and fax number
  - ✓ ORCIDs of all authors.
  - ✓ Grant support (if exists)
  - ✓ Conflict of interest (if exists)
  - ✓ Acknowledgement (if exists)
- Main Manuscript Document

  Important: Please avoid mentioning the author(s) names in the manuscript
  - ✓ The title of the manuscript both in the language of the article and in English
  - ✓ Abstract (120-200 words)
  - ✓ Key words: 5 words
  - ✓ Extended abstract in English: 600-800 words (for non-english articles)
  - ✓ Body text sections
  - ✓ References
  - ✓ All tables, illustrations (figures) (including title, explanation, captions)

COPYRIGHT AGREEMENT FORM / TELİF HAKKI ANLAŞMASI FORMU

İstanbul University
İstanbul Üniversitesi

Journal name: Anatolian Research
Dergi Adı: Anadolu Araştırmaları

Copyright Agreement Form
Telif Hakkı Anlaşması Formu

Responsible/Corresponding Author *Sorumlu Yazar*	
Title of Manuscript *Makalenin Başlığı*	
Acceptance date *Kabul Tarihi*	
List of authors *Yazarların Listesi*	

Sıra No	**Name - Surname** *Adı-Soyadı*	**E-mail** *E-Posta*	**Signature** *İmza*	**Date** *Tarih*
1				
2				
3				
4				
5				

Manuscript Type (Research Article, Review, etc.) *Makalenin türü (Araştırma makalesi, Derleme, v.b.)*	

Responsible/Corresponding Author:
Sorumlu Yazar:

University/company/institution	*Çalıştığı kurum*	
Address	*Posta adresi*	
E-mail	*E-posta*	
Phone; mobile phone	*Telefon no; GSM no*	

The author(s) agrees that:
The manuscript submitted is his/her/their own original work, and has not been plagiarized from any prior work,
all authors participated in the work in a substantive way, and are prepared to take public responsibility for the work,
all authors have seen and approved the manuscript as submitted,
the manuscript has not been published and is not being submitted or considered for publication elsewhere,
the text, illustrations, and any other materials included in the manuscript do not infringe upon any existing copyright or other rights of anyone.
ISTANBUL UNIVERSITY will publish the content under Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) license that gives permission to copy and redistribute the material in any medium or format other than commercial purposes as well as remix, transform and build upon the material by providing appropriate credit to the original work.
The Contributor(s) or, if applicable the Contributor's Employer, retain(s) all proprietary rights in addition to copyright, patent rights.
I/We indemnify ISTANBUL UNIVERSITY and the Editors of the Journals, and hold them harmless from any loss, expense or damage occasioned by a claim or suit by a third party for copyright infringement, or any suit arising out of any breach of the foregoing warranties as a result of publication of my/our article.
I/We also warrant that the article contains no libelous or unlawful statements, and does not contain material or instructions that might cause harm or injury.
This Copyright Agreement Form must be signed/ratified by all authors. Separate copies of the form (completed in full) may be submitted by authors located at different institutions; however, all signatures must be original and authenticated.

Yazar(lar) aşağıdaki hususları kabul eder
Sunulan makalenin yazar(lar)ın orijinal çalışması olduğunu ve intihal yapmadıklarını,
Tüm yazarların bu çalışmaya asli olarak katılmış olduklarını ve bu çalışma için her türlü sorumluluğu aldıklarını,
Tüm yazarların sunulan makalenin son halini gördüklerini ve onayladıklarını,
Makalenin başka bir yerde basılmadığını veya basılmak için sunulmadığını,
Makalede bulunan metnin, şekillerin ve dokümanların diğer şahıslara ait olan Telif Haklarını ihlal etmediğini kabul ve taahhüt ederler.
İSTANBUL ÜNİVERSİTESİ'nin bu fikri eseri, Creative Commons Atıf-GayrıTicari 4.0 Uluslararası (CC BY-NC 4.0) lisansı ile yayınlamasına izin verirler. Creative Commons Atıf-GayrıTicari 4.0 Uluslararası (CC BY-NC 4.0) lisansı, eserin ticari kullanım dışında her boyut ve formatta paylaşılmasına, kopyalanmasına, çoğaltılmasına ve orijinal esere uygun şekilde atıfta bulunmak kaydıyla yeniden düzenleme, dönüştürme ve eserin üzerine inşa etme dâhil adapte edilmesine izin verir.
Yazar(lar)ın veya varsa yazar(lar)ın işvereninin telif dâhil patent hakları, fikri mülkiyet hakları saklıdır.
Ben/Biz, telif hakkı ihlali nedeniyle üçüncü şahıslarca vuku bulacak hak talebi veya açılacak davalarda İSTANBUL ÜNİVERSİTESİ ve Dergi Editörlerinin hiçbir sorumluluğunun olmadığını, tüm sorumluluğun yazarlara ait olduğunu taahhüt ederim/ederiz.
Ayrıca Ben/Biz makalede hiçbir suç unsuru veya kanuna aykırı ifade bulunmadığını, araştırma yapılırken kanuna aykırı herhangi bir malzeme ve yöntem kullanılmadığını taahhüt ederim/ederiz.
Bu Telif Hakkı Anlaşması Formu tüm yazarlar tarafından imzalanmalıdır/onaylanmalıdır. Form farklı kurumlarda bulunan yazarlar tarafından ayrı kopyalar halinde doldurularak sunulabilir. Ancak, tüm imzaların orijinal veya kanıtlanabilir şekilde onaylı olması gerekir.

Responsible/Corresponding Author; *Sorumlu Yazar;*	**Signature** / *İmza*	**Date** / *Tarih*
		……../……../……