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Contents

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What Happened Between Beycesultan XIII and XII? New Answers from Laodikeia-Kandilkırı Early Bronze Age Levels

UMAY OĞUZHANOĞLU*

Abstract

Beycesultan has provided the longest chronological sequence in southwest Anatolia for the Bronze Age. There J. Mellaart noticed a change in the material culture at level XIII and called it a "complete break in the culture." He claimed that the fire and destruction at this level was the result of the migration of Indo-Europeans to the region Some scholars suggest that there is a chronological gap in Beycesultan between levels XIII and XII, which is the cause of this so-called break. Recently pottery seriation and absolute dating obtained by the excavations at Laodikeia-Kandilkırı in Denizli province yielded enough evidence to prove that there was neither a break in the material culture nor any sign of invasion in the Denizli region in Early Bronze Age 2 or 3A. Instead, there existed a moderate period of change in the Denizli region due probably to the impact of the network of interregional connections in Anatolia's EBA 3A during the chronological gap between Beycesultan levels XIII and XII. Kandilkırı was abandoned around 2200 BC, probably due to a climate crisis and the fall of the interregional connective network.

Keywords: Early Bronze Age, West Anatolia, chronology, Laodikeia-Kandilkırı

Öz

Güneybatı Anadolu Tunç Çağları için en uzun kronolojik silsileyi sağlamış olan Beycesultan'da, J. Mellaart XIII. tabakanın maddi kültüründe bazı değişiklikleri fark etmiş ve bunu "tümden kültürel bir kırılma" biçiminde tanımlayarak buna yol açan yangın ve yıkımın bu tabakayla çağdaş olan Hint-Avrupalıların bölgeye göçleriyle ilişkili olduğunu belirtmiştir. Bazı araştırmacılar ise Beycesultan XIII. ve XII. tabakalar arasında kronolojik bir boşluk bulunduğunu ve bunun söz konusu "kırılma"nın asıl nedeni olduğunu ifade etmiştir. Yakın geçmişte, Denizli'deki Laodikeia-Kandilkırı'dan elde edilen seramik serileri ve mutlak tarihleme sonuçları, ETÇ 2 ve 3A dönemlerinde Denizli yöresinde material kültürde herhangi bir "kırılma" ya da bölgede farklı halklarca bir istilanın olmadığına dair yeterince kanıt sunmuştur. Aksine, olasılıkla ETÇ 3A'da Anadolu'da etkin olan bölgeler arası ilişkiler ağına dahil olması sebebiyle, Denizli yöresinin de ılımlı bir değişim sürecini yaşamış olduğu anlaşılmaktadır. Kandilkırı yerleşmesi yaklaşık MÖ 2200 dolaylarında, belki de iklim krizine ve buna bağlı bölgeler arası ilişki ağlarının çökmesi nedeniyle terk edilmiştir.

Anahtar Kelimeler: Erken Tunç Çağı, Batı Anadolu, kronoloji, Laodikeia-Kandilkırı

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Introduction

Due to the near-legendary discovery of Troy and its treasures which showed similarities with the "royal" tombs in Alacahöyük and Ur, this famous site has been a favorite of scientists for the construction of both chronological parallelism and interregional relations.[1] The search for relations in this vast area stretching between the Near East and the Aegean partly overshadowed the work of identifying Anatolia's local EBA characteristics. The focus on the Troad has long excluded southwest Anatolia, which has the potential to establish relations between the eastern and western half of the Mediterranean. The pioneering actions to remedy this were the excavations carried out by the British Institute of Archaeology at Ankara (BIAA) in Beycesultan between 1954 and 1959, one of the largest settlements in West Anatolia.[2] Beycesultan dominates the whole of the Menderes Valley and is the starting point of one of the most important roads connecting inner and coastal Aegean. It was a crucial step in understanding the interregional contacts and characteristics of inner West Anatolia. Excavators tried to correlate the data with Troy and to establish a general scheme for western Anatolian chronology.[3] From the first excavation seasons, Beycesultan exposed in XIII and later strata, a development very different from the evolutionary path of the material culture in Troy II and afterwards. J. Mellaart first identified this difference as a "cultural break" resulting from the invasion of the settlement by a different ethnic group.[4] While the idea of this "cultural break" is accepted by some scholars, the most influential antithesis, conceived by T. Efe and then by M.J. Mellink, is a chronological gap in the settlement stratigraphy.[5] However, the evidence of Mellink was collected in excavations at Lycia while Efe's evidence came from northwest Anatolia. The fact that no research on the Bronze Age has been conducted in the immediate surroundings of Beycesultan has long prevented southwest Anatolia from holding a stable place in local or wider chronology studies. The best way to understand whether the difference in Beycesultan's cultural process was a "gap" or a cultural "break" was to launch excavations in another settlement within the same region and to support the findings by new absolute dating. For this purpose Kandilkırı, located approximately 80 km from Beycesultan and within the territory of Laodicea ad Lycum, has been excavated since 2011. Kandilkırı is critical in terms of revealing an almost uninterrupted stratigraphy from 2700 BC to 2200 BC. This study aims to clarify the southwest Anatolian ceramic chronology with absolute dating, based on the seriation from Laodikeia-Kandilkırı, with the intention of revealing the probable scenario in the Denizli region during Beycesultan levels XIII to XII. In this way, it will be possible to reevaluate the position of southwest Anatolia from a broader perspective, in a diachronic manner and within the interregional network as well as the end of dense EBA interrelations. A correct and clearer chronology in this region will benefit many researchers for establishing the relations between Aegean and Anatolian cultures along with Mediterranean cultures.

1 Culican 1964; Bass 1970, 339-41.

2 Lloyd and Mellaart 1962.

3 Mellaart 1957.

4 Mellaart 1957, 74.

5 Efe 1988, 102; Mellink 1992, 216.

Studies on EBA Chronology in Anatolia

Since some Near Eastern cultures used writing during the third millennium BC, inscriptions have important chronological reference value. However, due to the lack of writing in Anatolian and Aegean cultures, Anatolia's early chronological correlations were achieved via comparison with more accurately dated contexts in the Near East.[6]

TABLE 1. Comparative Late EBA stratigraphy of major sites mentioned in the text (by the author).

	Laodikeia-Kandilkırı	Beycesultan	Aphrodisias		Karataş-Semayük	Samos-Heraion	Northwest Anatolia		
			Acropolis	Pekmez			Troy		Küllüoba
							Blegen	Korfmann	
EBA 3B Late	Abandoned	VI-IX	I	IV d		V	V	V	II
EBA 3B Early		X-XII	II	IV e? V?	?	IV	IV	IV	
EBA 3A	2	Gap or not yet achieved	III-V		VI:1-2	III	III II c-g	III II d-h	III
	3					II		I u	
EBA 2 Late	4	XIII	VI	V?	V:3	I	II a-b I g-k	I l-t	IV
EBA 2 Early		XIV-XVI	VII-VIII		IV-V:1-2			I g-k	

In terms of Early Bronze Age research, Troy has the longest excavation history in western Anatolia. C.W. Blegen et al. carried out excavations at this site between 1932 and 1938 with systematically published results consisting of an important chronological reference to West Anatolia.[7] A near-contemporary project is Tarsus-Gözlükule, initiated by H. Goldman in 1935, which provided important data for comparing the Near Eastern written history with the findings of Anatolia's illiterate societies. Goldman was the first to propose absolute dates with solid bases for tripartite EBA chronology.[8] Furthermore, as a result of Gözlükule EBA 3 findings with parallels in Troy II, it is possible to discern a relative chronology between Cilicia and West Anatolia.[9] Following these discussions, the basics of which started with the results of the Troy and Gözlükule synchronisms, various researchers worked for a comparative EBA chronology for West Anatolia.[10] The common ground among these publications, as D. Easton stated in the introduction of his work on Anatolian chronology, is the determination of the synchronisms between Troy and Tarsus.[11]

Troy's chronology was later reconsidered by M.O. Korfmann and S. Ünlüsoy.[12] However, because the Troy II excavation was mostly carried out before Korfmann's research and older

6 Goldman 1954; Braidwood and Braidwood 1960, 498-523; Özgüç 1986.

7 Blegen et al. 1950.

8 Goldman 1956, 60-64.

9 Mellink 1989, 324-25.

10 Goldman 1954; Mellaart 1957; Mellink 1965, 1992; French 1969, 56, fig. 3; Easton 1976; Yakar 1979, 2011; Kamil 1982, 60-69, table 2.

11 Easton 1976, 169.

12 Korfmann 2001, 373, fig. 413; Ünlüsoy 2010.

articles on chronology will be frequently referred to, Troy's stratification will be given according to Blegen et al. to avoid confusion.[13] (For the correlation between Blegen and Korfmann stratigraphy see table 1).

The focus of EBA studies on the related aspects of Troy and Tarsus has long excluded southwest Anatolia.[14] However, Beycesultan in Denizli, excavated between 1954 and 1959 and whose results were published by S. Lloyd and J. Mellaart, has been one of the most important events in understanding the position of southwest Anatolia in the EBA.[15] Following this, other important chronological references related to the region were obtained from the excavations conducted between 1963 and 1974 by Mellink in Karataş-Semayük.[16] Pottery analysis played a major role in producing a comparative chronology, as well as in defining certain interregional connections.

There are two different considerations concerning the beginning of EBA 3 in West Anatolia among scholars. While some researchers accept the beginning of EBA 3 in Anatolia to be contemporaneous with Troy II at around 2450 BC,[17] others claim a later date as contemporaneous with Troy III.[18] Although various studies have been carried out to reconcile these two different chronological assumptions, there has been no clear discourse on this.[19] In this study, the author considers Troy II c and later EBA 3 in a way similar to Mellink because her chronology was obtained primarily by focusing on southwest Anatolian data.[20] It is also widely accepted for inner West Anatolia.[21] Considering that Beycesultan and Denizli are part of inner and southwest Anatolia, this chronological nomenclature accurately represents the region's dynamics (table 1).

There is also another reason to accept Troy II c as the beginning of the EBA 3 subperiod in southwest Anatolia: Anatolia was part of an interconnected network in the third millennium BC.[22] This network was also a major hub for the transfer and sharing of both technology and knowledge, which reached its heyday during the Troy II c-III phase.[23] The effect of this mobility can also be observed through material culture, especially pottery. Therefore, it seems logical to consider the period during which major technological innovations and their impacts on material culture took place under the nomenclature of a new subphase, i.e. EBA 3A, at least for inner West Anatolia.

13 Blegen et al. 1950.

14 Efe 1998.

15 Lloyd and Mellaart 1962.

16 Mellink 1964.

17 Efe 1988, 102, pl. 98; Mellink 1992, 216-17, table 2; Türkteki 2012, 88, table 3.

18 Sotirakopoulou 2008, 542-50; Erkanal and Şahoğlu 2016, 159, fig. 2.

19 Şahoğlu and Sotirakopoulou 2011; Lebeau 2014.

20 Mellink 1992.

21 Efe 1988, 102, pl. 98; Türkteki 2012, 88, table 3.

22 Şahoğlu 2005; Massa and Palmisano 2018.

23 Efe 2007.

Pottery Synchronism as a Sign of Contemporaneity and Mobility: The Case of EBA Anatolia

Material culture, especially pottery, has been central to relative chronology since Thomsen and Montelius.[24] Until modern and elaborate absolute dating techniques came along, pottery was one of the most basic indicators in determining contemporaneity among stratigraphies obtained from different settlements.[25] S. Manning asserts that studies focusing on chronology can be criticized as "object oriented" by some experts, but draws attention to the fact that all theories from any perspective need a solid chronological base.[26]

The existence of ceramic types reflects "interaction of individuals on a societal level."[27] The margins of error can be high in chronologies that are obtained by comparing very simple and common shapes or wares. For this reason, it is necessary to create a pottery seriation and to identify chronologically significant groups by considering their frequency of appearance.[28] However, when using this method, it should be noted that the first production dates of a ceramic group - the period they were commonly used in - and their last appearance are chronologically different.[29]

There are certain criteria introduced for the seriation of ceramics used in chronological research. The seriations to be compared must be from a similar period; all groups must belong to a similar cultural tradition; and all must be derived from the same local area.[30] Gifford summarizes this as "during a specific time interval within a specific region" in his "Type-variety method."[31] When the horizontal seriation is placed in vertical stratigraphy, ceramic complexes from different settlements are formed and become comparable with each other.[32] In these comparisons, if different settlements largely reflect the same ceramic groups, there is a "ceramic sphere" here. If they only show certain connections, it is possible to identify "pottery horizons" and identify them with "horizon markers."[33] In addition to being a chronological indicator, "horizon markers" are considered to be "specialized and widely traded" products.[34]

Chronology obtained by pottery seriations and horizon markers should be verified by absolute dating to eliminate possible errors in both dating methods. As emphasized by Snodgrass, as important as absolute dates are for the achievement of "relative dating," a combination of both methods seems to work best.[35] This guards against various criticisms and controversies between different assumptions about calibration curves and absolute dating obtained with the old technology.

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24 Gamble 2001, 55-57; Trigger 2007, 223-24.

25 Gifford 1960.

26 Manning 1995, 33.

27 Gifford 1960.

28 Orton et al. 1993, 190.

29 Orton et al. 1993, 185; de Heredia Puente 2010, 17-18.

30 Dunnel 1970, 311.

31 Gifford 1960, 346.

32 de Heredia Puente 2010, 3.

33 Gifford 1960, 346; Phillips and Willey 1953, 625-30; Wesler 1991; de Heredia Puente 2010, 4.

34 Phillips and Willey 1953, 625.

35 Snodgrass 1985, 36-37.

Looking at Anatolia through this framework, it is possible to identify pottery horizons and horizon markers for Western Anatolia, especially in the second half of the third millennium BC (table 2).

TABLE 2. Horizon markers for Late EBA in inner West Anatolia.

	Horizon markers (pottery)	Site stratigraphy (selected)	Estimated calendar dates
Late EBA 2 Horizon	- Proto red-coated ware with rim-slip - Red and black ware (not achieved in northwest) - One-handled tankard	Beycesultan XIII Küllüoba IV Kandilkırı 4 (late) Karataş V:3	2550-2450 BC
EBA 3A Horizon	- Wheel-made plain ware - Wheel-made wash ware - Red-coated ware - Wheel-made plate - Two-handled tankard - Depas	Troy II d-III Küllüoba III Kandilkırı 2-3 Karataş V:1-2 Samos-Heraion II-III	2450-2200 BC

Interactions studies among communities and regions in the Mediterranean basin are based on elements of material culture, and pottery is one of these elements.[36] Pottery seriation created by C.W. Blegen at al.[37] in Troy has been tested for consistency by B. Weninger and provides an important basis for West Anatolia.[38] Reasonable Beycesultan and Karataş-Semayük pottery seriations have been fully published.[39] Therefore, there are key sites suitable for fitting the west Anatolian ceramic horizons into vertical stratigraphy.

The Late EBA 2 horizon is observed in different settlements of West Anatolia, such as Küllüoba IV, Karataş-Semayük V:3, Aphrodisias Acropolis VI, and Laodikeia-Kandilkırı 4.[40] Here the proto red-coated ware - as named by D. Sarı - and the first one-handled tankards with rim slips appear.[41] (For the nomenclature of pottery shapes see fig. 1). This Late EBA 2 horizon is immediately followed by the EBA 3A phase in which wheel-made plates, two-handled tankards, and depa first appeared. Although these new EBA 3 shapes were associated with Troy II due to being first discovered there, they appear in a lot of EBA settlements in Anatolia almost coevally.[42]

The layers of different settlements, in which the EBA 3A horizon appeared, were considered contemporary with Troy II. Thus the scope of the relative chronology was expanded accordingly.[43] The unveiling of similar ceramics across a wide area not only in western Anatolia but also on the Aegean islands, the Greek mainland, central Anatolia, and Tarsus-Gözlükule

36 Leidwanger et al. 2014.

37 Blegen at al. 1950.

38 Weninger 2002.

39 Lloyd and Mellaart 1962; Eslick 2009, 101-75.

40 Efe 2007, 61; Eslick 2009, 25, 158; Kadish 1969, 59-60; Oğuzhanoğlu Akay 2015, 66-67, pl. 19.

41 Sarı 2009, 92.

42 Blegen et al. 1950, 208-13; Ezer 2014; Şahoğlu 2014; Kamış 2018, 69-70.

43 Özgüç 1945; Blegen et al. 1950, 208-13; Goldman 1954; Mellaart 1957; Mellink 1965, 1992; Easton 1976; Yakar 1979, 2011; Kamil 1982, 60-69.

made important contributions to chronological connections.[44] Long after these chronology studies, the spread of the same ceramic group and technology was considered as evidence of the heyday of a long-distance systematic communication network.[45] T. Efe claims that in the settlements located on the "Great Caravan Road" - assumed by him to be the central route in Anatolian trade and running mostly in a northwest-southeast direction - the EBA 3A horizon emerged at the beginning of Troy II and in other parts of western Anatolia at the end of Troy II.[46]

While Late EBA 2 and EBA 3A horizons have been unearthed successively in almost every settlement in West Anatolia, Beycesultan seems to be an exception. The EBA pottery range in Beycesultan offers a different style than found in West Anatolia, especially Troy.[47] As will be discussed in detail below, different opinions have been put forward suggesting that the situation in Beycesultan is due to cultural change, migration, regional preference or a chronological gap.

Beycesultan in the Early Bronze Age

Beycesultan is located in the Çivril district of Denizli province and surrounded by the very fertile plains of Çal, Çivril and Baklan. It is the largest mound in the area among several others. The final publication of the excavation results by S. Lloyd and J. Mellaart has been one of the most important steps in understanding the position of southwest Anatolia in the EBA.[48] Beycesultan was remarkable as the first excavation in southwest Anatolia to provide a long stratigraphic Bronze Age sequence and to be included in the debate regarding Troy-Tarsus relations.

Mellaart noticed something about Beycesultan's cultural continuity in his work on chronology and observed in his comparative chronology table on Troy that there is a "complete break in the culture at Beycesultan between XIII and XII, but not at Troy."[49] He notes further that Beycesultan showed a different developmental direction than Troy during the period contemporary with Troy II (table 3).

TABLE 3. Troy II-III and Beycesultan XI-XV relative chronology according to J. Mellaart with his note on the "break" (Mellaart 1957, 74).

Troy	Beycesultan	
III	XI XII	
II d-g	XIII	"Complete break in culture at Beycesultan between XIII and XII, but not at Troy."
II c	XIV XV	

44 Rutter 1979; Özgüç 1986; Mellink 1989, 325; Ünlü 2009, 67.

45 Şahoğlu 2005; Efe 2007; Massa and Palmisano 2018.

46 Efe 2007, 61, fig. 17a-b.

47 Mellaart 1957, 74; Lloyd and Mellaart 1962, 140.

48 Lloyd and Mellaart 1962.

49 Mellaart 1957, 74.

Most Beycesultan XIII-XVI pottery is compatible with several EBA 2 sites in western Anatolia.[50] The grooved decoration of parallel lines, sometimes seen on the body or on the bases and handles of the pots, is highly characteristic of handmade pottery with a black, orange or brown burnished surface.[51] Inverted rim bowls, carinated bowls with pedestals and exaggerated handles, or lugs, tripod bowls, tripod jars and beak-spouted jugs are among the most distinctive shapes of the repertoire.[52] Before the Beycesultan excavations Mellaart had already identified this pottery across a wide area, reaching the upper Meander at Dinar and Elmalı.[53]

Certain changes had occurred in Beycesultan layer XIIIa: a new red slipware with a rim slip as well as the first tankards appeared.[54] Based on a single piece of plate, the study claimed that wheel-made pottery first appeared during this phase.[55] (The problem of the potter's wheel will be discussed below). Only two sherds were classified as "depas" for level XIII; one of which is likely to have belonged to a tankard.[56] The other depas sherd published looks like a handled cup and is completely different from the long-bodied depas known in west Anatolian EBA 3A.[57] It is also possible to restore this as a one-handled pot because it is only partially preserved. In layer XIIIa, excluding the few sherds mentioned above, the pottery depends on the former EBA 2 tradition and has characteristics of the Late EBA 2 horizon of West Anatolia. Beycesultan XIII had been destroyed by fire. As such, Lloyd and Mellaart understand the fires that put an end to both Troy II and Beycesultan XIIIa as a sign of contemporaneity.[58]

Beycesultan XII and the following layers reveal a pottery repertoire with red or brown washed wheel-made plates, "S"-profiled bowls, two-handled tankards, and kantharoi.[59] (fig. 1) The previous red slip and burnished pottery had been extant for a considerable time, while the black burnished pottery had disappeared altogether.[60] Although the EBA 3A pottery horizon is expected to appear in the phase following layer XIII, the emergence of kantharos, the existence of "S"-profiled bowls with a sharp carination, and the rarity of wheel-made plates and tankards are more reminiscent of the features of EBA 3B.[61]

Previously, there had been general agreement that Beycesultan XIIIa was contemporaneous with Troy II, following Mellaart's suggestion.[62] Mellaart stated that in all consecutive levels - XV, XIV and XIII - there had been traces of a conflagration.[63] However, the fire in Beycesultan XIII had been a result of the Indo-European invasion originating from West Anatolia. While adhering to Beycesultan XIII = Troy II equivalence, Easton stated that features of Troy II appeared in southwest Anatolia later than in the coastal region and that the characteristics of Troy

50 Lloyd and Mellaart 1962, 141-79.

51 Lloyd and Mellaart 1962.

52 Lloyd and Mellaart 1962, sheet 4-5.

53 Mellaart 1954, 179.

54 Lloyd and Mellaart 1962, 177.

55 Lloyd and Mellaart 1962, 179.

56 Lloyd and Mellaart 1962, 190, fig. P.46.5.

57 Lloyd and Mellaart 1962, 190, fig. P.46.1.

58 Lloyd and Mellaart 1962, 140.

59 Lloyd and Mellaart 1962, sheet 6.

60 Lloyd and Mellaart 1962, 199-200.

61 For the characteristics of EBA 3B phase in West Anatolia, see Şahin 2013.

62 Kamil 1982, 61, table 2.

63 Mellaart 1958, 31.

I culture may have continued in the southwest during the period contemporaneous with Troy II. Easton added: "Can this be accepted? We believe that it can…. These assertions, however, require some justification."[64]

The turning point in chronological discussions about Beycesultan, which continued with persistent references to Troy, turned out to be the excavations in Aphrodisias and Karataş. J. Yakar underscores this aspect with an appropriate assertion: "However, the material from Aphrodisias and Karataş-Semayük suggest that the Troy II period in its entirety was present in most parts of the southwest, but some of its characteristics may have reached the more inland areas at a slightly later date."[65] In other words, general theories about the whole of southwest Anatolia, which are based on the "lack of EBA 3A pottery horizon" in the region and rely solely on the data of Beycesultan, are almost refuted with the presence of EBA 3A horizon material in Karataş and Aphrodisias.[66] By comparing Beycesultan and Eskişehir-Kütahya material (table 4), Efe explained the unusual change in the Beycesultan EBA pottery sequence as a result of a chronological gap between Beycesultan layers XIII and XII.[67]

TABLE 4. West Anatolian EBA chronology after T. Efe (Efe 1988, 102, Pl. 98).

	Troy	**Beycesultan**	**Aphrodisias-Acropolis**	**Karataş**
Transitional	V	VI-VII	I	
EBA 3B	IV	VIII-X	II	
EBA 3A	III II e-g	XI-XII Hiatus	III-VI	Megara 1-4
Late EBA 2	II a-d	XIII	VII-IX	V

Mellink supported and strengthened this idea, especially after excavating in Karataş (table 5).[68] The idea of a chronological gap in Beycesultan was later adopted by different researchers.[69]

Recent surveys carried out in the plains of Çal, Çivril and Baklan showed that with a size exceeding 20 ha, Beycesultan is the largest settlement in the region.[70] The discovery of a cemetery in recent excavations by E. Abay shows that the inhabitants used a larger area around the mound, perhaps even more than 20 ha during the Bronze Age.[71] In trenches in which the EBA layers were detected by Lloyd and Mellaart, excavations only consisted of the areas S, SX and A in the western summit. The most widely uncovered EBA strata (XI-XII) covers an area of about 900 m^2.[72] In other words, the excavated area covers less than 0.5% of the entire settlement. Therefore, the gap in the current chronology need not be interpreted as the abandonment of the entire settlement. There is also the possibility that the EBA 3A layers, which were not detected during previous excavations, could be located anywhere on the mound.

64 Easton 1976, 153.

65 Yakar 1979, 59.

66 Warner 1994, 173, 178, n. 9; Kadish 1969, 1971.

67 Efe 1988, 102, pl. 98.

68 Mellink 1992, 216, table 3.

69 Eslick 2009, 227, table 13.1; Türkteki 2010, 196, table 5; 2012, 80, table 3; Sarı 2012, 160, 187; Şahin 2013, 218, tables 9-10; Üstün Türkteki 2020, 61-62, tables 1-2.

70 Abay 2011, 24.

71 Abay and Dedeoğlu 2009, 65, fig. 3.

72 Lloyd and Mellaart 1962, 8, 57, figs. 1, 21.

TABLE 5. West Anatolian EBA chronology after Mellink 1992, 216, table 3.

	Northwest	Southwest
EBA 3B ↑ 2200 BC?	Troy V Troy IV Troy III	Beycesultan VI XII
EBA 3A ↑ 2400 BC?	Troy II g ↑ Troy II b	Aphrodisias Complex II Karataş VI Kusura
EBA 2 ↑ 2700 BC?	Troy I Yortan Iasos	Beycesultan XIIIa-XVI Karataş III-V Cemetery Kusura

Other Excavated Sites in Southwest Anatolia: Aphrodisias and Karataş-Semayük

Aphrodisias appears to be the only settlement that provides an uninterrupted EBA stratigraphy for southwest Anatolia. Here, however, there is confusion regarding the layer on which the potter's wheel first appeared - an important clue for discussions of chronology. B. Kadish mentioned the discovery of the wheel-made plates in Aphrodisias below the foundations of Acropolis Complex IV houses.[73] The first images of these plates were published in the field report of Kadish.[74] Meanwhile, Joukowsky states that the material in question had been found under a layer of grey clay, which embodies the distinction between complexes V and IV and should be dated according to the former.[75] Aphrodisias Complex V is a stratum in which tankards and grey ware coexist and should therefore be dated to EBA 3A. The late EBA pottery development in Aphrodisias is summarized in table 6.

TABLE 6. Late EBA pottery sequence in Aphrodisias (by the author).

	Aphrodisias-Acropolis	Pottery characteristics	Citation
EBA 3B	Complex I/ Complex E	Short-bodied depas, rim-slip depas	Kadish 1969, 59-60 Kadish 1971, 134
EBA 3A	II	Lentoid flask, short-bodied depas, two-handled tankard	Kadish 1969, 59-60 Kadish 1971, 54-56, fig. 34
	III-V	Grey ware, wheel-made plates	Kadish 1969, 59-60 Joukowsky 1985, 585, fig. 423
Late EBA 2	VI	Red and black burnished ware, one-handled tankard, red-slipped platter	Kadish 1971, 138, fig. 4

The data on Aphrodisias overrides the predictions that the Troy II repertoire would not be prominent in southwest Anatolia. However, as mentioned above, due to certain contradictions in different publications regarding Aphrodisias, the chronological development must be

73 Kadish 1969, 61.

74 Kadish 1971, 137, fig. 39.

75 Joukowsky 1985, 89.

checked by comparing it to another settlement. In Karataş-Semayük, the V:3 layer has all the elements of the Late EBA 2 horizon, and the VI layer has all the elements of the EBA 3A horizon, after which the settlement had ended.[76]

Laodikeia-Kandilkırı: A New Early Bronze Age Settlement in Denizli

The ancient city of Laodikeia is located on the Denizli plain, 80 km directly southwest of Beycesultan. Laodikeia is the largest city of the plain and frequently mentioned in ancient texts during the Hellenistic and Roman periods as well as in late antiquity. It has been excavated since 2003 under the direction of C. Şimşek.[77] In these excavations, two different Bronze Age sites were identified within the territory of the Laodikeia: Kandilkırı was settled in the third millennium BC and Asopos Hill in the second millennium BC. Three EBA levels have been defined in Laodikeia-Kandilkırı (table 7).

TABLE 7. Stratigraphy of Laodikeia-Kandilkırı (Oğuzhanoğlu Akay 2015, 25, table 2).

Level	Phase	Period	Function/Remains	Absolute dating proposals
1	-	Hellenistic-Roman-Late Antiquity	Surface soil	-
Abandonment				
2	A	EBA 3A	Settlement	2300-2200 BC
	B			
3	A	EBA 3A	2 houses, pits	2450-2300 BC
	B?		Oven	
4		EBA 2	Cemetery (graves and pits)	2750-2500 BC
Hiatus				
5		Early Chalcolithic	Single pit on bedrock	?

The EBA pottery seriations were made by the author as a part of her PhD studies. Pottery from the most reliable and undisturbed stratigraphic units have been taken into account to eliminate the infiltrations between layers, and the sherd count method has been used to obtain the data for the statistics.[78]

Kandilkırı Level 4: The remains in this level consist of graves and pits related to this cemetery, although no domestic context has yet been discovered (fig. 2). The pottery of Kandilkırı 4 is white grit-tempered and micaceous paste whose color ranges from buff to brown. Well-fired sherds are rare. The surface is usually burnished, and colors are predominantly red or brown. The ratio of black/dark burnished ware is not negligible (table 8). Inverted rim bowls, carinated bowls, collar jars and beak-spouted jugs are among the characteristic shapes of this level (figs. 3-4). "Bowl with vertical rim," as identified by Mellaart, is among the characteristic shapes in southwest Anatolia.[79] Also unearthed in Beycesultan XIII-XVI, the shape is also present in

[76] Eslick 2009.

[77] Şimşek 2019.

[78] For the details of the methodology see Oğuzhanoğlu Akay 2015, 39-45.

[79] Mellaart 1954, 198, 205.

Kandilkırı 4.[80] It should be noted that in this layer, tripod jars are very common. These jars, especially the type with a rising rim and grooves on their handles and/or legs, were highly popular in the Denizli region (fig. 4).[81] Tripod jars with rising rims are known to be associated with Beycesultan XIII-XVI, Aphrodisias-Pekmez, and Bademağacı EBA 2.[82]

TABLE 8. Ratio of selected wares according to levels (cooking ware excluded) after Oğuzhanoğlu Akay 2015, 47, 178.

Ware	Level 4 (%)	Level 3 (%)	Level 2 (%)
Brown burnished	32	13	16
Red-slipped	29	19	21
Black burnished	19	9	7
Grey	3	12	16
Plain wheel-made	-	10	11
Washed wheel-made	-	37	29
Red coated and reserve-slip (Import)	-	<1	<1

A new thin-walled pottery group with a red slip appeared in the late phase of Kandilkırı level 4. Red-slipped, one-handled tankards with a rim slip were used for the first time. This new ceramic represents a phase toward the end of EBA 2 in different settlements of West Anatolia, as in Beycesultan XIIIa.[83] In addition to this, another new ware in this phase is the red and black ware of southwest Anatolia, which is again preferred for the production of one-handled tankards. This ware, which first appeared in Caria in the mid-EBA 2, is bright red on the outside and black on the inside.[84] In terms of chronological connections, it is important to note that red and black one-handled tankards exist not only in Kandilkırı 4 but also in Aphrodisias Acropolis VI and Pekmez IVe as well as Karataş V:3.[85]

Kandilkırı Level 3: This layer is characterized by several large pits and very few architectural elements. One of the major changes in the pottery of Kandilkırı 3 is the introduction of the potter's wheel. The majority of wheel-made pottery is red- or brown-washed, while a small group is plain. It should be stated that washed ware, which constitutes 37% of the pottery in this layer (excluding coarse ware), is a regional tradition. Characteristic wheel-made shapes were adapted to this ware by local potters who learned to use potter's wheels (table 8, fig. 5). The most common shape of the washed ware is the wheel-made plate. Production of grey ware, which was very rare in EBA 2 levels, increased considerably during level 3 (table 8). These wares brought along their characteristic repertoire of shapes (fig. 5) and a new type of bowl with an 'S'-profile. Although 'S'-profiled bowls occur in Beycesultan XII, none are grey.[86]

80 Lloyd and Mellaart 1962, 143, sheet 4: shape 3.

81 Oğuzhanoğlu Akay 2015, 185.

82 Lloyd and Mellaart 1962, 143, sheet 4: shape 3; Joukowsky 1985, 400, fig. 370.15; Duru 2000, 588, pl. 14.3; 2002, 563, pls. 41.3, 42.4.

83 Eslick 2009, 198, pls. 67.93KA; Sarı 2012, 160; Üstün Türkteki 2012, 64-65, fig. 7; Türkteki 2013, 194-95; Lloyd and Mellaart 1962, 179.

84 Oğuzhanoğlu 2019a, 8-9.

85 Kadish 1971, 137, fig. 4; Eslick 2009, 25, 158, pl. 9.JR 52.

86 Lloyd and Mellaart 1962, 201.

This type of bowl is also present in Karataş VI.[87] The same type made of grey ware exists in Aphrodisias Pekmez V-VIe and Samos-Heraion III-IV.[88]

In Kandilkırı level 3, both one- and two-handled tankards can be red-slipped, grey or washed. Some are wheel-made. In some examples, the rim slip continues. The first depas cups in Kandilkırı originate from this level and are extremely scarce. The reason for the paucity of depas is likely to have a regional rather than chronological explanation because this type is not as common in southwest Anatolia as in the northwest.[89]

Although these are important innovations, level 3 pottery retains certain elements of the EBA 2 tradition of Kandilkırı level 4. Both brown- and black-burnished wares survive, although their ratio decreases during levels 3 and 2. One of the elements demonstrating continuity in the shapes is the tripod jar with grooved decorations on the feet and/or handles. As such, the most popular jar type and the most common cooking pot of the settlement was tripod jars. In summary, it should be noted that the common innovations of west Anatolian EBA 3 pottery are also reflected in Kandilkırı pottery. However, certain important characteristics of the local EBA 2 tradition have not yet disappeared.

A chronologically significant imported ware in Kandilkırı 3 is "red-coated" ware, usually with a reserve-slip decoration. This ware, which has a dark red and polished surface that can be described as almost glassy, consists of less than 1% of the entire pottery assemblage. During the EBA 3A especially, this pottery was commonly found in Troy II and in the northern half of inner southwest Anatolia.[90] In Küllüoba level IIIB, this type is well documented in stratigraphy where red-coated ware, wheel-made tankards, and depas coexist.[91] This imported ware is known to have spread to the Afyon plain from the northwest[92] and may have arrived in the Denizli plain through Afyon, considering the natural routes.

Kandilkırı Level 2*:* In this stratum, Kandilkırı looks like a small-scale site built in the Anatolian settlement plan (fig. 2). Although the general features of the pottery are very similar to level 3, the increase in grey ware and "S"-profiled bowls is remarkable. It is noteworthy that in this level, the ratio of red- or brown-washed plates decreases, while grey "S"-profiled bowls are increasing (table 8). Both one- and two-handled tankards, as well as depas, have survived. The most popular jar type is still the tripod, and the tradition of grooved decoration on the legs is persistent. Red-coated wares also exist in this level as an imported good. Generally speaking, it is quite difficult to differentiate the pottery of levels 3 and 2, except for the proportional change of the washed ware plates and grey ware "S"- profiled bowls, which are the characteristic forms of these two ware groups.

After level 2, the EBA settlement ends in Kandilkırı without any sign of the appearance of EBA 3B ceramic traits. There is no sign of a sudden demolition or fire occurring in level 2 buildings. The houses were emptied and then abandoned. In Laodikeia's territory, the Bronze Age chronology continues in the Middle Bronze Age at Asopos Hill near Kandilkırı after at

87 Eslick 2009, 13, pl. 5.BL33, BL35.

88 Joukowsky 1985, 546, fig. 407.1; Milojčić 1961, 40, pls. 38.43-53, 42.1-4, 45.7-18; Kouka and Menelaou 2018, 132.

89 For southwest Anatolian depa, see Oğuzhanoğlu 2019b.

90 Blegen et al. 1950, 221-23; Efe 1988, 96; Efe and İlaslı 1997, 605; Topbaş et al. 1998, 46; Efe and Ay Efe 2001, 51-52; Efe and Türkteki 2005, 125.

91 Sarı 2012, 181.

92 Efe 1988, 96; Efe and İlaslı 1997, 605.

least 200 years of interruption. Although the interruption in question is contemporaneous with the 4.2 ka BP event, the reason for the abandonment is thought to be climatic; however, research on this subject is still ongoing.

As summarized above, Kandilkırı is, until now, the only systematically excavated site in the Upper Meander region which has an uninterrupted stratigraphic sequence from EBA 2 to EBA 3A. It contributes significantly to the completion of the chronological gap at both Beycesultan as well as the wider Denizli region since the relevant layers are missing in Beycesultan. This once again underlines the importance of absolute dating along with data from systematic excavations for solving chronological problems. It also indicates that small-scale settlements can sometimes play an important role in shedding light on archaeological problems concerning both a region and the larger central settlements within it.

Absolute Chronology

Thus far, all of the above inferences are primarily based on the correlation of pottery seriations. However, the absolute dates obtained from systematic excavations will contribute significantly to this discussion. In a comprehensive study on the absolute chronology of the Early Bronze Age, Manning suggested a date ranging from 2550 / 2350 BC to 2300 / 2100 BC for the Troy II c-g phase and to place Troy IV between 2200 / 2100 and 2000 / 1950.[93] While making these proposals, he emphasized the parallelism of Troy IV with Beycesultan VIII-IX and stated that he accepted Beycesultan XIII as being contemporary with Troy III.[94] The very recent absolute dates given for Troy II b-III are roughly in the range of 2450-2200 BC.[95] In other words, it should be expected that the EBA 3A horizon should be placed roughly between 2450-2200 BC while the Late EBA 2 horizon is likely to have ended before 2450 BC.[96]

Reevaluating the few extant radiocarbon dates from southwest Anatolian EBA sites as well as sharing the latest absolute dates from Laodikeia-Kandilkırı would contribute to the chronology discussed above. The conventional radiocarbon ages of samples taken from settlements were calibrated using OxCal v.4.3.2 Online (tables 8-9).[97] Technical discussion of absolute dating and calibration methods extends beyond the analytical range of this article, so it will be omitted.

There is no absolute dating from the EBA 3 levels in Karataş-Semayük.[98] However, the absolute dates from EBA 1 levels show that EBA 2 should start roughly after 2600 BC in the region. Another dataset of southwest Anatolia comes from Aphrodisias.[99] Aphrodisias Acropolis IV, II and I, which are expected to belong to EBA 3 according to the pottery analysis above (table 6), fit between 2500-2000 BC (table 9). Some dates of Aphrodisias Acropolis Complex II and I might belong to EBA 3B if the pottery is used as a reference.

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93 Manning 1995, 98-103, fig. 2.

94 Manning 1995, 103, n. 55.

95 Weninger and Easton 2017, 442, fig. 14.6; Easton and Weninger 2018, 59-60, figs. 7-8.

96 Sarı 2009, 99, ill. 2; Türkteki 2012, 89, table 3.

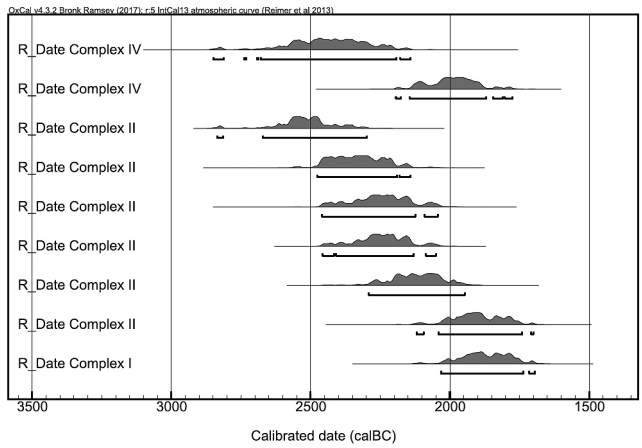
97 Reimer et al. 2013; Bronk Ramsey 2017.

98 Warner 1994, 10.

99 Joukowsky 1985, 163, table 4.

TABLE 9. Aphrodisias Radiocarbon Dates (Joukowsky 1985, 163, table 4)

Sample No	Conventional Radiocarbon Age	Type	Acropolis Trench	Level (Complex)
P-1654	3940 +/- 90	Charcoal	4	IV
P-1653	3620 +/- 60	Charcoal	3	IV
P-1652	3990 +/- 60	Charcoal	4	II
P-1651	3860 +/- 60	Charcoal	3	II
P-1774	3800 +/- 60	Charcoal	3	II
P-1775	3800 +/- 50	Charcoal	3	II
P-1650	3720 +/- 60	Seed	3	II
P-1649	3560 +/- 60	Seed	3	II
P-1648	3540 +/- 60	Charcoal	3	I



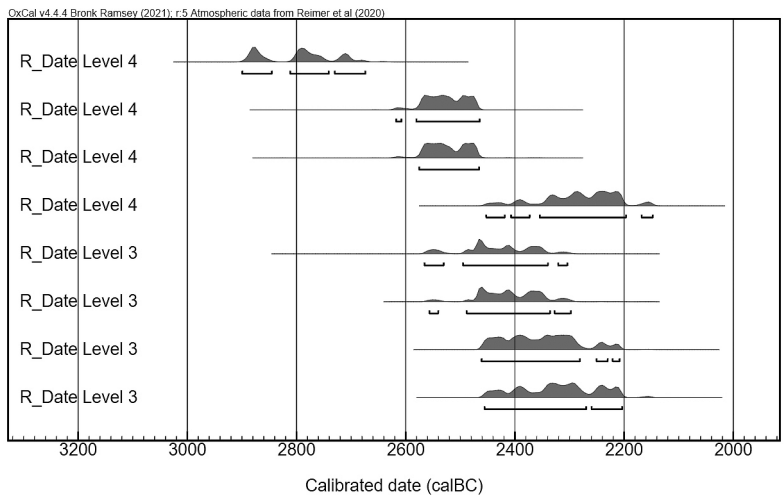
In Laodikeia-Kandilkırı, eight absolute dates have been obtained from level 4/EBA 2 and level 3/EBA 3A (table 10). Dates numbered as two and three in table 10 were collected from the burial contexts containing the Late EBA 2 horizon pottery. These can be roughly placed between 2550-2450 BC. The absolute dates of level 3, which immediately follow, coincide roughly in an absolute date range of 2500-2200 BC.

To summarize, the process represented by the emergence of the Late EBA 2 horizon roughly corresponded to 2550-2450 BC.[100] This is followed by the EBA 3A horizon at a date such as 2450-2400 BC, while similar features continued until almost 2200 BC. As such, EBA 3B may have started around 2200 BC.

100 Sarı 2009.

TABLE 10. Absolute Dates from Laodikeia-Kandilkırı.

	Lab. No.	Sample Type	Level	Conventional Radiocarbon Age (BP)	2 Sigma Calibration
1	Beta-336764	Charcoal	4	4210±30	Cal 2890 to 2860 BC (Cal BP 4840 to 4810) and Cal 2810 to 2750 BC (Cal BP 4760 to 4700) Cal 2720 to 2700 BC (Cal BP 4670 to 4650)
2	Beta-38863	Bone	4	4010±30	Cal 2580 to 2470 BC (Cal BP 4530 to 4420)
3	TÜBİTAK-0450	Charcoal	4	4002±29	Cal 2576 to 2470 BC
4	Beta-344072	Charcoal	4	3830±30	Cal 2430 to 2420 BC (Cal BP 4380 to 4370) and Cal 2400 to 2380 BC (Cal BP 4350 to 4330) Cal 2350 to 2200 BC (Cal BP 4300 to 4150) and Cal 2160 to 2150 BC (Cal BP 4110 to 4100)
5	Beta-387862	Bone	3	3940±30	Cal 2550 to 2535 BC (Cal BP 4500 to 4485) and Cal 2490 to 2395 BC (Cal BP 4440 to 4345) and Cal 2385 to 2345 BC (Cal BP 4335 to 4295)
6	TÜBİTAK-0451	Charcoal	3	3927±29	Cal 2489 to 2334 BC and Cal 2325 to 2301 BC and Cal 2547 to 2543 BC
7	Beta-336767	Charcoal	3	3870±30	Cal 2460 to 2280 BC (Cal BP 4420 to 4230) and Cal 2250 to 2230 BC (Cal BP 4200 to 4180) Cal 2220 to 2210 BC (Cal BP 4170 to 4160)
8	Beta-387861	Charcoal	3	3850±30	Cal 2460 to 2205 BC (Cal BP 4410 to 4155)



Discussion: New Answers to Two Old Problems: Potter's Wheels and "Grey Minyan" Ware.

Lloyd and Mellaart stated that the first wheel-made ceramics emerged in level XIII in Beycesultan, which was considered to be important evidence of contemporaneity to Troy II.[101] However, there is a single sherd published belonging to a plate, which may be evidence of the use of potter's wheels in Beycesultan XIII.[102] Some researchers who have recently reexamined this piece in the pottery collection of the British Institute of Archaeology at Ankara have determined that this example must be handmade.[103] Moreover, even if the sherd in question is wheel-made, the possibility of a single piece belonging to a later stage being displaced between the layers for various reasons (natural conditions, animal activities, excavation and documentation errors, etc.) would be accepted by most archaeologists. Therefore, taking a single piece as evidence, it might not be completely accurate to claim the use of potter's wheels in any layer. In other words, there is no evidence to suggest that potter's wheels were "used" in Beycesultan XIII.

In addition to the findings in Aphrodisias and Karataş-Semayük, which prove that potter's wheels were used in southwest Anatolia by the EBA 3A, there is enough evidence in Laodikeia-Kandilkırı to prove the same fact in the Denizli area where Beycesultan is located. The very first use of the potter's wheel in this region must be placed after the end of Beycesultan XIIIa and at the beginning of EBA 3A.

Mellaart argued that the reason for the "cultural break" in Beycesultan was the invasion of Indo-Europeans from West Anatolia to Beycesultan at the end of the level XIII.[104] According to Mellaart, these immigrants brought with them the shapes of "Grey Minyan" pottery.[105] Although many examples of grey ware were among the Beycesultan XIII debris, the excavators suggested that this ware had completely "vanished" by the end of EBA 2 and that it was not known to be found in EBA 3 in southwest Anatolia.[106]

The absence of grey ware in Beycesultan XII challenges Mellaart's theory of Indo-Europeans arriving in the region and using grey Minyan pottery. Mellaart attempted to overcome this problem by suggesting that the characteristic Minyan shapes are more decisive than the grey ware itself. Therefore, even in regions where grey ware is not available, relations with communities using Minyan ware are conceivable.[107] However, Mellaart did not find the grey ware he was looking for in Beycesultan EBA 3 levels. This was not due to an absence of grey-ware tradition in that location, but because he was never been able to reach an EBA 3A layer. As we know from Kandilkırı's finds, the EBA 3A layer was considered the height of grey-ware production in southwest Anatolia in the third millennium BC.

Grey ware is represented by very few examples in the Middle Bronze Age layers in Beycesultan. The same is true of Asopos Hill in the Middle Bronze Age habitations within

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101 Lloyd and Mellaart 1962, 178-79.

102 Lloyd and Mellaart 1962, 178-79, fig. P.46,6.

103 Türkteki 2010, 197, n. 607; Sarı 2012, 160.

104 Mellaart 1958, 12.

105 Mellaart 1958, 15-18.

106 Lloyd and Mellaart 1962, 57, 237, 245, 258-59.

107 Mellaart 1958, 17-18.

Laodikeia's territory.[108] Grey ware might have gradually lost its popularity in the EBA 3B of the Denizli region, namely Beycesultan XII and later, a decline that is likely to have continued in the MBA.

TABLE 11. Proposition for the late-EBA pottery sequence in the upper Meander region (revised by the author after Oğuzhanoğlu 2019c, 47, table 3).

	End of EBA 2 Beycesultan XIII/ Kandilkırı 4 (Late)	**EBA 3A Kandilkırı 2-3**		**EBA 3B (Early) Beycesultan X-XII**
GREY WARE	Grey ware (not abundant in Kandilkırı)	Increase in grey ware	Most popular term in grey ware	Disappearance of grey ware
WASH WARE	-	Very popular (red, orange and brown)	Popular (but slightly diminished)	Wheel-made, red and brown wash ware
PLAIN WARE	-	Not very popular. Always on wheel-made plates		
TANKARD	First tankards with a single loop-handle (with rim-slip). Some red and black burnished.	Appearance of first wheel-made one-handled tankards with a handle rising from the rim or the neck joining to the lower body First two-handled tankards (Some wheel-made, mostly wash ware)		Near disappearance of tankards and appearance of kantharoi
DEPAS	-	Appearance of first depas (with a long and fluted body, grey or wash ware)		Appearance of short versions of fluted depas with disc or ring base
PLATE	Handmade plates	First wheel-made plates (very popular)	Very popular: almost all of them are wheel-made	Not many
"S"- PROFILED BOWL	-	First appearance of "S"-profiled grey bowls	Most popular phase of "S"-profiled grey bowls (some have a sharper body profile); Few examples are red or brown slipped	"S"-profiled, light-ware bowls with a sharp carination become popular
OTHER				New shapes such as askos, "Jug with spout cut away above the handle," jug with bifoil or trefoil mouth
IMPORTS		Red-coated ware (usually with a reserve-slip decoration) Part of plain ware?		

Continuity Versus Break: In the study regarding his theory on Indo-European migrations, Mellaart stated that "the latest pottery of the old type in this area can be linked to that of Beycesultan XIII, which came to an end c. 2300 BC."[109] However, the Kandilkırı excavations revealed a ceramic sequence in which local traditions continue while adapting to

108 Konakçı 2014, 99; Semiz and Konakçı 2018, 64-65.

109 Mellaart 1958, 31, n. 246.

new technological change in the process of EBA 2 and 3. This occurred only 80 km from Beycesultan. By combining the Beycesultan and Kandilkırı results, a revised proposal can be presented for the transformation of pottery in the second half of the third millennium BC in the Denizli plain (table 11). The population in the plain, which became aware of the new technology and changes in ceramic shapes due to the influence of the stronger interregional relations, must have adapted to this process according to their preferences. Potter's wheels would have likely reached the region in about 2450 BC and then adopted by local craftsmen to produce "washed ware" and later grey ware. The potters of the region must have not only seen wheel-made pottery but also learned to use the potter's wheel. The end of EBA 2 and EBA 3A in West Anatolia was a period of significant change. But there is no evidence currently for the existence of a migration that could have led to radical changes in southwest Anatolia. The process that created these changes was part of a broader network of relations, economic change processes, and technological innovations that were effective not only in western Anatolia but in the regions of the Near East and Aegean.[110] Changes in the appearance and technology of ceramics should be considered a result of the intensification of interactions between regions, depending on various forms of relations.[111] The intensification of interregional relations and the acceleration of technological interaction affected pottery and other crafts, especially metallurgy, in various parts of West Anatolia. EBA 3A should be defined not as a sudden interruption or break but as an adaptation to the broader process of change. This network of interactions also created a rivalry between settlements, especially for the control of natural transportation routes and raw materials. Organized violence increased markedly in the 3rd millennium BC in Anatolia.[112] In such a combative environment, it is natural to observe multiple layers of fire damage at different levels in settlements like in Beycesultan.[113] Therefore, there is no evidence to suggest that conflagration in Beycesultan XIII and Troy II must be contemporaneous.

EBA 3 spans more than five centuries. During these centuries in West Anatolia, there were two completely different subphases consisting of both an intense process in which the network of relations reaches its highest level (EBA 3A) and a subsequent pause and reorganization (EBA 3B). Therefore, it is misleading to use broad time intervals when making inferences about the relevant process. The number of settlements in EBA 3 decreases not only in the Denizli plain but also in the entirety of West Anatolia.[114] However, in these studies, it is difficult to determine the exact phase of EBA 3 where the "decrease" in question is experienced. There are two different assumptions related to a gathering movement towards centers: the first suggests that it is related to the establishment of citadels in the EBA 3A and the other to the efforts to overcome the period after the 4.2 ka BP crisis.[115] If such a movement did exist, it is important to locate it chronologically in a much more exacting manner. If the decrease in the number of settlements and perhaps the gathering in centers dates to EBA 3A, this would suggest that elites were growing stronger and trying to consolidate their power centrally. If the movement was contemporary with EBA 3B, it would be associated with groups that tried to cluster in the wetlands to cope with the 4.2 ka BP crisis. So the interpretation would be completely different.

110 Şahoğlu 2005; Efe 2007; Massa and Palmisano 2018.

111 Türkteki 2015.

112 Erdal and Erdal 2012.

113 Massa 2014, 111, fig. 8; Bilgen et al. 2015, 150; Bilgen and Bilgen 2015, 83; Kuru 2016, 52.

114 Dedeoğlu 2010, 293-95, figs. 197, 202; Bachhuber 2015, 21, table 3; Massa and Şahoğlu 2015, 68, fig. 6.

115 Bachhuber 2015, 148-49; Massa and Şahoğlu 2015.

The main reason why such a determination is difficult at this stage is that the investigations are based on survey results where surface collections do not allow such strict dating. The absence of an excavated key settlement with a continuous EBA 3 stratification from the surveys of both the Konya plain and the Denizli plain makes it more difficult to date the surface materials.

Laodikeia-Kandilkırı is important in terms of providing an example of a rather small-scale settlement (c. 0.2 ha in level 2) that survived throughout EBA 2 and 3. No central building, fortification, monumental architecture, accumulation of prestige objects, exotic goods, among others, have been encountered in Kandilkırı EBA 3A layers until today. However, in pits and domestic contexts, large quantities of wheel-made plates were unearthed. Surprisingly, a new technology such as a potter's wheel, which must have been transferred via the "Anatolian Trade Network," was adopted to this extent in this settlement. However, there is no evidence proving the existence of a large population or elites. This small-scale settlement might have had a specific function concerning the production or distribution of wheel-made ceramics on the trade network.

The situation in Kandilkırı is evidence that in the EBA 3A not only large-scale centers but some small-scale settlements were somehow included in the broad interaction network and survived. The 4.2 ka BP climate crisis must have affected western Anatolia.[116] In 2200 BC, Kandilkırı was abandoned either because it was no longer needed since the interregional network ceased due most likely to climate crisis or because environmental conditions made it uninhabitable. The Anatolian network, which had been interrupted at the EBA 3B phase, could not be reestablished until the following "Assyrian Trade Colonies Period." Although there are exceptions like Küllüoba, the settlements at EBA 3B levels seem to be the survivors of the crisis and candidates for future palace centers, as in the cases of Beycesultan, Acemhöyük and Kültepe.

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116 Bachhuber 2015, 181; Massa and Şahoğlu 2015.

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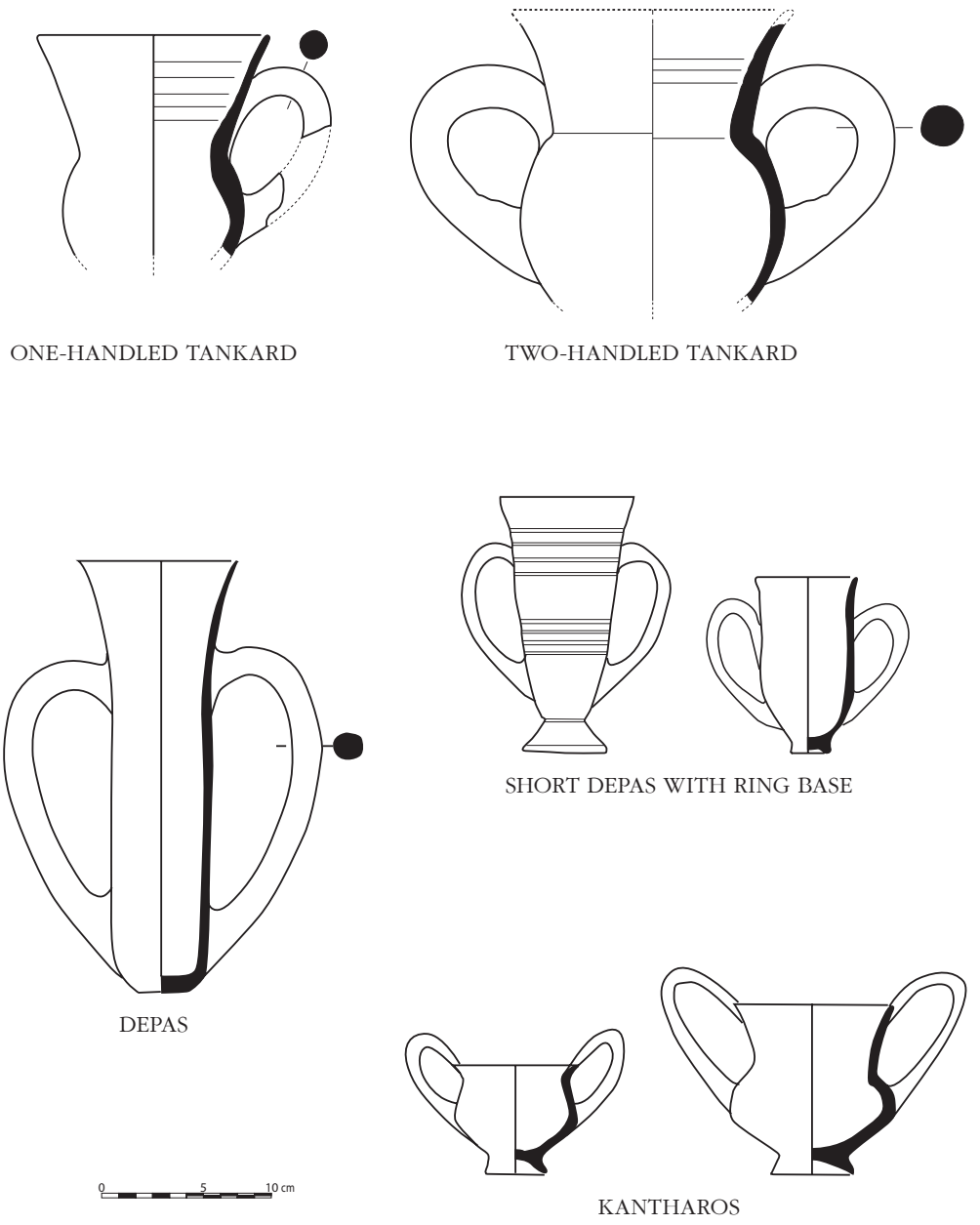


FIG. 1 Nomenclature of shapes used in the article (by the author).

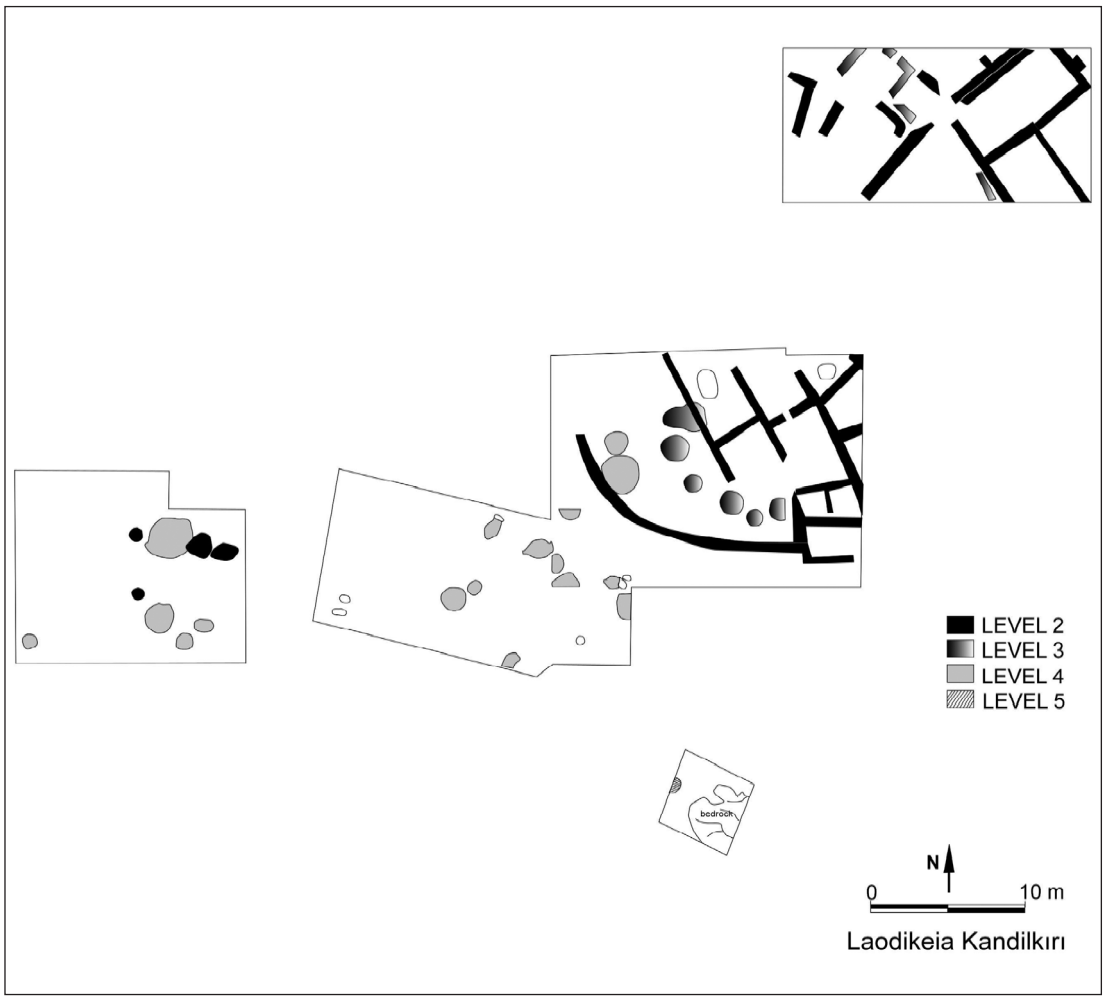


FIG. 2 Laodikeia-Kandilkırı settlement plan (by the author).

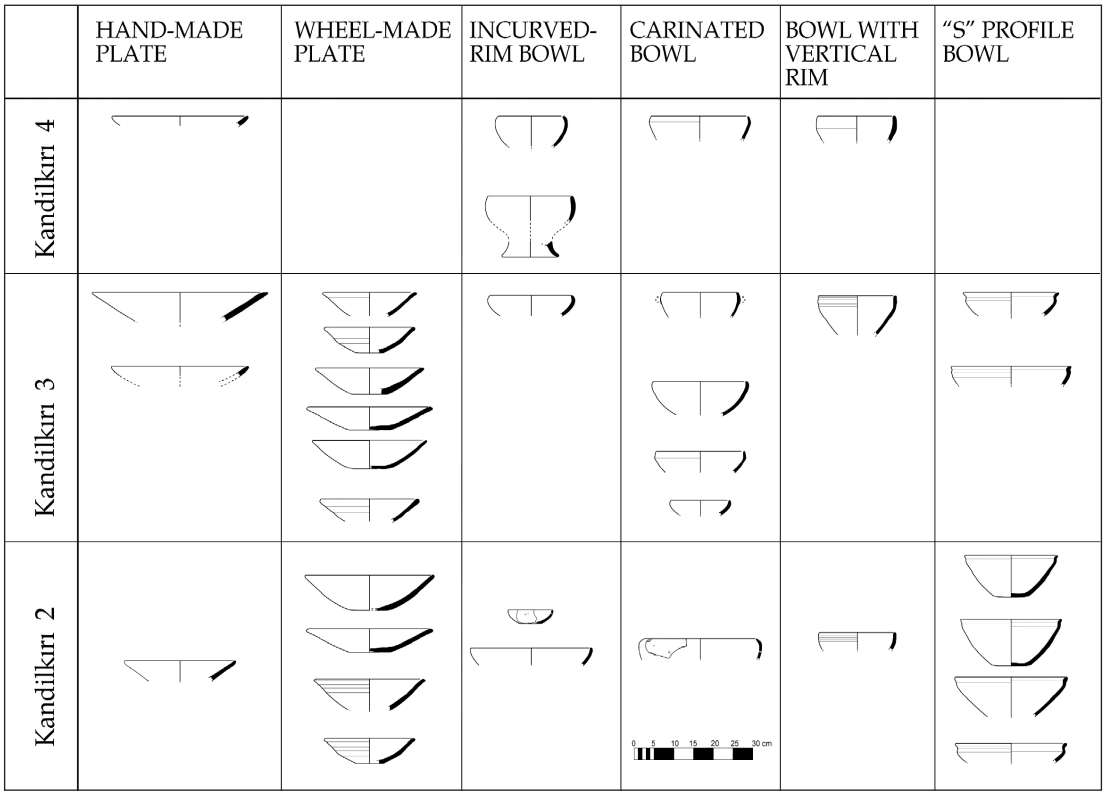


FIG. 3 Pottery of Laodikeia-Kandilkırı EBA levels, Part 1 (by the author).

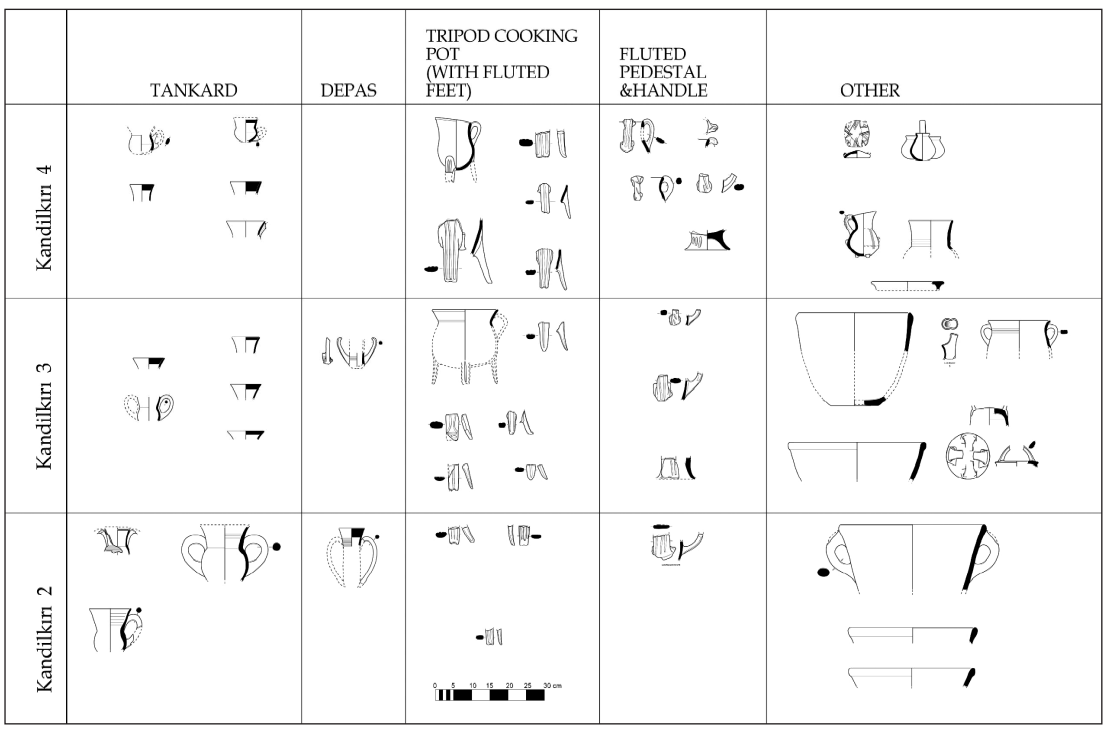
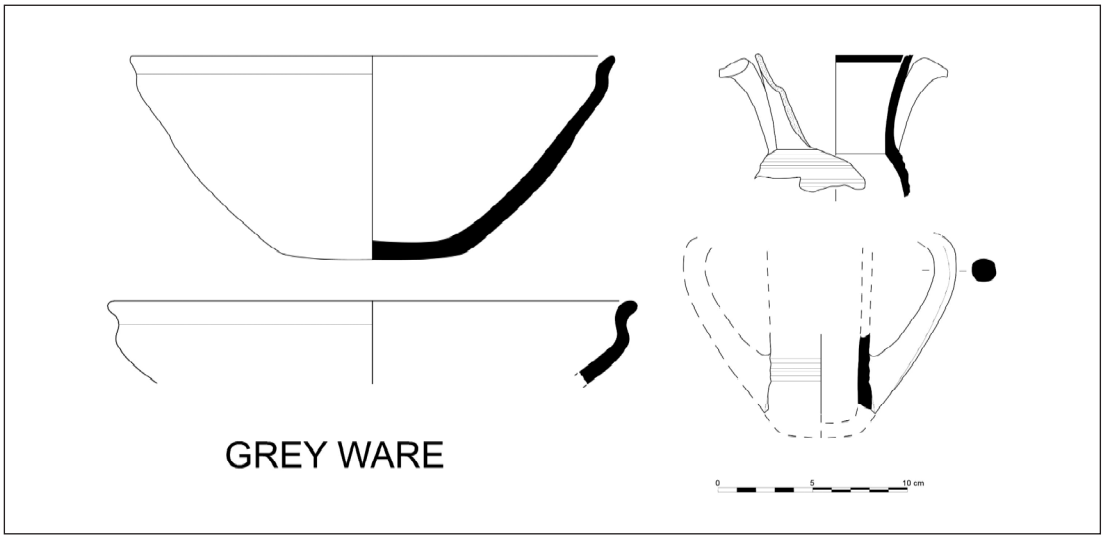


FIG. 4 Pottery of Laodikeia-Kandilkırı EBA levels, Part 2 (by the author).



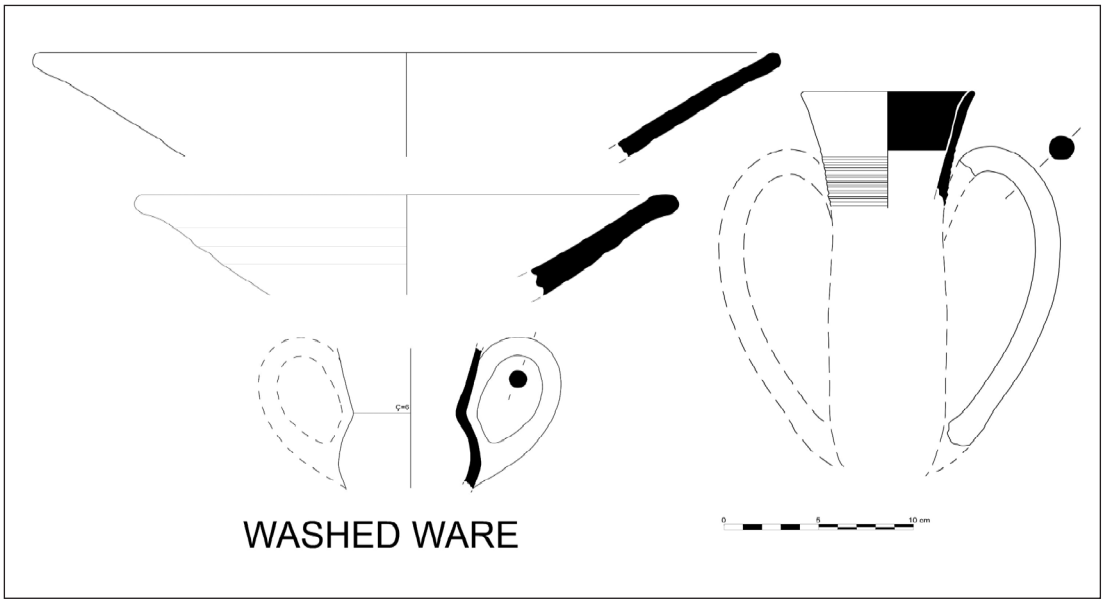


FIG. 5 Characteristic shapes of Kandilkırı Grey and Washed wares (by the author).