

İPEK KİRÖMEROĞLU

THE EVOLUTION AND ROLE OF ANTI-SPLASH RIM BOWLS

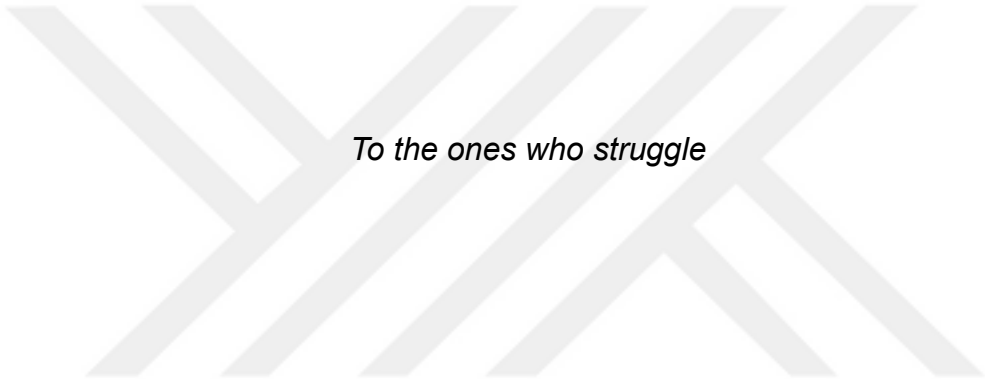
Bilkent University 2025

THE EVOLUTION AND ROLE OF ANTI-SPLASH RIM BOWLS IN THE LATE BRONZE AGE CERAMIC PRODUCTION

A Master's Thesis

by
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Ankara
March 2025



To the ones who struggle

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BRONZE AGE CERAMIC PRODUCTION

The Graduate School of Economics and Social Sciences
of
İhsan Doğramacı Bilkent University

by

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In Partial Fulfillment of the Requirements for the Degree
of MASTER OF ARTS IN ARCHAEOLOGY

THE DEPARTMENT OF
ARCHAEOLOGY
İHSAN DOĞRAMACI BİLKENT UNIVERSITY
ANKARA

March 2025

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CERAMIC PRODUCTION

By İpek Kırömeroğlu

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ABSTRACT

THE EVOLUTION AND ROLE OF ANTI-SPLASH RIM BOWLS IN THE LATE BRONZE AGE CERAMIC PRODUCTION

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This thesis investigates the Anti-Splash Rim Bowl (ASRB) within the broader framework of Late Bronze Age ceramic production. While previous studies have primarily examined ASRBs as a sub-group of North Central Anatolian (NCA) style pottery through the lens of Hittite imperial influence and standardization, this study aims to fill key gaps by exploring their origins, production techniques, and regional distribution, including potential Early Bronze Age precedents.

A multi-faceted analytical approach is employed, integrating technological typology, morphotypology, chronotypology, and quantitative methods. This methodology systematically assesses ASRBs across multiple sites, focusing on regional variations, production standardization, and contextual usage.

The findings indicate that while ASRBs exhibit uniformity at certain levels, however, significant variability exists in their fabric composition, production techniques, and spatial distribution, particularly between core and peripheral regions. Additionally, the study highlights the diversity of different regional production modes, suggesting that ASRBs were shaped by localized traditions rather than a strictly centralized system.

This research provides new insights into Late Bronze Age Anatolian pottery traditions by bridging ceramic analysis with broader socio-political and

economic contexts. It contributes to ongoing discussions on craft specialization, technological transmission, and imperial influence in ancient Anatolia.

Keywords: Ceramic Analysis, 2nd millennium BCE, Late Bronze Age, Pottery Production, Ceramic Standardization



ÖZET

GEÇ BRONZ ÇAĞI DÖKÜLMİYİ ENGELLEYEN AĞIZLI KÂSELERİN GELİŞİMİ VE SERAMİK ÜRETİMİNDEKİ ROLÜ

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Bu tez, Geç Tunç Çağı seramik üretimi bağlamında Anti-Splash Rim Bowl (ASRB) formunu incelemektedir. Önceki çalışmalar, ASRB'leri genellikle Kuzey-Orta Anadolu (NCA) tarzı seramiklerin bir alt grubu olarak ele almış ve Hitit imparatorluk etkisi ve standardizasyon çerçevesinde değerlendirmiştir. Ancak bu çalışma, ASRB'lerin kökenlerini, üretim tekniklerini ve bölgesel dağılımını inceleyerek, özellikle Erken Tunç Çağı'na kadar uzanabilecek olası erken örnekleri de göz önünde bulundurarak mevcut araştırmalardaki önemli boşlukları doldurmayı amaçlamaktadır.

Çalışmada, teknolojik tipoloji, morfotipoloji, kronotipoloji ve kantitatif analizleri içeren çok yönlü bir analitik yaklaşım benimsenmiştir. Bu yöntem, farklı bölgelerdeki ASRB örneklerini sistematik olarak değerlendirerek, bölgesel farklılıkları, üretim standardizasyonunu ve kullanım bağamlarını anlamayı hedeflemektedir.

Bulgular, ASRB'lerin belirli seviyelerde benzerlik gösterdiğini, ancak özellikle merkez ve çevre bölgeler arasındaki seramik mal grupları, üretim teknikleri ve mekânsal dağılım açısından önemli değişkenlikler sergilediğini ortaya koymaktadır. Ayrıca, çalışmada tek tip bir üretim modelinin bulunmadığı vurgulanmış olup, ASRB'lerin katı bir merkezi sistemden ziyade yerel üretim gelenekleri tarafından şekillendiği önerilmektedir.

Bu araştırma, Geç Tunç Çağı Anadolu seramik gelenekleri üzerine seramik analizlerini daha geniş sosyo-politik ve ekonomik bağlamlarla ilişkilendirerek yeni bakış açıları sunmaktadır. Çalışma, zanaatkârlık uzmanlaşması, teknolojik aktarım ve antik Anadolu'daki imparatorluk etkisi üzerine devam eden tartışmalara katkıda bulunmaktadır.

Anahtar Kelimeler: Seramik Analizi, M.Ö. 2. Binyıl, Geç Bronz Çağı, Seramik Üretimi, Seramik Standardizasyonu



ACKNOWLEDGEMENTS

This thesis is the culmination of an academic journey made possible by the support, guidance, and encouragement of many wonderful people.

First and foremost, I would like to express my deepest gratitude to Michele Massa. Without his unwavering guidance, patience, and understanding, writing this thesis would have undoubtedly been far more difficult. During my most challenging moments, when I found myself in his office overwhelmed with frustration and doubt, he always made the effort to be there for me and never stopped believing in me. His patience with my endless deadline extensions and his invaluable insights throughout this process have been truly precious. I am immensely grateful for everything I have learned from him.

I would also like to sincerely thank Müge Durusu Tanrıöver, who introduced me to this thesis topic, encouraged me to build a strong foundation in pottery studies, and allowed me to study the PLAS materials. Her support and mentorship have been invaluable in shaping my academic path.

I would also like to thank Ömür Harmanşah for granting me access to the YYALRP materials and for kindly sharing the associated data, which contributed significantly to the development of this thesis.

Additionally, I am grateful to Alvis Matessi for offering different perspectives on my research and for his insightful conversations in the Bilkent Archaeology Department's ceramic depot.

I am grateful to Thomas Zimmermann for always assisting me whenever I visited his office to borrow sources from his library.

My heartfelt thanks also go to Göksu Kolaylı—without our countless conversations in the graduate office and during coffee breaks, I cannot imagine how I would have made it through my time at Bilkent.

I am also deeply grateful to my dear friend Uğur Tanrıverdi, with whom I had endless discussions about the LBA and exchanged countless ideas throughout my final year at Bilkent.

My sincere thanks go to my Best'e, who has been a constant source of inspiration and support, always standing by my side in difficult times. I am so lucky to have a sister like you.

My dearest partner, Berk, words cannot fully express how thankful I am for you. You have stood by my side for the past eight years through my highest and lowest moments. I am deeply grateful for the way you comforted me during my panic attacks throughout this thesis process, for holding my hand, and for always believing in me. I'm so lucky to have you—I love you.

Finally, I am deeply grateful to my dearest parents for their unconditional love, for supporting my decision to pursue archaeology from the very beginning, and for standing by me through every step of this journey. Knowing that you have always been there for me has been my greatest source of strength.

I am forever grateful to each and every one of you.

TABLE OF CONTENTS

ABSTRACT	iii
ACKNOWLEDGEMENTS	vii
TABLE OF CONTENTS.....	ix
LIST OF TABLES	xii
LIST OF FIGURES	xv
ABBREVIATIONS	xix
CHAPTER 1: INTRODUCTION	1
1.1 Definition of ASRB	2
1.2 State of the Art.....	4
1.2.1 Origins and Characteristics of Plain Pottery.....	4
1.2.2 Standardization in Pottery Production	7
1.2.3 Standardization of Pottery Production in the LBA.....	9
1.3 Thesis Data.....	13
1.4 Research Questions and Objectives.....	14
1.5 Thesis Structure.....	16
CHAPTER 2: METHODOLOGY OF CERAMIC ANALYSIS	17
2.1 Nature of Data	17
2.1.1 Selection of Ceramic Samples	18
2.2 Typology	20
2.2.1 Technological Typology.....	20
2.2.1.1 Terminology and Methodology for Fabric Categorization	21

2.2.1.2 Surface Treatments	30
2.2.3 Categorization of Morphotypological Groups.....	33
2.2.4 Chronotypology	35
2.3 Quantitative Analysis	36
2.4 Contextual Analysis	37
CHAPTER 3: CERAMIC ANALYSIS	39
3.1 Fabric Categorization.....	39
3.1.1 Medium Fabrics	39
3.1.2 Fine Fabrics.....	42
3.1.3 Coarse Fabrics	45
3.1.4 Concluding Remarks on Fabric Categorization	45
3.2 Surface Treatments	48
3.2.1 Non-Slipped Wares (NSW).....	49
3.2.2 Red Slipped Wares (RSW).....	51
3.2.3 White Slipped Wares (WSW)	59
3.2.4 Brown Slipped Wares (BSW)	62
3.2.4 Concluding Remarks on Surface Treatments.....	63
3.3 Morphotypological Analysis	65
3.3.1 Shallow Bowls (SBO)	65
3.3.1.1 Straight Shallow Bowls (SSBO).....	67
3.3.1.2 Hemispherical Shallow Bowls (HSBO)	71
3.3.2 Capacity Analysis	72
3.3.3 Concluding Remarks on Morphotypology.....	74
3.4 Chronotypology.....	74
3.4.1 EBA	75
3.4.2 MBA.....	75
3.4.3 LBA.....	76

3.4.4 Concluding Remarks on Chronotypology	77
3.5 Contextual Analysis	79
3.5.1 Küllüoba	79
3.5.2 Tell Atchana/Alalakh.....	81
3.5.3 Arslantepe	81
3.5.4 Beycesultan.....	89
3.5.5 Gordion.....	90
3.5.6 Hattusa	91
3.5.7 Concluding Remarks on Context Analysis.....	92
CHAPTER 4: DISCUSSION	94
4.1 The Production of ASRB	94
4.2 Standardization of ASRB	96
4.3 Origin of ASRB.....	98
4.4 The Function of ASRB	99
4.5 ASRB and Its Relation to the Hittite State	101
CHAPTER 5: CONCLUSION	104
5.1 Key Contributions of the Study	104
5.2 Strengths and Limitations of the Study	105
5.3 Future Research Directions	106
REFERENCES	107
APPENDICES	
A. TABLES	114
B. FIGURES	135
C. TYPOLOGICAL COMPARANDA.....	145
CATALOGUE FIGURES	153

LIST OF TABLES

Table 1: Criteria established for the analysis of thesis material and their functions.	20
Table 2: Typological framework used in this study, categorizing ceramics based on technological attributes, morphological characteristics, and chronotypological distribution.....	21
Table 3: The criteria established for ceramic inclusions, detailing their characteristics, functional effects on pottery, and relevant scholarly sources.	23
Table 4: General categories created for inclusion criteria. Porosity and density levels are provided as ratios based on a visual comparison chart from Quinn (2022: 100, figure 4.9).	24
Table 5: Criteria for ceramic hardness levels based on firing temperature, scratch resistance, and fracture characteristics, illustrating the relationship between thermal treatment and material durability.....	25
Table 6: Color variations observed on the cross-section resulted in different oxidation processes.	28
Table 7: Main fabric groups established for the this study based on inclusion size, density, porosity, and distribution, highlighting their structural differences and relevance to this study.....	29
Table 8: Classification of surface treatments, distinguishing between non-slipped vessels and those with slip coatings that may involve additional finishing techniques.	30
Table 9: The scope of the chronotypological analysis, showing which settlements were examined for each archaeological period (EBA, MBA, LBA). KÜL (Küllüoba); GOR (Gordion); BEY (Beycesultan); KON-KAR (Konya-Karahöyük); KİL (Kilisetepe); TAR (Tarsus-Gözlükule); KİN (Kinet Höyük);	

T.ATCH (Tell Atchana/Alalakh); HAT (Hattusa); KUS (Kuşaklı-Sarissa); ACEM (Acemhöyük); KÜLT (Kültepe); ARS (Arslantepe); KOR (Korucutepe).	35
Table 10: The methodological steps for contextual analysis, detailing the process of identifying excavation contexts, settlement areas, building functions, spatial distribution, and associated artifacts to interpret ceramic use.	38
Table 11: Comparison of medium fabric characteristics of ceramic samples from different surveys, highlighting variations in inclusion types while maintaining similarities in density, porosity, hardness, and firing conditions.	40
Table 12: Comparison of medium fabric characteristics of ceramic samples from different surveys, highlighting variations in inclusion types while maintaining similarities in density, porosity, hardness, and firing conditions.	43
Table 13: Bar chart showing the percentage distribution of main fabric groups.	45
Table 14: Pie Chart showing frequency of fabric sub-groups among PLAS assemblages.	46
Table 15: Pie Chart showing frequency of fabric sub-groups among KRASP assemblages.	47
Table 16: Bar chart showing the distribution percentages of main oxidation levels among three survey projects. The percentage values for each survey calculated according to: PLAS (S#n.89), KRASP (S#n.66), YYALRP (S#n.40).	48
Table 17: Description of PLASS BSW variations.	62
Table 18: Pie chart showing the distribution percentages of ware groups in PLAS assemblages.	64
Table 20: Pie chart showing the distribution percentages of ware groups in YYALRP assemblages.	64
Table 21: Table showing the descriptions, average, largest and smallest diameter values of SSBO and HSBO typological classes.	66

Table 22: Bar chart showing percentage distribution of SBO classes by survey projects and total sherd percentage.	66
Table 23: Table showing the descriptions, average, largest and smallest diameter values of SSBO types.	68
Table 24: Bar chart showing percentage distribution of SSBO types by survey projects and total sherd percentage.	68
Table 25: Bar chart showing percentage distribution of LSSBO types by survey projects and total sherd percentage.	69
Table 26: Table showing the descriptions, average, largest and smallest diameter values of HSBO types.	71
Table 27: Bar chart showing percentage distribution of HSBO types by survey projects and total sherd percentage.	72
Table 28: Average diameter variations of HSBO types for each survey project.	72
Table 29: Table showing contexts examined for the contextual analysis.	80

LIST OF FIGURES

Figure 1: Map showing the locations of the survey projects analyzed in this thesis, along with other Anatolian sites referenced throughout the study.	15
Figure 2: Catalogue form for the recording of each ceramic sherd.	19
Figure 3: Table showing the color variation observed on the cross-sections with corresponding firing circumstances (oxidation/neutral/insufficient oxidation). From light shades (oxidation) to darker shades (insufficient oxidation) (Schachner, 2017: 91)	26
Figure 4: Schematic of ceramic cross-sections showing varying oxidation and reduction patterns, including fully oxidized, partially oxidized, and secondarily reduced cores and edges (Schachner, 2017: 93).	27
Figure 5: Exemplary cross-section picture of fine fabric.....	28
Figure 6: Exemplary cross-section picture of medium fabric.....	29
Figure 7: Example of wet smoothing with fingers (Roux, 2019: 197, Fig.3.52).	31
Figure 8: Example of burnishing, shiny parallel facets or stripes can be seen through the light reflection in the picture (Roux, 2019: 149, Fig. 3.14).....	32
Figure 9: Example of a slipped surface using a cloth, characterized by floating grains and marks similar to smoothing (Roux, 2019: 203).	33
Figure 10: Criteria for bowl and plate classifications created according to Ökse (2012: 88, Figure 49). Although the first two forms are classified as plates, the second form has a deeper structure and a smaller rim diameter compared to a typical plate; therefore, it is considered a bowl in this thesis.	34
Figure 11: Distribution of fabric groups among KRASP sites, the largest settlements (Sırçalı Höyük and Türkmen-Karahöyük) show more variation within fabric groups of ASRB.....	48
Figure 12: PLAS Non-Slipped Ware example.	49
Figure 13: KRASP Non-Slipped Ware Example.....	50

Figure 14: Example of NSW with burnish marks from KRASP; burnish marks can be distinguished by their luster and parallel light reflections compared to the unburnished parts of the sherd.	51
Figure 15: RS-RBW example from KRASP. Wide brush marks resulting in lighter red slip color around the rim.	52
Figure 16: RS-RBW example from KRASP. Brush marks indicate that slip applied densely.	53
Figure 17: RS-RBW example from KRASP. Slip extends below the external rim (right) and sharply ends by the beginning of the internal rim (left).	54
Figure 18: RS-RBW example from KRASP. Red Slip sharply ends at the internal rim tip. Brown slip on the external surface with burnish marks (left); matte pinkish slip on the internal surface (right).	54
Figure 19: Example of SS-RSW from PLAS. On the left, external tip of the rim is defined by a black line.	55
Figure 20: Example of SS-RSW from PLAS. On the left, the extending point of the red slip can be seen.	56
Figure 21: Example of SS-RSW from KRASP. Internal surfaces are slipped in lighter slips. Red slip sharply ends at the internal rim tip (above).	56
Figure 22: Example of SS-RSW from KRASP. Red slip application as a first layer can be seen by the pointed area.	57
Figure 23: Examples of FS-RSW from KRASP. Red slip applications on both sides, upper left and right is done with brushing; lower left and right are not determined, it might be both applied with a brush or dipped into slip, coverage is high. Burnish marks visible on both examples.	58
Figure 24: Example of FS-RSW from KRASP. Brush marks is more visible, creating a contrast with the natural color of the vessel appearing beneath..	59
Figure 25: Example of WSW from PLAS.	60
Figure 26: Examples of cream-Slip from KRASP. Upper right and left are burnished examples. Lower right and left are matt examples.	61
Figure 27: BSW example from PLAS.	62

Table 19: Pie chart showing the distribution percentages of ware groups in KRASP assemblages.....	64
Table 20: Pie chart showing the distribution percentages of ware groups in YYALRP assemblages.	64
Figure 28: Disribution of main typological classes of ASRB from the survey regions and from a select set of sites across Anatolia.	67
Figure 29: Chart showing the dimeter variation of the ASRB types. Red= PLAS, Yellow=KRASP, Blue=YYALP. S#n.159	70
Figure 30: Chart showing the volume variation of ASRB types. Red= PLAS, Yellow=KRASP, S#n.154. X indicates the average volume values, while dots indicates individual variation for each type within surveys.	73
Figure 31: EBA examples of ASRB (upper section) and LBA thesis samples. The EBA examples closer to SSBO1 and SSBO5.	77
Figure 32: EBA examples of ASRB (upper section) and LBA thesis samples. The EBA examples closer to SSBO2 and SSBO4.	78
Figure 33: EBA examples of ASRB (upper section) and LBA thesis samples. The EBA examples closer to SSBO6/HSBO3.	79
Figure 34: The level Vd gate-system with markings of in-situ materials (Manuelli, 2013: 42).	82
Figure 35: Arslantepe, sectors A66 (left) and A67 (right) with in-situ materials (Manuelli, 2013: 46).	82
Figure 36: Arslantepe, the sunk-houses into gate-system rampart, with in-situ artifacts; the earthen rampart can be seen on the right (Manuelli, 2013: 45).	83
Figure 37: Arslantepe, sectors A62, A1029, A1030 and A1031 with markings of in-situ materials (Manuelli, 2013: 53).	84
Figure 38: Arslantepe, sector A62 and westward the room named A1029 (Manuelli, 2013: 54).	85
Figure 39: Arslantepe, plan of sectors A53-A54-A55-A56 with location markings of in-situ materials (Manuelli, 2013: 55).	86

Figure 40: Arslantepe, sectors A53 and A54. a: A54 with in-situ materials. b: A53 with in-situ materials (Manuelli, 2013: 56).....	87
Figure 41: Arslantepe, photograph showing sector A257 with in situ findings and sector A250 (Manuelli, 2013: 60).	88
Figure 42: Arslantepe, plan of section. A257 with markings of in-situ materials (Manuelli, 2013: 61).....	88
Figure 43: Arslantepe, sectors A140 and A141 (Manuelli, 2013: 58).....	89
Figure 44: Gordion, Museum cite cemetery cut, section R. Burial H50 (Gunter, 1991: Plate 6, Figure B).Figure 44: Gordion, Museum cite cemetery cut, section R. Burial H50 (Gunter, 1991: Plate 6, Figure B).	90
.....	91
Figure 45: Gordion, Museum cite cemetery cut, section R. Burial H50 (Gunter, 1991: Plate 6, Figure C).	91
Figure 46: Ceramic inventory of Room 6 (Schacher, 2017: 78).	92

ABBREVIATIONS

ASRB	Anti-splash rim bowl
BSW	Brown slipped ware
EBA	Early Bronze Age
FS-RSW	Full-surface red slipped ware
HSBO	Hemispherical shallow bowl
LBA	Late Bronze Age
LSSBO	Large straight shallow bowl
MBA	Middle Bronze Age
NCA	North-Central-Anatolian
NSW	Non-slipped ware
RS-RBW	Red slip rim-banded ware
RSW	Red slipped ware
SBO	Shallow Bowl
SSBO	Straight shallow bowl
SS-RSW	Single-Surface Red Slipped Ware
WSW	White slipped ware

CHAPTER 1

INTRODUCTION

Pottery analysis is a fundamental aspect of archaeological research, particularly in understanding ancient societies' cultural, economic, and social frameworks. Its durability and abundance in excavations provide insights into daily life, trade, artistic styles, and technology. The way pottery is produced, where, when, and how it is used all define how ancient people assigned meaning to it and shaped their activities. However, pottery studies require extensive research, including typology, chronology, production techniques, surface treatments, firing methods, residue, and fabric analysis. Each criterion employs specific methodologies, contributing unique insights into ancient ceramic traditions. This thesis fits this broader framework by employing fabric analysis, chronotypology, technological typology, and contextual analysis to shed light on a specific Late Bronze Age (1700–1200 BCE) ceramics category.

Studies on the production and distribution patterns of ceramics in the Late Bronze Age primarily focus on examining the impact of Hittite administration on pottery production. One of the primary Late Bronze Age ceramic traditions known as *North-Central-Anatolian Style Pottery* (NCA) received significant attention in Near Eastern archaeology academic studies (Glatz, 2015 - Chapter 8: 185; Horowitz, 2015: 157; Mielke, 2017). Characterized by undecorated, monochrome, and standardized vessel forms, the NCA pottery assemblage features vessels with consistent clay fabric, surface treatments, and shapes, often interpreted as a marker of centralized mass production and a footprint of Hittite imperial administration (Gates, 2001: 141, Gates 2006, 308; Glatz, 2015- Chapter 8: 184-85; Glatz, 2020: 245)

The thesis focuses on a subset of the NCA pottery tradition, commonly referred to as the anti-splash rim bowl (ASRB). ASRB, characterized by its internally thickened rim, is a significant chronological marker for the Late Bronze Age central Anatolian sites. Previous works date the earliest presence of ASRBs in Anatolia to the 18th century BCE, with their continuous use extending until the end of the Late Bronze Age (ca. 1180 BCE) (Mielke, 2006: 107–108; Schoop, 2008: 47; Schoop, 2011: 244–245; Süssenguth, 2024: 153). Scholars associate their large-scale production with their utilitarian function as tableware, indicating their role in everyday domestic activities (Müller-Karpe, 1988: 106; Mielke, 2006: 107–108).

Studying ASRBs is significant for several reasons. These vessels provide valuable insights into Late Bronze Age pottery production and distribution networks and the standardization of vessel forms in central Anatolia. Their widespread presence further indicates possible shifts or continuity in dining habits, food consumption practices, and broader aspects of social organization. By analyzing fabric composition, production techniques, and contextual associations, this thesis contributes to wider discussions on ceramic specialization, interregional interactions, and the socio-economic structures of Late Bronze Age pottery production in the western periphery of the Hittite state.

1.1 Definition of ASRB

Within the NCA plain pottery repertoire, the so-called anti-splash rim bowls (ASRB) (Schoop, 2011: 45) – also known as Schwappendschalen (Müller-Karpe, 1988: 106) or “shallow bowls with inverted rim” (Glatz, 2009: 130) – are a type of open vessel characterized by their internally thickened rims, which are thought to help prevent spillage. Considered one of the most widespread vessel forms in the Late Bronze Age, they are commonly found in central Anatolia. Due to its plain appearance, distinctive rim form, and widespread presence in central Anatolia, this typological category is considered a 'Hittite' feature of standardized production (Postgate, 2007a: 142). Since ASRB is considered a subgroup of NCA plain pottery, the presence of this specific vessel type has been interpreted as an important

analytical category to see the variation between the periphery and center sites under Hittite control (Durusu-Tanrıöver, 2016: 35).

Scholars usually date the earliest appearance of ASRB to the 18th century BCE (MBA) (Mielke, 2006: 107–108; Schoop, 2008: 47; Schoop, 2011: 244–245; Süssenguth, 2024: 15). However, Glatz (2015 - Chapter 8: 197) associates the emergence of bowls with the beginning of the Late Bronze Age and limits their prevalence to the north-central Anatolian plateau (Glatz, 2009: 130), Müller-Karpe (2002: 260–261) and Mielke (2006: 107–108) suggests they "became" the popular vessel form starting from the Late Bronze Age.

The internal thickening on the rim is usually thought to prevent spillage of liquid or semi-liquid contents inside the vessel (Glatz, 2015-Chapter 8: 197–198; Müller-Karpe, 2002: 260–261; Müller-Karpe 1988: 106–13; Süssenguth, 2024, 152). The average diameters of this bowl type typically measured between 20–28 cm, suitable for individual use. The consensus regarding the large-scale production of this bowl form is that they were a common household item for everyday use as consumption or serving vessels (tableware) (Mielke, 2006: 107–108). While both Mielke (2006: 107–108 and Glatz (2015 - Chapter 8: 197–198) agree that these bowls were particularly well-suited for the consumption of soup-like dishes, Glatz (2015 - Chapter 8: 197) additionally highlights that their large-scale production was not solely for daily use but also intended for use in communal feasts, such as Hittite festivals.

The most suitable method for examining the distribution of ASRB forms in Anatolia is analyzing published drawings. This approach is necessary because there is no standardized term for ASRB in archaeological terminology, and the typological and functional classifications used in various academic studies often do not align. Even when the same terminology is used, new subtypes are continually introduced. For instance, Schachner (2017), Mühlenbruch (2014), and Mielke (2006) attempt to follow Müller-Karpe's (1988) typology of shallow bowls, classified a "S-type bowls," in Kuşaklı, Kayalıpınar, and Hattusa. However, subjective interpretations and

the ongoing introduction of new subgroups complicate the classification process. Additionally, this thesis includes ASRB bowls that are not classified within Schoop and Müller-Karpe's typologies but that, in my view, still belong to the ASRB category. For example, Schoop's (2011: 244 - fig.1/C) anti-splash bowl has a more wedge-like, upward-pointing rim, while Müller-Karpe's (1988: Tafel 34-37) S5 Schwapprandschalen also features an upward-pointing rim, although in more rounded and pronounced versions. Furthermore, their studies only consider ASRBs with straight or slightly conical wall profiles, whereas this thesis includes hemispherical bowls, as they exhibit key characteristics of ASRB.

1.2 State of the Art

This section summarizes key concepts of scholarly discussions on the origins and development of pottery traditions in Anatolia, between the mid-3rd and late 2nd millennia BCE. It focuses on the emergence and evolution of plain pottery and its integration into sociopolitical and economic contexts.

Beginning with the introduction of the potter's wheel in the Early Bronze Age, it examines how technological innovations and cultural exchanges shaped the course of plain pottery tradition. It further explores the standardization of plain pottery during the Late Bronze Age and its potential links to Hittite administration, particularly in relation to production control, resource distribution, and economic regulation.

1.2.1 Origins and Characteristics of Plain Pottery

Plain pottery is often defined by its undecorated and unslipped appearance, featuring simple, utilitarian shapes designed for functionality (Glatz, 2015 - Chapter 1: 24, Schoop, 2011: 243). Although surface treatments are minimal—often limited to basic smoothing and occasional burnishing to refine the vessel's texture—examining these treatments is significant for identifying regional variations in plain pottery. Due to vessel forms' long-lived and repetitive nature, plain pottery is considered a poor chronological marker (Manuelli, 2013: 324; Schoop, 2006: 216; 2009:146). Specifically for the Late Bronze Age examples, scholars use different terminologies to describe plain pottery, including "drab ware" (Goldman, 1956: 203), "standard ware" (Müller-

Karpe, 1988:17), and "monochrome ware" (Garstang, 1953; 241; Goldman, 1956: 184-185).

Plain pottery dates back to the 5th millennium BCE in the Near East (Glatz, 2015 - Chapter 1: 13; Roux and Courty, 1998: 748; Simpson, 1997). The earliest potter's wheel, the *tournette* or turntable, was a rotating disc on a fixed socket (Roux, 2019: 49; Türkteki, 2013: 193). Emerging in the Ubaid 3/4 periods, this technology is considered a key factor in the mass production and uniformity of plain pottery during the Late Uruk Period (4th millennium BCE) (see section 1.4.2) (Türkteki, 2013: 193).

The introduction of the potter's wheel was instrumental in the emergence of plain and standardized ceramic production in Anatolia. Mielke (2017: 122) describes it as a gradual and regionally diverse process: the technological knowledge of the potter's wheel first emerged around 2400 BCE on the central Anatolian plateau, likely originating from Cilicia, where wheel-made pottery had already been produced for over a millennium. This innovation then spread to northwestern Anatolia and later reached the Aegean basin (Massa, 2016: 146; Mielke, 2017: 123; Türkteki, 2013: 193).

Throughout the late EBA, the main wheelmade shapes across west and central Anatolia are restricted to tableware (plates, bowls, drinking and pouring vessels). Most of the vessel shapes were produced with a combination of hand-made and wheel-made techniques (Türkteki, 2013: 195). The only fully wheel-thrown examples were open vessels with small diameters and simple profiles since larger vessels were not suitable to be built on a *tournette* (Mielke, 2017: 123; Massa, 2016: 148).

The introduction of the potter's wheel likely led to a gradual shift from household production to specialists, as it required specialized skills and long-term training (Schoop 2011: 264; Roux and Corbetta 1989; Roux, 2015). Similarly, Massa (2016: 155) argues that the consumption of EBA wheelmade pottery may have resulted from elite demand, which specialized but independent potters met. He supports this claim by highlighting the parallel emergence of locally produced wheel-made pottery and the

development of stratified societies in Anatolia around 2400 BCE (Massa, 2016: 155).

By the earliest 2nd millennium BCE, wheel-made pottery became dominant in the assemblages of Middle Bronze Age urban centers such as Kultepe, Alişar Höyük, and Hattusa (Fischer, 1963; Neve and Bittel, 1984), and NCA pottery from the mid-2nd millennium BCE is typically characterized as being wheel-thrown (Schoop, 2011: 264). In particular, NCA pottery is often regarded as exhibiting increasing standardization and a narrowing of its repertoire regarding fabrics, surface treatments, and vessel forms (Glatz, 2015-Chapter 1: 16; Mielke, 2017: 130; Schoop, 2011).

It is suggested that the standardization of ceramics during this period resulted from their declining significance in elite display, evidenced by the disappearance of elaborate MBA vessels (Glatz, 2015-Chapter 8: 185; Mielke, 2017: 126; Schoop, 2011: 267-268). The prevailing scholarly interpretation is that, following the rise of Hittite imperial power in Anatolia, plain pottery became a mass production. It was manufactured not only in centers but also in the periphery, serving as a sign of cultural homogenization (Garstang, 1953: 141–42; Gates, 2001: 141; Glatz, 2015-Chapter 8: 184–85; Gunter, 2006: 360–61; Goldman, 1956: 350; Henrickson, 1995: 97; Macqueen, 1986: 105; Mielke, 2006: 172–74; Müller-Karpe, 2002: 257; Schoop, 2009: 218; 2011: 241; Postgate, 2007a). Based on these assumptions, the plain pottery tradition of the Late Bronze Age is commonly referred to as "Hittite" pottery. This label stems from the homogenization of pottery influenced by theories on imperial economic and administrative dynamics and Hittite text interpretations. (Glatz, 2009: 129).

Potters are mentioned in a limited number of Hittite texts, described as either "unfree" individuals bought by the palace or temple (Glatz, 2012: 32; Müller-Karpe, 1988: 152–154, 519) or as free individuals with agricultural lands granted by the Hittite state, whose income might not solely rely on pottery production (Baskın, 2022: 31; Müller-Karpe, 1988: 151, 159).

This shows that while some potters were associated with state institutions, others operated independently within the Hittite political sphere, aiding

cultural transmission without state control or homogenization. Glatz (2012: 33) suggests that the scarce references to potters in official texts may imply that pottery production was of low importance to state institutions, needing little management.

Despite its prevalence in Anatolia during the Middle and Late Bronze Ages, significant questions about its earlier origins and technological evolution remain underexplored in academic discussions. Schoop (2011: 267) argues that the perceived uniformity of "Hittite" ceramics may be overstated and calls for a robust archaeological methodology to establish regional ceramic sequences backed by evidence. He also emphasizes the importance of studying regional variations in NCA ceramics to understand how the Hittite core and periphery interacted with Hittite identity amid diverse local traditions (Schoop 2011: 268)

The limited textual evidence does not support bold conclusions based on "state-control" standardization, which can obscure regional pottery variations. Moreover, the label "Hittite" overlooks the influence of local agencies in cultural adoption. Glatz (2009: 130) suggests the term "north-central Anatolian" (NCA) for a more neutral identification of this material culture. Focusing solely on standardized norms for interpreting anti-splash rim bowls limits recognition of earlier cultural influences. At the same time, most studies concentrate on the degree of standardization within the NCA plainware tradition in Cilicia and eastern Anatolia, leaving the western periphery relatively unexplored.

1.2.2 Standardization in Pottery Production

Several researchers have hypothesized that goods mass-produced by specialists can be identified in the archaeological record through their high level of standardization (Feinman, Kowaleski & Blankman, 1984:299; Rice, 1981:220-221; Sinopoli, 1988: 586). Addressing the issue is essential for exploring the reasons behind the adoption of wheel-forming technologies, the structure of pottery production, and its links to central authorities.

According to Rice (1991: 268), "standardization" is the consistency in a product's characteristics and the effort to maintain it. Standardization may

also arise from the risk-avoiding or traditional preferences of craftspeople to minimize variability and maintain the quality of the end product (Rice, 1991:268). Blackman, Stein, and Vandiver (1993: 61) suggest that standardized vessel dimensions indicate large-scale production, while heterogeneity implies household-based or small-scale production. Feinman et al. (1984:299) emphasize that cost-effectiveness and efficiency drive standardization in production. Balfet (1965:170) links standardization to the repetitive nature of large-scale production processes.

The concept of standardization in this thesis extends beyond the physical characteristics of vessels, like shape and capacity, to include technological practices, *chaîne opératoire*, and raw material recipes in ceramic production. I argue that standardization is evident at every stage—from selecting and processing raw materials to shaping vessels and surface treatments. This process may stem from local preferences and heightened specialization in the craft rather than just state-run regulations. Standardized production demands consistent application of specific techniques and recipes, improving efficiency and reducing product variability. Thus, standardization is a comprehensive system controlling methods and materials, not just product characteristics.

A lot of research has extensively examined the relationship between standardization and craft specialization, particularly about shifts in production modes. A key aspect of this research explores how specialized potters contributed to the development of standardized practices over time (Orton & Hughes, 2013; Costin, 1991; Blackman, Stein & Vandiver, 1993).

Scholars view plain pottery assemblages in the Mediterranean and Near East as standardized products of large-scale production since 4th millennium BCE (Gates, 2001; Glatz, 2015-Chapter 1: 13; Pfälzner, 1995; Schoop, 2011). This standardization is linked to the potter's wheel and specialized production. However, it is important to note that standardization can also occur without wheel-made pottery, as seen in the Beveled Rim Bowls from Mesopotamia in the mid to late 4th millennium BCE, which were made using handmade and mold-made techniques (Millard, 1988; Nicholas, 1987; Potts, 2009). A

comparable case of mold-made pottery can be observed at Seyitömer Höyük, a significant Early Bronze Age settlement in western Anatolia. At Seyitömer's Pottery Workshop Complex (PWC), which dates to the EBA III Phase B period (ca. 2250–2200 BCE), archaeologists have identified pottery workshops, including spaces for clay preparation, molding, and firing (Harrison, 2016: 268–273), indicating that pottery production operated at a scale beyond the household level (Harrison, 2016: 162). Harrison notes that the abundant pottery assemblage at the site indicates the use of semi-spherical molds combined with routinized shaping techniques produced simple shapes, such as bowls and cups, and more complex forms, including jugs and spouted pitchers for the increased demand (Harrison, 2016: 274). In contrast, Kapuci's (2021: 296) study on EBA platters from Phases B and Phase A—which I interpret as bowls and plates—shows that most vessels were wheel-made, primarily in the plain ware category, with the rest being handmade. Additionally, based on my observation of Bilgen's (2021: 287) analysis on libation vessels such as double-necked and double-spouted jars and double plates from the same phases were exclusively produced using mold techniques. This pattern indicates that various production technologies for large-scale production may have been selectively applied at the site based on vessel shape and function, suggesting that standardization was not entirely dependent on wheel technology. On the other hand, I believe that the molding technology did not achieve the same degree of symmetry as the potter's wheel, and I consider this to be primarily because these molds were mostly handmade from fired clay or stone. Therefore, I argue that the potter's wheel and craft specialization significantly affected ceramic production standardization due to the increased skill levels and routinized processes among fewer specialized producers (Costin, 1991: 3; Türkteki, 2013, 193).

1.2.3 Standardization of Pottery Production in the LBA

The NCA plain pottery tradition, including the anti-splash rim bowl (ASRB), is frequently associated with the expansion of the Hittite state and is widely regarded as a product of its imperial influence. Existing scholarly models largely agree on this connection but differ in the factors they emphasize, attributing the standardization of these ceramics to varying social, political, or

economic mechanisms. This section will analyze these hypotheses regarding the standardization of plain pottery during the Late Bronze Age. Four prevalent models will be discussed to elucidate the mechanisms behind this process.

1. State-Controlled Production and Retail Model

In Late Bronze Age Anatolia, pre-firing pot marks are often found on NCA style pottery, and some authors interpreted them as a sign of direct Hittite control over local ceramic production, suggesting standardization in plainware. These marks are primarily found in central, southern, and southeastern Anatolia, encompassing the Hittite empire's political center and dependencies (Glatz, 2012:13).

Gates (2001) suggests that pre-firing pot marks on plain pottery indicate a production system managed by the Hittite state. In her model, these marks are functional signs to track individual potters' output within workshops, the workshop itself, or both, which were likely treated as separate economic units. Similarly, Griffin (1980) noted that postmarks identified different potters using a common kiln in Korucutepe. This system aimed to regulate pricing and taxation upon sale (Gates, 2001: 140–141).

While this hypothesis may seem logical initially, controlling the production, sale, and taxation of ceramics directly from the Hittite imperial center would have been challenging due to communication limitations. However, this could be feasible if regional administrators, appointed by the central authority, exercised control.

In addition to their commercial model, pot marks are often compared to Luwian hieroglyphs used by the Hittite state. These interpretations suggest that "Luwian" pot marks served a post-production purpose, indicating contents, volume, or purpose within a regulated system (Mielke, 2006; Müller-Karpe, 1988, 1998; Seidl, 1972). However, Glatz (2012: 6,12) questions this comparison since the use of Luwian hieroglyphic script, typically found on rock monuments or seals, and the application of similar signs across different typological categories, concluding that pot marks were not meant to convey any specific post-production message (Glatz, 2012: 24).

Glatz's (2012) analysis of Late Bronze Age Anatolian potmarks reveals macro-regional diversity in pot marking traditions, characterized by variations in frequency, signs, marking locations, and vessel types. This diversity reflects different organizational structures and production scales within "regional communities of practice," where potters influenced each other, showing localized adaptations of NCA pottery traditions beyond central Anatolia (Glatz, 2012: 34).

Glatz (2012) makes two key observations that I find significant. First, her analysis includes pot marks that predate the Hittite state's expansion, suggesting they did not originate in central Anatolia or spread with Hittite influence (Glatz, 2012:13). Second, if pot marks were used for centralized state supervision of production, most vessels would likely bear them¹ (Glatz, 2012:32).

To sum up, we can say that pot marks cannot be directly associated with the standardization of plain pottery production as there is a possibility of regional diversity between the marking traditions, organization of production, and scale.

2. State-Wide Relocation of Potters Model

This model explains the increasing standardization observed in the plain pottery assemblages of Norşuntepe and the north-central Anatolian plateau. Korbøl (1985, 117-120) attributes the increasing uniformity between the pottery assemblages of Norşuntepe and the north-central Anatolian plateau to the relocation of deportee populations, implemented as part of the Hittite imperial settlement policies, as supported by textual evidence². Korbøl's

¹ In Glatz's (2012: 13 – Table 2), 305 pot marks from 13 settlements were analyzed, with Hattusa having 59 and Kuşaklı 68. As part of the Hittite state, these sites would likely show centralized production based on common hypotheses, suggesting a higher number of pot marks. However, factors like excavation history and publication processes may have influenced the data resolution.

² Gerçek (2023, 105) mentions that in times of workforce shortages due to famines, plagues, and wars, the Hittite state addressed this issue by relocating deportees, granting them land and provisions, and integrating them as duty-performing subjects.

explanation appears to integrate political influences on this matter. This perspective suggests that political factors played a significant role in shaping pottery production practices.

In this model, integrating deportee populations into the workforce would require these groups to acquire a certain level of expertise in ceramic production to meet standardized norms (see the discussion on craft specialization in section 1.4.2). If the deportee population was substantial, integrating them into the production process would not be an efficient use of time and resources. Furthermore, interpretations of the limited textual evidence indicate that potters were sometimes relocated to other cities based on demand (Karacic, 2014: 250; CTH 292; Müller-Karpe, 1988: 151; Postgate, 2007), indicating the mobility of skilled artisans. This mobility of skilled artisans suggests that relying on deportee populations for ceramic production may not have been advantageous.

3. *Hittite Administrative Officials Model*

This model proposed by Müller (2005, 112) and Postgate (2007a: 145) highlights the role of Hittite officials stationed in territories under central authority. These officials are suggested to have played a key role in reorganizing regional ceramic production, standardizing pottery traditions, and aligning them with the practices of the north-central Anatolian plateau. From this perspective, the Hittite controls the production of plain pottery to maintain the interregional homogeneity within “Hittite” pottery (Müller-Karpe, 2002: 256).

However, the model emphasizes administrative oversight but struggles to account for standardized ceramic production in regions with differing local traditions. For example, Karacic (250-251) notes that LB IIA architecture in Tarsus-Gözlükule indicates the existence of an imperial administration that might have relocated potters from Central Anatolia to Cilicia. Similarly, Postgate (2007a) argues that this relocation policy clarifies the prevalence of NCA plain pottery at Kilise Tepe. However, Karacic (2014: 251) points out that the coexistence of pre-Hittite Cilician pottery traditions with NCA styles indicates that not all potters were brought in, allowing local traditions to

persist. On the other hand, both Postgate's (2007a) and Karacic's (2014) hypotheses are not supported by direct archaeological or textual evidence, making them largely speculative.

I argue that while the model assumes strong Hittite oversight, it underestimates the influence of local potters and communities in ceramic production. Adopting standardization could be seen as a pragmatic adaptation by local potters to meet broader trade or cultural demands rather than direct Hittite enforcement. This reorients the narrative from imperial control to local agency.

4. Communal Feasting Model

Excavations at central Anatolian sites have primarily concentrated on official structures. Thus, studies on NCA pottery (Mühlenbruch, 2014; Müller-Karpe, 1988; Parzinger and Sanz, 1992; Schachner, 2017; Mielke, 2006; Arnhold, 2009; Schoop, 2009) often center on contexts like palaces, temples, and other state-related buildings where plain pottery may serve socially significant functions, as suggested by its abundance in these settings.

These festivities included rituals led by the king and queen, libations, and communal feasting (Beckman, 1983; Hazenboos, 2003). Ration lists indicate substantial food and drink allocations for these festivals (Singer 1983). At the same time, cult inventories detail the types of food needed, including pastries, soups, alcoholic beverages, fruits, and meats from sacrificed animals. Glatz (2015-Chapter 8: 204) contends that the presence of NCA plain pottery beyond Central Anatolia stems from cultural practices like feasting rather than Hittite imperial policies on pottery production. Manuelli (2013, 318) and Karacic (2014, 251) supports this by linking the abundance of plain pottery at Arslantepe and Tarsus-Gözlükule to heightened demand during religious events. I concur with Glatz that standardizing plain pottery may reflect cultural and daily needs independent of state policies.

1.3 Thesis Data

This thesis integrates ceramic data from three archaeological surveys—Polatlı Landscape Archaeology and Survey Project (PLAS), Konya Regional Archaeological Survey Project (KRASP), and Yalburt Yaylası Archaeological

Landscape Research Project (YYALRP)—conducted in the western periphery of the Hittite heartland (**Figure 1**): PLAS investigates the Polatlı region near the Sakarya River valley in central Anatolia, KRASP focuses on the Konya Plain, whereas YYALRP covers the Yalbur Yaylası and its vicinity in the province of Konya and the district of Ilgın, near the western boundaries of the Hittite Empire.

1.4 Research Questions and Objectives

The study of Anti-Splash Rim Bowls (ASRB), particularly as a sub-group of the North-Central Anatolian (NCA) plain pottery tradition, has primarily been approached through frameworks emphasizing Hittite imperial influence and ceramic standardization. However, several key gaps remain in the existing literature.

First, no systematic attempt has been made to examine NCA ceramic production at a regional level, limiting our understanding of how production varied across different areas. Second, except for Glatz (2009), there has been little focus on the Western periphery, leaving questions about its role in ceramic production largely unexplored. Third, the origins of ASRB forms remain poorly understood, as previous studies have primarily concentrated on their role in the 2nd millennium BCE, and no study has focused on the earlier origins of the form in the EBA. Lastly, limited attention has been paid to the context of use for ASRBs at archaeological sites, making it difficult to assess their function within broader socio-economic and political frameworks.

In light of these gaps, this study aims to apply an analytical approach to ASRB as a proxy for understanding the phenomenon of NCA-style ceramic production during the LBA. To achieve this, the research is structured around the following objectives:

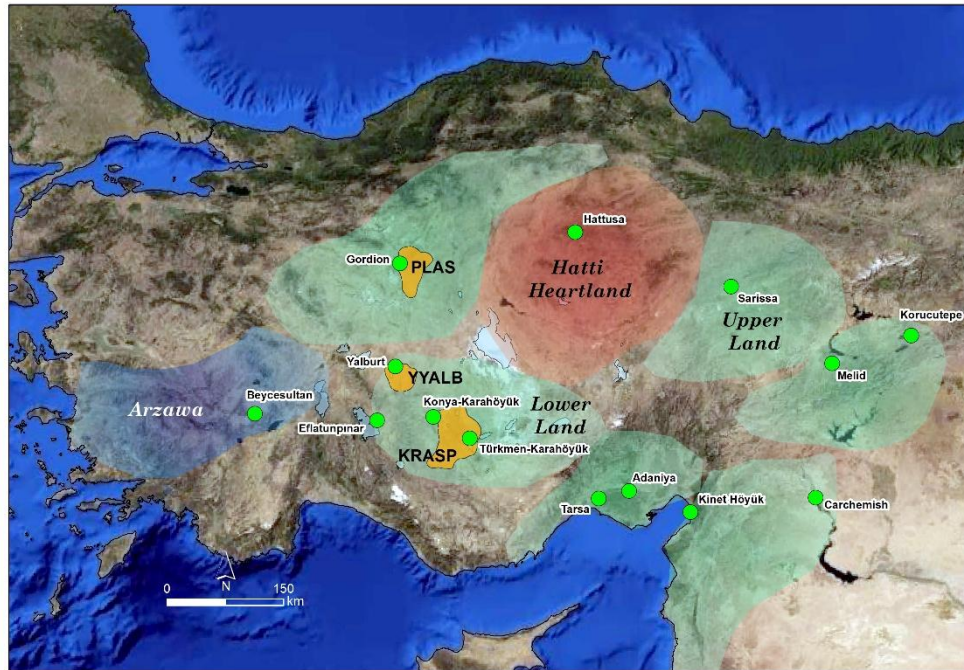


Figure 1: Map showing the locations of the survey projects analyzed in this thesis, along with other Anatolian sites referenced throughout the study.

- (a)** Understanding the origins of ASRB: Investigating potential EBA precedents and tracing the development of the form.
- (b)** Examining the technological choices and regional standardization of ASRB production: Assessing manufacturing techniques, fabric composition, and production consistency across different regions.
- (c)** Analyzing the context of use: Investigating how ASRBs were utilized at selected sites, their functional role, and their socio-political significance.

To guide this investigation, the study addresses three central research questions:

1. What are the origins of the anti-splash rim bowl?
2. How were they produced, and to what extent was their production standardized across regions?
3. How were they used, and in what contexts?

To address these research questions, this study adopts a multi-faceted approach that integrates technological typology, morphotypology,

chronotypology, and quantitative and contextual analysis to assess the origins, production, distribution, and context of ASRB. A key focus is examining the regional and chronological patterns of ASRB within the NCA style pottery, aiming to understand their broader socio-political significance.

1.5 Thesis Structure

This thesis is structured into four chapters, each addressing a key aspect of the research.

Chapter 2 outlines the methodologies employed in this study, including typological, chronological, and functional analyses. It also details integrating survey data from PLAS, KRASP, and YYALP, highlighting the approach taken to assess ASRB product distribution and variability.

Chapter 3 presents the results, focusing on the spatial distribution, production techniques, and morphotypological and chronotypological variations of ASRB across the surveyed regions. This chapter systematically analyzes the ceramic assemblages, identifying key trends and regional differences.

Chapter 4 evaluates the ASRB in terms of analysis and contextualizes these findings within broader sociopolitical frameworks, examining their relationship with Hittite imperial policies, local ceramic traditions, and mechanisms of cultural transmission. This chapter evaluates how ASRB production reflects state control, regional adaptation, or independent ceramic traditions.

Chapter 5 concludes the study by summarizing the key insights, reflecting on their broader implications, and suggesting directions for future research.

CHAPTER 2

METHODOLOGY OF CERAMIC ANALYSIS

This chapter outlines the methodology for selecting, documenting, and analyzing ceramic samples from three survey projects, emphasizing the vessels' unique morphological and technological features. It features a layered approach that includes criteria for selection and documentation, followed by classification based on technological, morphological, chronological, quantitative, and contextual attributes. The chapter begins with a description of the data types used in the thesis, followed by a detailed discussion of the criteria for selecting the ceramic samples, ensuring clarity in the methodology.

The selected samples are divided into three typological groups: 1) Technological Typology (**Section 2.2.1**); 2) Morphological Typology (**Section 2.2.2**); and 3) Chronotypology (**Section 2.2.3**). Further support comes from quantitative analysis (**Section 2.3**), which assesses the frequency of fabric and surface treatment groups, vessel forms and volumetric capacity across sites, and contextual analysis (**Section 2.4**), examining contexts of similar vessels at other excavations. This combined approach enhances understanding of regional, chronological, and contextual variations among the studied vessel forms.

2.1 Nature of Data

This study employs a nested approach to data analysis, acknowledging the varying degrees of accuracy and detail within the ceramic datasets

from three survey projects—PLAS, KRASP, and YYALRP. The hierarchy of data quality is determined by factors such as firsthand examination, survey data collection methods, and statistical treatment possibilities, all of which influence the depth of analysis applied to each dataset.

Of the three surveys, PLAS provided the largest initial dataset, from which potential Late Bronze Age anti-splash rim bowl candidates were first selected (**Section 2.1.1**).

KRASP, while also examined firsthand, was based on a pre-determined subset of ceramics already dated to the Late Bronze Age. It has a narrower chronological scope but offers more certainty in dating. In contrast, the YYALRP dataset represents a different tier in this hierarchy, as it was not analyzed firsthand and formed the smallest dataset. Time constraints and access limitations prevented direct examination of these ceramics, as the YYALP assemblage is housed in the Konya Akşehir Stone Artifacts Museum. As a result, this dataset is less precise than PLAS and KRASP in terms of diagnostic details, particularly for technological aspects. These limitations necessitate a more cautious approach when integrating YYALP ceramics into broader analyses (**Section 2.1.1**). Despite these constraints, YYALP remains valuable for detecting regional variations and contributes to a broader geographical perspective in the study.

2.1.1 Selection of Ceramic Samples

The selection of ceramic samples followed three main criteria: survey region (PLAS, KRASP, YYALRP), chronological period (Late Bronze Age), and rim shape.

The analysis focused solely on rim sherds to identify the “anti-splash” feature, excluding body sherds, bases, and handles. While this approach reduced the sample size, it enabled a more targeted analysis for this MA thesis.

The selection process improved over time. Initially, a wide range of sherds resembling anti-splash rim bowls was identified across the three survey projects. This preliminary selection was then refined through hand-drawn documentation, ensuring only confirmed examples were included. In total, 88

samples were extracted from the PLAS dataset, while 66 samples were obtained from the KRASP dataset.

PLAS and KRASP materials were visually examined and analyzed with a Celestron Handheld Digital Microscope at 200x magnification. Each sherd was recorded on a ceramic sherd form (**Figure 2**), detailing its findspot, measurements, clay features, construction method, and surface treatments, as summarized in **Table 1**.

YYALRP examples were selected based on hand drawings and recorded data on fabric and surface treatments. The sample catalog for this thesis includes 37 ceramics.

For PLAS and KRASP, each sherd was drawn, digitized, and photographed; for YYALP, only hand drawings were provided and not digitized.

Ceramic Examination Form		Site Name:		Survey Unit:		Form Filling Date:	
Project Name:						Sherd No:	
Survey Date:							
Chronology							
Part							
Ware Type							
Shape Type							
Function							
Dimensions (height x length)							
Body and Rim Thickness							
Construction Method							
Wheelmarks							
Clay							
Color Matrix	A:	AB:		ABA:			
Clay Color(s)	A:	B:					
Porosity							
Firing Circumstances							
Hardness							
Inclusions							
Petrography							
Inclusion Size							
Percentage							
Other/Unidentified							
Surface							
Internal				External			
Preservation:				Preservation:			
Color:				Color:			
Treatment:				Treatment:			
Decoration:				Decoration:			
Other:				Other:			
Photograph:				Drawing:			
Remarks:							

Figure 2: Catalogue form for the recording of each ceramic sherd.

Criteria	Description	Importance/Function in Analysis
Provenience	project name, site name, survey unit, sherd number	Provides general info about the geographical location of the sherd
Measurement	rim diameter, vessel height, body and rim thickness	Provides quantitative data for comparing and classifying vessel sizes and types. Also useful to understand standardization norms of the bowl types
Construction Method	wheelmade or handmade	Indicates whether the vessel was wheel-thrown, useful for identifying technological advancements
Clay Features	clay color, inclusions, porosity, hardness	Informs technological typology, helping determine technological choices of the potter depending on geography and cultural differences
Surface Treatment	preservation state, surface colors, treatment techniques (slip application, wet-smoothing, burnishing, polishing)	Informs both aesthetic and functional aspects, such as decoration and usability. Preservation state helps assessing post-depositional effects

Table 1: Criteria established for the analysis of thesis material and their functions.

2.2 Typology

The classification of pottery using fixed criteria aids in addressing various research questions. The key characteristics of pottery help prioritize features based on the study's goals (Manuelli, 2013: 96; Sinopoli, 1991: 43-44). For instance, to understand changes in pottery firing techniques in a specific region or period, the typological objectives would analyze firing conditions using criteria like clay color and ceramic hardness.

This section outlines the methodology for classifying into three groups: (1) technological typology, (2) morphotypology, and (3) chronotypology. These classifications, shown in **Table 2**, improve dataset accuracy and address research questions regarding production techniques and regional variations of anti-splash rim bowls during the Late Bronze Age. Further details on the typological classes are provided below.

2.2.1 Technological Typology

Pottery serves various purposes, including food preparation, cooking, storage, and transportation (Orton & Hughes, 2013: 247). Certain pots, like crucibles, were used for heat-related tasks (Casucci, 2020). The variety in

functions and clay sources influences ceramic compositions. This thesis classifies ceramics through technological typology based on observable features. Fabric analysis examines inclusions, clay color, and firing conditions, while surface treatments focus on finishing techniques. Due to the absence of microscopic analysis, the terminology used here relies on generic descriptions rather than specific chemical identifications.

Typology Category	Focus Area
Technological Typology	Fabric groups, surface treatments, and firing techniques.
Morphotypology	Classification of vessel forms based on depth, rim, and body profile
Chronotypology	Chronological appearance of vessel forms through comparison with stratigraphic data from excavated sites

Table 2: Typological framework used in this study, categorizing ceramics based on technological attributes, morphological characteristics, and chronotypological distribution.

2.2.1.1 Terminology and Methodology for Fabric Categorization

Clay, the primary raw material for pottery production, comes from accumulated deposits of particles that range from tens of microns to a few millimeters (Cuomo di Caprio, 2017: 35). These particles are derived from weathered rocks influenced by factors like water and heat, constituting the clay matrix. Clay matrix refers to the plastic medium of the clay body, which can exist in a pure form (e.g., kaolin) or be naturally mixed with organic and inorganic components from clay beds and alluvial deposits (Ökse, 2012: 17). Erosion can introduce substances like lime, mica, and metal oxides into the clay.

Clay can be categorized by its mineral composition, which consists of crystalline layers. The strength of the bonds between these layers can be altered by water, affecting the clay's plasticity—the ability to be shaped and retain forms (Sinopoli, 1991: 10). Also, forming techniques influence clay's response to water. For instance, adding appropriate amount of water

(typically between 15% and 25%) acts as a lubricant, allowing clay particles to move past one another and increasing plasticity (Cuomo di Caprio, 2017: 83; Sinopoli, 1991: 11). This process transforms clay into a material that can be shaped and worked with (Montana, 2017: 90).

The term fabric refers to the clay body from which pottery is made and is closely linked to pottery production (Orton & Hughes, 2013: 151). Fabric can also denote groups of ceramics with shared clay characteristics (Whitbread, 2017: 200). More specifically, fabrics encompass the compositional and structural features of pottery, particularly the size, shape, density, and type of material components (Whitbread, 2017: 200).

Pottery fabrics mirror the geological characteristics of the raw clay sourced from different regions, but potters' agency is also essential. The selection and processing of materials depend on specific techniques and the intended use of the vessel (Roux, 2019: 16). For instance, potters adjusted plasticity by adding inclusions or levigating clay to remove impurities, facilitating forming and drying, improving thermal resistance, and enhancing durability (Sinopoli, 1991: 14; Whitbread, 2017: 200-201). Clay with finer particles and higher mineral content increases water-clay interaction, further enhancing plasticity (Cuomo Di Caprio, 2017: 83). Thus, fabric reflects both geological properties and potters' technical choices (Sillar & Tite, 2000: 3-5).

Inclusions

Inclusions are non-clay materials in the clay mixture, including *inorganic* and *organic* substances. Inclusions are generally considered intentionally added to enhance plasticity, reduce shrinkage during drying, or increase thermal resistance (Manuelli, 2013: 77; Rice, 2015: 79; Quinn, 2013: 156). The term *temper* is also used for inclusions to refer to the intentional addition of inclusions by potters (Orton & Hughes, 2013: 75). However, determining if inclusions in clay were naturally present or added by potters is nearly impossible under a microscope. While larger particles are usually removed during depuration, smaller particles (under 0.002 mm) remain embedded and are not visible to the naked eye. Some specialists suggest that deliberately added inclusions are more evenly distributed and angular, originating from

crushed rock (Manuelli, 2013: 77). However, due to the lack of high-resolution microscopic analysis in this thesis, their intentional addition cannot be confirmed.

Additionally, such inferences may not be conclusive in every case. For instance, large particles may remain in clay due to careless purification or accidental mixing during shaping. Therefore, this study uses the neutral term inclusion instead of temper.

This thesis analyzes inclusions based on type, size, density, and porosity, which vary according to the vessel forms and their functions (Manuelli, 2013: 77). Inclusion criteria are outlined in **Table 3**, with specific categories presented in **Table 4**.

Inclusion Criteria	Description	Function	Source
Type	Non-clay materials mixed into the clay	*Enhances plasticity *Reduces shrinkage	Roux, 2019: 36
Size	Relative dimensions of inclusions within the ceramic fabric	*Influences heat resistance and cracking, prevents shrinkage *Fine inclusions: less heat resistance, risk of cracking *Coarse inclusions: better heat resistance, lower shrinkage resistance	Sinopoli, 1991: 14
Density	Distribution and quantity of inclusions in the clay, linked to inclusion size	*Affects heat resistance and cracking *Reduces shrinkage	Sinopoli, 1991: 14
Porosity	Voids in fired ceramics, formed by burnt vegetal inclusions or trapped air bubbles during kneading	*enhance ceramic strength, prevents crack spread (as pore size and quantity increase, the vessel's strength diminishes)	Cuomo di Caprio, 2017: 87, 107-108 Roux, 2019: 133 Sinopoli, 1991: 13-14

Table 3: The criteria established for ceramic inclusions, detailing their characteristics, functional effects on pottery, and relevant scholarly sources.

Inclusion Criteria	Category
Type	inorganic (e.g., grit, limestone, sand, mica, quartz) organic (e.g., chaff, seeds)
Size	fine (<1mm), medium (1-2mm), and coarse (>2mm)
Density	low (1-10%), medium (10-20%) and high ($\geq 20\%$)
Porosity	low (1-10%), medium (10-20%) and high ($\geq 20\%$)

Table 4: General categories created for inclusion criteria³. Porosity and density levels are provided as ratios based on a visual comparison chart from Quinn (2022: 100, figure 4.9).

Fabric Colour

Color analysis is subjective and can vary between observers. Lighting conditions also influence color perception (Emery&Webster, 2019). The color of a fired vessel is primarily determined by the clay's chemical composition and the firing conditions (Cuomo di Caprio, 2017: 89; Sinopoli, 1991: 12). Variations in metal oxides like iron, copper, and manganese give clay colors ranging from brownish (limonite) to reddish (iron oxide), greenish (copper oxide), and black (manganese dioxide). Pure clay, known as kaolin, is white (Orton & Hughes, 2013: 73; Ökse, 2012: 17). The firing atmosphere affects the final color of clay by regulating oxygen interaction with clay oxides, impacting the firing temperature and kiln conditions. Therefore, the unfired clay color may differ from the fired color (Cuomo di Caprio, 2017: 90).

In this thesis, fabric colors of ceramic sherds were analyzed by examining fresh cross-sections. Color codes were recorded for multiple observed colors in the cross-sections, referencing the Munsell Soil Colour Chart to categorize clay colors. Each sherd's fabric color was then generalized under central color values (pink, red, buff, white/yellow) to form fabric groups.

³ Vessels with fine, evenly distributed inclusions are more vulnerable to thermal and external stress than those with coarse, heterogeneous (related to density) inclusions. Larger particles absorb and distribute heat efficiently, while smaller ones cause surface heating imbalances, increasing the risk of cracking. However, small particles enhance shrinkage resistance during drying and firing by acting as binding agents as water evaporates (Sinopoli, 1991: 14).

Firing Techniques

Firing techniques play a crucial role in determining the characteristics of pottery fabric. Firing clay transforms its plastic properties into a durable ceramic product. This change is influenced by three key factors: firing duration, temperature, and atmosphere (Orton & Hughes, 2013: 134; Sinopoli, 1991: 28). Firing duration refers to the time required for the vessel to heat up, reach its peak temperature, and cool down. The hardness and fracture patterns of the ceramic sherds' fresh breaks can evaluate the firing temperature. In this thesis, the hardness degree was assessed using fingernails. The criteria for hardness levels are explained in **Table 5**.

Hardness Level	Firing Temperature (°C)	Scratch Resistance	Fracture Characteristics	Source
Soft (S)	<700°C	Easily scratched with fingernails	Irregular fractures on fresh breaks	Ökse, 2012: 45-46; Sinopoli, 1991: 13
Medium (M)	700-1000°C	Barely scratchable	Fewer fractures	Ökse, 2012: 45-46
Hard (H)	>1000°C	Resistant to scratching	Sharp edges, minimal fractures	Ökse, 2012: 45-46

Table 5: Criteria for ceramic hardness levels based on firing temperature, scratch resistance, and fracture characteristics, illustrating the relationship between thermal treatment and material durability⁴.

Controlling the firing atmosphere is crucial, affecting firing temperature and duration. Potters manage oxygen circulation by adjusting the kiln, influencing temperature fluctuations that leave markers visible in the sherd's cross-section during cooling. This process is known as oxidation. Complete

⁴ Ceramic specialists often use Mohs' hardness scale, which ranges from talc to diamond, to assess hardness. This scale measures the scratch resistance of minerals from 1 to 10 (Orton & Hughes, 2013: 74). However, while effective for minerals, it can be misleading for ceramics due to their lower hardness levels (Ökse, 2012: 45).

oxidation occurs when vessels cool properly with enough oxygen circulation in the kiln, allowing carbon dioxide to escape and resulting in bright-colored cross-sections without gray cores. In contrast, rapid cooling and inadequate oxygen create a reducing atmosphere, leading to gray or black cores due to trapped carbon dioxide (Orton & Hughes, 2013: 75, 152; Sinopoli, 1991: 30). Additionally, fluctuations in temperature and oxygen levels can result in layered color variations in the cross-section (Orton & Hughes, 2013: 153).

The oxidized sherds were examined and grouped by color variations such as red, orange, yellow, beige, and brown. For uniform color cross-sections, firing conditions were defined using a chart (**Figure 3**) from Schachner's 2016 publication on Hattusha's western Upper City excavations (2016: 90-91). Munsell color codes were matched and categorized accordingly. In cases with multiple colors, a different chart (**Figure 4**) from Schachner (2017: 93) was used to describe the color bands in the cross-sections.

beige	oxidierend
rötlich	
hellbraun	
rötlich-braun	neutral
braun	
dunkelbraun	
graubraun	reduzierend
grau	
dunkelgrau/schwarz	
blaugrau	

Figure 3: Table showing the color variation observed on the cross-sections with corresponding firing circumstances (oxidation/neutral/insufficient oxidation). From light shades (oxidation) to darker shades (insufficient oxidation) (Schachner, 2017: 91)

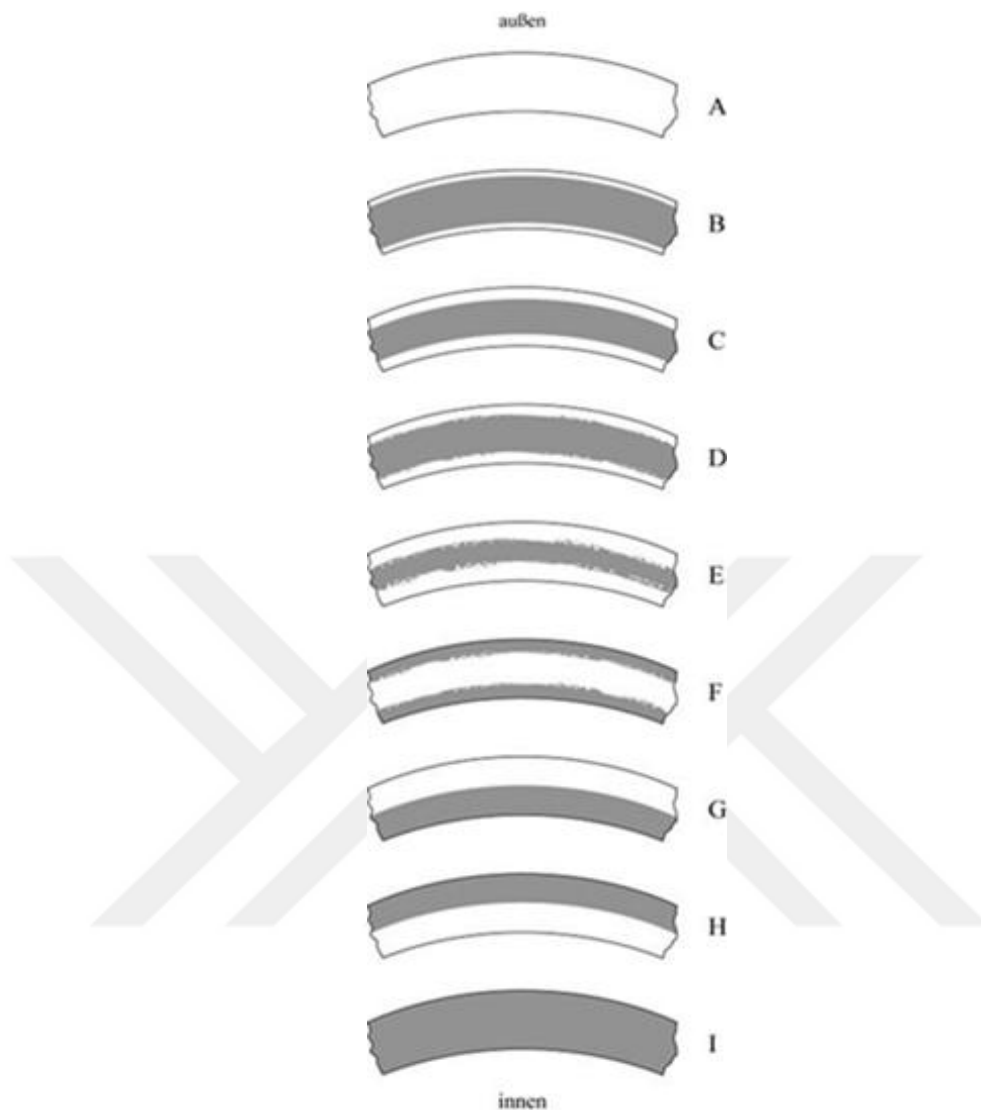


Figure 4: Schematic of ceramic cross-sections showing varying oxidation and reduction patterns, including fully oxidized, partially oxidized, and secondarily reduced cores and edges (Schachner, 2017: 93).

This thesis defines five categories of firing conditions for ceramic examples based on color variations seen in cross-sections during the firing cycle. **Table 6** outlines these color features as they relate to firing conditions.

Fabric Groups

This thesis identifies two primary fabric groups: fine (**Figure 5**) and medium fabrics (**Figure 6**). The criteria established for fabric groups in this thesis are explained in **Table 7**. The coarse fabric is excluded from this thesis since the analyzed ceramic examples do not possess its characteristics.

OxidationType	Color Description
Oxidizing	white, orange, red, light brown, buff
Neutral	brown
Light Insufficient Oxidation	narrow light gray bands with bright color bands
Medium Insufficient Oxidation	bold gray core with narrower bright colored bands on the edges of the cross-section
Strong Insufficient Oxidation	broad dark gray or black core rarely with thin oxidized bright colored bands on the edges

Table 6: Color variations observed on the cross-section resulted in different oxidation processes.



Figure 5: Exemplary cross-section picture of fine fabric.



Figure 6: Exemplary cross-section picture of medium fabric.

Fabric Type	Inclusion Size	Density and Porosity Levels	Inclusion Distribution	Features
Fine Fabric	<1mm	low (5-10%)	Uneven	More compact formation
Medium Fabric	1-2mm	medium (10-20%)	Even	Higher porosity than fine fabrics
Coarse Fabric	>2mm	high ($\geq 20\%$)	Uneven	Not included in this thesis

Table 7: Main fabric groups established for the this study based on inclusion size, density, porosity, and distribution, highlighting their structural differences and relevance to this study.

Sub-groups within the fine and medium fabric categories are further defined based on the clay color in relation to the firing circumstances (e.g., Medium Buff/Red/White Fabric). While the same fabric types may show variations due to differences in hardness or multiple colors at the cross-section, these changes are attributed to firing conditions rather than the fabric's inherent properties. As a result, such variations are not considered primary criteria in the overall fabric classification.

Due to indirect examination of all sherds, the terminological and methodological differences used in the recording YYALRP data, precise fabric groups like those for KRASP and PLAS could not be established. To ensure comparability with the KRASP and PLAS fabrics, Yalburt data was re-analyzed based on two factors: the data recorded for clay color and fabric

type (fine, medium, coarse) by assessing properties like porosity, oxidation, inclusion density, size, and type. Consequently, fabric and surface treatment descriptions have been merged into broader classifications.

2.2.1.2 Surface Treatments

Surface treatment involves processes applied by potters to create a uniform surface before firing (Orton & Hughes, 2013: 134). These techniques are usually applied when the vessel is leather-hard or fully dried to prevent moisture absorption and damage from clay shrinkage. Surface treatments also protect fragile vessel walls during handling, reducing breakage risk (Manuelli, 2013: 80). In this study, surface treatments are considered distinct from fabric, as vessels with the same surface treatment can differ in fabric type.

*Surface treatments are categorized separately from fabric groups, as different techniques can be applied to the same fabric. For classification purposes, four general categories of surface treatments were established as explained in **Table 8**: 1) non-slipped, 2) red slipped, 3) white slipped, and 4) brown slipped.*

Surface Treatment Category	Description
Non-Slipped	Includes vessels with smoothing, polishing, or no surface treatment
Red/White/Brown Slipped	Vessels with slip coating, may involve smoothing or polishing

Table 8: Classification of surface treatments, distinguishing between non-slipped vessels and those with slip coatings that may involve additional finishing techniques.

The following section provides an overview of the terminology and methodology used for surface treatment classification.

Surface Smoothing & Polishing Techniques

Smoothing: Potters utilize a wet hand, pebble, wooden tool or cloth technique to achieve a matte, uniform, and softer texture on ceramic surfaces

prior to drying; sometimes, smoothing is performed when the ceramic is in a leather-hard state (Roux, 2019: 93, 197). This results in thin, parallel lines (**Figure 7**) (Rice, 2015: 149; Sinopoli, 1991: 25) and helps reduce the porous texture, lowering food absorption. Smoothing typically occurs on the external surfaces of vessels but is also applied to internal surfaces, especially in open vessels.

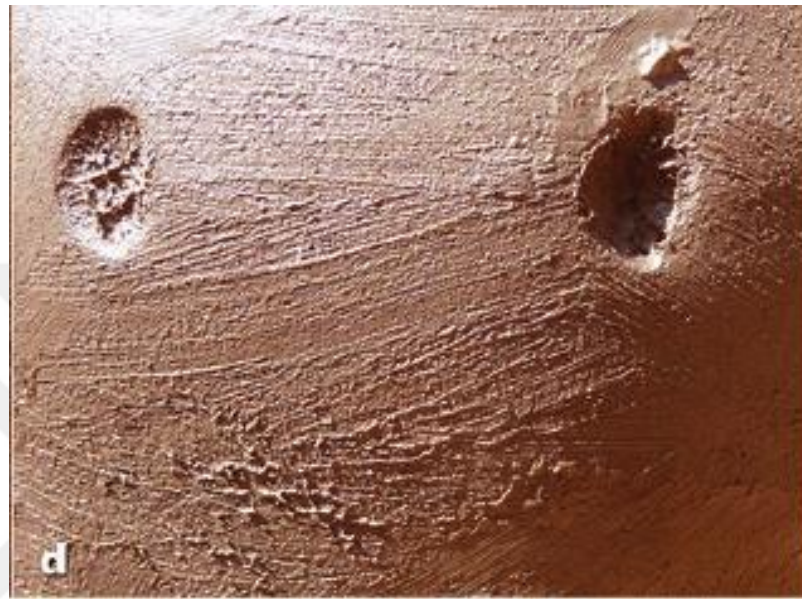


Figure 7: Example of wet smoothing with fingers (Roux, 2019: 197, Fig.3.52).

Burnishing: This technique creates a luster on the surface by rubbing the vessel with hard tools like pebbles, bone, or wood when it is leather-hard. Burnishing produces shiny parallel facets and an irregular, stripe-like appearance with matte areas (**Figure 8**). It also helps prevent the absorption of food. (Cuomo di Caprio 2017: 125; Manuelli, 2013: 80; Orton & Hughes, 2013: 134; Rice, 2015: 149; Sinopoli, 1991: 25-26).

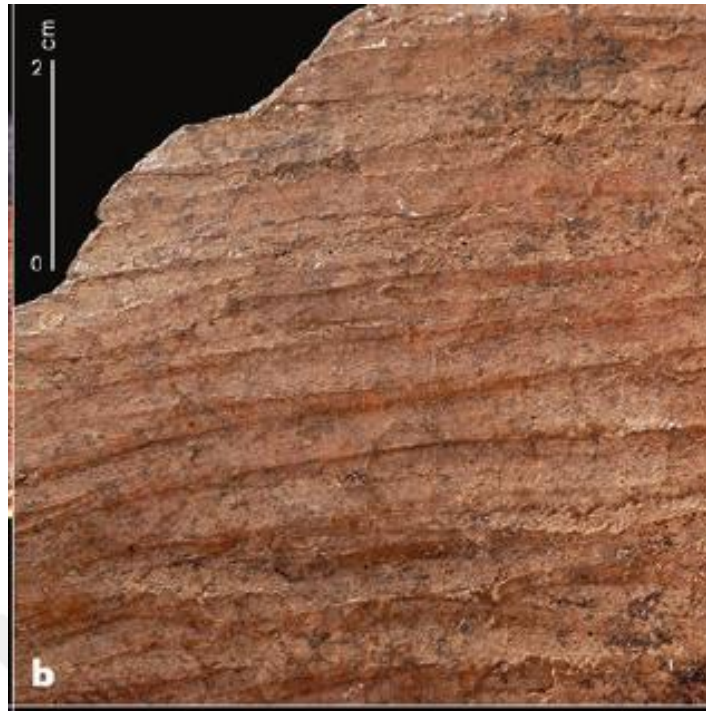


Figure 8: Example of burnishing, shiny parallel facets or stripes can be seen through the light reflection in the picture (Roux, 2019: 149, Fig. 3.14).

Polishing: Polishing is achieved by rubbing the surface when the vessel is dry with a soft material like cloth or leather. Unlike burnishing, this technique creates a uniform luster effect on the surface without leaving any matt surface (Cuomo di Caprio 2017: 125; Manuelli, 2013: 80; Sinopoli, 1991: 25-26).

Slip Application

Slips are thin clay coatings applied to vessels before firing, creating a smooth surface that contrasts with the original color. After applying the slip, vessels may be refined with techniques like burnishing or polishing. Slips can be applied using a brush, textile, or by dipping. The slip features fracture lines and appears as a thin coating layer (**Figure 9**). (Manuelli, 2013: 80; Rice, 2015: 162; Sinopoli, 1991: 26). Slips may serve functional purposes by sealing a vessel's surface and reducing permeability. However, some experts argue that, as a non-vitreous substance, slips may not completely seal the ceramic's porous texture (Cuomo di Caprio 2017: 88; Manuelli, 2013: 80).



Figure 9: Example of a slipped surface using a cloth, characterized by floating grains and marks similar to smoothing (Roux, 2019: 203).

2.2.2 Morphotypology

Morphotypology is a classification system that analyzes variations in ceramic vessel forms. This analysis helps characterize the thesis material and assess the standardization of different vessel shapes, offering insights into their functions and uses.

2.2.3 Categorization of Morphotypological Groups

This study classifies ceramic examples using a mix of subjective interpretation and a methodological approach based on material characteristics. The morphotypological classification is influenced by Manuelli's (2013) research on Late Bronze Age pottery from Arslantepe. Due to the intuitive nature of the classification, a brief explanation of the terminology used is provided.

Functional Group

The vessels' morphological characteristics primarily reflect their function, which is influenced by the type of contents (Roux, 2019: 226). However, form alone does not definitively indicate function. In this thesis, the morphotypological classification focuses solely on bowls.

The primary distinction between bowl forms is depth, which influences volume capacity and function. In shallow bowls, the height is shorter than the

rim radius, whereas in deep bowls, the height equals or slightly exceeds the radius (Manuelli, 2013: 122, 128). Based on rim diameter and vessel height, this thesis defines only one functional category: shallow bowls (SBO).

However, forms categorized as shallow bowls in this study may be labeled as plates in other publications. For example, Ökse (2012: 88, Figure 49) distinguishes bowls from plates based on larger rim diameter (**Figure 10**). The forms examined in this thesis correspond to the second and third examples in the figure.

Typological Class

Shallow bowls are divided into two primary typological categories according to their body profiles: (1) Straight Shallow Bowls (SSBO) and (2) Hemispherical Shallow Bowls (HSBO). SSBOs with a diameter of 30 cm or larger are further classified as Large Straight Shallow Bowls (LSSBO).

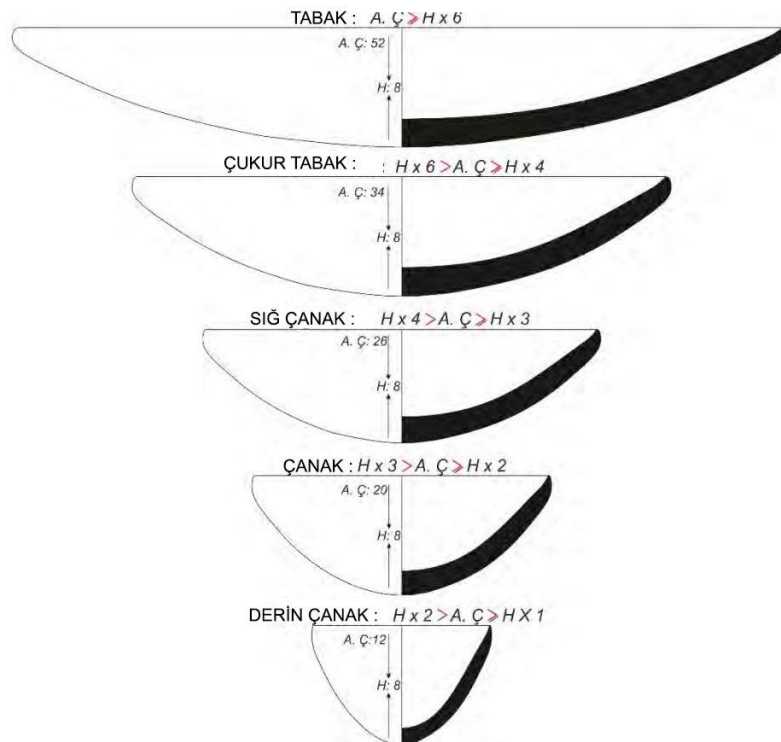


Figure 10: Criteria for bowl and plate classifications created according to Ökse (2012: 88, Figure 49). Although the first two forms are classified as plates, the second form has a deeper structure and a smaller rim diameter compared to a typical plate; therefore, it is considered a bowl in this thesis.

Type

In classifying morphotypological groups, identifying key features for establishing types is crucial in typological analysis. Accurately defining a type also requires a large sample group to highlight morphological similarities among vessel assemblages (Manuelli 2013: 99). This thesis classifies bowls into typological categories based on recurring rim features, helping assess vessel form standardization.

2.2.4 Chronotypology

Chronotypology involves classifying material culture based on chronological changes to track cultural and technological development. By analyzing stylistic changes in anti-splash rim bowls, this thesis explores their origins and offers a timeline derived from fourteen sites. This approach enhances understanding of the temporal distribution of vessel forms, revealing their emergence and duration across different regions and periods, proving essential for archaeological research.

The chronotypology covers western, southern, and northern inland Anatolia, along with the Upper Euphrates, where ASRB from the Early Bronze Age to the Late Bronze Age were identified in quantitative analysis (**Section 2.3**). The dataset for this chronotypology is based on fourteen key sites listed in **Table 9**. Excavation reports and recent publications were reviewed to establish a consistent temporal framework, focusing on those aligned with Hattusa's current chronology for accurate comparative analysis.

Period/ Settlements	KÜL	GOR	BEY	KON- KAR	KİL	TAR	KİN	T.ATCH	HAT	KUS	ACEM	KÜLT	ARS	KOR
EBA	X	X	X		X	X					X			
MBA		X	X	X	X	X			X		X	X	X	
LBA		X	X		X	X	X	X	X	X			X	X

Table 9: The scope of the chronotypological analysis, showing which settlements were examined for each archaeological period (EBA, MBA, LBA). KÜL (Küllüoba); GOR (Gordion); BEY (Beycesultan); KON-KAR (Konya-Karahöyük); KİL (Kilisetepe); TAR (Tarsus-Gözlükule); KİN (Kinet Höyük); T.ATCH (Tell Atchana/Alalakh); HAT (Hattusa); KUS (Kuḫaklı-Sarissa); ACEM (Acemhöyük); KÜLT (Kültepe); ARS (Arslantepe); KOR (Korucutepe).

2.3 Quantitative Analysis

This thesis quantitatively analyzes datasets to evaluate ASRB vessels' production, distribution, and characteristics across three survey areas (PLAS, KRASP, YYALRP) in relation to excavated contexts, allowing for robust statistical interpretations.

The fabric and surface treatment groups were analyzed to compare their percentage distributions across the three survey datasets, aiming to assess whether ASRB production processes were standardized regionally or displayed variations in technological choices.

The morphotypological groups were evaluated by their percentage distributions across the three survey areas, assessing form standardization and regional morphological variations in ASRB production.

A comparative analysis was conducted between survey datasets and fourteen excavated sites (**Table 9**) to integrate excavated data. Published ASRB vessel examples from these sites were collected, and their percentage distributions for each settlement were calculated. These values were then compared to the survey datasets to examine ASRB's morphological distribution across Anatolia.

Volume calculations for firsthand-examined KRASP and PLAS samples were conducted using the POT Utility application. Vessel volumes were measured and analyzed, revealing insights into the potential contents of ASRB vessels and their functional roles. This analysis also assessed the standardization of vessel capacities, highlighting possible production and usage patterns.

By structuring the dataset this way, the study provides a systematic framework for examining ASRB inter-site and interregional diffusion. It highlights regional patterns, such as the prevalence of specific forms in certain areas or periods. This data-driven comparison strengthens the reliability of typological assessments, offering quantifiable evidence to support analytical interpretations.

2.4 Contextual Analysis

The primary objective of the contextual analysis in this study is to understand the contextual significance of ASRB beyond their morphological and technological characteristics. Contextual analysis examines ceramics within their functional, spatial, and cultural settings to provide insights into their use and Contextual

Since the ceramic assemblages in this study were collected from surface surveys and lack direct stratigraphic context, a comparative approach was adopted. The analysis incorporates data from excavated sites in Anatolia, where well-documented contexts allow for a more comprehensive understanding of the spatial and functional use of ASRB. By integrating excavation records and spatial analysis, this method helps reconstruct ceramic production, distribution, and usage during the Late Bronze Age. The analysis is based on contextual information from six excavated sites: Arslantepe, Beycesultan, Gordion, Hattusa, Küllüoba, and Tell Atchana.

These sites were excavated using varying archaeological methods over different periods, leading to differences in the quality and nature of recorded data. To maintain analytical consistency, only selected in situ contexts containing ASRB examples were included in this study, ensuring that only well-preserved and methodologically reliable data were considered. The contextual analysis follows a five-step process that explained in **Table 10**.

Step	Description
1.Selection of Contexts	Identifying in situ contexts from excavated sites, often from destruction events, preserving artifact spatial arrangement.
2.Settlement Area Classification	Determining which part of the settlement (e.g., public, residential, temple, fortification) the ceramics were uncovered from to assess usage patterns.
3.Building Function Analysis	Examining the types of structures associated with in situ contexts to understand their functional significance.
4.Spatial Distribution	Identifying specific areas within buildings where ceramics were found to determine their domestic or specialized use.
5.Associated Artifacts	Analyzing related artifacts (e.g., seals, tools) to refine spatial interpretations and their connection to ceramics.

Table 10: The methodological steps for contextual analysis, detailing the process of identifying excavation contexts, settlement areas, building functions, spatial distribution, and associated artifacts to interpret ceramic use.

CHAPTER 3

CERAMIC ANALYSIS

This chapter presents a comprehensive material analysis of PLAS, KRASP, and YYLAP ceramics. The first section provides a detailed categorization and identification of fabric groups and surface treatment techniques within the framework of technological typology. The second section establishes a typological classification based on vessel morphology. In the third section, a contextual analysis is conducted to understand functional aspects based on *in situ* examples from comparative sites. Lastly, the fourth section addresses the chronological typology specific to the morphotypological class.

3.1 Fabric Categorization

This section presents the analysis results of the main fabric groups observed in KRASP, PLAS and YYALRP. Subsequently, the results of the three survey projects are compared and analyzed in relation to one another.

3.1.1 Medium Fabrics

The medium fabric group constitutes the largest of the three survey assemblages. As explained in **Table 11**, medium fabric exhibits varied characteristics across all three surveys, with the primary difference being inclusion types. Even though local raw materials were used in all cases, the similarity in inclusion types between PLAS and KRASP indicates a more homogeneous geographic characteristics, whereas YYALRP shows slightly more different characteristics.

Buff and brown tones are the most common clay colors observed, while white/yellow, red, and pinkish hues are infrequently observed in examples from survey projects. Sub-groups of medium fabrics are explained below.

Survey	Inclusion types	Inclusion Size	Density	Porosity	Hardness	Firing condition
KRASP & PLAS	grit, limestone, pebbles, and mica (frequent) quartz, chaff, and shell (less frequent)	usually <1mm (fine size)	%10-20 (medium)	between 1-2% (low)	Hard to Medium	oxidized (frequent) light insufficient oxidation (few)
YYALP	limestone, schist, and mica (frequent) quartz, black, red, and brown pebbles (less frequent)	usually between 1-4 mm (medium and coarse size)	%10-20 (medium)	usually between 1-5% few are <1% (low)	Medium	oxidized (frequent) insufficient oxidation (few)

Table 11: Comparison of medium fabric characteristics of ceramic samples from different surveys, highlighting variations in inclusion types while maintaining similarities in density, porosity, hardness, and firing conditions.

Medium Buff Fabric

The medium buff fabric group is one of the most prominent in the three survey assemblages. Its defining feature is its buff clay color, visible in fresh cuts. The sherds are generally well oxidized, though a few exhibit slight insufficient oxidation. Most samples are rated as very hard or medium in hardness. These features indicate a firing process that ensured uniformity in hardness and color across the assemblages.

Due to differences in fabric, the medium buff fabric group from KRASP and PLAS has been divided into variations (V1, V2, V3). In PLAS, sub-groups are defined primarily by inclusion size and density, whereas in KRASP, variation is based mainly on inclusion type. **Appendix A (Tables 1-2)** outlines the descriptions of fabric variations, while **Appendix B** presents **Figures 1-9** showing the cross-sections of these variations.

While PLAS and KRASP medium buff fabrics share common traits, such as fabric color, inclusion types, and firing conditions, KRASP exhibits greater variation in inclusion types, suggesting subtle differences in clay sourcing and preparation methods. In contrast, YYALRP assemblage show greater uniformity within its survey characteristics.

White/Yellow Clay Fabric

This fabric group is characterized by its white-to-yellow hue and is observed only in KRASP and PLAS samples. Detailed fabric descriptions are provided in **Table 3** of *Appendix A*.

In PLAS, the clay fabric (**Appendix B – Figure 10**) typically has a distinct pale tone, recorded as 10 YR 8/3 (very pale brown) on the Munsell Soil Color Chart. In KRASP (**Appendix B – Figure 11**), the original clay color is more challenging to determine due to environmental conditions, but it appears slightly darker at 10 YR 7/3.

Both assemblages exhibit oxidation. However, PLAS samples have a softer texture, whereas KRASP samples are significantly harder, possibly indicating more controlled firing conditions in KRASP. Apart from this, inclusions are generally similar, but PLAS samples display a more uneven yet dense inclusion distribution, while KRASP samples exhibit a more compact and balanced clay matrix.

Medium Pink Fabric

Its distinctive pink tones define the medium pink fabric and are observed only in PLAS and KRASP samples. Both surveys share similarities in inclusion characteristics and firing conditions, with most examples being oxidized and hard, though some PLAS samples show slightly insufficient oxidation (**Appendix A – Table 4**). The color tones generally fall within the bright reddish-yellow and pink ranges (5 YR and 7.5 YR) on the Munsell Soil Color Chart.

Despite these similarities, differences in color shades (**Appendix B-Figures 12-13**) and inclusion sizes distinguish the two survey examples. PLAS samples exhibit greater variation in inclusion size and type, while KRASP has

a more compact structure with smaller, consistently distributed inclusions, suggesting a more uniform composition in KRASP compared to PLAS.

Red Fabric

This fabric group is present in all three survey assemblages. Most samples are oxidized, with occasional signs of insufficient oxidation or secondary reduction due to reuse. KRASP and PLAS samples exhibit greater inclusion diversity and a harder fabric, whereas YYALRP samples contain fewer inclusion types but a notably high schist mica content (**Appendix A-Table 5**). However, KRASP and YYALRP have a lower density and more compact structure than PLAS.

KRASP appears to share characteristics with both PLAS and YYALRP, while PLAS and YYALRP show fewer common traits, indicating regional variation in fabric recipes. The most common clay colors in the three survey projects are 2.5 YR 6/6 (light red) and 5 YR 6/6 (reddish yellow). **Figures 14-15** in Appendix B shows the cross sections of examples from KRASP and PLAS.

3.1.2 Fine Fabrics

Fine fabrics are the least represented ceramic group in the three survey projects. **Table 12** presents detailed characteristics of fine fabrics based on three surveys. They are characterized by low inclusion composition, smooth texture, and low porosity. The clay appears more levigated than in medium fabric groups, leading to an uneven inclusion distribution. Mica is the most common inclusion across all three surveys. The fabric has low porosity and density, with clay colors ranging from red to buff. Most examples are oxidized usually hard, with rare cases of medium insufficient oxidation.

PLAS samples have smaller inclusions and lower density, whereas KRASP exhibits slightly larger inclusions with higher density. YYALRP has the lowest density but shares other characteristics similar to PLAS and KRASP. KRASP and PLAS display more varied inclusion types than YYALRP, suggesting differences in clay preparation and composition. Despite these differences, due to their high mica concentration, YYALRP fine fabrics largely align with those from PLAS and KRASP, particularly the “Fine Red Fabric with Dense

Mica” from KRASP. These variations indicate subtle regional differences in raw material selection and clay processing techniques.

Fine Fabric	Inclusion Types	Inclusion Size	Density	Porosity	Hardness	Firing Condition
PLAS	Mica and quartz (frequent) Grit and limestone (less frequent)	<0.5 mm	3-5% (low)	≤1% (low)	Hard	Oxidized
KRAS	Grit (frequent) Limestone and pebble (less frequent)	≤1mm	5-7% (low)	<1% (low)	Hard	Oxidized
YYALRP	Mica (frequent) Limestone (less frequent)	≤1mm	1 % (low)	<1% (low)	Medium	Oxidized

Table 12: Comparison of medium fabric characteristics of ceramic samples from different surveys, highlighting variations in inclusion types while maintaining similarities in density, porosity, hardness, and firing conditions.

Fine Buff Fabric

The general appearance suggests most examples show high hardness, indicating effective oxidation, with occasional insufficient oxidation in some cases. Clay colors range from light brownish tones within the 7.5 YR and 10 YR ranges on the Munsell Soil Color Chart. **Figures 16-17** in Appendix B shows the cross sections of examples from KRASP and PLAS.

In PLAS, inclusions are extremely fine and unevenly distributed. The fabric is typically oxidized, with one exception, and the clay colors vary between light brownish shades of 7.5 YR and 10 YR.

In contrast, KRASP and YYALRP exhibit slightly larger inclusions, typically up to 1 mm. Clay colors in KRASP mainly correspond to 7.5 YR 6/4 or 10 YR 7/3 (very pale brown), while YYALRP shows buff hues classified as 5 YR 6/6 (reddish yellow).

Fine Red Fabric

Fine red fabric is characterized by distinct reddish clay tones, observed in both PLAS and KRASP. It has a hard texture and consistent oxidation, as indicated by clay color, with variations in inclusion types and density.

The fabric contains very fine particles and low porosity (<1%), with standard inclusions of grit, lime, and pebbles. All examples are fully oxidized, with clay colors ranging from light reddish shades of 2.5 YR to 5 YR. These shared characteristics suggest similar production techniques, including fine levigation and strong firing conditions.

In PLAS, particles are extremely fine, with notably higher quartz inclusions than other PLAS fabric groups. However, due to low overall inclusion density, these elements remain in small quantities.

The KRASP fine red fabric differs by having slightly larger inclusions and higher density, with a clay color of 5 YR 6/6 (reddish-yellow). In YYALRP, this fabric exhibits the lowest density and porosity levels, with a clay color of 2.5 YR 6/6 (light red). **Figures 18-19** in Appendix B shows the cross sections of examples from KRASP and PLAS.

Fine Red Fabric with Dense Mica

This unique fabric, represented by a single example from the KRASP. **Figure 20** in Appendix B shows the cross sections of the example.

The fabric contains a high amount of mica, giving the surface a semi-metallic appearance with gold reflections. The clay has a distinct red shade, corresponding to 2.5 YR 5/6 (red) on the Munsell Soil Color Chart. Dominant inclusions include lime and mica, with smaller amounts of grit and rare chaff, the latter appearing in surprising sizes up to 10 mm on the surface. The inclusion density is 10%, with most inclusions under 1 mm. This variant has medium hardness and suggests a different red clay source, likely due to the high mica content.

3.1.3 Coarse Fabrics

There are four instances of coarse fabric found exclusively in the YYALRP collection. Coarse fabric is characterized by an inclusion density of around 20% and a porosity of 10%. The dominant inclusions across all samples are limestone, schist, and mica, with most of the inclusions measure up to 4 cm in size. The clay colors primarily fall within pink (2.5YR 6/6 - light red), red (2.5YR 6/8 - light red), and buff (7.5YR 6/4 - light brown) tones. All sherds are fully oxidized, with medium hardness levels. Although insufficient oxidation is commonly observed in ceramics classified under the coarse fabric category, often resulting in a softer texture, the coarse fabrics from YYALP stand out for being well-fired and notably hard. This suggests there may have been a certain level of standardization in firing techniques and the characteristics of inclusions used in these coarse fabrics.

3.1.4 Concluding Remarks on Fabric Categorization

Among the fabric groups, medium fabrics are the most prevalent in three survey areas (**Table 13**). Particularly Medium Buff Fabric is the most prevalent fabric group in three surveys (**Tables 14-15**). Nevertheless, examining the distribution of fabric groups across the settlements from the three survey projects reveals no clear correlation between specific fabric groups and individual settlements. On the other hand, in KRASP, larger settlements exhibited greater variability within fabric groups (**Figure 11**). The distribution of fabric groups in three survey areas is presented in Appendix A, **Tables 6-8**.

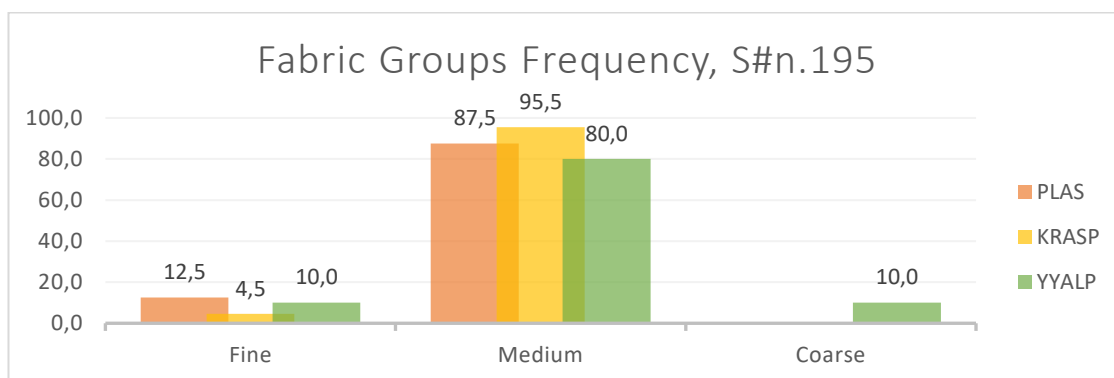


Table 13: Bar chart showing the percentage distribution of main fabric groups.

Common inclusions include grit, lime, and pebbles, but differences in inclusion sizes and types suggest regional variations in natural sources and fabric preparation. For instance, in the PLAS examples, the sizes and types of inclusions exhibit an uneven distribution in most fabrics. Conversely, the KRASP and YYALRP examples show greater uniformity in inclusion sizes and types. The presence of schist is in high concentrations in the YYALRP, also indicates regional variations in clay sources. In contrast, the inclusion density and porosity are largely similar among the three surveys, indicating that at least similar clay preparation processes may have been used in three survey areas.

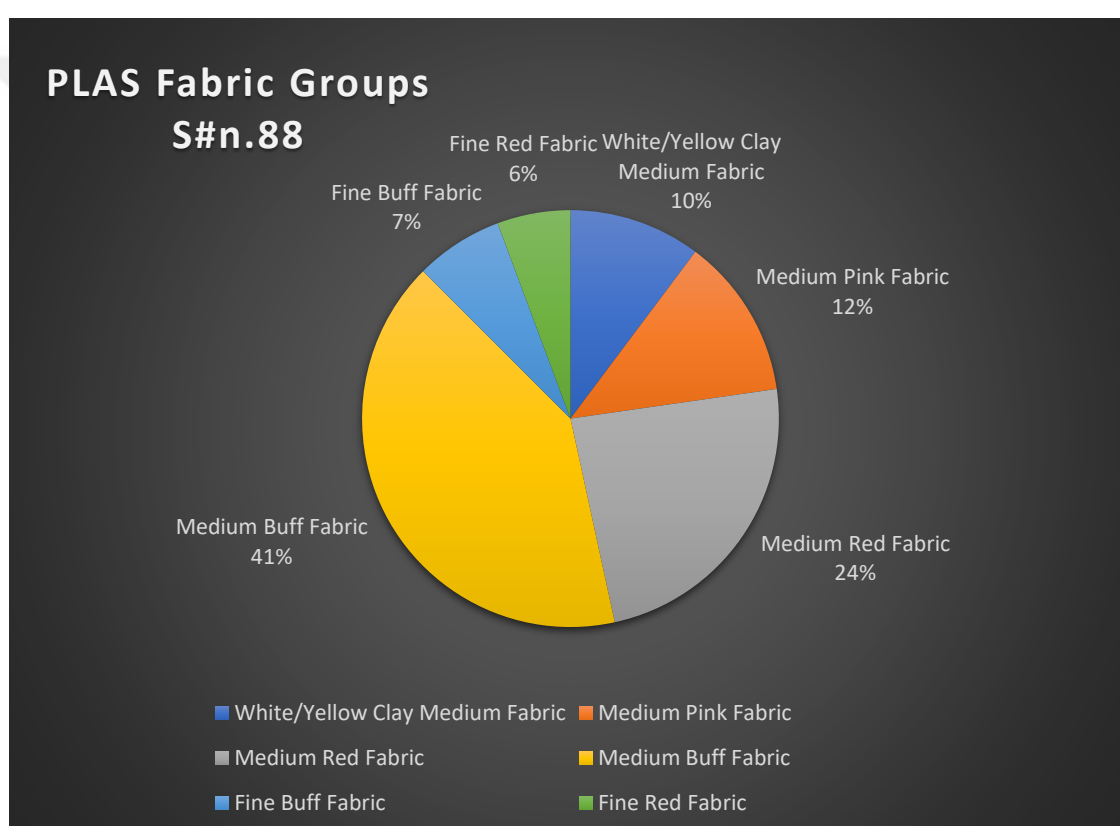


Table 14: Pie Chart showing frequency of fabric sub-groups among PLAS assemblages.

The ceramics from the three survey projects exhibit distinct firing characteristics. Although the majority of sherds across all three surveys were fired under oxidized conditions, with insufficient oxidation being relatively rare (as shown in **Table 16**), variations in firing conditions are observed within individual surveys. For example, KRASP shows a higher frequency of

insufficient oxidation compared to PLAS and YYALRP. A detailed statistical analysis of firing conditions is provided in **Tables 9-10** in Appendix A.

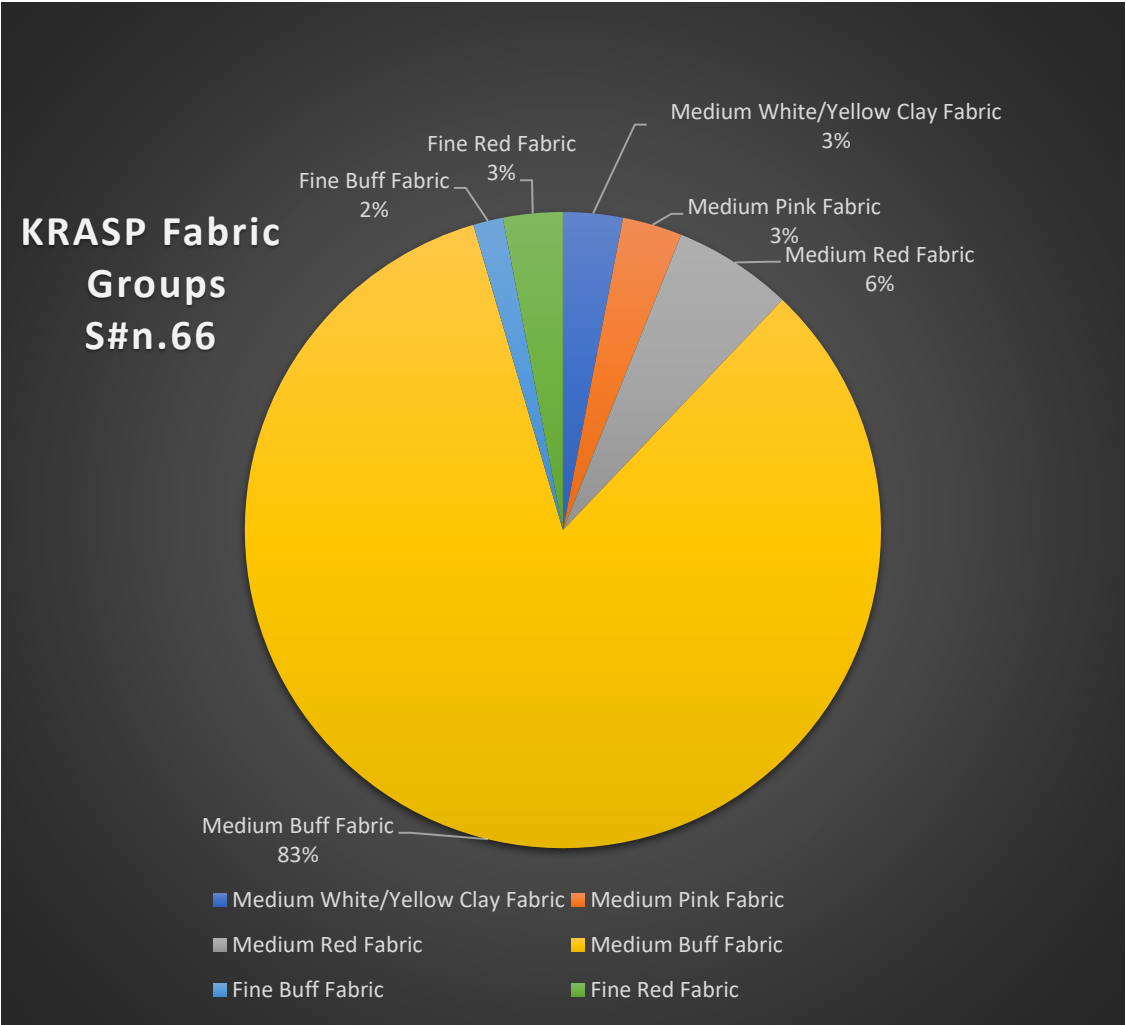


Table 15: Pie Chart showing frequency of fabric sub-groups among KRASP assemblages.

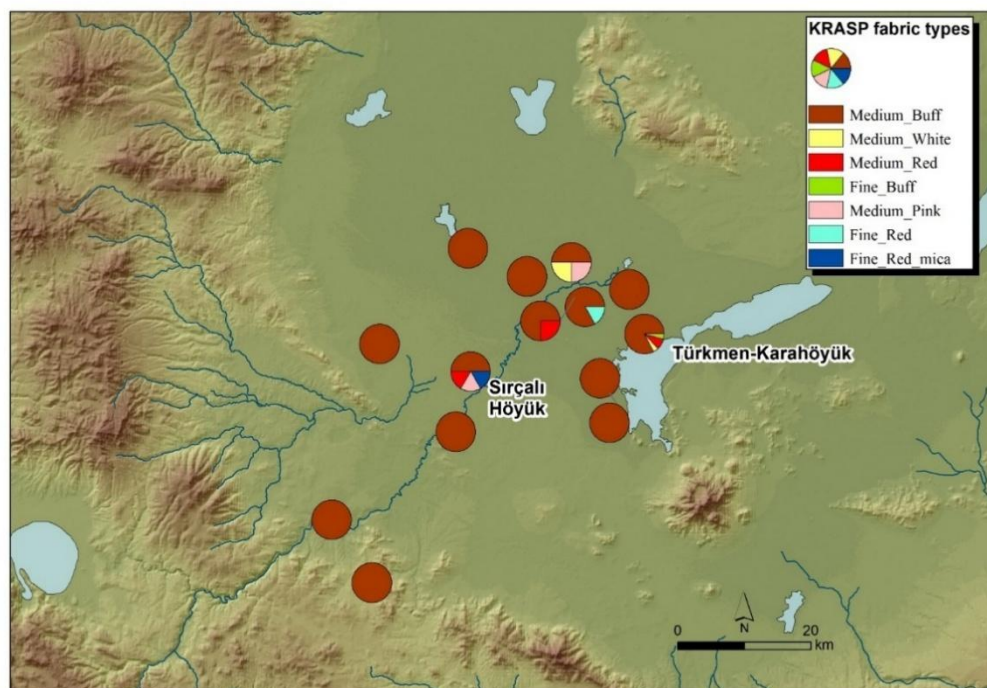


Figure 11: Distribution of fabric groups among KRASP sites, the largest settlements (Sırçalı Höyük and Türkmen-Karahöyük) show more variation within fabric groups of ASRB.

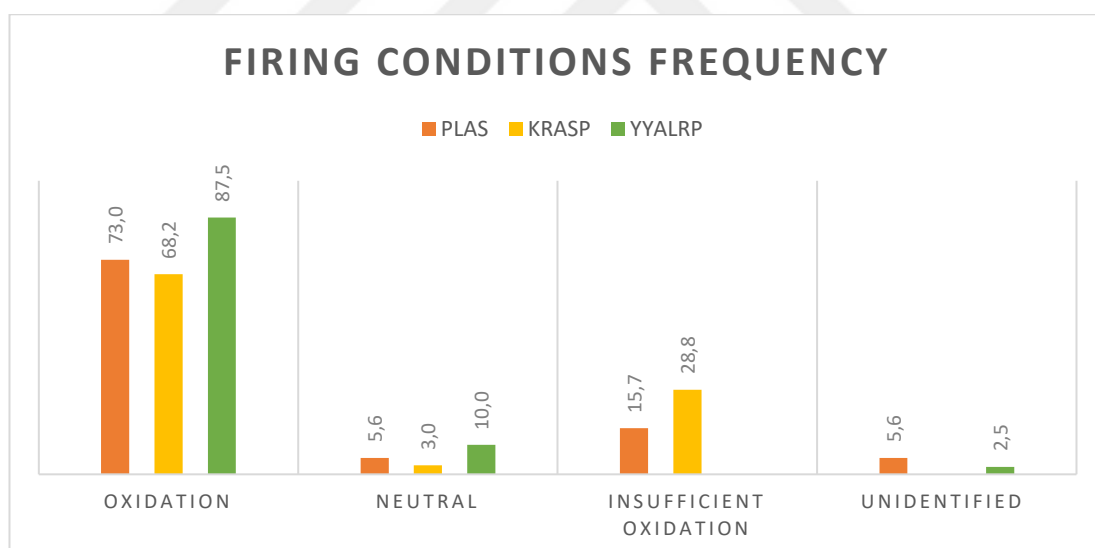


Table 16: Bar chart showing the distribution percentages of main oxidation levels among three survey projects. The percentage values for each survey calculated according to: PLAS (S#n.89), KRASP (S#n.66), YYALRP (S#n.40).

3.2 Surface Treatments

The ceramics analyzed in this study mostly lack slips, with all sherds showing smoothing. More complex examples have thick red or white slips and

polished surfaces. For the methodology of surface treatment analysis see **Section 2.2.1.2** This section summarizes the ware groups based on observed surface treatments, along with descriptive statistics in **Tables 19-21**.

3.2.1 Non-Slipped Wares (NSW)

One of the largest groups identified in three survey projects consists of plain ceramics without slip (**Figures 12-13**). In KRASP and PLAS, both sides of the NSWs were smoothed, though the smoothing quality varied. Some examples show elaborate smoothing, while others reveal rough applications with scattered parallel marks, uneven smoothness, and a grainy texture from inclusions still felt on the surface. In the YYALP database, both surfaces of the NSWs are labeled "plain," categorizing them as non-slipped wares in this study. While it is unclear if these sherds are smoothed, they are likely similar to the non-slipped examples in PLAS and KRASP.



Figure 12: PLAS Non-Slipped Ware example.



Figure 13: KRASP Non-Slipped Ware Example.

Burnishing and polishing techniques were noted in a few examples. Burnishing was rarely seen in PLAS samples, appearing on the outer surfaces of two examples. Polishing was identified in five samples, sometimes on one surface (either internal or external) and other times on both sides.

Similarly, burnishing was rarely noted in KRASP examples (**Figure 14**), with some showing it only on the outer surface and others on both. Polishing occurred in one KRASP sample on the outer surface. In contrast, YYALRP samples showed no burnishing but had polishing on both sides of the two examples.

Polishing and burnishing on interior surfaces, though rarely applied, suggest deeper aesthetic values in the production of NSW. While these non-slipped vessels are typically viewed as everyday items, the lustrous interiors of some

bowls prompt a reevaluation of the aesthetic criteria regarding the external and internal surfaces of ceramics from that period.



Figure 14: Example of NSW with burnish marks from KRASP; burnish marks can be distinguished by their luster and parallel light reflections compared to the unburnished parts of the sherd.

3.2.2 Red Slipped Wares (RSW)

Red slipped wares exhibit various applications of red-brown on pottery surfaces. Thirty-five examples from PLAS and KRASP belong to this category. The red slip, applied primarily by brushing or dipping, is categorized into Partial-Surface Red Slip and Full-Surface Red Slip. The shades vary but generally align with the dark colors in 10 R, 2.5 YR, and 5 YR.

Partial-Surface Red Slip

The red slip is partially applied in all PLAS red slip examples and most KRASP examples. Since the slip is worn in many PLAS examples, information on the variety and application mainly comes from the KRASP examples. Partially applied red slip typically forms a band around the rim or covers a single surface, either the interior or exterior of the vessel. Based on

these application methods, they are categorized into two primary categories: *Red Slip Rim-Banded Wares* and *Single Surface Red Slipped Wares*.

Partially red slips are commonly found in Kültepe pottery from the Old Assyrian Period (Kozal, 2022: 194). Goldman (1956: 184) and Schoop (2011, 260) suggest this slip tradition may have originated from the Middle Bronze Age and continued into the early Late Bronze Age. However, according to Schoop (2011, 260), whether this tradition persisted into the late LBA in Hattusa remains unclear. Not restricted to Anatolia, similar examples are also noted by Pfälzner (2007, 247–248) from the LBA levels of Syrian Jazirah of upper Mesopotamia.

Red Slip Rim-Banded Wares (RS-RBW)

The wares from this group feature a red slip band around the rim, with smoothed surfaces and visible brush marks indicating the application method. Brushing results in uneven slip distribution; larger vessels have wider spacing between brush marks (**Figure 15**), leading to a lighter slip color, while smaller vessels show closer marks for a more intense red (**Figure 16**). This variation may reflect different workshop traditions or local preferences, with larger vessels used for daily life and smaller, intensely slipped ones reserved for special occasions where the display was significant.



Figure 15: RS-RBW example from KRASP. Wide brush marks resulting in lighter red slip color around the rim.



Figure 16: RS-RBW example from KRASP. Brush marks indicate that slip applied densely.

RS-RBW has one example in PLAS and eleven in KRASP, where burnishing is sometimes applied only to the rim or both the rim and exterior, with other examples having no burnishing.

The red slip band typically extends slightly below the rim on both sides of the vessel, a style noted in PLAS and KRASP examples. Similar designs, known as “Bowl with Painted Rim Band,” appear in LBA I levels at Tarsus-Gözlükule (Goldman, 1956: 184). Schoop also notes that RS-RBW appeared in the 16th c. BCE in Hattusa, which were replacing SS-RSW and FS-RSW (Schoop, 2009: 151). A variation found only in KRASP has the red slip beginning below the external rim and ending sharply at the internal rim curve, creating a decorative contrast (**Figure 17**). This variation often appears on SSBO5 examples from KRASP, indicating a relationship between the rim shape and surface treatment. I think the flattened upper rim of the SSBO5 was useful for the emphasis of color difference between internal and external surfaces, suggesting the possibility of varied slip or surface treatments based on rim and vessel shapes.



Figure 17: RS-RBW example from KRASP. Slip extends below the external rim (right) and sharply ends by the beginning of the internal rim (left).

Another example from KRASP (**Figure 18**) features two slip layers in addition to the red slip. The internal surface has a thin pinkish layer, while the external surface has a thick light brownish layer beneath the red slip band. The external surface is also burnished. These slip colors were likely applied separately before the red slip. The red slip ends sharply at the internal rim tip, making this example distinctive within red-slipped ware assemblages, possibly indicating a local or workshop-specific preference.



Figure 18: RS-RBW example from KRASP. Red Slip sharply ends at the internal rim tip. Brown slip on the external surface with burnish marks (left); matte pinkish slip on the internal surface (right).

Single-Surface Red Slipped Wares (SS-RSW)

SS-RSW includes six PLAS examples, one YYALRP, and five KRASP examples. In three survey examples, red slip is applied to a vessel's internal or external surface, typically extending slightly below the rim on one side to create visual contrast. The remaining parts of the vessel are usually left plain. All examples feature a consistent, smooth texture on both surfaces.

The red slip is applied only to the internal surface and rim in PLAS examples. In one version, the slip ends sharply at the external tip of the rim (**Figure 19**), while another extends slightly below the rim, creating a red slip band on the external surface (**Figure 20**). The latter is unique to the PLAS examples. It's uncertain whether the slip was applied by brush or dipping, as it is mostly worn away on the examined samples. Goldman mentions a similar example as the "Monochrome Burnished Ware" of Tarsus-Gözlükule LBA I (Goldman, 1956: 184). In Tepebağ, it is called "Red Band Decorated Pottery" (Yaşin&Aksoy, 2022: 169). Similar examples are found in Kinet Höyük, periods 14 and 13.1 of the LBA (Gates 2006, 305-306).



Figure 19: Example of SS-RSW from PLAS. On the left, external tip of the rim is defined by a black line.

In contrast, the KRASP and YYALRP examples feature red slips on the external surface, with two variations: some vessels have the red slip ending sharply at the internal rim tip (**Figure 21**), while others extend slightly below the internal rim, forming a decorative band similar to the PLAS example

(Figure 20). All but one example shows additional slip layers in brownish, orangish, and buff tones on the internal surface, often thicker. One example **(Figure 22)** indicates that both surfaces were initially red-slipped, followed by a lighter orange slip inside. This suggests the potter aimed to follow a specific treatment tradition seen in other SS-RSW from KRASP.



Figure 20: Example of SS-RSW from PLAS. On the left, the extending point of the red slip can be seen.



Figure 21: Example of SS-RSW from KRASP. Internal surfaces are slipped in lighter slips. Red slip sharply ends at the internal rim tip (above).



Figure 22: Example of SS-RSW from KRASP. Red slip application as a first layer can be seen by the pointed area.

In a few KRASP examples, the red slip appears to have been applied with a brush, showing uneven brush marks. Some examples also exhibit polishing or burnishing, and one vessel with a thick red slip layer is elaborately polished on both surfaces, indicating these vessels may have been intended for special occasions with a serving function.

Full-Surface Red Slipped Wares (FS-RSW)

Examples from KRASP and YYALRP represent this category. The sherds feature red slips applied to both surfaces, often with a thick layer visible through brush marks in KRASP (**Figure 23**, upper picture). However, the brushing may have been done quickly, leading to uneven color distribution and occasional surface coverage. This technique could have aimed to create a multicolored effect or save time in slip application (**Figure 24**). In contrast,

some FS-RSW exhibit more uniform colors, likely due to careful brushing or dipping (**Figure 23**, below picture). Over half show burnishing on both surfaces, while the remaining few appear matte, leaving unclear whether the matte finish was intentional or due to wear. In the YYALRP, FS-RSW has a lustrous red slip appearance due to the high mica content in the slip.

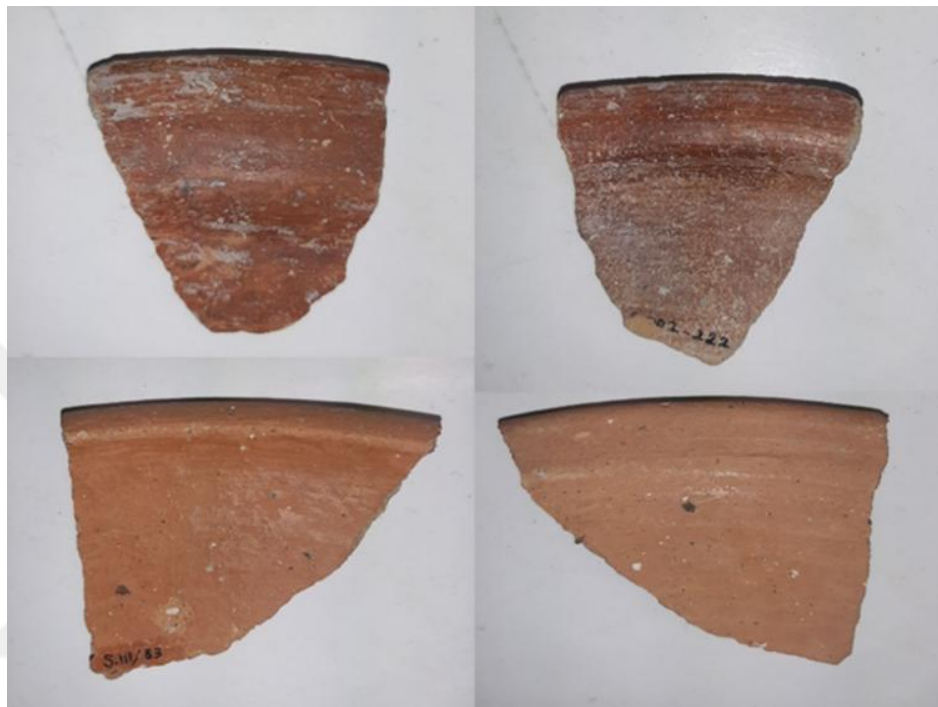


Figure 23: Examples of FS-RSW from KRASP. Red slip applications on both sides, upper left and right is done with brushing; lower left and right are not determined, it might be both applied with a brush or dipped into slip, coverage is high. Burnish marks visible on both examples.



Figure 24: Example of FS-RSW from KRASP. Brush marks is more visible, creating a contrast with the natural color of the vessel appearing beneath.

3.2.3 White Slipped Wares (WSW)

Most WSW examples are from PLAS, with few in KRASP and YYALRP. The WSW has three variations: (1) white-yellow slip, (2) thin white slip, and (3) cream slip.

The WSW in the first variation, found only in KRASP and PLAS assemblages, has a pale yellow-white color (10 YR 8/3) and is typically applied to smoothed surfaces on both sides (**Figure 25**). This slip corresponds to the White Yellow Clay Fabric from PLAS, suggesting that the clay source may have been diluted for use as a slip. Although predominantly associated with this fabric, WSW also appears on sherds from other fabric groups, indicating it was not limited to a specific type. Its presence on KRASP sherds suggests potential stylistic significance, reflecting a regional pottery tradition rather than just a surface treatment.

PLAS examples consistently show white-yellow slips on both surfaces, whereas KRASP examples vary. For instance, white slip is applied to both surfaces in some cases and only to the exterior in others. Few KRASP

examples show signs of burnishing or polishing on the internal or external surface, which is not observed in PLAS examples.



Figure 25: Example of WSW from PLAS.

The second variation involves a thin white slip coat, with 25 examples from PLAS and three from YYALRP. Most examples have well-smoothed surfaces and slip applied to both sides. Although the slip generally has a matte appearance, few examples show signs of burnishing or polishing on both surfaces. While the slip typically appears matte, a few examples show burnishing or polishing. The thin white coating creates a pale, slightly lighter tone than the original ceramic surface color. The most common surface colors are 7.5 YR 7/3 (pink), 7.5 YR 7/4 (pink), 10 YR 7/3 (very pale brown), and 10 YR 8/3 (very pale brown).

In YYALRP, one example features a micaceous thin white slip, which bears similarities to examples from Beycesultan (Durusu-Tanrıöver 2016: 78). The variation in such treatments suggests mixing pottery traditions, hinting at cross-cultural influences between central and western inland Anatolia within the same surface treatment tradition.

In the final WSW variation (**Figure 26**), 19 examples were analyzed: six from PLAS, three from KRASP, and ten from YYALRP. Thick cream slip was found on smooth surfaces in three survey assemblages. Standard colors noted include 2.5 Y 8/2 (pale brown), 7.5 YR 7/3 (pink), and 10 YR 8/3 (very pale brown).

In KRASP and PLAS, unlike other white slip variations, the application of cream slip is primarily observed on sherds from the fine fabric group, indicating a potential link between this surface treatment and the fabric type. Some examples in KRASP and PLAS assemblage exhibit elaborate burnishing on both surfaces, enhancing the cream slip's smooth, reflective quality. Observing the same combination of fine fabric and burnished cream-slipped surfaces on both survey regions suggests that these wares may have been used as a pottery tradition in western inland Anatolia, possibly for special purposes, serving as tableware for important occasions.

In YYALRP, cream slip is found on fine, medium, and coarse fabrics, showing no preference for fabric type. Unlike PLAS and KRASP, where polishing or burnishing is common, these treatments are also rare.



Figure 26: Examples of cream-Slip from KRASP. Upper right and left are burnished examples. Lower right and left are matt examples.

3.2.4 Brown Slipped Wares (BSW)

BSW found exclusively in PLAS (**Figure 27**) and is characterized by a distinct slip color, predominantly with corroded surfaces. Only two examples offer a clear view of the surface treatment, while the rest provide limited insight. BSW were categorized separately due to their coloration, which may have originally been red and faded to brown over time, though proving this is difficult. The common color for BSW is 2.5 YR 4/3 (reddish brown). All examples in this group were initially self-slipped on both surfaces before applying the brown slip in three styles, as explained in **Table 17**.



Figure 27: BSW example from PLAS.

Variation	Description
V1	Brown slip applied to the internal surface and rim, ending sharply at the tip of the external rim. Some examples show brush marks, while others are too corroded for further details.
V2	Brown slip applied only to the external surface, ending sharply at the tip of the external rim
V3	Brown slip applied to both surfaces, followed by burnishing. The slip appears thick, and have a uniform distribution on the surface.

Table 17: Description of PLASS BSW variations

3.2.4 Concluding Remarks on Surface Treatments

Concerning surface treatments, most sherds fall into the non-slipped category, primarily observed on medium fabrics. However, regional differences can be observed between some survey projects. For instance, WSW is found in higher proportions in PLAS and YYALRP, while it is less common in KRASP. In contrast, RSW is more prevalent in KRASP and is observed at lower rates in PLAS and YYALRP. The distribution percentages of surface treatment groups are presented in **Tables 18-20**.

These regional differences indicate that local preferences may influence surface treatments. Moreover, the variation among surface treatment groups is greater than that seen among fabric groups. While a certain uniformity exists in fabric recipes, surface treatments demonstrate a somewhat more flexible variation.

If slip is not applied, the wet-smoothing process tends to be more rudimentary. Conversely, the sherds are typically well-smoothed and burnished when a thicker slip layer is used. Burnishing is more frequently observed in KRASP examples, whereas PLAS and YYALP examples tend to exhibit matte surfaces. This discrepancy might also be attributed to preservation conditions, as PLAS sherds often show larger washed-off or calcified sections.

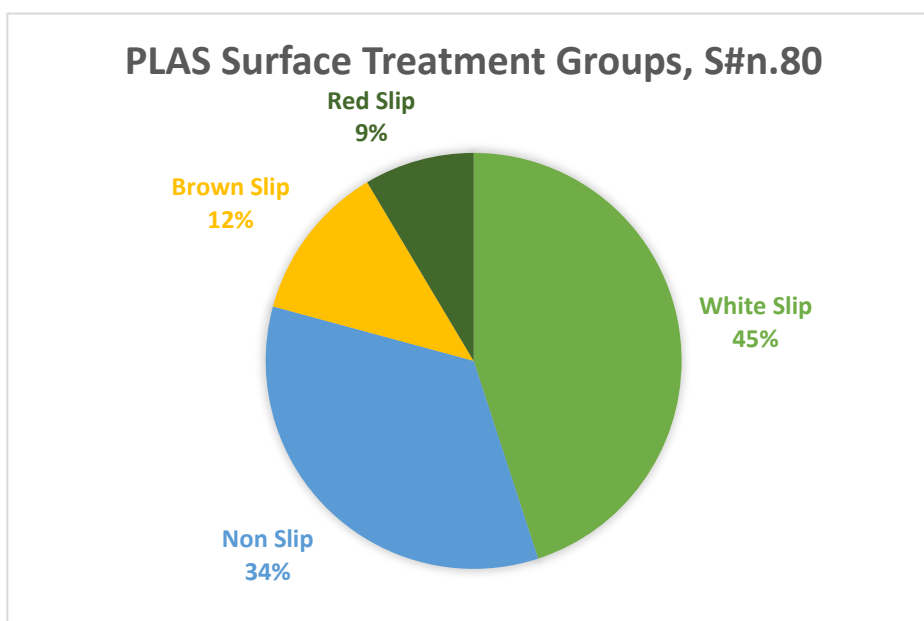


Table 18 (p.63): Pie chart showing the distribution percentages of ware groups in PLAS assemblages.

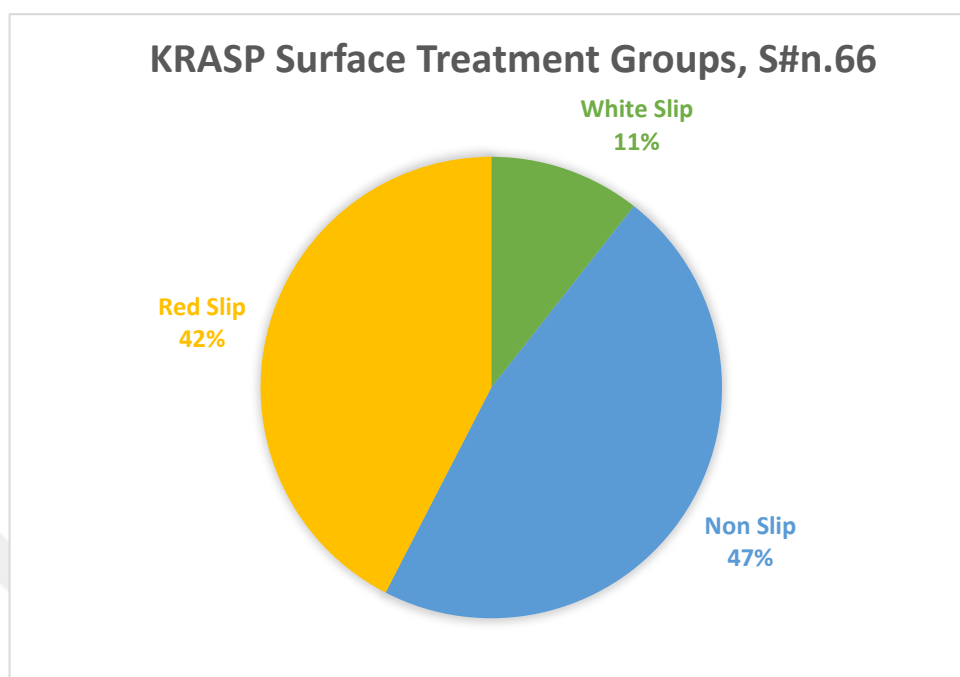


Table 19: Pie chart showing the distribution percentages of ware groups in KRASP assemblages.

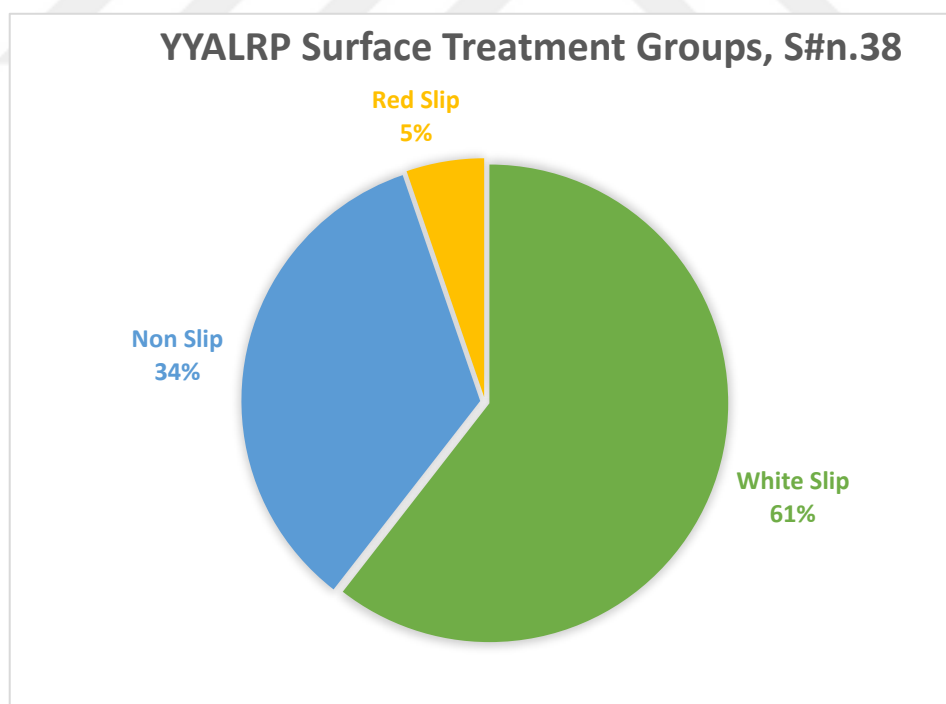


Table 20: Pie chart showing the distribution percentages of ware groups in YYALRP assemblages.

Sherds with slip application display common characteristics, such as the presence of a red slip band around the rim in PLAS and KRASP. However, notable distinctions exist: in KRASP examples, SS-RSW is predominantly applied to the external surface, while in PLAS examples, it is more commonly found on the internal surface. Additionally, if one side is covered with a dark-colored slip (red or brown), it generally extends to the rim and ends in one of two ways: it either stops sharply at the external/internal edge of the rim or slightly extends below the rim on the internal/external side. These two variations are nearly identical, with slight differences depending on the surface preference.

Well-fired fine wares with a cream slip and burnish are also present in both survey projects, exhibiting a remarkable similarity in texture, appearance, and color. This treatment is not localized but possibly widespread across Anatolia during the Late Bronze Age. In YYALP, cream slips are also observed, though they do not share the same fabric characteristics as those in PLAS and KRASP.

3.3 Morphotypological Analysis

This section analyzes the morphotypological variations of vessel forms from KRASP, PLAS, and YYALP, focusing on the functional uses of bowls. Functional groups are categorized by depth, with shallow bowls (SBO) identified as the main category.

3.3.1 Shallow Bowls (SBO)

Shallow bowls represent the largest category in the typological classification of ceramics across the three survey projects. Based on the body profiles of vessels, there are two typological classes: *Straight Shallow Bowls (SSBO)* and (2) *Hemispherical Shallow Bowls (HSBO)*. The features of two typological classes are explained in **Table 21**.

Upon examining the data in **Table 22**, SSBO emerges as the most common typological class across the three survey areas. Furthermore, a comparison of the distribution of HSBO and SSBO (**Figure 28**) (**Table 11 - Appendix A** also shows statistical data) in 14 settlement assemblages reveals that SSBO appears to be widely represented throughout Anatolia. This distribution

indicates that the SSBO does not prevail only in the three survey areas but is widespread across Anatolia.

Typological Class	Description	Average Dia.	Largest Dia.	Smallest Dia.
SSBO	flat, V-shaped profile wall profiles have straight inclination interior walls are slightly oval compared to the exterior	23,3	33	15
HSBO	characterized by a spherical and slightly flattened convex hemispherical wall profile	25,3	42	15

Table 21: Table showing the descriptions, average, largest and smallest diameter values of SSBO and HSBO typological classes.

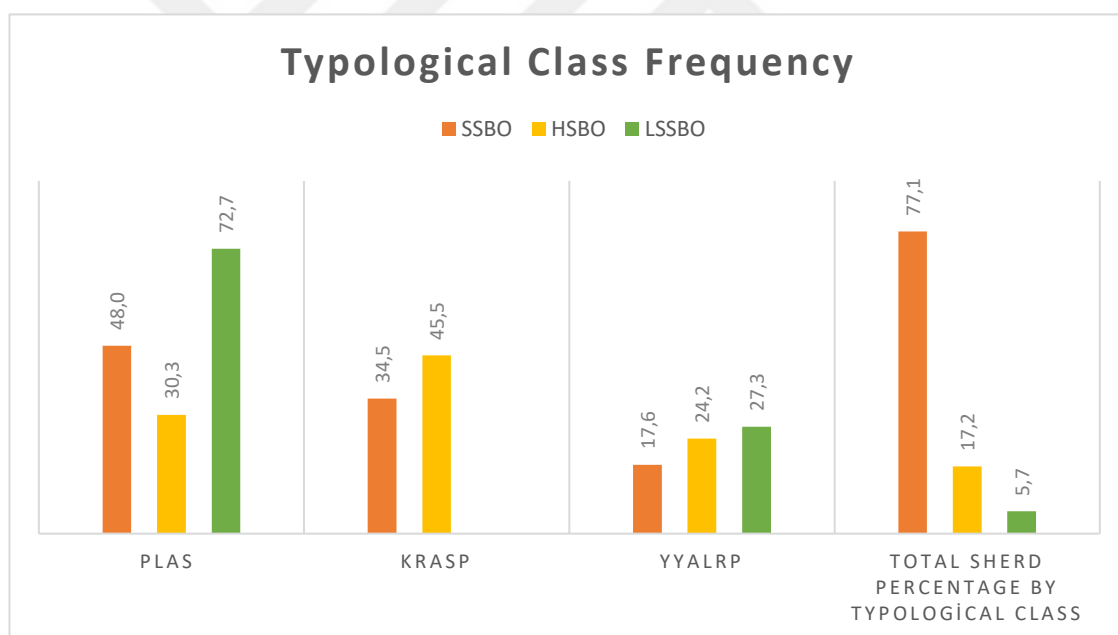


Table 22: Bar chart showing percentage distribution of SBO classes by survey projects and total sherds percentage.

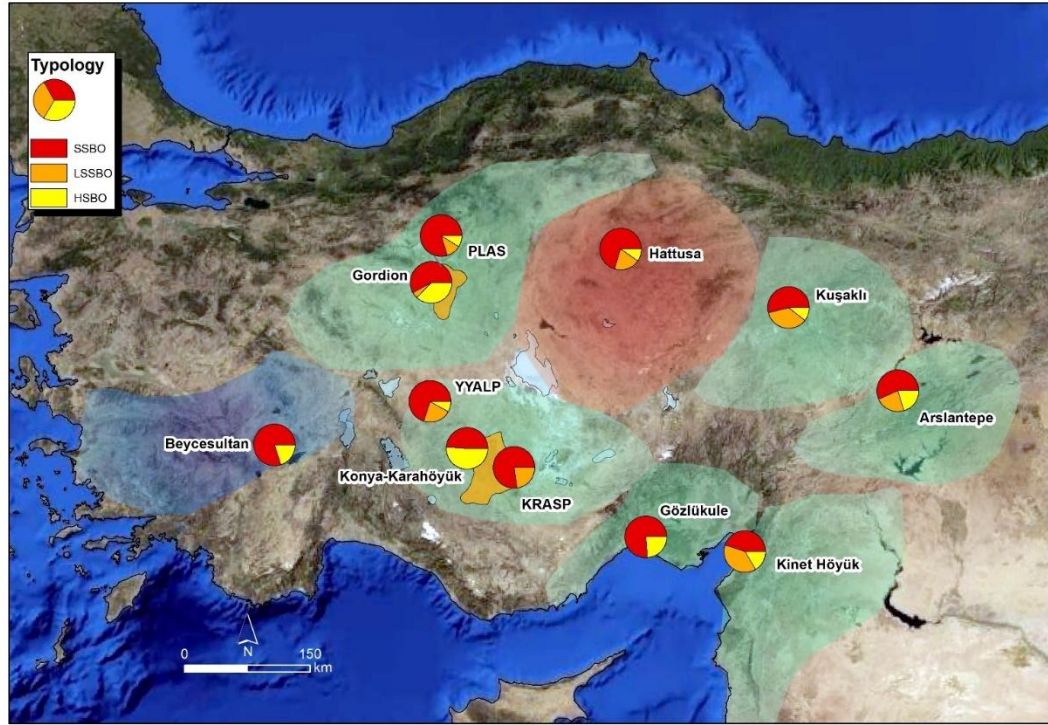


Figure 28: Distribution of main typological classes of ASRB from the survey regions and from a select set of sites across Anatolia.

3.3.1.1 Straight Shallow Bowls (SSBO)

SSBO is the most extensive category in the typological classification of ceramics. Based on rim profiles, there are six types of SSBO (**Catalogue Figures 1-9**) and two types of LSSBO (**Catalogue Figure 10**), explained in **Table 23**.

In three survey projects, the frequency of SSBO types are quite varied (**Tables 24-25**). The most notable variation is that the SSBO1, SSBO5, and SSBO6 types are present in high proportions in PLAS, while they are less common in KRASP and YYALRP. In contrast, SSBO2 appears at relatively higher rates in KRASP compared to PLAS, but it is found in low proportions in YYALRP.

Additionally, SSBO3 is observed at relatively higher rates in both KRASP and YYALRP, but it is completely absent in PLAS. These variations indicate a relative variation in SSBO types across the three survey projects. LSSBO, however, is rarely found in the three survey areas and throughout Anatolia.

Type	Rim Type	Average Dia.	Largest Dia.	Smallest Dia.
SSBO1	rounded rim	23	28	16
SSBO2	rounded but pointed upwards, and slightly elongated	23,6	30	15
SSBO3	incurve rounded rim	24	33	18
SSBO4	internally pointed and squared rim	24	32	18
SSBO5	flattened rim on its upper part, with rounded rim curves towards the walls	22,4	28	16
SSBO6	broad and rounded rim thickened on both sides (wedge-shape)	24	30	18
LSSBO1	rounded rim	34	46	30
LSSBO2	broad and rounded rim thickened on both sides	30	30	30

Table 23: Table showing the descriptions, average, largest and smallest diameter values of SSBO types.

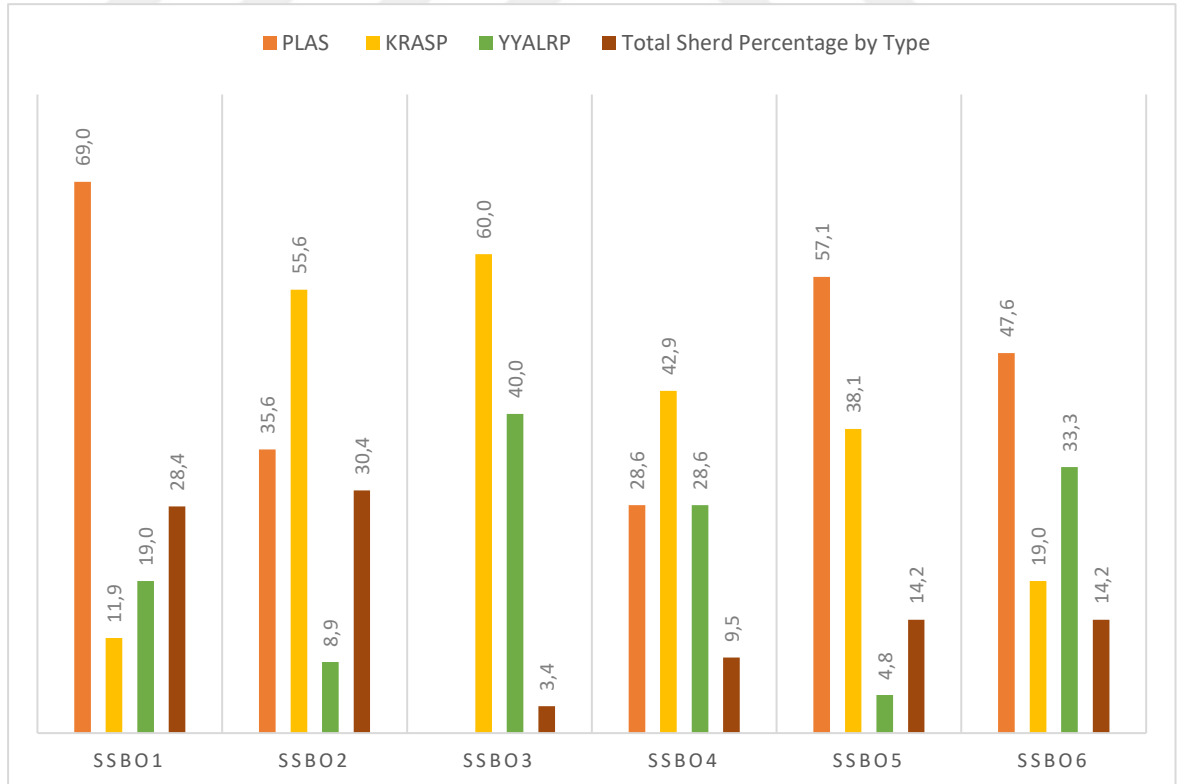


Table 24: Bar chart showing percentage distribution of SSBO types by survey projects and total sherd percentage.

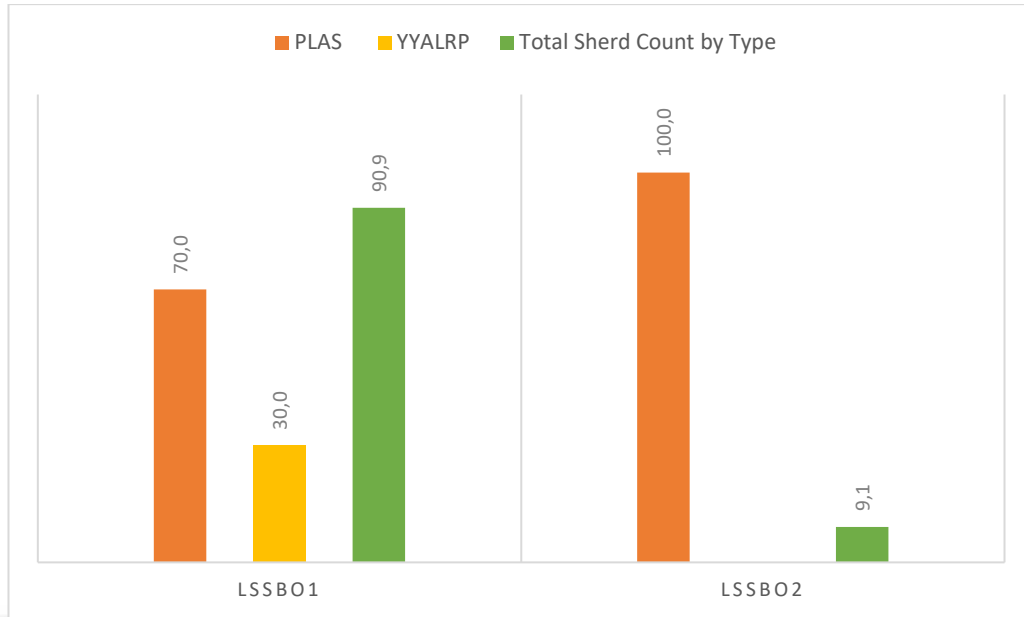


Table 25: Bar chart showing percentage distribution of LSSBO types by survey projects and total sherd percentage.

In **Table 12** in Appendix A, the variation of SSBO types in 14 excavated and already published settlements are presented. However, it should be noted that since the counted samples from each settlement consist only of published examples, the assessments based on these values may change as further research is conducted in the coming years.

Based on published examples, SSBO1 and SSBO2 are the most common typological variants, found in nearly all settlements, especially in the Kızılırmak Bend, where sites like Hattusa, Kuşaklı, and Acemhöyük show the highest concentrations. The prevalence of SSBO1 and SSBO2 indicates they were the most commonly produced bowl forms in the LBA Anatolia, while SSBO3, SSBO4, and SSBO5 are less frequent and more localized, mainly found in Hattusa, Kuşaklı, and a few sites in Konya Plain and Cilicia. This suggests that while SSBO3-5 were in use, they were less common, or ASRB types were changing, likely based on regional preferences.

SSBO6 is relatively well-represented but unevenly distributed across settlements. It is most frequent in Hattusa and Kuşaklı, with fewer occurrences in Cilicia and other regions. Its absence in some sites suggests it was not dominant in all production centers.

In conclusion, the prevalence of SSBO1 and SSBO2 across various regions indicates they were among Anatolia's most widely distributed ASRB types during the Late Bronze Age. However, the regional variations in SSBO3-SSBO6 suggest that while SSBO was dominant, specific types were more localized. The concentration of SSBOs in central Anatolia, especially in the Kızılırmak Bend, points to a centralized production system, with others potentially relying on local production or trade for these ceramics.

The diameters of SSBO types (**Figure 29**) vary significantly between and within sites. While the average diameter of SSBO examples in PLAS falls within approximately 22–23 cm, in KRASP and YYALRP, both the range of diameters and the average measurements show considerable variation across different SSBO types. This suggests that there was no standardized diameter for these vessels.

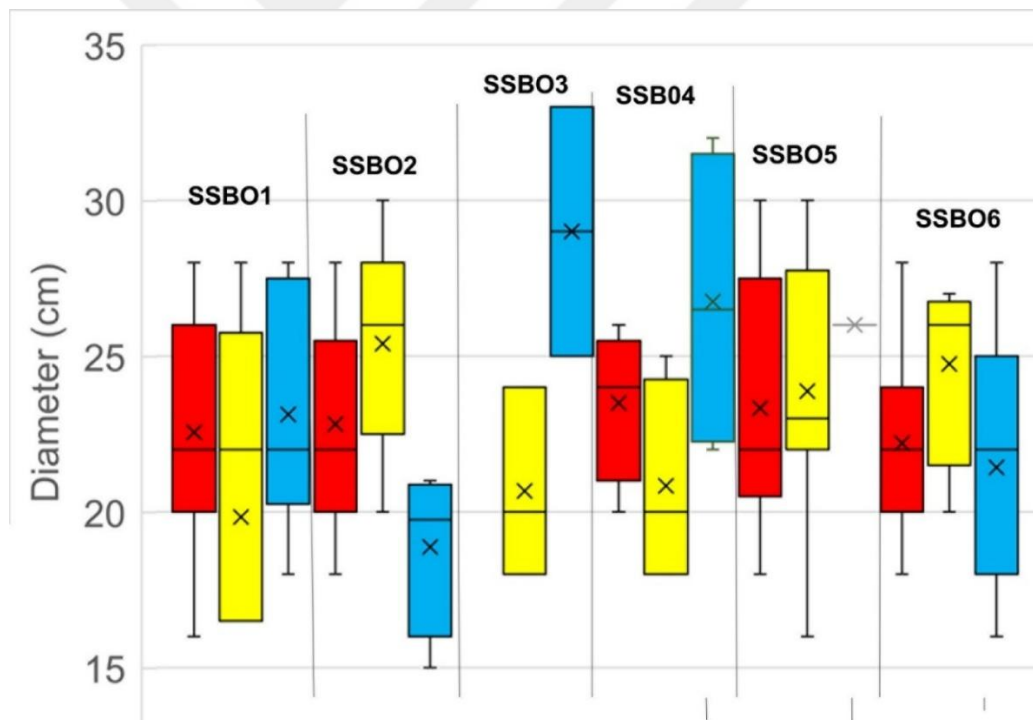


Figure 29: Chart showing the diameter variation of the ASRB types. Red= PLAS, Yellow=KRASP, Blue=YYALP. S#n.159

3.3.1.2 Hemispherical Shallow Bowls (HSBO)

HSBO (*Catalog Figures 11-13*) is less extensive category in the typological classification of ceramics. Based on rim profiles, there are three types of HSBO, explained in **Table 26**. The variation of HSBO between surveys (**Table 27**) is also notable. HSBO1 is more prevalent in YYALRP, whereas it appears in relatively lower proportions in PLAS and KRASP. In contrast, HSBO2 and HSBO3 have higher proportions in KRASP and PLAS but are less common in YYALRP. These regional differences are particularly interesting because it seems to have adopted a distinct form variation despite YYALRP being located between the KRASP and PLAS survey areas. On the other hand, in 14 settlement assemblages (**Table 13- Appendix A**), HSBO types are considerably fewer compared to SSBO and shows more regional distribution values. This, once again, may become clearer with future publications.

Type	Rim Type	Average Dia.	Largest Dia.	Smallest Dia.
HSBO1	rounded rim	27	42	15
HSBO2	rounded but pointed upwards, and slightly elongated	23,6	30	18
HSBO3	broad and rounded rim thickened on both sides (hammer-like shape)	25	36	20

Table 26: Table showing the descriptions, average, largest and smallest diameter values of HSBO types.

Like SSBOs, the average diameters of HSBOs (**Table 28**) do not show significant uniformity across the three surveys. PLAS and KRASP display consistency within their respective HSBO assemblages. On the other hand, due to the relatively small sample size for HSBOs, there is limited similarity in individual diameter measurements within and between the survey projects.

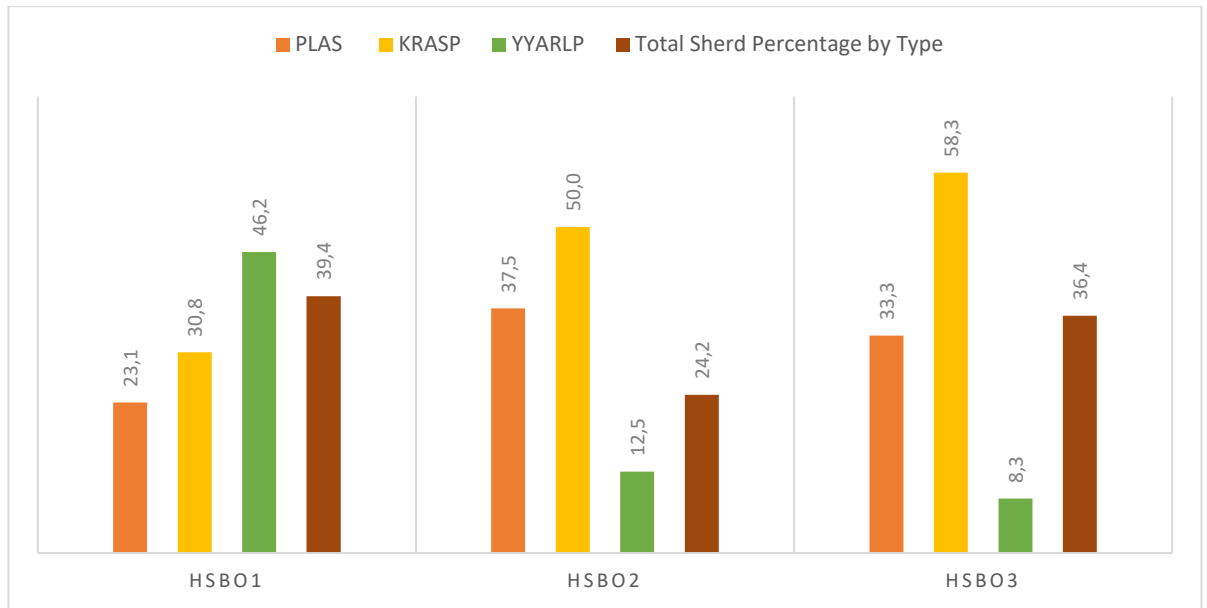


Table 27: Bar chart showing percentage distribution of HSBO types by survey projects and total sherd percentage.

Average Diameter (cm)	PLAS	KRASP	YYALP
HSBO1	22,0	25,8	30,0
HSBO2	22,6	24,8	22,0
HSBO3	22,5	24,7	36,0

Table 28: Average diameter variations of HSBO types for each survey project.

3.3.2 Capacity Analysis

The total sample size for the volume calculation consists of 154 examples distributed across 18 categories (e.g., SSBO1-PLAS, SSBO1-KRASP). The YYALRP examples are excluded from the capacity analysis due to the absence of digitized drawings. Although the capacity analysis results do not provide a robust dataset, they still reveal two notable patterns (**Figure 30**).

First, KRASP examples exhibit a generally higher capacity across all nine ASRB types. Since the same reconstruction methodology was applied to both datasets, the likelihood of systematically overestimating KRASP volumes is low. The KRASP examples tend to preserve more of their body

profile, particularly in height, which may result in larger capacities on average.

Second, most vessels fall within a capacity of approximately 0.2 to 1.1 liters. Notably, PLAS examples display relatively consistent volume measurements within their respective categories, with comparable volume averages across different types.

The average volume is approximately 0.6 liters for SSBOs and around 0.45 liters for HSBOs. However, despite this overall consistency, there is significant variability within each type and across survey projects. The individual outliers (represented as dots) indicate examples within the most extreme 5% of the dataset.

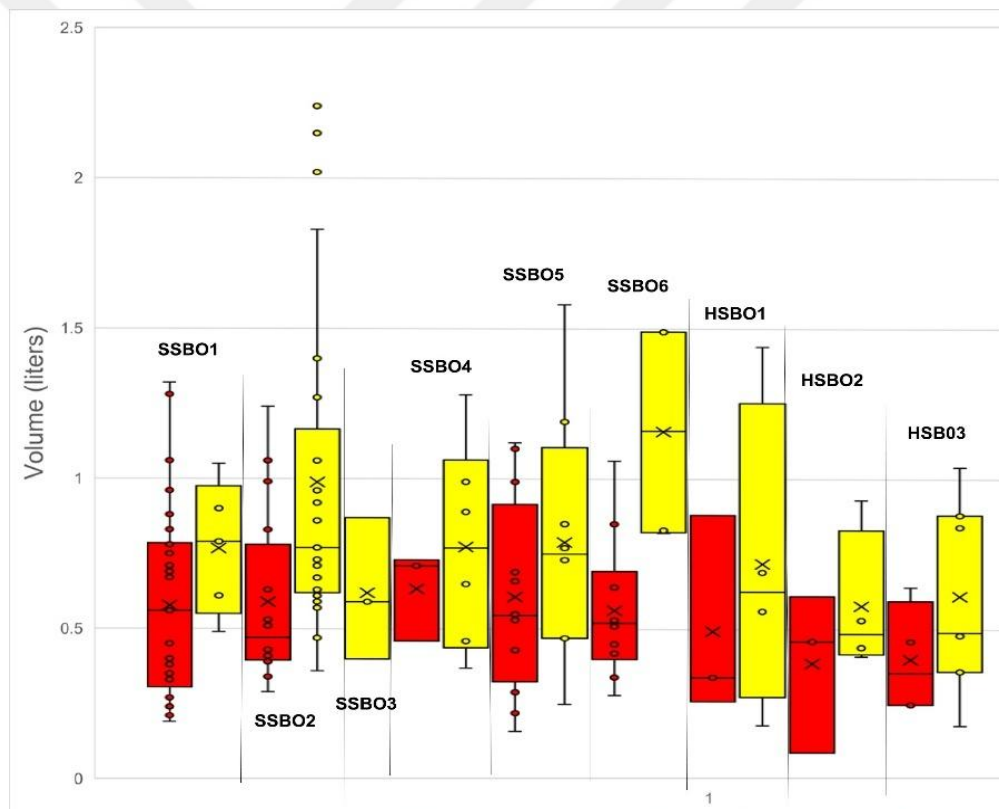


Figure 30: Chart showing the volume variation of ASRB types. Red= PLAS, Yellow=KRASP, S#n.154. X indicates the average volume values, while dots indicates individual variation for each type within surveys.

Given the lack of contextual provenance for these ceramics and the fact that they are not strictly contemporary, it is difficult to draw definitive conclusions about standardization in their production. It remains possible that identical

ASRBs were produced in batches at different sites and times, yet they appear mixed within the dataset. However, the aggregate data does not suggest a fixed volume standard, implying that these vessels were not designed to serve a specific, predefined content unit. Instead, their function likely accommodated a range of capacities, reinforcing the idea that their production was not strictly regulated to achieve uniform volume specifications.

3.3.3 Concluding Remarks on Morphotypology

This section examined the morphotypological variations of vessel forms across the three survey projects, focusing on the classification and distribution of shallow bowls (SBO). The analysis has demonstrated that SSBO represents the most prevalent typological class, exhibiting a wide geographical distribution that extends beyond the study regions and into broader Anatolia.

The results highlight regional differences in the frequency and variation of SSBO and HSBO types. These patterns suggest localized production traditions and preferences within each survey region. Additionally, the variation in diameters and capacity between and within individual survey projects indicates flexibility in vessel dimensions.

Overall, the morphotypological analysis supports that SBO forms, particularly SSBO, were widespread throughout Anatolia. However, variations in type frequencies and dimensions suggest that while the general vessel form remained consistent, local adaptations and production choices influenced the finer details of their manufacture.

3.4 Chronotypology

This section examines the stratigraphic layers in which ASRB appear across 14 settlements to understand how far back these forms date. I will first examine the layers that contain EBA examples, followed by those that include MBA and LBA examples. The chronological distribution of SSBO and HSBO types is presented in **Tables 14–24** in Appendix A. Furthermore, **Appendix C** provide the figure and plate references for ASRB examples identified in the examined publications.

3.4.1 EBA

The earliest possible examples of ASRB originate from Tarsus EBA II (Goldman 1956) and Kilisetepe EBA II, Level V (Postgate, 2007b). In inland western Anatolia, examples have been identified at Beycesultan EBA II, Level IX (Mellaart and Lloyd, 1962). These early examples, primarily handmade, exhibit only a precursor trait—an inward thickening at the rim—that does not directly resemble later MBA and LBA ASRBs.

In EBA III, ASRB appears in the northwestern Central Plateau at Küllüoba EBA III (Türkteki 2004) and in the transitional layers from EBA to MBA (Şahin, 2013). Contemporary to Küllüoba, ASRB examples have been identified in Acemhöyük EBA IIIA-B (Kamış 2012) and Beycesultan EBA III in Levels XIII, XI, and Level VIa during the MBA transitional period (Mellaart and Lloyd, 1962). By the second half of the 3rd mill (around 2500-2400 BCE), these settlements include both wheelmade and handmade ASRB variants with the introduction of potter's wheel, with most examples appearing wheelmade in the later phases of EBA III. The chronotypological similarities of ASRB between the Early Bronze Age (EBA) and the Late Bronze Age (LBA) can be observed in **Figures 31-33**.

3.4.2 MBA

The stratigraphic presence of ASRB during the Middle Bronze Age (MBA) indicates its widespread and sustained use, with regional variations in form.

At Beycesultan, early MBA ASRB examples are found primarily between Levels VI and III (Mellaart and Lloyd, 1965). Further chronological refinement suggests its presence starting in MBA transitional Layers 10-7, dating between 2130-2080/2060-1940 BCE to 1800-1775 BCE (Ergün, 2023). These levels indicate the continuous development of the form throughout the MBA, possibly with local adaptations.

In Konya Karahöyük, ASRB is identified in MBA Levels I-IV (Gürdal, 2023). The repeated identification across these levels suggests a consistent presence of the form throughout the MBA.

At Kilisetepe, ASRB is documented in Level IV, particularly in sublevels IVa and IVb (Şerifoğlu 2019). In Tell Atchana/Alalakh, ASRB appears in the MB IIC phase (Level VII-VI) (Yener, Akar & Horowitz 2010).

In Hattusa, ASRB is identified within the Büyükkale stratigraphy throughout the MBA, particularly starting in Büyükkale V and continuing through Büyükkale IV (Fischer 1963; Orthmann 1984). Contemporary to Büyükkale levels, in the Lower City, it is present in Ust 4 (Unterstadt V-IV) (Fischer 1963).

At Arslantepe, ASRB appears in the MBA VA1-2 levels (Di Nocera 1998) and in the LBA transitional phase VB1 (Manuelli 2013), marking the shift between the MBA and the LBA. However, it should be noted that in the published studies on MBA pottery from Arslantepe, the exact stratigraphic contexts containing ASRB are not explicitly identified. Therefore, in this study, all MBA levels at Arslantepe are included rather than distinguishing VA1-2 separately. At Gordion, ASRB appears on LBA transitional period, in Megaron 10 Layer 14 (Gunter 1991).

3.4.3 LBA

The presence of ASRB in the Late Bronze Age (LBA) is well-documented across several Anatolian sites, appearing consistently in both LBA I and LBA II levels.

At Arslantepe, ASRB is attested throughout the LBA I and II, spanning levels VB2 to IV (1600–1200 BCE) (Manuelli, 2013). Similarly, at Korucutepe, ASRB is recorded in LBA I (Level I) and LBA II (Level J) (Ertem and Umurtak, 1988).

In Hattusa, ASRB is documented within the stratigraphy of Büyükkale, the Lower City, and the Upper City. During the Late Bronze Age I (LBA I), it appears in Unterstadt Level III (Ust 3) (Neve and Bittel, 1984). This is followed by occurrences in Ost Levels 3 and 2 during the Late Bronze Age II (LBA II) (Müller-Karpe, 1988; Parzinger and Sanz, 1992). In the final Late Bronze Age, ASRB remains present in Büyükkale Level III and Lower City Level 1 (Fischer 1963).

At Beycesultan, ASRB is identified in the LBA 5th Stratum (Şener 2014), corresponding to Levels II and I (Mellaart and Murray, 1995). At Kinet Höyük, ASRB is documented in Periods 15–14 (Baskın, 2022), corresponding to LBA I. In Tell Atchana/Alalakh, it appears in LBA I (Periods IV–V) and continues into LBA II Periods III–I) (Yener, Akar & Horowitz 2010, 2019). In Kilisetepe, the form appears in Level II of LBA II (Postgate, 2007b). Tarsus also yields ASRB in both LBA I (Level VIII) and LBA II (Levels IX–X) (Goldman, 1956).

In Kuşaklı, ASRB is found throughout the LBA, with stratigraphic phases correlating to the early Hittite period (Althethitisch, LBA I), the middle Hittite and early Empire period (Mittelheth./frühe Großreichszeit, LBA I–II transition), and the late Hittite Empire period (späte Großreichszeit, LBA II) (Arnhold, 2009; Mielke, 2006).

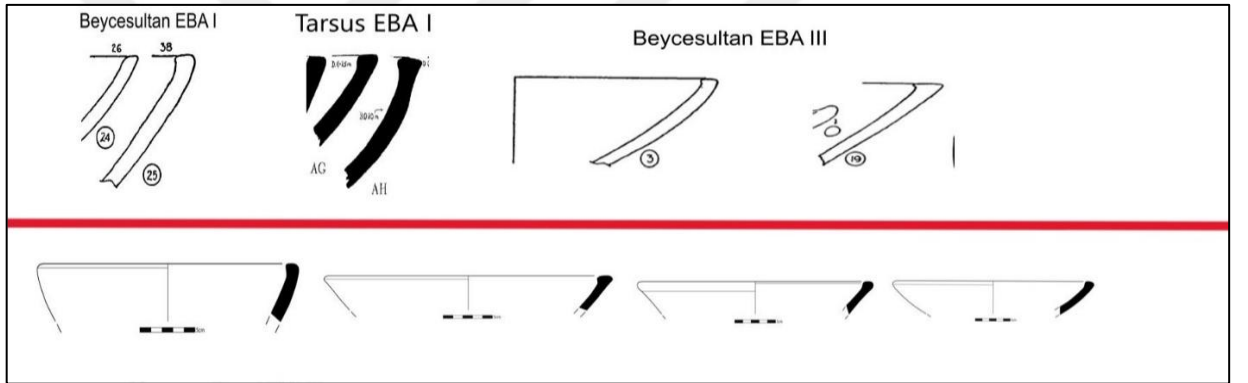


Figure 31: EBA examples of ASRB (upper section) and LBA thesis samples. The EBA examples closer to SSBO1 and SSBO5.

3.4.4 Concluding Remarks on Chronotypology

This section explored the chronotypological distribution of ASRB across 14 settlements from the Early Bronze Age (EBA) to the Late Bronze Age (LBA). By examining stratigraphic contexts, this study has provided a clearer timeline for the emergence and transformation of ASRB, highlighting its long-term continuity and regional variations.

The earliest ASRB examples are found in the EBA II levels at Tarsus and Kilisetepe, followed by Beycesultan, Küllüoba, and Acemhöyük in EBA III.

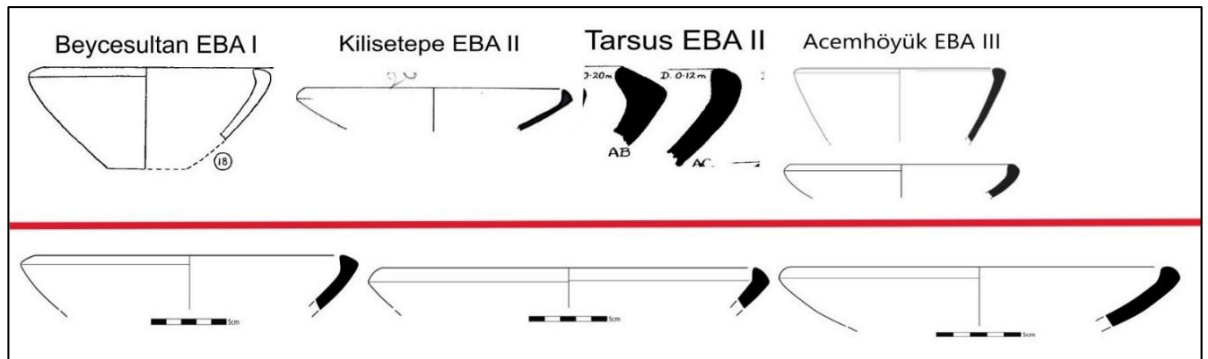


Figure 32: EBA examples of ASRB (upper section) and LBA thesis samples. The EBA examples closer to SSBO2 and SSBO4.

These initial forms are mostly handmade with precursor traits like inward-thickened rims. By late EBA III, handmade and wheelmade varieties coexist, with wheelmade examples gaining prominence, indicating an increased use of the potter's wheel.

In the LBA, ASRB is found extensively across central and western Anatolia, maintaining consistency while exhibiting local fabric and treatment variations influenced by regional traditions. Overall, the evidence underscores ASRB's significant role in Anatolian ceramic traditions, evolving from diverse EBA origins into a more standardized LBA form, which is crucial for tracking shifts in pottery production.

Overall, the stratigraphic evidence highlights ASRB's deep-rooted presence in Anatolian ceramic traditions, evolving from a regionally diverse EBA precursor into a more standardized LBA form. This section's findings contribute to a more nuanced understanding of chronological developments, reinforcing the importance of ASRB as a key ceramic type for tracking long-term shifts in Anatolian pottery production.

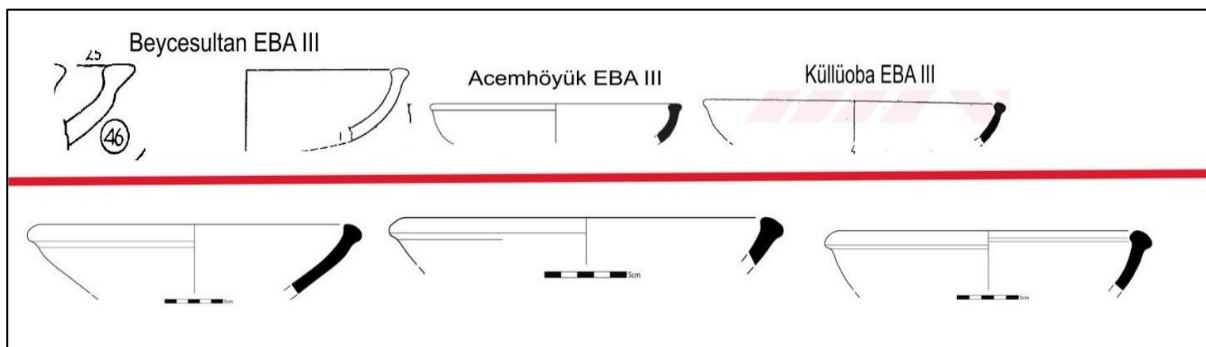


Figure 33: EBA examples of ASRB (upper section) and LBA thesis samples. The EBA examples closer to SSBO6/HSBO3.

3.5 Contextual Analysis

This section examines the contextual distribution of ASRB from the Early Bronze Age (EBA) to the Late Bronze Age (LBA) across multiple sites. Given that the ceramics analyzed in this study originate from surface collections and lack in-situ context, examples from seven settlements are reviewed to understand their functional roles better. The analysis identifies three primary contexts: (1) kitchen/workshop areas, (2) storage and utility rooms, and (3) burial settings. The most common context is kitchen or multifunctional spaces within domestic structures, where similar examples have been found.

The analysis reveals a consistent pattern of ASRB usage across different periods and regions, primarily associated with food preparation, consumption, and storage. Additionally, its presence in burial contexts suggests symbolic or ritualistic significance. **Table 29** summarizes the distribution of ASRB within these contexts.

3.5.1 Küllüoba

The earliest ASRB example was discovered in a domestic building near the eastern gateway of Küllüoba, dating to the Early Bronze Age II (Layer III) (Sarı, 2004: 12). In trench AG17 of this area, one ASRB was found in situ in a burnt room interpreted as a kitchen, along with other types of bowls and cups. However, details about the building's characteristics are limited (Sarı, 2004: 12-13).

Site	Archaeological Period	Stratigraphic Level	Settlement Part	Structure	Context
Küllüoba	EBA II	III-I	Building near the fortification wall	domestic	kitchen/workshop area
Tell Atchana	Late MBA	Phase 3	Cemetery	burial	cist burial
Tell Atchana	Late MBA/Early LBA	Phase 2	Residential Quarter	domestic	kitchen/workshop area
Beycesultan	LBA	Phase 5b	Residential Quarter	domestic	kitchen/workshop, utility and storage room, common spaces
Gordion	LBA	undefined	Cemetery	burial	pithos burial
Gordion	LBA	Megaron 10: Layer 18-14	Cemetery	burial	pithos burial
Arslantepe	MBA	Layer Vd	City Gate System	domestic	kitchen and storage room
Arslantepe	LBA	VB2	Residential Quarter?	domestic	kitchen/living area
Arslantepe	LBA	VB2	Residential Quarter?	domestic	dining room and storage/utility room
Arslantepe	LBA	VB1 - VB2	Residential Quarter?	domestic	kitchen/workshop/storage/utility room
Hattusha	LBA	Midde Plateau 2a-2b	West Upper City	GAL-MESEDİ House: administrative	utility room

Table 29: Table showing contexts examined for the contextual analysis.

3.5.2 Tell Atchana/Alalakh

During the 2003–2004 excavation seasons at Tell Atchana, a kitchen/workshop area was uncovered in Area 3. This space contained two ASRB examples, along with andirons, hearths, basalt basins, complete vessels, and lithics, suggesting its function as an open courtyard for cooking and craft production. The context is dated to the transition between the late Middle Bronze Age and early Late Bronze Age (Phase 2) (Yener et al., 2010: 26–27).

In Area 3 of the Royal Precinct, 36 graves from the late Middle Bronze Age (Phase 3-14th century BC) were found. Burial 03-3041 contained an anti-splash rim bowl, beads, a chert piece, an ovoid bottle, and a pot, offering insights into burial practices of the time (Yener et al., 2010: 26–28).

3.5.3 Arslantepe

During the 1969–1971 excavations at Arslantepe, remains of a Middle Bronze Age fortification gate system and an earthen ramp (Level Vd - 1700–1600 BCE) were uncovered (**Figure 34**). This gate system was repeatedly modified and ultimately destroyed by fire. Three basement rooms (A50, A66, and A67) (**Figures 35-36**), found sunken in the ramp, were also destroyed by fire, with numerous ceramic vessels scattered in situ on their floors (Manuelli, 2013: 42–44).

Sector A67, the middle room, yielded several finds, including two ASRB, various jars, a necked pithos, and a stone pestle (Manuelli, 2013: 297–299). The room featured a bench along one wall and a horseshoe-shaped hearth near a rectangular clay container on the opposite side (Manuelli, 2013: 44). The findings suggest the room was likely used for food preparation and storage.

No ASRB were found in sectors A50 and A66, but significant artifacts, including cooking pots, fruit stands, mugs, funnels, and a mortar, were discovered, aiding the understanding of the building's function (Manuelli, 2013: 298-299).

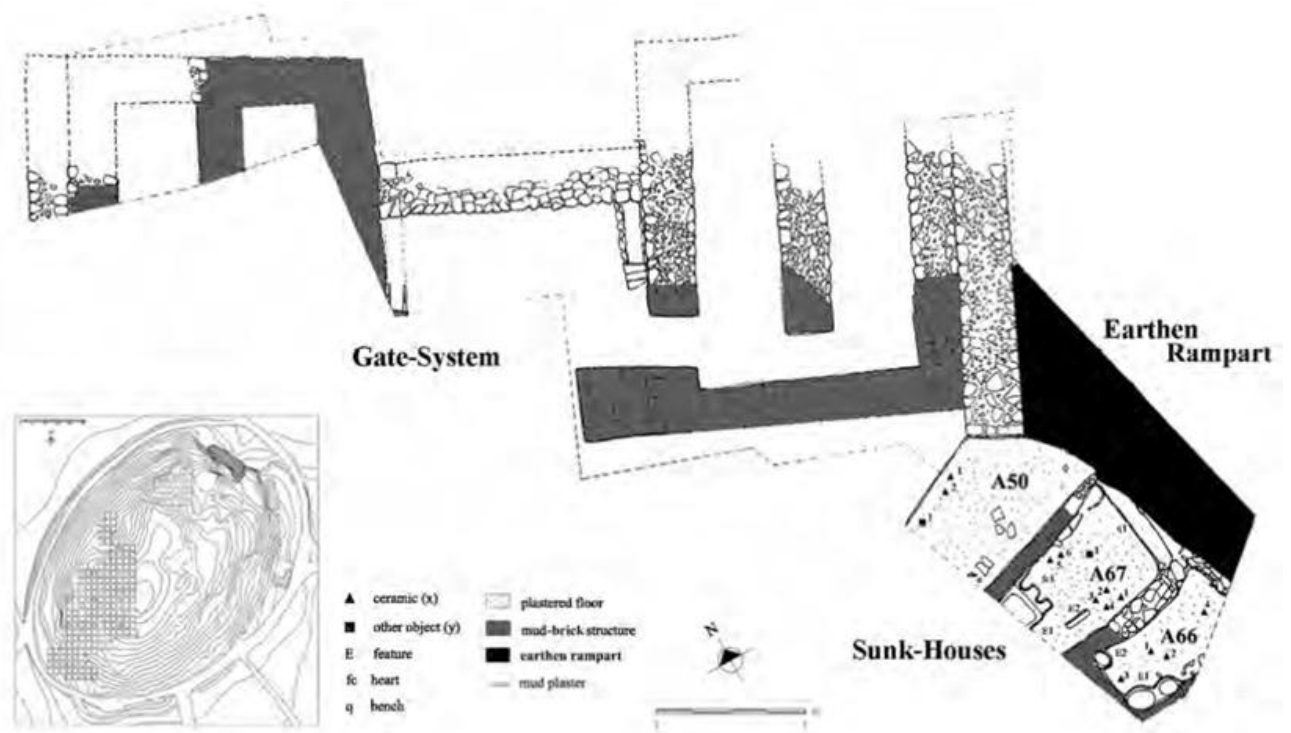


Figure 34: The level Vd gate-system with markings of in-situ materials (Manuelli, 2013: 42).



Figure 35: Arslantepe, sectors A66 (left) and A67 (right) with in-situ materials (Manuelli, 2013: 46).

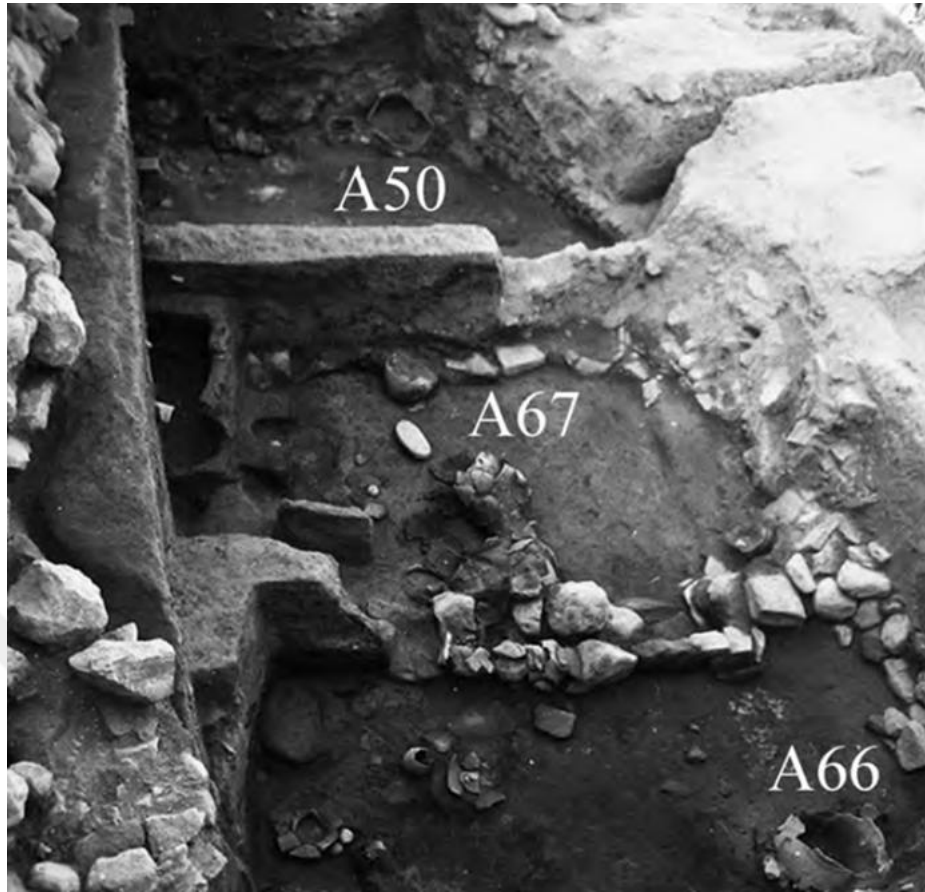


Figure 36: Arslantepe, the sunk-houses into gate-system rampart, with in-situ artifacts; the earthen rampart can be seen on the right (Manuelli, 2013: 45).

In sector A66, clay concave features were identified in one corner, likely for storing and supporting large vessels (Manuelli, 2013: 44). In sector A66, clay concave features likely served to support large vessels (Manuelli, 2013: 44). These rooms may have been used for storage and utilities for vessels and other objects.

Considering the relationship between these three rooms, the structure appears to have functioned primarily for food preparation and storage. However, its exact connection to the fortification gate system remains to be determined (Manuelli, 2013: 44).

In the southwestern sector of Arslantepe, four rooms (A62, A1029, A1030, and A1031) from period VB2 of the LBA were excavated, each serving distinct functions (**Figure 37**).

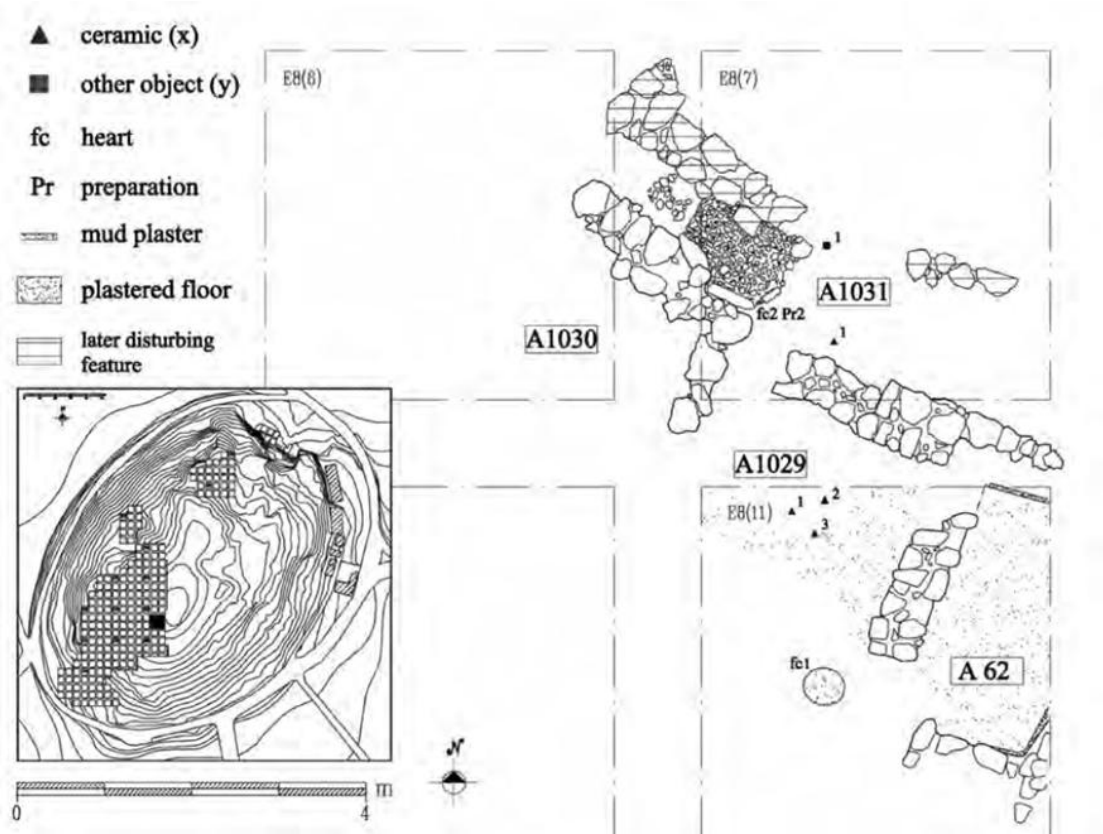


Figure 37: Arslantepe, sectors A62, A1029, A1030 and A1031 with markings of in-situ materials (Manuelli, 2013: 53).

Room A62 (**Figure 38**), destroyed by fire, contained three large ceramic vessels: two jars and a pithos. While it is unclear if the other rooms were similarly affected, in-situ artifacts were recovered from them. Room A1029, which has a plastered floor and a small hearth, yielded one ASRB, a large jar, and a pithos (Manuelli, 2013: 52). Room A1031, the largest of the group and possibly connected to A1029 via a passageway, features a large rectangular hearth. Finds from A1031 include a pestle, a pithos, and two grinding slabs. Room A1030 contained fewer artifacts, with a medium-sized jar found outside its original context (Manuelli, 2013: 52-53, 301-302).

The vessel distribution suggests a primary storage function for these rooms. However, the large rectangular hearth in A1031 may indicate a kitchen area, while the smaller rounded hearth in A1029 suggests a possible living space (Manuelli, 2013: 303). This functional distinction also provides insights into ASRB use. For instance, those in A67 were likely used for food preparation,

while the ASRB from A1029 was probably for consumption, highlighting how bowl function varied by room use.



Figure 38: Arslantepe, sector A62 and westward the room named A1029 (Manuelli, 2013: 54).

Another architectural complex in the southwestern sector comprises four rooms from period VB2: A53, A54, A55, and A56 (**Figure 39**). They likely formed a single dwelling unit from the LBA. Rooms A53 and A54 (**Figure 40**) were destroyed by fire, preserving their contents (Manuelli, 2013: 53-56), whereas A55 and A56 yielded no evidence, leaving their function uncertain (Manuelli, 2013: 304–306).

Room A53 features a white-plastered bench and contains one ASRB, three additional bowl types, two small jars, a painted cup, a small cooking pot, a unguentarium, and a basalt weight. The combination of a bench and a predominance of serving and consumption vessels suggests that A53 was used for consumption (Manuelli, 2013: 304-305).

Room A54 had the largest number of artifacts and contained pithoi, jars, a large bottle for storage, and serving items like large bowls, medium bottles, a mug, and a krater. Consumption vessels included plates, bowls, and a cup, while cooking vessels comprised medium- and small-sized pots. This variety suggests that A54 served as a multifunctional space for storage and

consumption, further supported by clay coils beneath large vessels (Manuelli, 2013: 304–306). Considering the relationship between these two rooms, the structure appears to have been used for food consumption and storage.

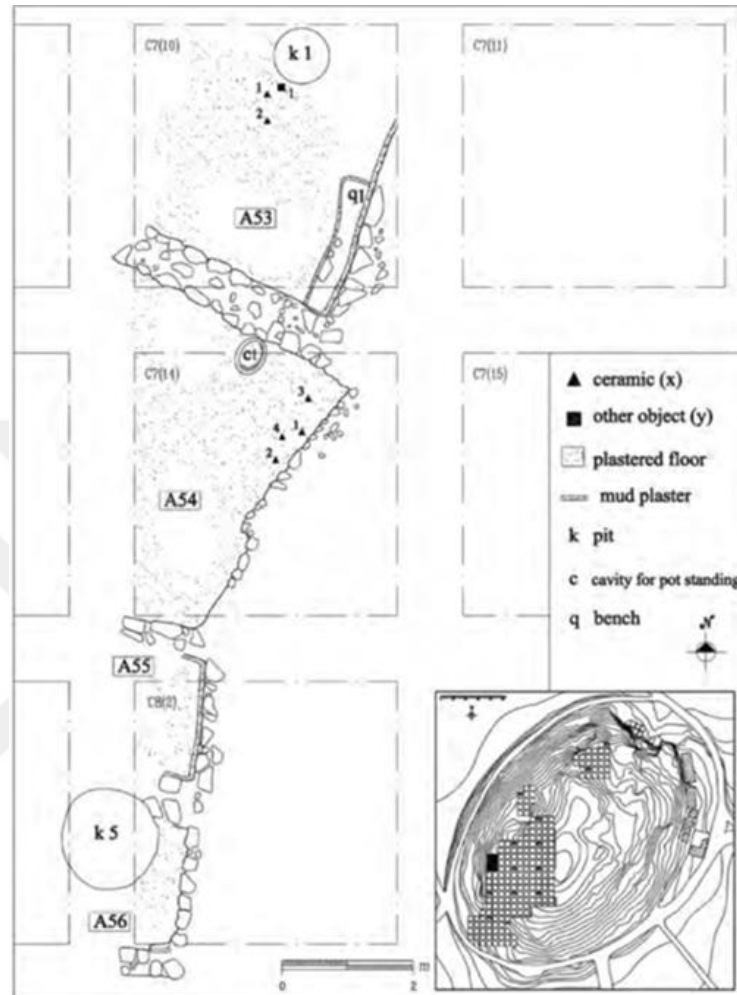


Figure 39: Arslantepe, plan of sectors A53-A54-A55-A56 with location markings of in-situ materials (Manuelli, 2013: 55).

Two contexts, A257 and A140, from southwestern Arslantepe feature rectangular rooms destroyed by intense fires, causing wall and roof collapses. This destruction preserved many in-situ materials beneath the debris (Manuelli, 2013: 57-59). A257 dates to the transitional period between

the MBA and LBA (period VB1), while A140 belongs to Level/Phase VB2, dating to the LBA.

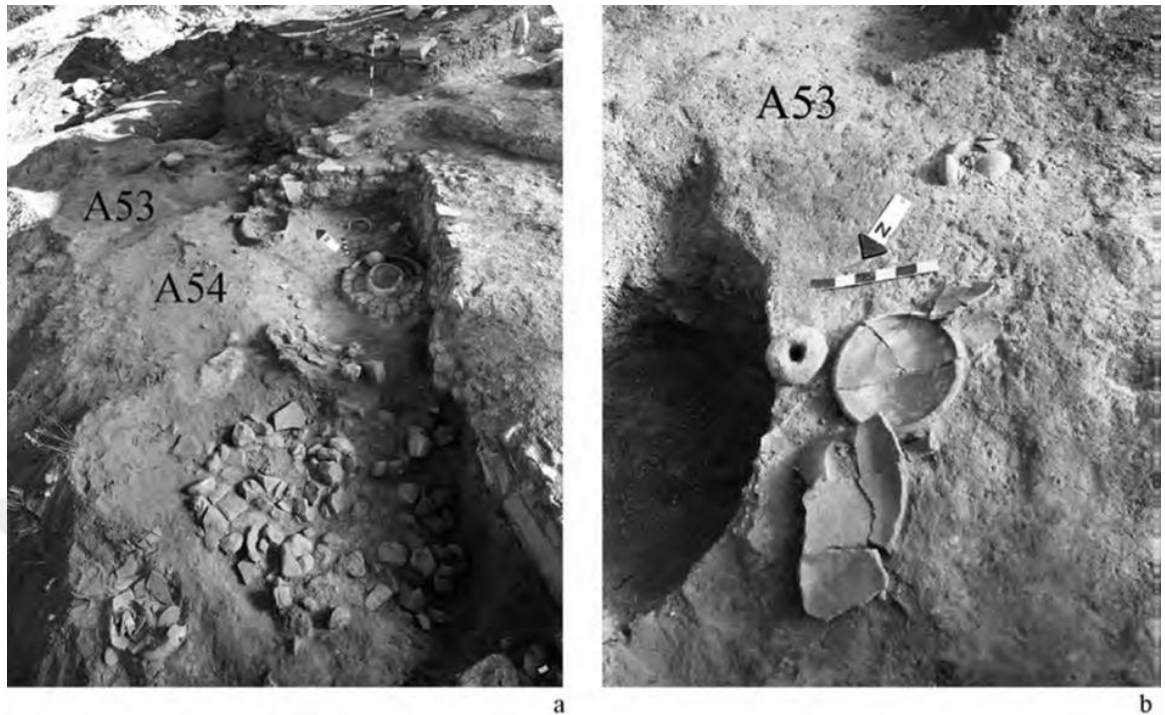


Figure 40: Arslantepe, sectors A53 and A54. a: A54 with in-situ materials. b: A53 with in-situ materials (Manuelli, 2013: 56).

A257 (**Figure 41-42**) featured plastered benches and a clay shelf interpreted as a workspace for grinding, indicated by a nearby grindstone. Its ceramic collection included cooking pots, storage vessels, one krater, a bottle, a bowl, and consumption vessels like bowls, two ASRBs, a cup, and a plate. Other finds were two stone pestles, two basalt grinding slabs, and two stone vessels. This variety of pottery and stone tools suggests that A257 served multiple functions for food preparation, cooking, and storage (Manuelli, 2013: 59-61, 310).

A140 (**Figure 43**) was a larger rectangular room primarily featuring storage vessels like pithoi, bottles, and jars (Manuelli, 2013: 57). Four cooking pots indicate cooking activities, while various bowls (four ASRB) and plates suggest consumption. Unlike A257, there was no evidence of workspaces or food preparation tools, implying the room mainly served as a storage space.

However, its diverse vessels also suggest utility purposes such as organizing other types of vessels (Manuelli, 2013: 306).



Figure 41: Arslantepe, photograph showing sector A257 with in situ findings and sector A250 (Manuelli, 2013: 60).

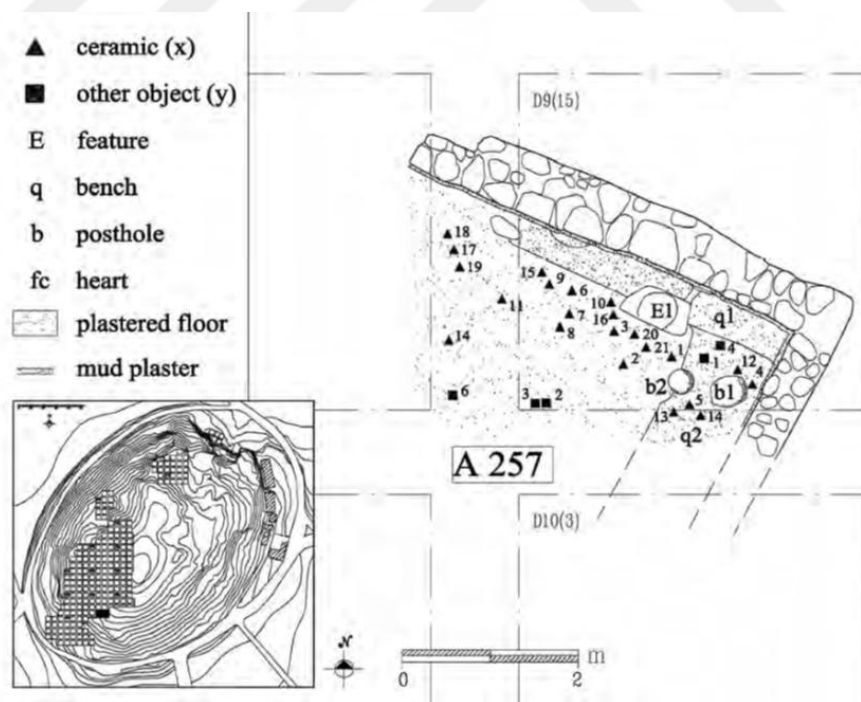


Figure 42: Arslantepe, plan of section. A257 with markings of in-situ materials (Manuelli, 2013: 61).

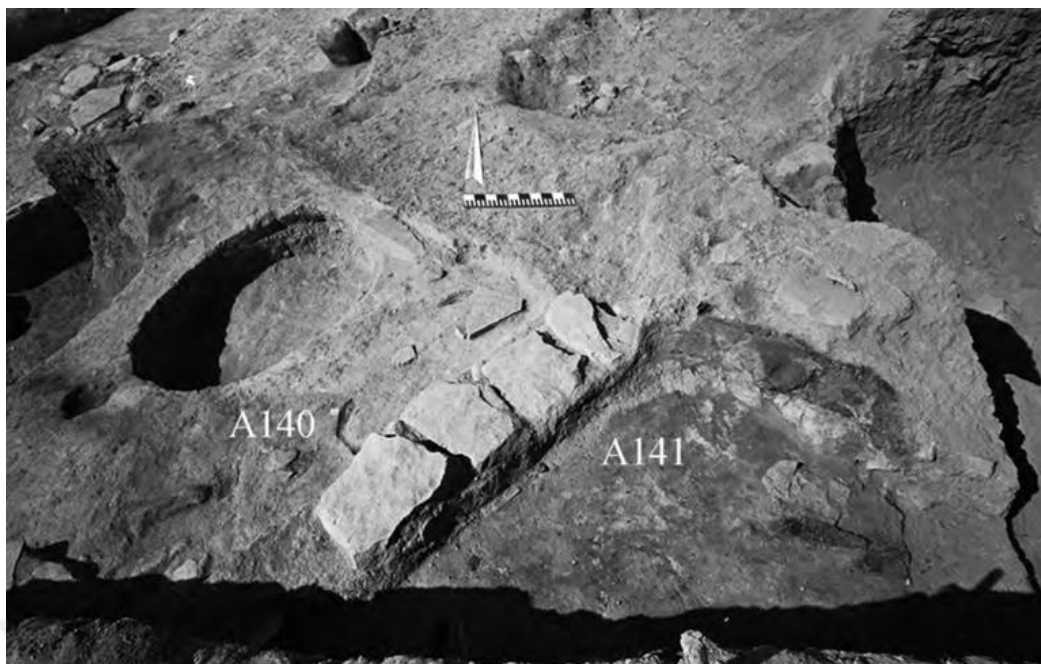


Figure 43: Arslantepe, sectors A140 and A141 (Manuelli, 2013: 58).

A257 and A140 were multifunctional spaces for storing solid and liquid goods, but their primary functions differed. A257 featured benches, grinding tools, and many cooking pots, indicating it was used for food processing and cooking, in addition to storage. Conversely, A140 had primarily storage vessels and lacked food preparation tools, suggesting it functioned mainly as a storage and utility room with limited cooking evidence. Both rooms served multiple purposes beyond storage.

3.5.4 Beycesultan

The LBA Phase 5b at Beycesultan, excavated in 2007, provides insights into ASRBs. This phase, marked by a destructive fire, included spaces 2, 7, 8, 11, 14, 16, 19, and 23, which preserved many artifacts in situ. The domestic layout featured a rectangular room with a hearth for daily activities, connected to a storage space where various vessels were found (Şener, 2014: 29). Although detailed information on the materials recovered from each room is not available, the artifacts from this layer include ASRBs, plates, beak-spouted jugs, fruit stands, rhytons, cooking vessels, weights, spindle whorls, stone tools, bones, beads, hearth structures, and seal-stamped pithoi filled with grains (Abay&Dedeoğlu, 2014: 4-6; Şener, 2014: 29–32). These rooms likely formed part of a multifunctional structure with a

courtyard, indicating spaces for both daily and special occasions. The presence of vessels for consumption, storage, and cooking, along with rhyta items and tools for daily activities, suggests that this structure had diverse spaces for various occasions.

3.5.5 Gordion

Evidence from Gordion, near the PLAS survey region, highlights the use of anti-splash rim bowls in Middle Bronze Age burial contexts. Excavations at the Hittite cemetery, published by Mellink (1956), reveal their cultural significance as burial gifts. Notably, a pithos burial contained one ASRB along with grave goods such as a copper pin, a spindle whorl, a pierced shell, and knucklebones, reflecting the diverse material culture associated with funerary practices at Gordion (Mellink, 1956: 10). Additionally, a complete ASRB was discovered in another pithos burial (H50) (**Figures 44-45**) during 1962 excavations for the Gordion Museum (Gunter, 1991: 5, 81). However, there is no additional information on other finds from this burial.



Figure 44: Gordion, Museum cite cemetery cut, section R. Burial H50 (Gunter, 1991: Plate 6, Figure B).
Figure 44: Gordion, Museum cite cemetery cut, section R. Burial H50 (Gunter, 1991: Plate 6, Figure B).



Figure 45: Gordion, Museum cite cemetery cut, section R. Burial H50 (Gunter, 1991: Plate 6, Figure C).

3.5.6 Hattusa

Bowls from the Late Bronze Age have been found at the Middle Plateau in Hattuša Upper City, excavated between 2006 and 2008. The Middle Plateau included the GAL-MEŠEDI house, named after the discovery of a cuneiform letter in Room 8 addressed to the commander of the Hittite royal guards (MEŠEDI). This finding suggests that the building likely served as a military headquarters (Schachner, 2017: 17).

Room 6 (**Figure 46**) of the GAL-MEŠEDI house contained a notable collection of in-situ ceramics, including ASRBs, plates, and one stand vessel (Figure 58). The room's doorway was sealed with a stone wall, suggesting the items were deliberately left behind for protection when they could not be removed (Schachner, 2017: 122, 351). The ceramics from the Middle Plateau are generally dated to the late 15th or early 14th century BCE, with those from Room 6 assigned explicitly to the early 14th century BCE (Schachner, 2017: 354). Room 6 may have served as a utility space for storing vessels.

The vessels from Room 6, likely owned by GAL-MEŠEDI, may have been used for social gatherings or festivals. Schachner suggests that the

typological uniformity of the plates and bowls indicates a focus on social equality among participants during communal occasions (Schachner, 2017: 310). However, rather than indicating social equality, this typological uniformity was likely driven by the high utilitarian value of these vessels in both daily life and communal settings. These findings further illustrate anti-splash rim bowls' diverse functional and cultural roles within Late Bronze Age contexts, ranging from domestic and communal contexts.



Figure 46: Ceramic inventory of Room 6 (Schacher, 2017: 78).

3.5.7 Concluding Remarks on Context Analysis

The contextual and chronotypological analysis of anti-splash rim bowls across sites ranging from the EBA to the LBA reveals a continuity in their functions. Despite the varying temporal spans of different contexts, ASRBs do not appear to be confined to a single functional setting. Instead, they are found across a range of contexts, including those related to consumption, serving, and ritual or funerary practices, indicating their broad and versatile

use. Frequently observed contexts, such as kitchens/workshops, utility, and storage rooms, suggest their integral role in daily domestic activities, including food preparation and serving. These contexts often include other utilitarian objects like grinding tools, cooking pots, storage vessels, and spindle whorls, emphasizing the multifunctional nature of these spaces.

Less commonly, ASRBs appear in burial contexts, such as the Gordion and Tell Atchana cemeteries, where they were used as containers for offerings. These graves, often associated with modest burial assemblages, including spindle whorls, daggers, and copper pins, suggest that ASRBs were widely accessible and not exclusive to elite individuals.

Even though examples in EBA are rarer than in LBA, the overarching similarity in their contextual use across the EBA to LBA indicates that their role as multifunctional vessels transcended chronological and cultural boundaries, reflecting sustained importance in daily and ceremonial practices. This continuity underscores the adaptability of bowls to various needs while maintaining their essential place in communities lived in Anatolia during the Bronze Age.

CHAPTER 4

DISCUSSION

This chapter explores the production, origin, and function of ASRBs across the three survey regions, analyzing the results presented in Chapter 3. These findings are compared with existing academic debates on the topic, reassessing the significance of ASRBs within the broader context of Late Bronze Age Anatolia.

While ASRBs appear typologically uniform, significant regional variations in production techniques challenge the idea of a fully centralized production system under the Hittite state. Instead, the data suggest a mixed production model, where some ASRBs were mass-produced in state-affiliated workshops while others were made in localized, independent workshops. This chapter explores these dynamics, emphasizing how production methods were shaped by both large-scale, centralized manufacturing and regional craft traditions.

4.1 The Production of ASRB

Fabrics

The variability in fabric types within ceramic assemblages offers insights into pottery production organization (**see section 3.1.4**). High fabric variation indicates multiple production centers, while limited variation suggests fewer, centralized sites. Due to the challenges of transporting raw clay, some fabric diversity is expected across large areas, reflecting the use of local materials. There is significant variability in PLAS, where fabrics has been

more extensively studied. Fabric diversity results from local sources and indicates us that multiple production centers likely existed at least in the Polatlı region. This suggests a decentralized pottery industry rather than a highly centralized system.

Conversely, the lower variability in KRASP may stem from either the region's homogeneous geology or a more centralized production with fewer centers supplying a broader area. However, without further evidence, it is unclear which factor significantly influenced the ceramic production landscape of KRASP.

Forming Techniques

The ceramics are all wheel-made and predominantly undecorated, suggesting that they were produced rapidly in specialized workshops, likely as inexpensive and widely accessible goods, also as noted by Glatz (2015: 185) and Schoop (2011: 265, 268).

Morphotypology

Vessel forms all over Anatolia seem to share common ASRB forms. SSBO is the most prevalent typological class across the three survey areas, exhibiting slight regional variations. Additionally, a comparative analysis of HSBO and SSBO across 14 settlement assemblages indicates that SSBO is widely distributed throughout Anatolia. This suggests that SSBO is not only dominant within the three survey areas but also represents a broader, regionally extensive ceramic tradition in Anatolia. However, dimensions and volumes (**Section 3.3.2**) for the same vessel form are very variable both within the same survey region and between survey regions. This goes against the idea of standardized dimensions and volumes for labour recompensation.

Firing techniques

The ceramics from the three survey projects display varied firing characteristics. Although most sherds across the three surveys were fired under oxidized conditions, the firing circumstances within each survey exhibit

significant variation. For instance, the variability of insufficient oxidation is high between the three surveys.

Surface Treatments

One of the most prevalent surface treatment groups is non-slipped wares, which correspond to plain wares. This pattern is consistent across the three survey areas and aligns with observations from 14 other settlement assemblages (**Section 3.2**).

The variation among surface treatment groups is more pronounced than in fabric groups. While fabric recipes exhibit certain uniformity, surface treatments like RSW, WSW, and BRW show greater flexibility, highlighting macro-regional differences. Additionally, YYALRP occupies an intermediate position between KRASP and PLAS regarding surface treatments, exhibiting characteristics that bridge the variations observed in both survey areas. This variety indicates local agency in creating styles based on traditions and suggests that some aspects of the *chaîne opératoire* are not tightly controlled. Additionally, as also Schoop (2011: 243) emphasizes and the analysis results confirms (**Section 3.2**), these variations challenge the notion that ASRB vessels were exclusively plain, disputing the idea that ASRB was always a subgroup of plain pottery (Postgate, 2007a: 142; Glatz, 2015: chapter 1).

4.2 Standardization of ASRB

There is a greater degree of standardization in ASRB production than in earlier periods, particularly regarding vessel functions and shapes. This standardization likely stems from the introduction of routine production processes, craft specialization, and the potter's wheel, which facilitated the adoption of shared forming techniques among a broad group of producers (**Section 1.2.2**). However, the analysis of ASRB examples from the three survey areas reveals apparent variability across different regions and within the same area. The production of ASRB in different fabrics, surface treatments indicates that there were likely different workshops within the same region. This suggests that there was no single, centralized system for

pottery production nor a uniform recipe applicable to the entire Hittite state during the Late Bronze Age.

For instance, some regions, such as KRASP, exhibit more homogeneity in their pottery assemblages, possibly due to fewer, more centralized production centers. However, this hypothesis is not yet supported by direct archaeological evidence. In contrast, pottery workshops discovered near temple structures in Hattusa (Müller-Karpe, 1988; Parzinger and Sanz, 1992) indicate the presence of highly centralized production sites directly linked to religious institutions. This demonstrates that highly centralized production did exist in specific Hittite centers. Nevertheless, this does not imply that ASRB and NCA ceramics were exclusively produced in centralized settings. Individual production was also widespread across Anatolia, as evidenced by the findings of this study (see Costin 1991 for production modes).

For the first time, this study presents regional survey results that reveal a significantly higher degree of variability than previously recognized. Earlier research primarily focused on major centers such as Hattusa, Kuşaklı, and Arslantepe. However, findings from more peripheral areas and smaller sites demonstrate that while products were more varied, they were produced in a larger number of places than previously assumed.

Moreover, no potmarks have been identified in the three survey areas examined in this study. This absence also challenges the notion of a highly centralized production system. The lack of potmarks suggests that workshops associated with ASRB production in these regions operated at a lower level of organizational complexity than those found in major Hittite centers.

Glatz's (2012) analysis of Late Bronze Age Anatolian potmarks also highlights diversity in pot-marking traditions, indicating localized adaptations of NCA pottery traditions beyond Hittite control (**see section 1.2.3**). This diversity suggests variations in organizational structures and production scales where the potter's agency maintains localized traditions. Agreeing with Glatz (2012), potmarks likely indicated intra-site production, where multiple potters used the same kilns. Therefore, standardization should not always be

understood as a strictly top-down process imposed by a centralized authority. Instead, as demonstrated in this study, regional variations played a crucial role in shaping pottery production.

4.3 Origin of ASRB

The earliest ASRB examples appear in EBA levels of Tarsus (Goldman 1956) and Kilisetepe (Postgate, 2007b), followed by Beycesultan EBA II as well (Mellaart & Lloyd 1962). By EBA III, ASRBs are also documented at Küllüoba (Şahin 2013; Türkteki 2004) and Acemhöyük (Kamış 2012), showing that these vessels were already in present before the end of the 3rd millennium BCE. During this period, both handmade and wheelmade variants coexisted, with wheelmade examples becoming more dominant in the later phases of EBA III (Türkteki 2004). However, these early forms do not fully resemble their MBA and LBA successors, as they only share a precursor trait—an inward thickening at the rim—rather than the standardized morphology observed in later periods. They were also different from the LBA examples in terms of the diversity of fabric and surface treatments (Kamış 2012: 29; Şahin 2013: 38; Türkteki 2004: 13-18).

By the MBA, ASRBs demonstrate greater standardization than EBA, particularly in fabric and surface treatments, with a noticeable increase in the use of red slips (Di Nocera 1998:79; Ergün 2023: 74; Gürdal 2023:61, Schoop, 2009: 150; Schoop, 2011: 243; Şerifoğlu 2019: 78-81; Türker 2008; 41-42). This trend is also evident in the Türkmen Karahöyük 2024 excavations (Michele Massa- personal communication), where a substantial number of red-slipped ASRBs were recovered from MBA layers, reinforcing the idea that red slip applications were more widespread during this period. While the form itself remains consistent, the refinement in production techniques suggests the introduction of more structured manufacturing processes. In this context, Acemhöyük (Türker 2008) plays a crucial role in tracing the development of ASRBs, as it provides a continuous ceramic typology stretching from late EBA II through the MBA, offering valuable insight into their transformation over time.

A major turning point occurs in the early to mid-2nd millennium BCE, when the introduction of the potter's wheel correlates with a gradual increase in ASRB proportions within ceramic assemblages (Fischer, 1963; Neve and Bittel, 1984; Türker, 2008: 15). This shift indicates a change in production and consumption patterns, where ASRBs transitioned from high-quality ceramics made for specific occasions to mass-produced, easily replaceable vessels. The broader diffusion of these ceramics across the central plateau during the MBA further supports this transformation (Fischer, 1963; Neve and Bittel, 1984; Türker, 2008). As noted by Efe and Türkteki (2005), the widespread presence of ASRBs in this region predates Hittite expansion, highlighting that these ceramics were not a product of imperial control but rather an established tradition preceding the formation of the Hittite state.

What fundamentally changes between the late 3rd and early 2nd millennium BCE is not the introduction of a new form or technology, but rather the increasing frequency and standardization of ASRB production. The transition to more routinized production methods marks a key development in ceramic production, suggesting a shift towards greater efficiency and economic accessibility. These patterns illustrate how ASRBs evolved over time, not just in terms of their form and function but also in their role within broader socio-economic networks.

4.4 The Function of ASRB

The functional interpretations of anti-splash rim bowls also merit critical evaluation. The fabric of these bowls is usually medium, with minimal surface treatments, and mass-produced, making them highly suitable for everyday use for consumption and serving. This interpretation aligns with previous studies that associate ASRB with daily meal consumption (Karacic, 2014: 165; Mielke, 2006: 107–108; Müller Karpe, 1988: 106, Schoop, 2013).

The form of ASRBs suggest they were primarily used for semi-liquid food consumption, often intended for individual use. This assumption derives from the ASRBs internally thickened rims, which, while not wholly preventing spillage, create a resistance barrier on the internal rim edge that reduces the risk of semi-liquid contents spilling rather than liquid contents. As also Müller-

Karpe (1988: 106) suggests, this same rim design may not have been practical for drinking directly from the bowl.

Additionally, based on volume analysis, the liquid capacity of these bowls may have been excessive for individual consumption. Two possibilities arise: the bowls were shared among multiple individuals, as in communal settings, or the contents were semi-liquid like soups or stews. A recent study by Özer & Özkaya (2024) on Hittite cuisine also support this hypothesis that the Hittites had a vibrant culinary culture included various food types, ranging from soups to meat-based dishes such as stews.

During the Early Bronze Age (EBA), ASRBs appear exclusively in domestic settings, indicating their initial function as household vessels (Sarı, 2004: 12). However, by the Middle Bronze Age (MBA) and Late Bronze Age (LBA), their distribution expands to burial contexts (Gunter, 1991: 5, 81; Mellink, 1956: 10; Yener et al., 2010: 26–28) and monumental structures, including temples (Müller Karpe, 1988; Parzinger and Sanz, 1992). This shift suggests that while their domestic use persisted, they also acquired new functions in ritual and funerary practices, reflecting their social and religious significance over time.

ASRBs are frequently found in LBA domestic contexts (**Section 3.5**), including kitchens, storage spaces, utility rooms, and multifunctional areas, demonstrating their integral role in daily household activities (Manuelli, 2013: 319–321; Şener, 2014: 29; Yener et al., 2010: 26–27). Their presence in kitchens and workshops further supports their function in food consumption, reinforcing their status as a widely accessible product across different social strata. Additionally, the fact that ASRBs appear in nearly all LBA sites surveyed in PLAS and KRASP, including small settlements (~1 ha in size), indicates that they were a common, mass-produced vessel type, widely distributed in the periphery sites.

Beyond domestic use, ASRBs are also documented in burial contexts, particularly in cemeteries at Gordion and Tell Atchana (Gunter, 1991: 5, 81; Mellink, 1956: 10; Yener et al., 2010: 26–28), where they are frequently found as grave goods in lower-status burials. Their association with poorer graves

suggests that ASRBs were affordable and widely available, reinforcing their role as commonplace, utilitarian vessels rather than exclusive prestige items.

While ASRBs were prevalent in households, their association with temple structures in Hattusa, Kuşaklı, and Kayalıpınar (Arnhold, 2009; Mühlenbruch, 2014; Müller-Karpe, 1988; Parzinger and Sanz, 1992; Schachner, 2017: 17; Mielke 2006) suggests a parallel function in communal feasting and ritual dining. The large quantities found in these religious settings indicate that they may have been used in Hittite festivals and large-scale ceremonial banquets, further supporting their role in both everyday and ritual consumption (Durusu-Tanrıöver, 2016: 92; Glatz, 2015 – Chapter 8: 204; Karacic, 2014: 251; Manuelli, 2013: 318).

The widespread presence of ASRBs in various contexts, ranging from households and cemeteries to temples, suggests that they functioned much like modern disposable plates—cheaply made, easily replaceable, and used in both individual and communal settings. Their production and distribution patterns indicate that ASRBs were a highly accessible, mass-produced ceramic type, fulfilling diverse functional needs across different social and spatial contexts.

4.5 ASRB and Its Relation to the Hittite State

Previous scholarship has largely framed ASRB and NCA-style pottery as a state-controlled, centrally produced ceramic tradition with the Hittite administration (**Section 1.2.1**). Many researchers have emphasized its spatial association with public buildings and its manufacture within state-controlled workshops (Gates, 2001; Gunter, 2006: 360–61, Henrickson, 1995: 97; Mielke, 2006: 172–74; Müller-Karpe, 2002: 257; Schoop, 2009: 218; 2011: 241). This interpretation is primarily based on excavated LBA sites, most of which are large administrative and urban centers (Durusu-Tanrıöver, 2016: 59). However, while valuable, this perspective overlooks the broader diversity of production and distribution mechanisms that emerge when these ceramics are examined in regional and peripheral contexts.

The opportunity to study ASRBs in regional survey contexts, as undertaken in this thesis, has provided a different perspective on their production and use.

The evidence from the study area suggests a less centralized production system characterized by several key indicators:

- Absence of potmarks, which in other contexts are often associated with centralized workshop production and distribution control.
- Greater heterogeneity in fabric compositions, indicating the use of local clay sources rather than a uniform, state-regulated fabric recipe.
- Variability in firing temperatures further supports the idea that ASRBs were not exclusively produced in highly standardized, state-controlled kilns.

These findings point to integrating regional ceramic traditions into ASRB production rather than a singular, top-down model dictated by the Hittite state.

LBA potters did not invent the ASRB form but adopted and adapted a pre-existing shape to fit the increasing demand for mass-produced, utilitarian ceramics. The widespread presence of ASRBs across various contexts—urban centers, small settlements, domestic buildings, graves, and ritual spaces—suggests they were akin to modern disposable plates.

The variability in ASRB production across different regions raises important questions about the extent to which pottery production in the Hittite state was centralized. While it is evident that large-scale standardized production linked to state institutions (i.e., temples) existed in major urban centers (see section 4.4), the survey evidence suggests that ASRBs were also produced locally in different regions. The widespread presence of these ceramics in large and small sites across Central Anatolia and beyond supports the notion of a diverse and mixed production system rather than strictly state-controlled.

This production system has operated on multiple levels. On the one hand, some ASRBs were mass-produced in centralized workshops attached to temples and other administrative buildings. These large-scale facilities likely catered to the demand for communal feasting, possibly for ritual banquets or large-scale activities, where vast quantities of standardized vessels would have been required for serving food and drink in public events (see section

4.4). The association of ASRBs with Hittite religious festivals and temple complexes suggests that the state closely regulated a portion of their production to fulfill specific ceremonial or institutional needs.

However, alongside this centralized model, a second mode of production has been equally significant. Many ASRBs were likely produced in smaller, localized workshops, where regional ceramic traditions and production techniques were incorporated into their manufacturing process. This pattern aligns with broader trends in Late Bronze Age Anatolia, where ceramic production was frequently adapted to local resources and community needs rather than dictated by a rigid, empire-wide standard. In these cases, potters may have drawn upon existing local traditions, using regionally available clays and tempering materials while still producing ASRBs that adhered to the general typological framework. This suggests that ASRBs were not exclusively tied to state-controlled production but functioned as a versatile, widely available ceramic type distributed across a broad social and spatial spectrum.

CHAPTER 5

CONCLUSION

This thesis has sought to unravel the complexities of NCA plain pottery production, focusing on ASRBs. By examining their typology, production techniques, and distribution across three key survey regions, this study has highlighted their significance as functional ceramics and markers of broader regional dynamics in Late Bronze Age Anatolia. Through a comprehensive multiscalar analysis, this research has traced the evolution of ASRBs over nearly one and a half millennia, situating them within a long-standing tradition of ceramic production.

5.1 Key Contributions of the Study

One of the most important contributions of this study has been its regional approach, which enabled an in-depth investigation of smaller sites often overlooked in broader archaeological narratives.

By analyzing ceramics from PLAS, KRASP, and YYALRP, this thesis has provided a more localized understanding of ASRB production and variation, moving beyond centralized production models based solely on major urban centers. The data examined in this study comes from three survey projects, each conducted with different methodologies, resulting in varying levels of data resolution. Despite these methodological differences, a comparative analysis was undertaken to identify broader patterns in ASRB production, distribution, and regional variation. While these differences in data resolution posed challenges for direct comparison, they also provided a unique opportunity to assess how methodological approaches influenced our under-

standing of ceramic production in Late Bronze Age Anatolia.

The research first established a typological framework, categorizing ASRBs based on morphology, surface treatment, and production techniques. These findings were then contextualized through comparisons with published ASRB assemblages, integrating chronotypological, contextual, and technological analyses to understand their origin, function, and regional distribution. This approach allowed for a nuanced examination of how ASRBs were produced, used, and adapted in different socio-political and economic settings.

5.2 Strengths and Limitations of the Study

The main advantage of this study lies in its multiscalar approach, integrating data from regional surveys with published excavation results. This comparative perspective has made it possible to contextualize the findings within the broader ceramic traditions of Central Anatolia and the Northern Levant, offering insights into the regional and supra-regional significance of ASRBs.

Additionally, the thesis incorporated different types of data—typological, technological, chronological, quantitative, and contextual—allowing for a more comprehensive evaluation of ASRB production and distribution. The integration of these datasets has demonstrated that ASRBs were not exclusively associated with centralized production models but were instead part of a more flexible, regionally diverse ceramic tradition.

However, there were certain limitations inherent to the study. The survey data lacked stratigraphic context, making precise chronological placement challenging. Additionally, differences in sampling strategies, methodology, and terminology across the three surveys created difficulties in establishing fully compatible analyses. The absence of stratified excavation data for some sites further restricted the ability to make definitive conclusions about production organization. Despite these challenges, the study has provided a valuable starting point for understanding ASRBs in a broader regional framework.

5.3 Future Research Directions

To expand on the findings of this study, future research should focus on residue and provenance analyses of ASRBs. Such approaches could clarify the functional uses of these vessels and provide more direct evidence of production centers and material sourcing.

Additionally, expanding survey data from other regions would allow for a more comprehensive understanding of ASRB production across Anatolia. Integrating results from both survey and excavation contexts could help refine models of ASRB distribution and standardization, shedding light on how ceramic production varied across different socio-political landscapes.

Moreover, this study highlights the need to reevaluate ASRB standardization and NCA-style pottery. A new and more compatible typological and terminological framework is necessary to account for regional and chronological variations, moving beyond rigid classifications based solely on morphology. This would allow for a more nuanced interpretation of Late Bronze Age ceramic production, focusing not only on shape but also on technological choices, production organization, and functional variability.

Ultimately, this thesis contributes to the ongoing discussion on ceramic production, standardization, and regional interaction in Late Bronze Age Anatolia. By demonstrating the complexity and variability of ASRBs, it challenges the notion of a monolithic, state-controlled pottery tradition, advocating for a more dynamic, context-driven understanding of how these ceramics were produced, distributed, and used across the region.

REFERENCES

- Abay, E., & Dedeoğlu, F. (2014). Beycesultan Höyük excavation project: New archaeological evidence from Late Bronze layers. *Arkeoloji Dergisi*, 19, 1–39.
- Arnhold, S. (2009). *Das hethitische Gebäude E auf der Akropolis von Kuşaklı. Kuşaklı-Sarissa 4*. Rahden: Marie Leidorf.
- Baskın, S. (2022). LBA I ceramics from Kinet Höyük period 15: A statistical assessment of the cross-regional standardization of Hittite ceramics in Late Bronze Age Anatolia (Master's thesis). Bilkent University, Turkey.
- Beckman, G. (1983). *Hittite Birth Rituals*. Wiesbaden: Harrassowitz, 1983.
- Bilgen, Z. (2021). Chapter Nineteen A Preevaluation of Libation Vessels Discovered at Seyitömer Mound Early Bronze Age Layer III Sanctuaries. In L. Harrison, A. Bilgen & A. Kapuci (Ed.), *The Early Bronze Age in Western Anatolia* (pp. 273-289). SUNY Press.
- Blackman, M. J, G. J. Stein, and P. B. Vandiver. (1993). "The Standardization Hypothesis and Ceramic Mass Production: Technological, Compositional, and Metric Indexes of Craft Specialization at Tell Leilan, Syria." *American Antiquity* 58.1: 60-80.
- Costin, C. L. (1991). Craft Specialization: Issues in Defining, Documenting, and Explaining the Organization of Production. *Archaeological Method and Theory*, 3, 1-56.
- Costin, C. L., and M. B. Hagstrum. (1995). "Standardization, Labor Investment, Skill, and the Organization of Ceramic Production in Late Prehispanic Highland Peru." *American Antiquity* 60.4: 619-639.
- Davis, J. L., and H. B. Lewis. "Mechanization of Pottery Production: A Case Study from the Cycladic Islands." *Prehistoric Production and Exchange: The Aegean and the Mediterranean*. Ed. A. B. Knapp and T. Stech. Los Angeles: Institute of Archaeology, University of Los Angeles, 1985. 79-92.
- Di Nocera, G. M. (1998). *Die Siedlung der Mittelbronzezeit von Arslantepe: Eine Zentralsiedlung von Beginn des zweiten Jahrtausends v. Chr. in der Ebene von Malatya (Türkei)*. Visceglia.
- Durusu-Tanrıöver, M. (2016). *Experiencing the Hittite Empire in its Borderlands*. PhD dissertation, Joukowsky Institute for Archaeology and the Ancient World, Brown University.
- Ergün, G. (2023). *İç Batı Anadolu Orta Tunç Çağı keramiğinin Beycesultan Höyüğü verilerine göre yeniden değerlendirilmesi* (Master's thesis). Ege Üniversitesi Sosyal Bilimler Enstitüsü.

- Ertem, H, Umurtak, G. (1996). *Korucutepe: 1973-1975 dönemi kazılarında bulunmuş olan Hitit Çağı çanak çömleğ i*. Türk Tarih Kurumu Basımmevi.
- Feinman, G. M., Kowaleski, S. A & Blanton, R. E. (1984). Modeling Archaeological Ceramic Production and Organizational Change in the Prehispanic Valley of Oaxaca. In S. W. van der Leeuw and A. A. Pritchard (Eds.), *The Many Dimensions of Pottery: Ceramics in Archaeology and Anthropology*. Amsterdam: University of Amsterdam, 295-334.
- Fischer, F. (1963). *Die hethitische Keramik von Boğazköy. Boğazköy-Hattusa IV*. Berlin: Verlag Gebr. Mann.
- Gates, M.-H. (2001). Potmarks at Kinet Höyük and the Hittite Ceramic Industry. In E. Jean, A. M. Dinçol, & S. Durugönül (Eds.), *La Cilicie: Espaces et Pouvoirs Locaux (2e Millénaire av. J.-C.–4e Siècle ap. J.-C.)* (pp. 137–157). Paris: De Boccard.
- Gates, M.-H. (2006). Dating the Hittite Levels at Kinet Höyük: A Revised Chronology. In D. P. Mielke, U.-D. Schoop, & J. Seeher (Eds.), *Strukturierung und Datierung der Hethitischen Archäologie: Voraussetzungen – Probleme – Neue Ansätze* (pp. 293–309). BYZAS 4. Istanbul: Ege Yayınları.
- Garstang, J. (1953). *Prehistoric Mersin, Yumuk Tepe in Southern Turkey*. Oxford: Clarendon.
- Gerçek, N. İ. (2023). Citizenship in Hittite Anatolia. In *Citizenship in Antiquity* (pp. 98-110). Routledge.
- Glatz, C. (2009). Empire as network: Spheres of material interaction in Late Bronze Age Anatolia. *Journal of Anthropological Archaeology*, 28(2), 127–141.
- Glatz, C. (2012). Bearing the marks of control? Reassessing pot marks in Late Bronze Age Anatolia. *American Journal of Archaeology*, 116(1), 5-38.
- Glatz, C. (Ed.). (2015). *Plain pottery traditions of the eastern Mediterranean and Near East: Production, use, and social significance*. Routledge.
- Glatz, C. (2020). *The Making of Empire in Bronze Age Anatolia: Hittite Sovereign Practice, Resistance, and Negotiation*. Cambridge: Cambridge University Press.
- Goldman, H. (1956). *Excavations at Gözlü Kule, Tarsus. Vol. 2, The Neolithic through the Bronze Age*. Princeton: Princeton University Press.
- Gunter, A. C. (1991). *Gordion excavations final reports III: The Bronze Age*. University Museum Monographs 73. Philadelphia: The University Museum.
- Gunter, A. (2006). Issues in Hittite ceramic production: A view from the western frontier. In D. P. Mielke, U.-D. Schoop, & J. Seeher (Eds.), *Strukturierung und Datierung der hethitischen Archäologie:*

Voraussetzungen – Probleme – Neue Ansätze (pp.349–363). BYZAS 4. Istanbul: Ege Yayınları.

Gürdal, S. (2023). *Asur ticaret kolonileri çağı'nda Konya Karahöyük çanak çömleği* (Unpublished doctoral dissertation). Pamukkale Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.

Harrison, L. K. (2016). *Living spaces: Urbanism as a social process at Seyitömer Höyük in early Bronze Age Western Anatolia*. State University of New York at Buffalo.

Hazenboos, J. (2003). *The Organization of the Anatolian Local Cults during the Thirteenth Century B.C.: An Appraisal of the Hittite Cult Inventories*. Leiden: Brill, Styx.

Henrickson, R. C. (1995). Hittite pottery and potters: The view from Late Bronze Age Gordion. *The Biblical Archaeologist*, 58(2), 82–90.

Horowitz, M. T. (2015). The Evolution of Plain Ware Ceramics at the Regional Capital of Alalakh in the 2nd Millennium BC. In C. Glatz (Ed.), *Plain Pottery Traditions of the Eastern Mediterranean and Near East: Production, Use, and Social Significance*, (pp. 153-181). New York: Routledge.

Kamış, Y. (2012). *Acemhöyük Erken Tunç Çağı seramiği* (Doctoral dissertation). Gazi Üniversitesi Sosyal Bilimler Enstitüsü, Ankara.

Kapuci, A. (2021). Chapter Twenty Seyitömer Höyük Early Bronze Age III Platters. In L. Harrison, A. Bilgen & A. Kapuci (Eds.), *The Early Bronze Age in Western Anatolia* (pp. 291-302). Suny Press.

Karacic, S. (2014). *The Archaeology of Hittite Imperialism and Ceramic Production in Late Bronze Age IIA Tarsus-Gözlükule, Turkey*. PhD dissertation, Bryn Mawr College.

Korbel, G. (1985). *Die spätbronzezeitliche Keramik von Noruntepe*. Hannover: Institut für Bauen und Planen in Entwicklungsländern, 1985.

Kozal, E. (2022). Painted pottery traditions at Sirkeli Höyük in the 2nd millennium BC. In D. P. Mielke & F. Manuelli (Eds.), *Late Bronze Age painted pottery traditions at the margins of the Hittite state: Papers presented at a workshop held at the 11th ICAANE (München 4 April 2018) and additional contributions* (p. 177). Archaeopress Publishing Ltd.

Macqueen, J. G. (1986). *The Hittites and their contemporaries in Asia Minor*. London: Thames and Hudson.

Manuelli, F. (2013). Arslantepe-Late Bronze Age: Hittite Influence and Local Traditions in Eastern Anatolia Community (Vol. 9). Sapienza Università di Roma, Dipartimento di Scienze dell'Antichità.

Massa, M. (2016). *Networks before empires: Cultural transfers in west and central Anatolia during the Early Bronze Age* (Doctoral dissertation). University College London.

- Mellaart, J., & Lloyd, S. (1962). *Beycesultan I: The Chalcolithic and Early Bronze Age levels*. London: The British Institute of Archaeology at Ankara.
- Mellaart, J., & Lloyd, S. (1965). *Beycesultan II: Middle Bronze Age architecture and pottery*. London: The British Institute of Archaeology at Ankara.
- Mellaart, J., & Murray, A. (1995). *Beycesultan III: Late Bronze Age and Phrygian pottery and Middle and Late Bronze Age small objects*. London: The British Institute of Archaeology at Ankara.
- Mellink, M. J. (1956). *A Hittite cemetery at Gordion*. University Museum Publications.
- Mielke, D. P. (2006). Die Keramik vom Westhang, Kuşaklı-Sarissa 2. Rahden/Westfalen: Verlag Marie Leidorf GmbH.
- Mielke, D. P. (2017). From "Anatolian" to "Hittite": The Development of Pottery in Central Anatolia in the 2nd Millennium BC. In A. Schachner (Ed.), *Innovation versus Beharrung: Was macht den Unterschied des hethitischen Reichs im Anatolien des 2. Jahrtausends v. Chr?*, (pp. 121-144). İstanbul: Ege Yayınları.
- Millard, Alan R. (1988) "The Bevelled-Rim Bowls: Their Purpose and Significance." *Iraq* 50, 1988: 49-57.
- Mühlenbruch, T. (2014). *Hethitische Keramik im Kontext: das Gebäude B von Kayalıpınar und die Nutzung institutioneller Gebäude des 2. Jt. s v. Chr. im ostmediterranen Raum*. Rahden/Westfalen: Verlag Marie Leidorf GmbH.
- Müller-Karpe, A. (1988). Hethitische Töpferei der Oberstadt von Hattuša: Ein Beitrag zur Kenntnis Spät-Großreichszeitlicher Keramik und Töpfereibetriebe Unter Zugrundelegung der Grabungsergebnisse 1979–82 in Boğazköy. Marburg: Hitzeroth.
- Müller-Karpe, A. (2002). Die Keramik des mittleren und jüngeren hethitischen Reiches: Die Entwicklung der anatolischen Keramik—ihre Formen und Funktionen. In *Die Hethiter und ihr Reich: Das Volk der 1000 Götter* (pp. 257–261). Bonn: Kunst- und Ausstellungshalle der Bundesrepublik Deutschland GmbH.
- Müller, U. (2005). Norşun Tepe and Lidar Höyük: Two examples for cultural change during the Early Iron Age. In A. Çilingiroğlu & G. Darbyshire (Eds.), *Anatolian Iron Ages 5* (pp. 107– 114). Ankara: British Institute at Ankara.
- Neve, P., & Bittel, K. (1984). Ein althethitischer Sammelfund aus der Unterstadt. In K. Bittel (Ed.), *Boğazköy VI: Funde aus den Grabungen bis 1979* (pp. 63–89). Berlin: Gebr. Mann.
- Nicholas, I. M. (1987). "The Function of Bevelled-Rim Bowls: A Case Study at the Tuv Mound, Tal-E Malyan, Iran." *Paléorient* 13.2: 61-72.

- Orthmann, W. (1984). Keramik aus den ältesten Schichten von Büyükkale. In K. Bittel (Ed.), *Boğazköy IV: Funde aus den Grabungen bis 1979* (pp. 63–90). Berlin: Gebr. Mann.
- Orton, C., & Hughes, M. (2013). *Pottery in Archaeology* (2nd ed.). Cambridge: Cambridge University Press.
- Parzinger, H., & Sanz, R. (1992). *Die Oberstadt von Hattuša: Hethitische Keramik aus dem zentralen Tempelviertel. Funde aus den Grabungen 1982–1987*. Boğazköy-Hattuša XV. Berlin: Verlag Gebr. Mann.
- Pfälzner, P. (1995). *Mittanische und Mittelassyrische Keramik: Eine chronologische, funktionale und produktionsökonomische Analyse*. Berlin: Reimer Verlag.
- Pfälzner, P. (2007). The Late Bronze Age ceramic traditions of the Syrian Jazirah. In M. al-Maqdissis, V. Matoian, & C. Nicolle (Eds.), *Céramique de l'âge du bronze en Syrie, 2: L'Euphrate et la région de Jézireh* (pp. 231–291). Beirut: Bibliothèque archéologique et historique.
- Postgate, J. N. (2007a). The ceramics of centralisation and dissolution: A case study from Rough Cilicia. *Anatolian Studies*, 57, 141–150.
- Postgate, J. N., & Thomas, D. (2007b). *Excavations at Kilise Tepe 1994–98, from Bronze Age to Byzantine in Western Cilicia: Volume 2. Appendices, References & Figures*. London: British Institute at Ankara.
- Potts, Daniel. (2009). "Bevel-rim Bowls and Bakeries: Evidence and Explanations from Iran and the Indo-Iranian Borderlands." *Journal of Cuneiform Studies* 61.1: 1-23.
- Rice, P. M. (1981). "Evolution of Specialized Pottery Production: A Trial Model [and Comments and Reply]." *Current Anthropology* 22.3: 219-240.
- Rice, P. M. (1991). "Specialization, Standardization, and Diversity: A Retrospective." *The Ceramic Legacy of Anna O. Shepard*. Eds. Ronald Bishop and Frederick Lange. Niwot: University Press of Colorado, 257-279.
- Rice, P. M. (2015). *Pottery analysis: A sourcebook*. Chicago: University of Chicago Press.
- Roux, V., Corbetta, D. (1989). *The Potter's Wheel: Craft Specialization and Technical Competence*. New Delhi: Oxford and IBH Publishing, 1989.
- Roux, V. (2003). "Intensity of Production and Ceramic Standardization: Quantifying Degrees of Specialization." *American Antiquity* 68.4, 2003: 768-782. Roux
- Roux, V. (2015) Pottery Production: Skill and Material Specialization in the Near East and Eastern Mediterranean. In C. Glatz (Ed.), *Plain Pottery Traditions of the Eastern Mediterranean and Near East: Production, Use, and Social Significance*, New York: Routledge, 2015. 183-214.

- Roux, V. (2019). *Ceramics and society: A technological approach to archaeological assemblages*. Cham: Springer.
- Roux, V., & Courty, M.-A. (1998). Identification of wheel-fashioning methods: Technological analysis of 4th–3rd millennium BC oriental ceramics. *Journal of Archaeological Science*, 25, 747–763.
- Sarı, D. (2004). *Küllüoba İTÇ II çanak çömleği* (Master's thesis, Sosyal Bilimler Enstitüsü).
- Schachner, A. (2017). *Ausgrabungen und Forschungen in der westlichen Oberstadt von Hattusa II*. Berlin: De Gruyter.
- Schoop, U.-D. (2006). Dating the Hittites with statistics: Ten pottery assemblages from Boğazköy-Hattuša. In D. P. Mielke, U.-D. Schoop, & J. Seeher (Eds.), *Strukturierung und Datierung in der hethitischen Archäologie* (Byzas 4, pp. 215–240). Istanbul: Ege Yayınları.
- Schoop, U.-D. (2008). Wo steht die Archäologie in der Erforschung der hethitischen Kultur? In G. Wilhelm (Ed.), *Hattuša-Boğazköy: Das Hethiterreich im Spannungsfeld des Alten Orients* (pp. 35–60). Wiesbaden: Harrassowitz.
- Schoop, U.-D. (2009). Indications of structural change in the Hittite pottery inventory at Boğazköy-Hattuša. In C. Corti, D. Pecchioli, & G. Torri (Eds.), *Central-North Anatolia in the Hittite period: New perspectives in the light of recent research; Acts of the international conference held at the University of Florence (7–9 February 2007)* (pp. 145–168). Roma: Herder.
- Schoop, U.-D. (2011). Hittite pottery: A summary. In H. Genz & D. P. Mielke (Eds.), *Insights into Hittite history and archaeology* (pp. 241–274). Leuven: Peeters.
- Seidl, Ursula. (1972). *Gefäßmarken von Boğazköy. Boğazköy-Hattuša 8*. Berlin: Gebr. Mann, 1972.
- Singer, I. (1983). *The Hittite KI.LAM Festival. Part I. Studien zu den Boğazköy-Texten 27*. Wiesbaden: Harrassowitz, 1983.
- Simpson, S. J. (1997). Early Urban Ceramic Industries in Mesopotamia. In I. Freestone and D. Gaimster (Eds.), *Pottery in the Making: World Ceramic Traditions*, (pp.50-55). London: British Museum Press
- Sinopoli, C. M. (1991). *Approaches to Archaeological Ceramics*. Boston: Springer.
- Sinopoli, C. M. "The Organization of Craft Production at Vijayanagara, South India." *American Anthropologist* 90.3, 1988: 580-597.
- Süssenguth, R. (2024). *Die hethitische Keramik des Gebäudes A in Kayalipınar/Samuha. Kleine Schriften aus dem Vorgeschichtlichen Seminar Marburg 66*.

- Şahin, F. (2013). Küllüoba Höyüğü Orta Tunç Çağı'na Geçiş Dönemi (Übergangsperiode): Mimari ve Çanak Çömlek. *Yayımlanmış Doktora Tezi, İstanbul Üniversitesi Sosyal Bilimler Enstitüsü: İstanbul.*
- Şener, A. (2014). Beycesultan Höyük Kazısından Ele Geçen Geç Tunç Çağ 5.Tabaka Keramiklerinin Değerlendirilmesi ve Tarihlendirilmesi (Master's thesis). Ege Üniversitesi Sosyal Bilimler Enstitüsü.
- Şerifoğlu, T. E. (2011). Kilise Tepe in Rough Cilicia: A rural Bronze Age site. *Anatolian Studies*, 61, 73–95.
- Türkteki, M. (2004). Küllüoba İlk Tunç Çağı III Çanak Çömleği (Master's thesis). İstanbul Üniversitesi Sosyal Bilimler Enstitüsü.
- Türkteki, M. (2013). The First Use of Wheel-Made Pottery and its Distribution in Western and Central Anatolia. In L. Bombardieri, A. D'Agostino, G.Guarducci, V. Orsi, & S. Valentini (Eds.), *SOMA 2012: Identity and Connectivity. Proceedings of the 16th Symposium on Mediterranean Archaeology, Florence, Italy, 1–3 March 2012* (pp. 193–200). Oxford: Archaeopress.
- Yener, K. A., Akar, M., & Horowitz, M. T. (2010). Tell Atchana, Ancient Alalakh: Volume 1, 2003–2004 excavation seasons. İstanbul: Koç University Press.
- Yener, K. A., Akar, M., & Horowitz, M. T. (2019). Tell Atchana, Alalakh Volume 2a: The Late Bronze II city, 2006–2010 excavations. İstanbul: Koç University Press.
- Yaşın, D., Aksoy, B. (2022). Red Band Decorated Pottery from Tepebağ Höyük/Adana. In D. P. Mielke & F. Manuelli (Eds.), *Late Bronze Age Painted Pottery Traditions at the Margins of the Hittite State* (p. 163). Archaeopress Publishing Ltd.

APPENDIX A – TABLES

PLAS Sub-group	Dominant Inclusion Type	Inclusion Size	Inclusion Density	Porosity	Additional Characteristics
V1	Grit	<1 mm to 1.5 mm	15%	between 1-2% (low)	Smaller and larger grit particles unevenly distributed
V2	Grit, limestone, pebbles	<1 mm	10%	between 1-2% (low)	Higher amounts of lime and pebbles than V1
V3	Grit (frequent) Limestone, pebbles, quartz, ceramic fragments, mica (less frequent)	<1 mm	7-10%	<1% (low)	Observed on large vessels (26-34 cm diameter, ~1 cm thickness) uneven inclusion distribution; high hardness; insufficient oxidation

Table 1: PLAS Medium Buff Fabric variations.

Sub-group	Dominant Inclusion Type	Inclusion Size	Porosity	Additional Characteristics
V1	Grit (frequent) Limestone, pebbles, quartz, chaff (less frequent)	<1 mm	1% (low)	compact fabric composition
V2	Limestone and gold mica (frequent) Grit, pebbles, chaff (less frequent)	<1 mm	1% (low)	High mica content
V3	Grit and pebbles (frequent) Limestone (less frequent)	up to 1 mm	<1% (low)	Similar to PLAS Medium Buff Fabric V2
V4	Limestone (frequent) Grit, pebbles, gold mica, chaff (less frequent)	1-1.5 mm (limestone) <1 mm (others)	between 2-3% (low)	slightly loose fabric composition
V5	Pebbles (frequent) Grit, lime, mica, sparse chaff (less frequent)	up to 3 mm (pebbles) <1mm (others)	<1% (low)	Resembles V1 but with larger reddish pebbles
V6	Limestone and gold mica (frequent) Grit and pebbles (less frequent)	up to 1 mm (limestone)	between 2-3% (low)	Highest mica content possible different clay source despite similar inclusion types and sizes

Table 2: KRASP Medium Buff Fabric variations.

White/Yellow Clay Fabric	Inclusion Types	Inclusion Size	Density	Porosity	Hardness	Firing Condition
PLAS	Grit and pebbles (frequent) Limestone, ceramic fragments, quartz, mica, schist (less frequent)	1-2 mm (Limestone and pebbles) 1.5 mm (schist) <1mm (others)	10-15% (medium)	≤1% (low)	Soft and medium examples exist	Oxidized
KRAS	Grit and pebbles (frequent) Limestone and quartz (less frequent)	<1 mm	7-10% (low)	<1% (low)	Hard	Oxidized

Table 3: White/Yellow Clay Fabric characteristics of PLAS&KRAS.

Medium Pink Fabric	Inclusion Types	Inclusion Size	Density	Porosity	Hardness	Firing Condition
PLAS	Grit and pebbles (frequent) Limestone, ceramic fragments, quartz, mica, chaff (less frequent)	up to 2 mm (pebbles) 4mm (chaff) <1mm (others)	10-15% (medium)	≤1% (low)	Medium and hard examples exist	Oxidized
KRAS	Grit and pebbles (frequent) Limestone and mica (less frequent)	<1 mm	10-15% (medium)	1-3% (low)	Hard	Oxidized

Table 4: Medium Pink Fabric characteristics of PLAS&KRAS.

Medium Red Fabric	Inclusion Types	Inclusion Size	Density	Porosity	Hardness	Firing Condition
PLAS	Grit, limestone and pebbles (frequent) Ceramic fragments, quartz, mica, schist, chaff (less frequent)	≤1mm (others) 2 mm (chaff)	10-15% (medium)	≤1% (low)	Hard	Oxidized
KRASP	Grit and limestone (frequent) pebbles, quartz, mica (less frequent)	<1 mm	7-10% (low)	<1% (low)	Hard	Oxidized
YYALRP	Limestone, mica, schist (frequent) Pebbles (less frequent)	1-4 mm (limestone and pebbles) ≤2mm (others)	7-10% (low)	<1% (low)	Medium	Oxidized

Table 5: Medium Red Fabric characteristics of PLAS&KRASP.

Fabric Groups/ Sites	Göktepe	Bozhöyük	Total Sherd Count	Frequency
Medium Fabrics	2	27	29	78,4
Fine Fabrics	0	4	4	10,8
Coarse Fabrics	1	3	4	10,8
Total Sherd Count by Sites	3	34	37	100,0

Table 6: YYALRP fabric groups distribution by survey sites.

PLAS Sites/ Fabric Groups	Medium White/Yellow Clay Fabric	Medium Pink Fabric	Medium Red Fabric	Medium Buff Fabric	Fine Buff Fabric	Fine Red Fabric	Total Sherd Count by Site
Karatepe						1	1
Gündoğan						1	1
Hacıtuğrul			6	3	2	1	12
Müslüm Höyük				2			2
Karapınar			5	4	2	1	12
Beyceğiz		1	2	2			5
Sarıkaya				1			1
Sarıoba	7	6	5	16	1		35
Eskiköseler				3			3
Polatlı						1	1
Yaylapınarı		1		1	1		3
Ağılbayırı	2	1	1				4
Hıdırşeyh Höyük		2	2	4			8
Total Sherd Count By Fabric	9	11	21	36	6	5	88
Frequency	10,2	12,5	23,9	40,9	6,8	5,7	100,0

Table 7: PLAS fabric group distribution by survey sites.

KRASP Sites/Fabric Groups	Medium Buff Fabric	Medium White/ Yellow Clay Fabric	Medium Red Fabric	Medium Pink Fabric	Fine Buff Fabric	Fine Red Fabric	Fine Red Fabric with Dense Mica	Total Sherd Count by Site
Taşağıl Mezarlık Höyük	2							2
Üçhöyük Mezarlığı Höyüğü	4							4
Türkmen-Karahöyük	19	1	2		1			23
Saksak Höyük	1							1
Domuzboğazlayan Höyük	4							4
Çicek Höyük	3							3
Apa Höyük	1							1
Karkın-Kızıl Höyük I	1							1
Dolay Höyük	2	1		1				4
Halaç Höyük	3		1					4
Kınıkçı Höyük	5					1		6
Gökhöyük	1							1
Hacımehmetkuyu Höyük	1							1
Zengen Höyük	5							5
Sırçalı Höyük	3		1	1			1	6
Total Sherd Count by Fabric	55	2	4	2	1	1	1	66
Frequency	83,3	3,0	6,1	3,0	1,5	1,5	1,5	100,0

Table 8: KRASP fabric group distribution by survey sites.

Firing Conditions	PLAS		KRASP	
	Sherd Count	Frequency	Sherd Count	Frequency
Oxidation	65	73,0	45	68,2
Neutral	5	5,6	2	3,0
Light Insufficient Oxidation	5	5,6	10	15,2
Medium Insufficient Oxidation	7	7,9	6	9,1
Strong Insufficient Oxidation	2	2,2	3	4,5
Unidentified Cases	5	5,6	N/A	N/A
Total Sherd Count	89	100,0	66	100,0

Table 9: Table showing the sherd counts and percentages of oxidation levels in PLAS and KRASP. The percentage calculations were based on the total sherd count within each individual survey project.

Firing Conditions	PLAS		KRASP		YYALP	
	Sherd Count	Frequency	Sherd Count	Frequency	Sherd Count	Frequency
Oxidation	65	73,0	45	68,2	35	87,5
Neutral	5	5,6	2	3,0	4	10,0
Insufficient Oxidation	14	15,7	19	28,8	N/A	N/A
Unidentified Cases	5	5,6	N/A	N/A	1	2,5
Total Sherd Count	89	100,0	66	100,0	40	100,0

Table 10: Table showing the sherd count and percentages of main oxidation levels among three survey projects. The percentage calculations were based on the total sherd count within each individual survey project.

Type/Settlement	NW Central Pla.		Inland West. Anatolia	Konya Pla.	Cilicia				Kızılırmak Bend		Cappadocia		SE Anatolia		Total Sherd Count by Type
	KÜL	GOR	BEY	KON-KAR	KİL	TAR	KİN	T.ATCH	HAT	KUS	ACEM	KÜLT	ARS	KOR	
SSBO	11	25	111	21	39	16	30	16	430	131	66	4	39	8	947
LSSBO	1	2	N/A	N/A	N/A	N/A	26	1	122	86	N/A	N/A	16	2	256
HSBO	3	16	28	22	12	5	11	6	59	26	18	2	14	6	228

Table 11: Distribution of SBO classes across 14 Settlements in Anatolia. KÜL (Küllüoba); GOR (Gordion); BEY (Beycesultan); KON-KAR (Konya-Karahöyük); KİL (Kilisetepe); TAR (Tarsus-Gözlükule); KİN (Kinet Höyük); T.ATCH (Tell Atchana/Alalakh); HAT (Hattusa); KUS (Kuşaklı-Sarissa); ACEM (Acemhöyük); KÜLT (Kültepe); ARS (Arslantepe); KOR (Korucutepe).

Type/Settlement	NW Central Pla.		Inland West. Anatolia	Konya Pla.	Cilicia				Kızılırmak Bend		Cappadocia		SE Anatolia		Total Sherd Count by Type
	KÜL	GOR	BEY	KON-KAR	KİL	TAR	KİN	T.ATCH	HAT	KUS	ACEM	KÜLT	ARS	KOR	
SSBO1	4	7	16	14	12	4	12	1	134	42	11	2	4	1	264
SSBO2	N/A	8	18	2	15	3	9	8	109	40	39	1	18	3	273
SSBO3	7	N/A	7	3	5	1	N/A	N/A	28	1	11	N/A	3	1	67
SSBO4	N/A	2	5	1	3	2	2	N/A	52	15	5	N/A	3	1	91
SSBO5	N/A	1	17	N/A	1	2	1	3	46	23	N/A	1	3	2	100
SSBO6	N/A	7	48	1	3	4	6	4	61	10	N/A	N/A	8	N/A	152
LSSBO1	1	2	N/A	N/A	N/A	N/A	26	1	119	86	N/A	N/A	15	2	252
LSSBO2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	N/A	N/A	N/A	1	N/A	4

Table 12: Distribution of SSBO Types Across 14 Settlements in Anatolia. KÜL (Küllüoba); GOR (Gordion); BEY (Beycesultan); KON-KAR (Konya-Karahöyük); KİL (Kilisetepe); TAR (Tarsus-Gözlükule); KİN (Kinet Höyük); T.ATCH (Tell Atchana/Alalakh); HAT (Hattusa); KUS (Kuşaklı-Sarissa); ACEM (Acemhöyük); KÜLT (Kültepe); ARS (Arslantepe); KOR (Korucutepe).

Type/Settlement	NW Central Pla.		Inland West. Anatolia	Konya Pla.	Cilicia				Kızılırmak Bend		Cappadocia		SE Anatolia		Total Sherd Count by Type
	KÜL	GOR	BEY	KON-KAR	KİL	TAR	KİN	T.ATCH	HAT	KUS	ACEM	KÜLT	ARS	KOR	
HSBO1	2	1	13	17	5	2	5	3	36	15	7	2	7	5	120
HSBO2	N/A	2	2	3	1	1	N/A	2	9	4	10	N/A	2	1	37
HSBO3	1	13	13	2	6	2	6	1	14	7	1	N/A	5	N/A	71

Table 13: Distribution of HSBO Types Across 14 Settlements in Anatolia. KÜL (Küllüoba); GOR (Gordion); BEY (Beycesultan); KON-KAR (Konya-Karahöyük); KİL (Kilisetepe); TAR (Tarsus-Gözlükule); KİN (Kinet Höyük); T.ATCH (Tell Atchana/Alalakh); HAT (Hattusa); KUS (Kuşaklı-Sarissa); ACEM (Acemhöyük); KÜLT (Kültepe); ARS (Arslantepe); KOR (Korucutepe).

Dating (BCE)	Relative Chronology	NW Central Plateau				Inland Western Anatolia	Konya	Cilicia				Kızılırmak Bend					Cappadocia	Southeastern Anatolia																
		Küllüoba	Gordion			Beycesultan	Konya Karahöyük	Kilisetepe	Tarsus	Kinet Höyük	Tell Atchana Alalakh	Hattusa				Kuşaklı	Acemhöyük	Arslantepe	Korucutepe															
			City Mound	Megaron 10	Megaron 12							BK	Ust	Ost	Middle Plateau																			
2750 BCE	EBA Ila	IVG IVF IVE IVD IVC IVB	Not Excavated			XVI XV		VL-VG	EBA II	29-25							Not Excavated	VI-C	C-D															
2500 BCE		IVA IIIC				XIV XIII																												
2250 BCE	EBA IIb		PN3-8			GAP	Unpublished	VF-VE	EBA III-A	24-22							X IX	VI-D	E-F															
	EBA IIIa	IIIB IIIA IIE IID IIIC IIIB IIA																		XII XI X IX VIII VII VI-b	VI V IV	EBA III-B	21-19		9 8d-c								VIII VII VI V IV	
2000 BCE	EBA IIb		PN3-7																															
1800 BCE	MBA I			18		VI-a V IV-c IV-b IV-a	III II I			18	VIII	Va-d Ivd	4				III II I	VA1 VA2	G															
1700 BCE	MBA II																																	
1650 BCE	MB/LB Transition			15		III		IV	IV	17-16	VII							VB1	H															
1600 BCE			14																															
1500 BCE	LBA I	Abandoned		13 12	VC	Sb/II Sa/Ib Ia					VI VII	VI-V	IVc IVb IVa	3 4 2 3	4		Altester Horizont Mittleler Horizont	VB2	I J															
1400 BCE																																		
1350 BCE	LBA II				11 10	VB																												
1300 BCE																																		
1200 BCE				9-4	VA				X	13		IIIC IIIB IIIA	1b 1a	2		Jüngster Horizont																		

Table 14: Chronotypological distribution of SSBO1. The layers highlighted in red represent those where SSBO1 has been identified.

Dating (BCE)	Relative Chronology	NW Central Plateau				Inland Western Anatolia	Konya	Cilicia				Kızıllırmak Bend					Cappadocia	Southeastern Anatolia																																																										
		Küllüoba	Gordion			Beycesultan	Konya Karahöyük	Kilisetepe	Tarsus	Kinet Höyük	Tell Atchana Alalakh	Hattusa				Kuşaklı	Acemhöyük	Arslantepe	Korucutepe																																																									
			City Mound	Megaron 10	Megaron 12							BK	Ust	Ost	Middle Plateau																																																													
2750 BCE	EBA Ia	IVG IVF IVE IVD IVC IVB	Not Excavated			XVI XV		VL-VG	EBA II	29-25							Not Excavated	VI-C	C-D																																																									
2500 BCE	EBA Ib	IVA IIIC				XIV XIII														Unpublished	VF-VE	EBA III-A	24-22	X IX	VI-D	E-F																																																		
2250 BCE	EBA IIIa	IIIB IIIA IIIE IID IIC IIB IIA				PN3-8																					GAP	VI V IV	EBA III-B	21-19	VIII VII VI V IV	VA1	G																																											
	EBA IIIb					PN3-7																												VI-a V IV-c IV-b IV-a	III II I	IV	III	IV	17-16	VII	IVc 3 4	2 3	2a 2b	Mittlerer Horizont	IV	J																														
2000 BCE	MBA I																																																																											
1800 BCE	MBA II	Abandoned		18		VI-a V IV-c IV-b IV-a	III II I	IV	III	18	VIII	Va-d Ivd	4				III II I	VA2	G																																																									
1700 BCE	MB/LB Transition																			15		III	V	VI	17-16	VII	IVc 3 4	2 3	2a 2b	Mittlerer Horizont	IV	J																																												
1650 BCE																																	14		III	V	VI	17-16	VII	IVc 3 4	2 3	2a 2b	Mittlerer Horizont	IV	J																															
1600 BCE																																														13 12	VC	5b/II	5a/Ib	VI	15	IV	IVb	2 3	2a 2b	Mittlerer Horizont	IV	J																		
1500 BCE	LBA I																																																												Ia	VII	14	III/II	I	IVa	2 3	2a 2b	Mittlerer Horizont	IV	J					
1400 BCE		11 10	VB		Abandoned?	III	VIII	14	III/II	I	IVa	2 3	2a 2b	Mittlerer Horizont	IV	J																																																												
1350 BCE																																																																												
1300 BCE	LBA II																																																																											

Table 15: Chronotypological distribution of SSBO2. The layers highlighted in red represent those where SSBO2 has been identified.

Dating (BCE)	Relative Chronology	NW Central Plateau				Inland Western Anatolia	Konya	Cilicia				Kızılırmak Bend					Cappadocia	Southeastern Anatolia														
		Küllüoba	Gordion			Beycesultan	Konya Karahöyük	Kilisetepe	Tarsus	Kinet Höyük	Tell Atchana Alalakh	Hattusa				Kuşaklı	Acemhöyük	Arslantepe	Korucutepe													
			City Mound	Megaron 10	Megaron 12							BK	Ust	Ost	Middle Plateau																	
2750 BCE	EBA IIa	IVG IVF IVE IVD IVC IVB	Not Excavated			XVI XV		VL-VG	EBA II	29-25								Not Excavated	VI-C	C-D												
2500 BCE	EBA IIb	IVA IIIC				XIV XIII																										
2250 BCE	EBA IIIa	IIIB IIIA IE IID IC IIB IA				PN3-8																GAP	Unpublished	EBA III-A	24-22							
	EBA IIIb																										XII XI X IX VIII VII VI-b	VI V IV				
2000 BCE	MBA I		PN3-7			III II I				18	VIII	V IVc Ivd	4				III II I	VA1 VA2	G													
1800 BCE	MBA II		18		VI-a V IV-c IV-b IV-a																											
1700 BCE	MB/LB Transition		15																	IV	IV	17-16	VII								VB1	H
1650 BCE			14																													
1600 BCE	LBA I	Abandoned	13 12	VC	5b/II						VI-V	IVc	3	4			VB2	I J														
1500 BCE					5a/IIb														VI VII					15	IV	IVb						
1400 BCE	LBA II		11 10	VB	Abandoned?	III	VIII	14	III/II	IVa	2	3	2a	Mittlerer Horizont																		
1350 BCE																				9-4	VA	IX	13					I		2	2b	
1300 BCE																																
1200 BCE																																

Table 16: Chronotypological distribution of SSBO3. The layers highlighted in red represent those where SSBO3 has been identified.

Dating (BCE)	Relative Chronology	NW Central Plateau				Inland Western Anatolia	Konya	Cilicia				Kızılırmak Bend					Cappadocia	Southeastern Anatolia	
		Küllüoba	Gordion			Beycesultan	Konya Karahöyük	Kilise-tepe	Tarsus	Kinet Höyük	Tell Atchana Alalakh	Hattusa				Kuşaklı	Acemhöyük	Arslantepe	Korucutepe
			City Mound	Megaron 10	Megaron 12							BK	Ust	Ost	Middle Plateau				
2750 BCE	EBA IIa	IVG IVF IVE IVD IVC IVB	Not Excavated			XVI XV	Unpublished	VL-VG	EBA II	29-25							Not Excavated	VI-C	C-D
2500 BCE	EBA IIb	IVA IIIC				XIV XIII GAP				24-22							XI X IX		
2250 BCE	EBA IIIa	IIIB IIIA IIE IID IIC IIB IIA	PN3-8			XII XI X IX VIII VII VI-b VI-a V IV-c IV-b IV-a		VF-VE	EBA III-A EBA III-B	21-19							VIII VII VI V IV	VI-D	E-F
2000 BCE	MBA I		PN3-7	Abandoned			Abandoned?					9 8d-c							
1800 BCE	MBA II									18		Va-d Ivd	4				III II I	VA1 VA2	G
1700 BCE	MB/LB Transition							IV										VB1	H
1650 BCE										17-16									
1600 BCE	LBA I					5b/III 5a/IIb Ia			V VI VII			VI-V IV	IVc IVb	3	4				I
1500 BCE										15							Altester Horizont	VB2	
1400 BCE	LBA II									14		III/II I/a I	2	3	2a 2b		Mittlere Horizont		J
1350 BCE																			
1300 BCE										13		IIc IIb IIa	1b 1a	2			Jüngster Horizont	IV	
1200 BCE																			

Table 17: Chronotypological distribution of SSBO4. The layers highlighted in red represent those where SSBO4 has been identified.

Dating (BCE)	Relative Chronology	NW Central Plateau				Inland Western Anatolia	Konya	Cilicia				Kızılırmak Bend					Cappadocia	Southeastern Anatolia	
		Küllüoba	Gordion			Beycesultan	Konya Karahöyük	Kilisetepe	Tarsus	Kinet Höyük	Tell Atchana Alalakh	Hattusa				Kuşaklı	Acemhöyük	Arslantepe	Korucutepe
			City Mound	Megaron 10	Megaron 12							BK	Ust	Ost	Middle Plateau				
2750 BCE	EBA IIa	IVG IVF IVD IVC IVB	Not Excavated			XVI XV		VL-VG	EBA II	29-25							Not Excavated	VI-C	C-D
2500 BCE	EBA IIb	IVA IIIC				XIV XIII											XI		
2250 BCE	EBA IIIa	IIIB IIIA IIIE IID IIC IIB IIA	PN3-8			GAP	Unpublished	VF-VE	EBA III-A	24-22							X IX		
	EBA IIIb								EBA III-B	21-19							VIII VII VI V IV	VI-D	E-F
2000 BCE	MBA I		PN3-7			XII XI X IX VIII VII VI-b VI-a V IV-c IV-b IV-a	VI V IV III II I					9 8d-c						VA1 VA2	
1800 BCE	MBA II			18					III	18	VIII	Va-d Ivd	4				III II I		G
1700 BCE	MB/LB Transition			15		III		IV	IV		VII							VB1	H
1650 BCE				14															
1600 BCE	LBA I					5b/II			V		VI-V	IVc	3	4					
1500 BCE				13 12	VC	5a/Ib			VI			IVb							I
1400 BCE	LBA II					Ia			VII	15	IV						Altester Horizont	VB2	
				11 10			Abandoned?		VIII	14	IIII		2	3	2a				
1350 BCE					VB				IX		I	IVa			2b		Mittlere Horizont		
1300 BCE										13		IIIC IIIB IIIA	1b 1a	2			Jüngster Horizont	IV	J
1200 BCE				9-4	VA				X										

Table 18: Chronotypological distribution of SSBO5. The layers highlighted in red represent those where SSBO5 has been identified.

Dating (BCE)	Relative Chronology	NW Central Plateau				Inland Western Anatolia	Konya	Cilicia				Kızılırmak Bend				Cappadocia	Southeastern Anatolia																																	
		Küllüoba	Gordion			Beycesultan	Konya Karahöyük	Kilisetepe	Tarsus	Kinet Höyük	Tell Atchana Alalakh	Hattusa				Kuşaklı	Acemhöyük	Arslantepe	Korucutepe																															
			City Mound	Megaron 10	Megaron 12							BK	Ust	Ost	Middle Plateau																																			
2750 BCE	EBA IIa	I/G IVF IVE IVD IVC IVB	Not Excavated			XVI		VL-VG	EBA II	29-25							Not Excavated	VI-C	C-D																															
2500 BCE	EBA IIb	IVA IIIC				XIV XIII														Unpublished		EBA III-A	24-22								XI																			
2250 BCE	EBA IIIa	IIIB IIIA IIE IID IIC IIB IIA				PN3-8	Gap	VI V IV	VF-VE	EBA III-B	21-19								VIII VII VI V IV															VI-D	E-F															
	EBA IIIb					PN3-7														XII XI X IX VIII VII VI-b VI-a V IV-c IV-b IV-a	III II I		III	IV	18		VIII	Va-d Ivd	4			III II I	VA1 VA2			G														
2000 BCE	MBA I									9 8d-c																																								
1800 BCE	MBA II			18			III	IV		18		VIII	Va-d Ivd	4																																				
1700 BCE	MB/LB Transition																			15	III		IV	IV	17-16	VII																								
1650 BCE																				14																Vb/II	5a/Ib		V	VI	15	IV	IVc	3	4					
1600 BCE	LBA I																			13 12																														
1500 BCE		Abandoned																																																
1400 BCE	LBA II		11 10	VB		Abandoned?	III	14	III/II	IV	IVa	2	3	2a	Mittlere Horizont																																			
1350 BCE																																																		
1300 BCE																																																		
1200 BCE				9-4	VA				X	13		IIc IIb IIa	1b 1a	2		Jüngster Horizont																																		

Table 19: Chronotypological distribution of SSBO6. The layers highlighted in red represent those where SSBO6 has been identified.

Dating (BCE)	Relative Chronology	NW Central Plateau				Inland Western Anatolia	Konya	Cilicia				Kızılırmak Bend					Cappadocia	Southeastern Anatolia																																
		Küllüoba	Gordion			Beycesultan	Konya Karahöyük	Kilisetepe	Tarsus	Kinet Höyük	Tell Atchana Alalakh	Hattusa				Kuşaklı	Acemhöyük	Arslantepe	Korucutepe																															
			City Mound	Megaron 10	Megaron 12							BK	Ust	Ost	Middle Plateau																																			
2750 BCE	EBA IIa	IVG IVF IVE IVD IVC IVB	Not Excavated			XVI XV		VL-VG	EBA II	29-25								Not Excavated	VI-C	C-D																														
2500 BCE	EBA IIb	IVA IIIC				XIV XIII GAP															Unpublished	VF-VE	EBA III-A EBA III-B	24-22 21-19										XI X IX																
2250 BCE	EBA IIa	IIIB IIIA IIE IID IIC IIB IIA				PN3-8																														VI V IV												VIII VII VI V IV	VI-D	E-F
	EBA IIb					PN3-7																																												
2000 BCE	MBA I			VI V IV																																														
1800 BCE	MBA II		18															VI V IV-c IV-b IV-a	III II I												III II I	VA1 VA2	G																	
1700 BCE			15																															III																
1650 BCE	MB/LB Transition		14																																														III	
1600 BCE				III																																														
	LBA I		13 12															VC		5b/II 5a/Ib Ia																														
1500 BCE																																	VC		Ia															
1400 BCE			11 10																																													VC		
				VC																																														
1350 BCE	LBA II																	VC																																
																																	VC																	
1300 BCE																																																VC		
				VC																																														
1200 BCE			9-4															VA																																

Table 20: Chronotypological distribution of LSSBO1. The layers highlighted in red represent those where LSSBO1 has been identified.

Dating (BCE)	Relative Chronology	NW Central Plateau				Inland Western Anatolia	Konya	Cilicia				Kızılırmak Bend					Cappadocia	Southeastern Anatolia	
		Küllüoba	Gordion			Beycesultan	Konya Karahöyük	Kilise-tepe	Tarsus	Kinet Höyük	Tell Atchana Alalakh	Hattusa				Kuşaklı	Acemhöyük	Arslantepe	Korucutepe
			City Mound	Megaron 10	Megaron 12							BK	Ust	Ost	Middle Plateau				
2750 BCE	EBA IIa	IVG IVF IVE IVD IVC IVB	Not Excavated			XVI	Unpublished	VL-VG	EBA II	29-25							Not Excavated	VI-C	C-D
2500 BCE	EBA IIb	IVA IIIC				XIV XIII													
2250 BCE	EBA IIa	IIIB IIIA IIIE IID IIC IIB IIA				GAP													
2000 BCE	EBA IIb		PN3-8			XII XI X IX VIII VII VI-b	VI	VF-VE	EBA III-A	24-22							VIIII VIIII VIIII VIIII	VI-D	E-F
1800 BCE	MBA I		PN3-7			V	V												
1700 BCE	MBA II					VI-a V IV-c IV-b IV-a	III												
1650 BCE	MB/LB Transition			18			I	IV	III	18		VIII	Va-d Ivd	4			III II I	VA1 VA2	G
1600 BCE				15															
1500 BCE	LBA I			14															
1400 BCE				13 12	VC	5b/II 5a/Ib Ia	Abandoned?		V	VI	15	VII	IV	IVc IVb IVa IIIC IIIB IIIA	3 4 2 1b 1a	4 3 2 2		Allister Horizont Mittlere Horizont Jüngster Horizont	I IV
1350 BCE	LBA II			11 10	VB														
1300 BCE				9-4	VA														
1200 BCE																			

Table 21: Chronotypological distribution of LSSBO2. The layers highlighted in red represent those where LSSBO2 has been identified.

Dating (BCE)	Relative Chronology	NW Central Plateau				Inland Western Anatolia	Konya	Cilicia				Kızılırmak Bend				Cappadocia	Southeastern Anatolia																																													
		Küllüoba	Gordion			Beycesultan	Konya Karahöyük	Kilisetepe	Tarsus	Kinet Höyük	Tell Atchana Alalakh	Hattusa				Kuşaklı	Acemhöyük	Arslantepe	Korucutepe																																											
			City Mound	Megaron 10	Megaron 12							BK	Ust	Ost	Middle Plateau																																															
2750 BCE	EBA IIa	IVG IVF IVE IVC IVB	Not Excavated			XVI XV		VL-VG	EBA II	29-25							Not Excavated	VI-C	C-D																																											
2500 BCE	EBA IIb	IVA IIIC				XIV XIII														Unpublished	EBA II-A EBA II-B	24-22 21-19										XI X IX																														
2250 BCE	EBA IIa	IIIB IIIA IIE IID IIC IIB IIA				PN3-8																												Gap	VI V IV	VF-VE										VIII VII VI V IV	VI-D	E-F														
	EBA IIb					PN3-7																																											VI V IV													
2000 BCE	MBA I																																																													
	MBA II		PN3-7	VI V IV																																																										
1800 BCE	MBA II																		PN3-7	VI V IV																																										
1700 BCE	MB/LB Transition																																	PN3-7	VI V IV																											
1650 BCE						PN3-7																																											VI V IV													
1600 BCE	LBA I																																																													
1500 BCE			PN3-7	VI V IV																																																										
1400 BCE	LBA II																		PN3-7	VI V IV																																										
1350 BCE																																		PN3-7	VI V IV																											
1300 BCE						PN3-7																																											VI V IV													
1200 BCE																																																														
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			PN3-7	VI V IV																																																										
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																																		PN3-7	VI V IV																											

Table 22: Chronotypological distribution of HSBO1. The layers highlighted in red represent those where HSBO1 has been identified.

Dating (BCE)	Relative Chronology	NW Central Plateau				Inland Western Anatolia	Konya	Cilicia				Kızılırmak Bend					Cappadocia	Southeastern Anatolia																																					
		Küllüoba	Gordion			Beycesultan	Konya Karahöyük	Kilisetepe	Tarsus	Kinet Höyük	Tell Atchana Alalakh	Hattusa				Kuşaklı	Acemhöyük	Arslantepe	Korucutepe																																				
			City Mound	Megaron 10	Megaron 12							BK	Ust	Ost	Middle Plateau																																								
2750 BCE	EBA IIa	IVG IVF IVE IVD IVC IVB	Not Excavated			XVI XV		VL-VG	EBA II	29-25								No Excavated	VI-C	C-D																																			
2500 BCE	EBA IIb	IVA IIIC				XIV XIII															Unpublished	EBA II-A	24-22	X IX	VI-D	E-F																													
2250 BCE	EBA IIIa	IIIB IIIA IIIE IIID IIC IIB IIA				PN3-8		Gap	Unpublished	VF-VE									EBA II-B	21-19			VII VI V IV	VA1 VA2			VB1 VB2	I	H																										
	EBA IIIb					PN3-7														XII XI X IX VIII VII VI-b	VI V IV				18	VIII				Va-d Md	4	G																							
2000 BCE	MBA I																		VI-a V IV-c IV-b IV-a														III I	IV	III	IV	17-16	V VI-V	IVc 3 4																
1800 BCE	MBA II			18																																																			
1700 BCE	MB/LB Transition	Abandoned				III																																																	
1650 BCE																					15																																		
1600 BCE	14																																																						
	LBA I					13 12															VC	5b/II 5a/IIb Ia																																	
1500 BCE																																																							
1400 BCE	LBA II																								Abandoned?	III		14		III/II I	IVc 3 4	2 3	2a 2b																						
1350 BCE																																																							
1300 BCE																																																							
1200 BCE																																																							

Table 24: Chronotypological distribution of HSBO3. The layers highlighted in red represent those where HSBO3 has been identified.

APPENDIX B - FIGURES



Figure 1: cross-sections of PLAS Medium Buff Fabric - V1.



Figure 2: selection of cross-sections of PLAS Medium Buff Fabric – V2.



Figure 3: cross-sections of PLAS Medium Buff Fabric-V3.

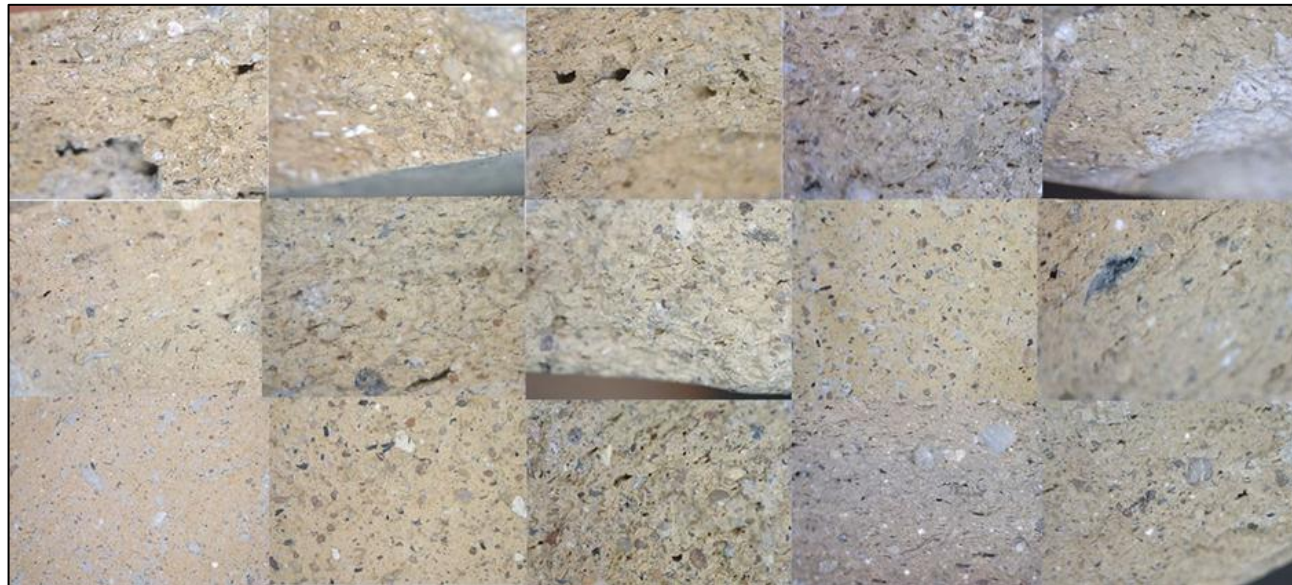


Figure 4: KRASP Medium Buff Fabric-V1, a selection of photos from fresh cuts.

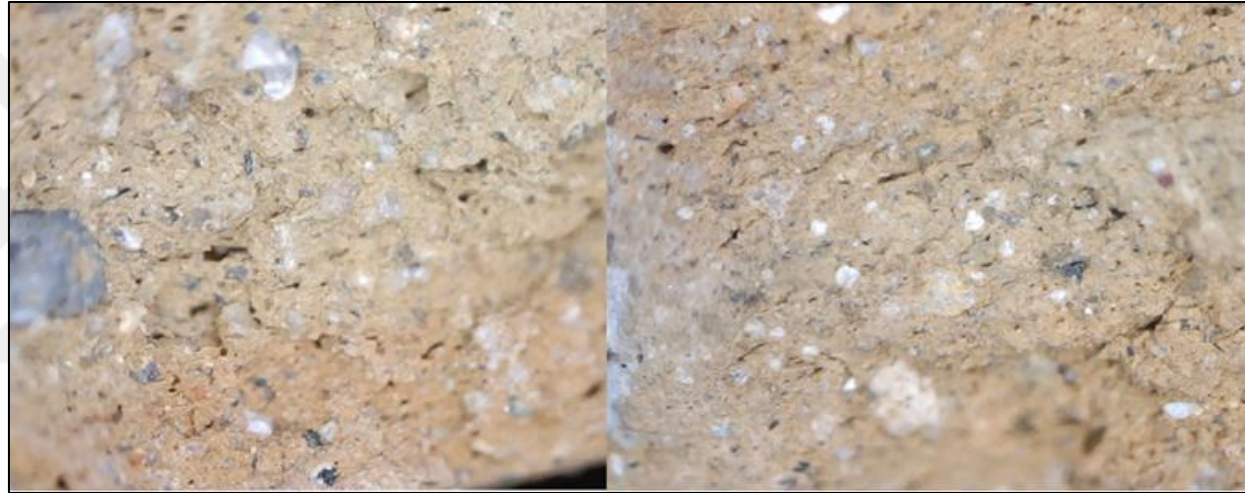


Figure 5: KRASP Medium Buff Fabric-V2, a selection of photos from fresh cuts.



Figure 6: KRASP Medium Buff Fabric-V3, a selection of photos from fresh cuts.

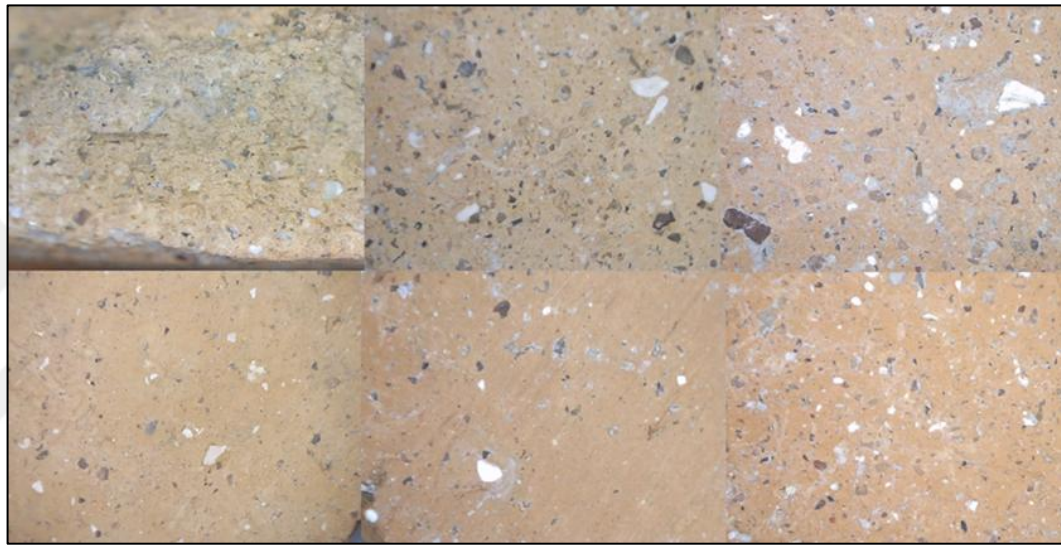


Figure 7: *KRASP Medium Buff Fabric-V4, a selection of photos from fresh cuts.*



Figure 8: *KRASP Medium Buff Fabric-*

cuts.

V5, a selection of photos from fresh

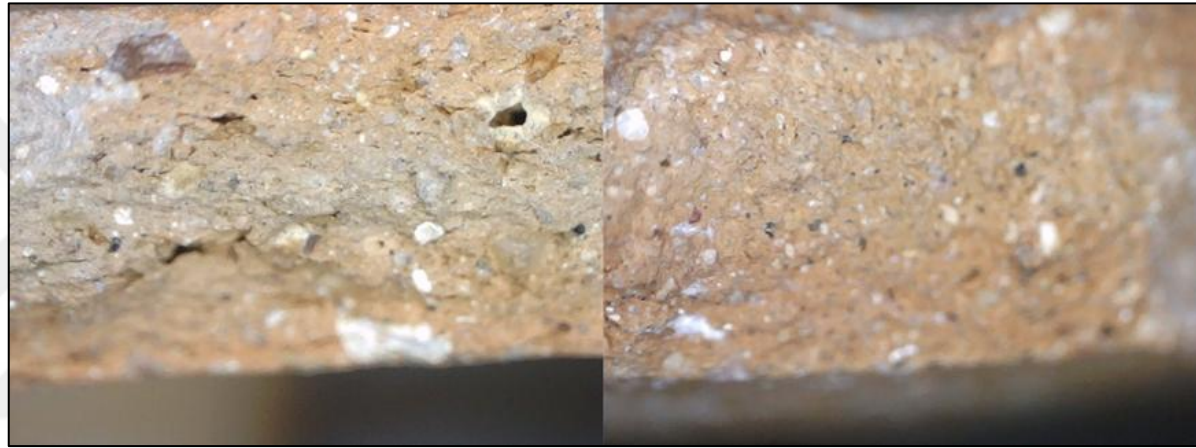


Figure 9: KRASP Medium Buff Fabric -V6, a selection of photos from fresh cuts.



Figure 10: PLAS White/Yellow Clay Fabric, a selection of photos from fresh cuts.

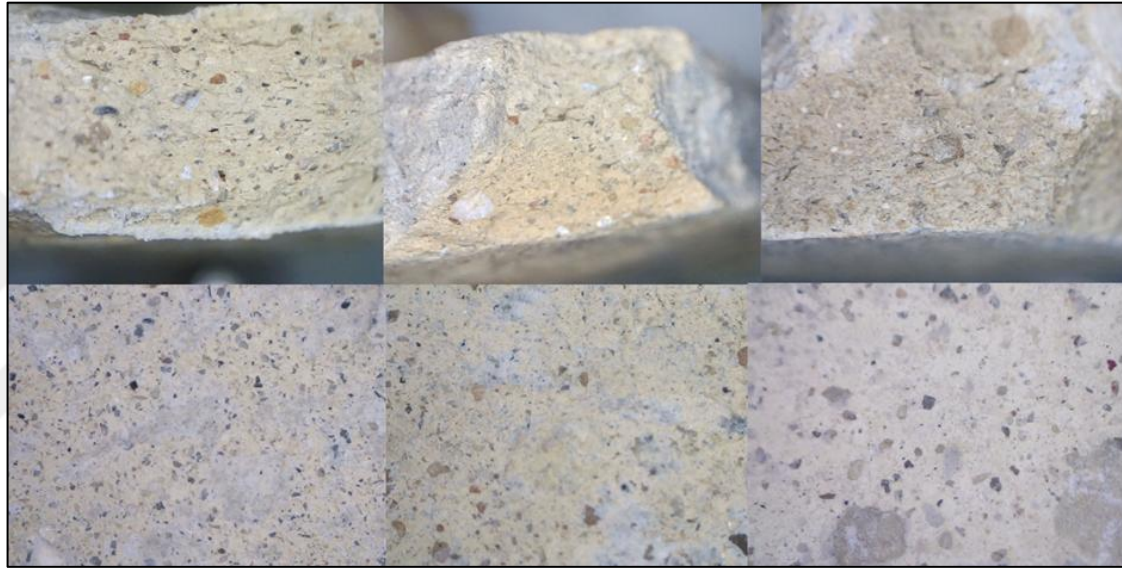


Figure 11: KRASP Medium White Yellow Clay Fabric, a selection of photos from fresh cuts.



Figure 12: PLAS Medium Pink Fabric, a selection of photos from fresh cuts.



Figure 13: KRASP Medium Pink Fabric, a selection of photos from fresh cuts.

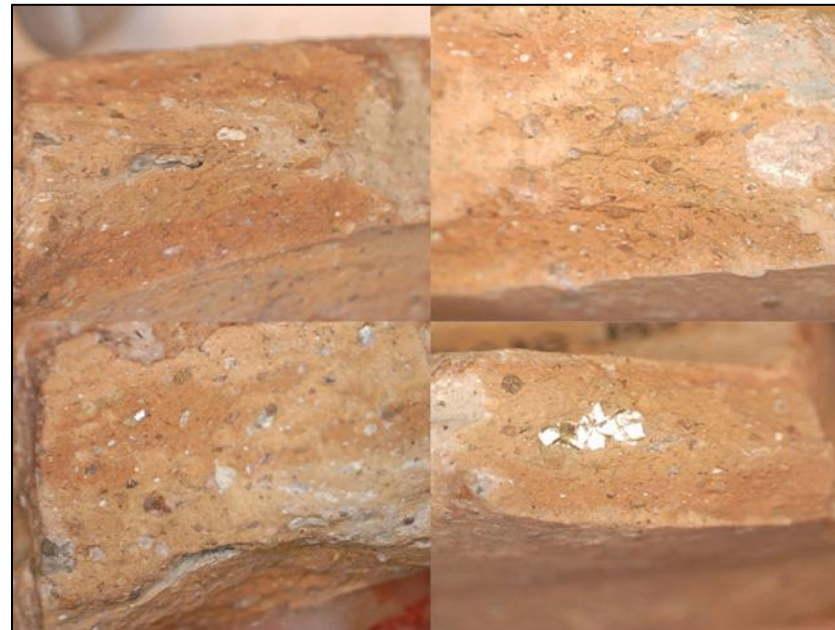


Figure 14: PLAS Medium Red Fabric, a selection of photos from fresh cuts.

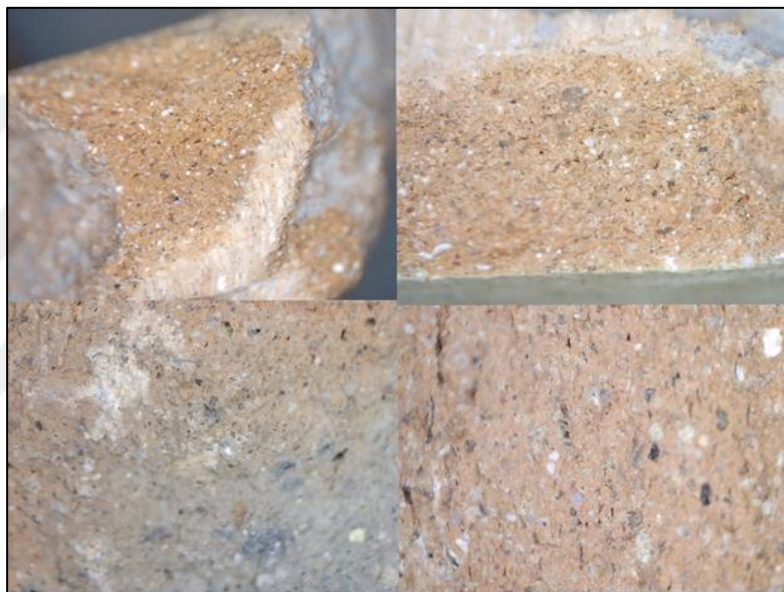


Figure 15: KRASP Medium Red Fabric, a selection of photos from fresh cuts.



Figure 16: PLAS Fine Buff Fabric, cross-section.



Figure 17: KRASP Fine Buff Fabric, a selection of photos from fresh cuts.



Figure 18: PLAS Fine Red Fabric, a selection of photos from fresh cuts.



Figure 19: KRASP Fine Red Fabric, a selection of photos from fresh cuts.

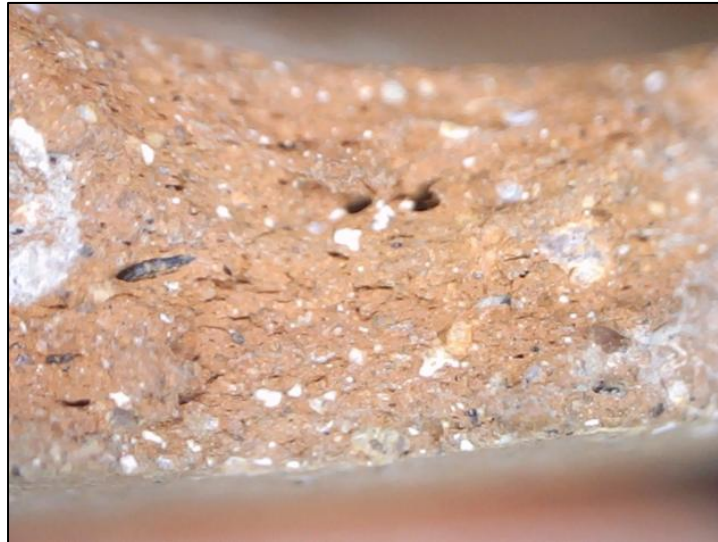


Figure 20: KRASP Fine Red Fabric with Mica, photo is taken from the fresh cuts.

APPENDIX C –TYPOLOGICAL COMPARANDA

Sites/Type	SSBO1
KÜL	Şahin, 2013: Lev.47: 172;Lev.63: 298,299,301
GOR	Gunter, 1991: Fig.8 (161); Fig.12 (236); Fig.20 (422,427,428); Fig.22 (449); Fig.23 (178);
BEY	Ergün, 2023: Lev.26:17; Lev.77:16 Lloyd&Mellaart 1965: Fig.P.4 (12,18,23); Fig.P.16 (4) Şener, 2014: Lev.1:2,3,9,11; Lev.6:4,6
KON-KAR	Gürdal, 2023: Lev.IV:5,13;Lev.XV: 2-5
KİL	Postgate, 2007b:Fig.388: 604,609,622,617,623,624 Şerifoğlu, 2019: Fig.23:C12/160: Fig.27: C12/240, C12/241
TAR	Goldman, 1956: Fig.384:1119,1127,1128,1138
T.ATCH	Yener et al., 2010: p.224, A03-R1806
HAT	Schachner, 2017: Abb.159: 7,10; Abb.163: 9,14,17,19 Orthmann, 1984: Abb.13: 131 Neve and Bittel, 1984: Abb.10b:68,69,70 Parzinger and Sanz, 1992: Taf.5: 8,9,11,13,19 Müller-Karpe, 1988: Taf.30: S1e (2,6,12,13); Taf.33: S3 (48); Taf.34: S5c (1); Taf.35:2,3,6,9,20; S5i (1,3,4,8-14,19,27,28,30) Fischer, 1963: 695,692,755,770,771,773, 801,804,805, 837,838,842,848,861,862
KUS	Arnhold, 2009: Taf.29:1-3,18,23-28,31 Mielke, 2006: Taf.52: 1,7
ACEM	Kamış, 2012: Lev.81:346;Lev.82:348; Lev.84: 353,354,356 Türker, 2004: Lev.XV:10; Lev.XVI:10-11
KÜLT	Özgüç, 1999: Fig.A:4,5

ARS	Di Nocera, 1998:Tafel 1:8 Manuelli, 2013:Fig.III.25: 3-7
KOR	Ertem and Umurtak, 1996:Levha 3: 8

Sites/Type	SSBO2
GOR	Gunter, 1991: Fig.9 (163-164); Fig.14 (260); Fig.15 (293); Fig.19 (388); Fig.17 (403); Fig.20 (429); Fig.22 (450)
BEY	Ergün, 2023: Lev.26:13; Lev.30:1; Lev.34:2; Lev.57:8-9 Lloyd&Mellaart, 1962: Fig. P.14 (25); Fig.P.15 (14,15,18-20) Lloyd&Mellaart 1965: Fig.P.33 (36) Şener, 2014: Lev.1:6,7
KON-KAR	Gürdal, 2023: Lev.IV:6,13; Lev.IX:7
KİL	Postgate, 2007b:Fig.388: 605-607,611,612,615,616,618 Şerifoğlu, 2019: Fig.23:C12/181
TAR	Goldman, 1956: Fig.347:AC,AF, Fig.368:C
T.ATCH	Yener et al., 2010: p.216, A03-R1225
HAT	Schachner, 2017: Abb.159: 11; Abb.161: 8 Orthmann, 1984: Abb.13: 116-118 Neve and Bittel, 1984: Abb.10a:60 Parzinger and Sanz, 1992: Taf.15:3,5-8,10,11,13 Müller-Karpe, 1988: Taf.35: S5d (1,5,8,11,12); S5e (4,8,12,12,13); S5i (2,6,15-18,20-23,29,36,40,43,48,50-57,59-61,64-67) Fischer, 1963: 750, 778, 781
KUS	Arnhold, 2009: Taf.29:4-6,9-11,29,32,34 Mielke, 2006: Taf.53: 14,16,17,19-23,25,26
ACEM	Kamış, 2012: Lev.58:253-255; Lev.62:271-273 Türker, 2004: Lev.XV:5-8
ARS	Di Nocera, 1998:Tafel 1:15,17 Manuelli, 2013:Fig.III.26: 1-5,7-8,10
KOR	Ertem and Umurtak, 1996:Levha 3:6,7

Sites/Type	SSBO3
KÜL	Türkteki, 2004: Lev.3:5,7,8; Lev.12:1 Şahin, 2013: Lev.63: 304,307; Lev.77: 419
BEY	Ergün, 2023: Lev.54:8; Lev.66:1 Lloyd&Mellaart, 1962: Fig. P.15 (30); Fig.P.64 (20) Şener, 2014: Lev.7:7
KON-KAR	Gürdal, 2023: Lev.XI:1; Lev.XIV: 1,5
KİL	Postgate, 2007b: Fig.380: 458 Şerifoğlu, 2019: Fig.13: C12/124 ,C12/126,C12/055
TAR	Goldman, 1956: Fig.376:980
HAT	Neve and Bittel, 1984: Abb.10b.:72,73,74 Parzinger and Sanz, 1992: Taf.14:19 Müller-Karpe, 1988: Taf.37: S5o (2) Fischer, 1963: 707,708,710,715,719,726,739,740, 743, 744,762-764,766, 780,782,785,786,797,799,816,839
KUS	Mielke, 2006: Taf.55: 3
ACEM	Kamış, 2012: Lev.15:79; Lev.16:85; Lev.45:204-206
KÜLT	Özgüç, 1999: Fig.E:6
ARS	Di Nocera, 1998: Tafel 3:11 Manuelli, 2013: Fig.III.31: 12
KOR	Ertem and Umurtak, 1996: Levha 7:1

Sites/Type	SSBO4
GOR	Gunter, 1991: Fig.21 (432); Fig.28 (S-16)
BEY	Ergün, 2023: Lev.69:1,2,3 Şener, 2014: Lev.10:2,3
KON-KAR	Gürdal, 2023: Lev.IX:6
KİL	Postgate, 2007b: Fig.388: 610 Şerifoğlu, 2019: Fig.23: C12/164, C12/200
TAR	Goldman, 1956: Fig.347:AB, Fig.384:B
HAT	Schachner, 2017: Abb.163: 16,18; Abb.164: 6,10 Neve and Bittel, 1984: Abb.10b.:72,73,74 Parzinger and Sanz, 1992: Taf.15:4,9,12 Müller-Karpe, 1988: Taf.35: S5f (1,2,5,6,8,9,13); S5i (31,41,42,68); S5k (5,16,30,32-34,38) Fischer, 1963: 866

KUS	Arnhold, 2009: Taf.28:18,19 Mielke, 2006: Taf.54: 9-13,24
ACEM	Kamış, 2012: Lev.62:270-274; Lev.71:308 Türker, 2004: Lev.XVII:2
ARS	Manuelli, 2013: Fig.III.26: 6,9
KOR	Ertem and Umurtak, 1996: Levha 3:5

Sites/Type	SSBO5
GOR	Gunter, 1991: Fig.20 (426)
BEY	Ergün, 2023: Lev.4:11; Lev.26:10; Lev.113:1,5 Lloyd&Mellaart, 1962: Fig. P.14 (2,4,5,8); Fig.P.15 (25); Fig.P.47 (46); Fig.P.52 (3); Fig. P.64 (19) Lloyd&Mellaart 1965: Fig.P.16 (8); Fig.P.25 (3) Mellart&Murray, 1995: Fig.P.36 (20); Fig.P.47 (13)
KİL	Postgate, 2007b: Fig.387:591
TAR	Goldman, 1956: Fig.344:AD,AG
HAT	Schachner, 2017: Abb.160: 1,10,11 Parzinger and Sanz, 1992: Taf.50:1,4,14 Müller-Karpe, 1988: Taf.35: S5k (37) Fischer, 1963: 87, 800,829,830,840,843,852,855
KUS	Arnhold, 2009: Taf.29:8,12-19,21,30 Mielke, 2006: Taf.52: 10,12,13,24
KÜLT	Özgüç, 1986: Fig.40
ARS	Di Nocera, 1998: Tafel 1:7 Manuelli, 2013: Fig.III.25: 5-6
KOR	Ertem and Umurtak 1996: Levha 19:6

Sites/Type	SSBO6
GOR	Gunter, 1991: Fig.15 (292); Fig.19 (387,389); Fig.28 (S-15); Fig.30 (S-16,S-52,S-54)
BEY	Şener, 2014: Lev.8:3,10,13-18,20 Ergün, 2023: Lev.113:2-4,6,7,14,15 Lloyd&Mellaart 1965: Fig.P.33 (27,35) Mellart&Murray, 1995:Fig.P.17 (14,15); Fig.P.33 (4); Fig.P.36 (9,18); Fig.P.47 (20)
KON-KAR	Gürdal, 2023: Lev.XXVI:4
KİL	Postgate, 2007b:Fig.387:594
TAR	Goldman, 1956: Fig.344:AH,AM;Fig.376: 966,H
HAT	Schachner, 2017: Abb.164: 1,4,9 Neve and Bittel,1984: Abb.12:87-88 Parzinger and Sanz, 1992: Taf.11:8-12, 22,23 Müller-Karpe, 1988: Taf.35: S5d (4,7,10,13,18); S5e (5,6,9); S5k (13,21,22,24) Fischer, 1963: 864, 867
KUS	Mielke, 2006: Taf.53:1,5-7
ARS	Manuelli, 2013:Fig.III.26: 11-12

Sites/Type	LSSBO1
KÜL	Türkteki, 2004: Lev.25:6
GOR	Gunter, 1991: Fig.14 (256)
HAT	Schachner,2017: Abb.158: 6,7; Neve and Bittel, 1984: Abb.12:86 Parzinger and Sanz, 1992: Taf.35:13,15-17 Müller-Karpe, 1988: Taf.29: S1a, S1b and S1c
KUS	Arnhold, 2009: Taf.18:1,3,4,6-10 Mielke, 2006: Taf.49: 1-3,5-9,11-15,17-21
ARS	Manuelli, 2013:Fig.III.20: 2-7
KOR	Ertem and Umurtak 1996:Levha 20:8-9

Sites/Types	LSSBO2
HAT	Müller-Karpe, 1988: Taf.29: S1g (2)
ARS	Manuelli, 2013:Fig.III.32: 5

Sites/Type	HSBO1
KÜL	Şahin, 2013: Lev.29: 22; Lev.76: 413
GOR	Gunter, 1991: Fig.8 (160)
BEY	Şener, 2014: Lev.4:1,3,5 Ergün, 2023: Lev.75:12; Lev.77:20 Lloyd&Mellaart, 1962: Fig. P.14 (6) Lloyd&Mellaart 1965: Fig.P.33 (1) Mellart&Murray, 1995:Fig.P.17 (10); Fig.P.36 (12)
KON-KAR	Gürdal, 2023: Lev.VI:14; Lev.IX: 1,2,8,10,12-14
KİL	Postgate, 2007b:Fig.388: 608,613 Şerifoğlu, 2019: Fig.23:C12/245, C12/244
TAR	Goldman, 1956: Fig.354:Ç; Fig.369:A
T.ATCH	Yener et al., 2010: p.226, A03-R1853
HAT	Schachner,2017: Abb.155: 2; Neve and Bittel, 1984: Abb.10b:67 Parzinger and Sanz, 1992: Taf.26:5,6,8 Müller-Karpe, 1988: Taf.33: S3 (10,29); Taf.35: S5d (21); Taf.37: S5n (1-11) Fischer, 1963: 756
KUS	Arnhold, 2009: Taf.19:7,10,12 Mielke, 2006: Taf.54:8,14
ACEM	Türker, 2004:Lev.XVI:1-5,7,21
KÜLT	Özgüç, 1999: Fig.A:2,3
ARS	Di Nocera 1998:Tafel 3:3,6 Manuelli, 2013:Fig.III.30: 1-4
KOR	Ertem and Umurtak 1996:Levha 5:5-7

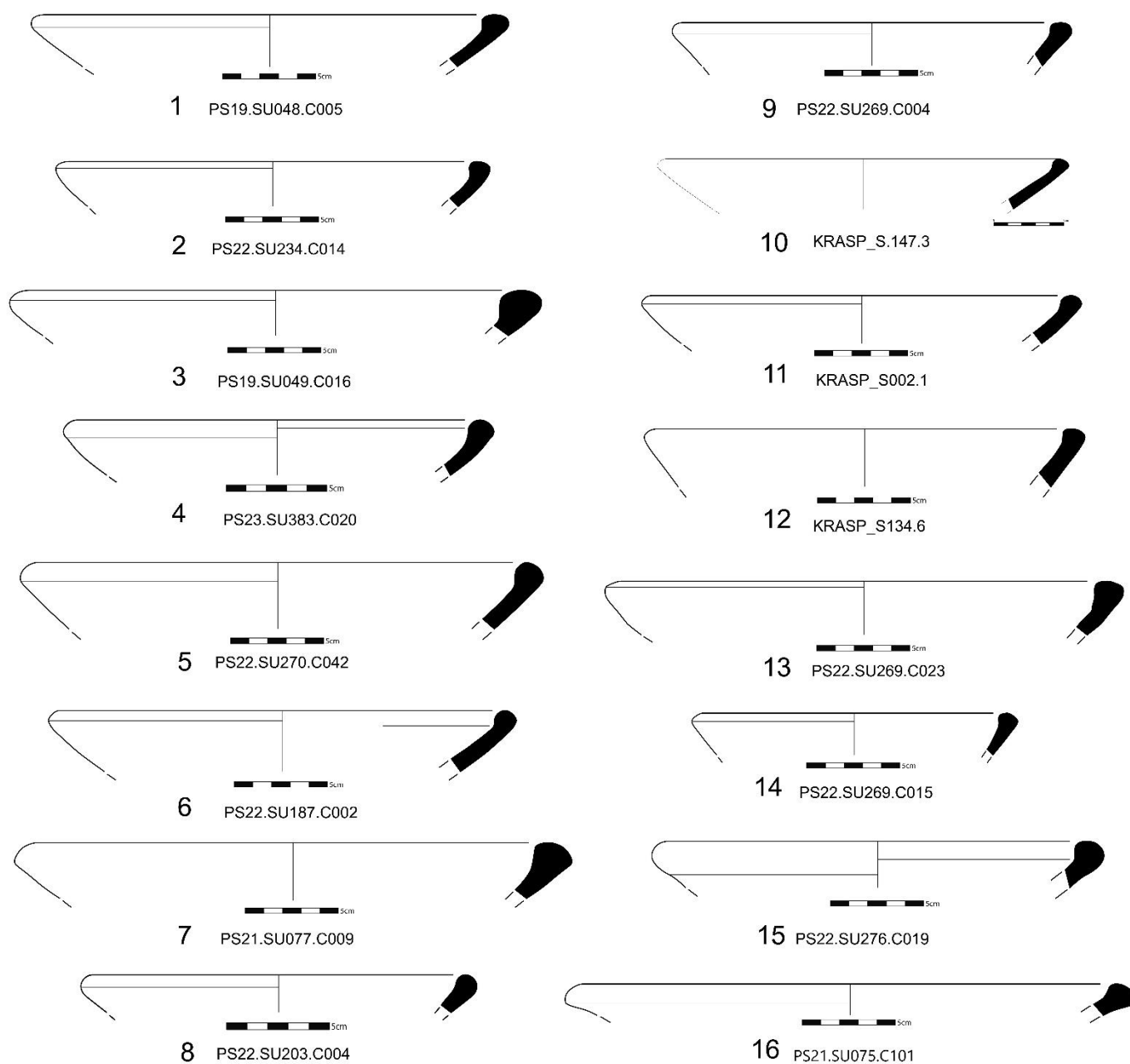
Sites/Type	HSBO2
GOR	Gunter, 1991: Fig.17 (354); Fig.20 (420); Fig.22 (450)
BEY	Ergün, 2023: Lev.107:1,3
KON-KAR	Gürdal, 2023: Lev.VI:6,9;Lev.IX: 9
KİL	Postgate, 2007b:Fig.388:Fig.388:619
TAR	Goldman, 1956: Fig.347:AG
HAT	Schachner, 2017: Abb.162: 3 Orthmann, 1984: Abb.13: 119 Neve and Bittel, 1984: Abb.10b:71 Parzinger and Sanz, 1992: Taf.26:16 Fischer, 1963:760,850
KUS	Arnhold, 2009: Taf.19:8 Mielke, 2006: Taf.54:10
ACEM	Kamış, 2012: Lev.57: 249,251,252; Lev.61: 265-269
ARS	Di Nocera 1998:Tafel 3:4
KOR	Ertem and Umurtak 1996:Levha 7:2

Sites/Types	HSBO3
KÜL	Türkteki, 2004: Lev.12:4
GOR	Gunter, 1991: Fig.11 (213,125); Fig.12 (225); Fig.14 (263); Fig.15 (287); Fig.17 (404); Fig.20 (430); Fig.22 (451,452,453); Fig.29 (S-17,S-18);Fig.30 (S-36)
BEY	Şener, 2014: Lev.5:6 Ergün, 2023: Lev.74:12; Lev.82:2,4-6; Lev.84:6-8 Lloyd&Mellaart, 1962: Fig. P.47 (45); Fig.P.50 (11) Lloyd&Mellaart 1965: Fig.P.13 (30); Fig.P.33 (28) Mellart&Murray, 1995: Fig.P.36 (11)
KON-KAR	Gürdal, 2023: Lev.XXVI:1,3
KİL	Postgate, 2007b:Fig.387:602 Şerifoğlu, 2019: Fig.23:C12/184
TAR	Goldman, 1956: Fig.367:807,813
HAT	Schachner, 2017: Abb.164: 14 Parzinger and Sanz, 1992: Taf.26:17; Taf.41:11 Müller-Karpe, 1988: Taf.35: S5d (17) Fischer, 1963:856

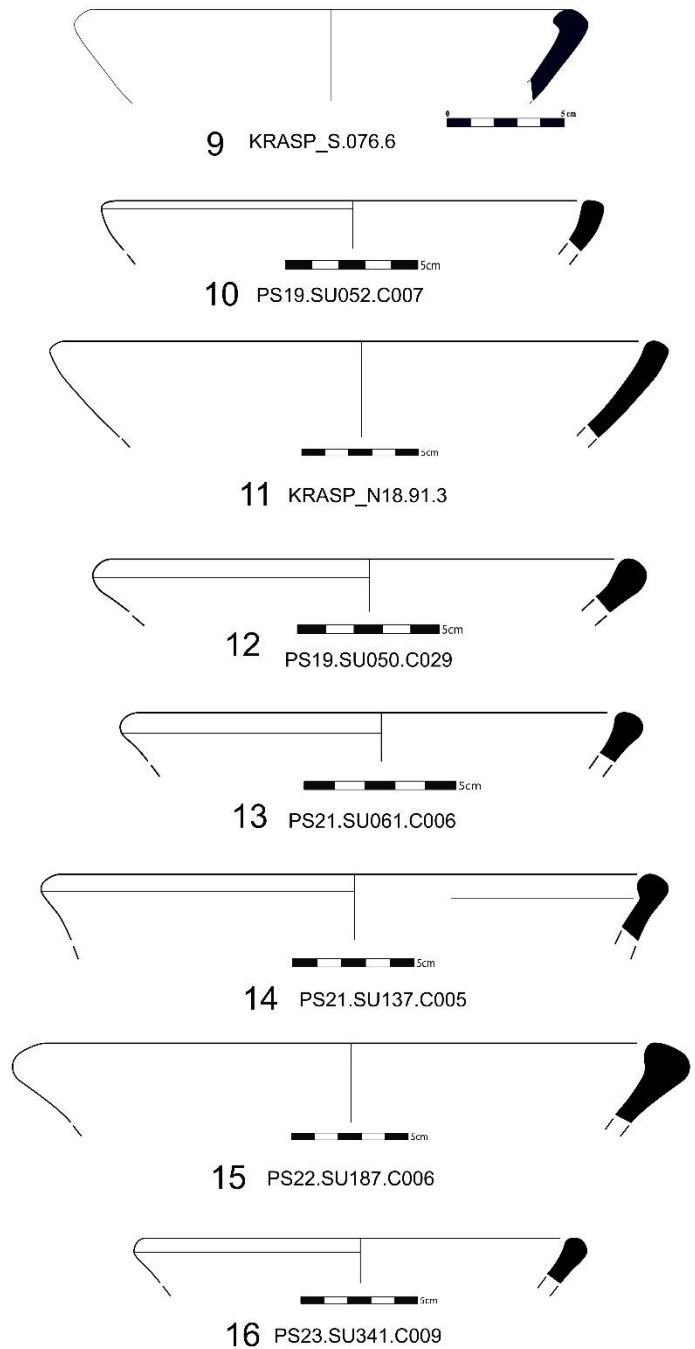
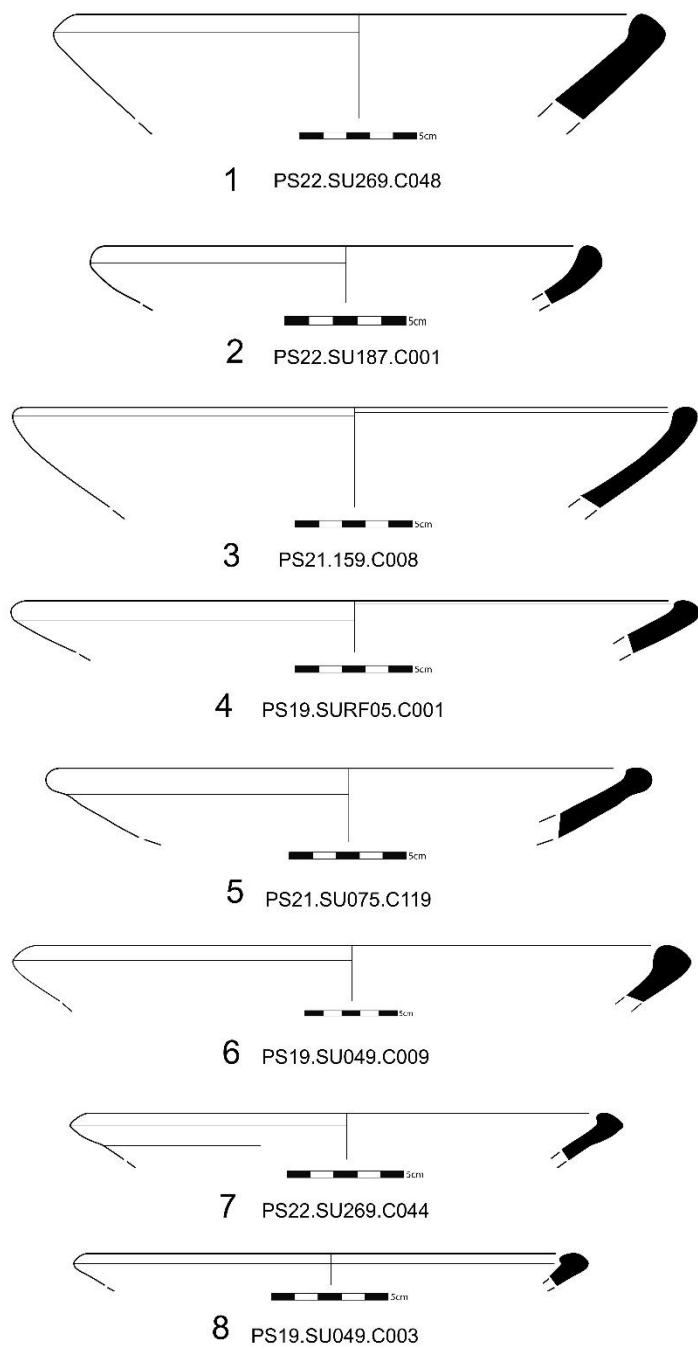
KUS	Mielke, 2006: Taf.53:13
ACEM	Kamış, 2012: Lev.38:175
ARS	Manuelli, 2013:Fig.III.31: 10



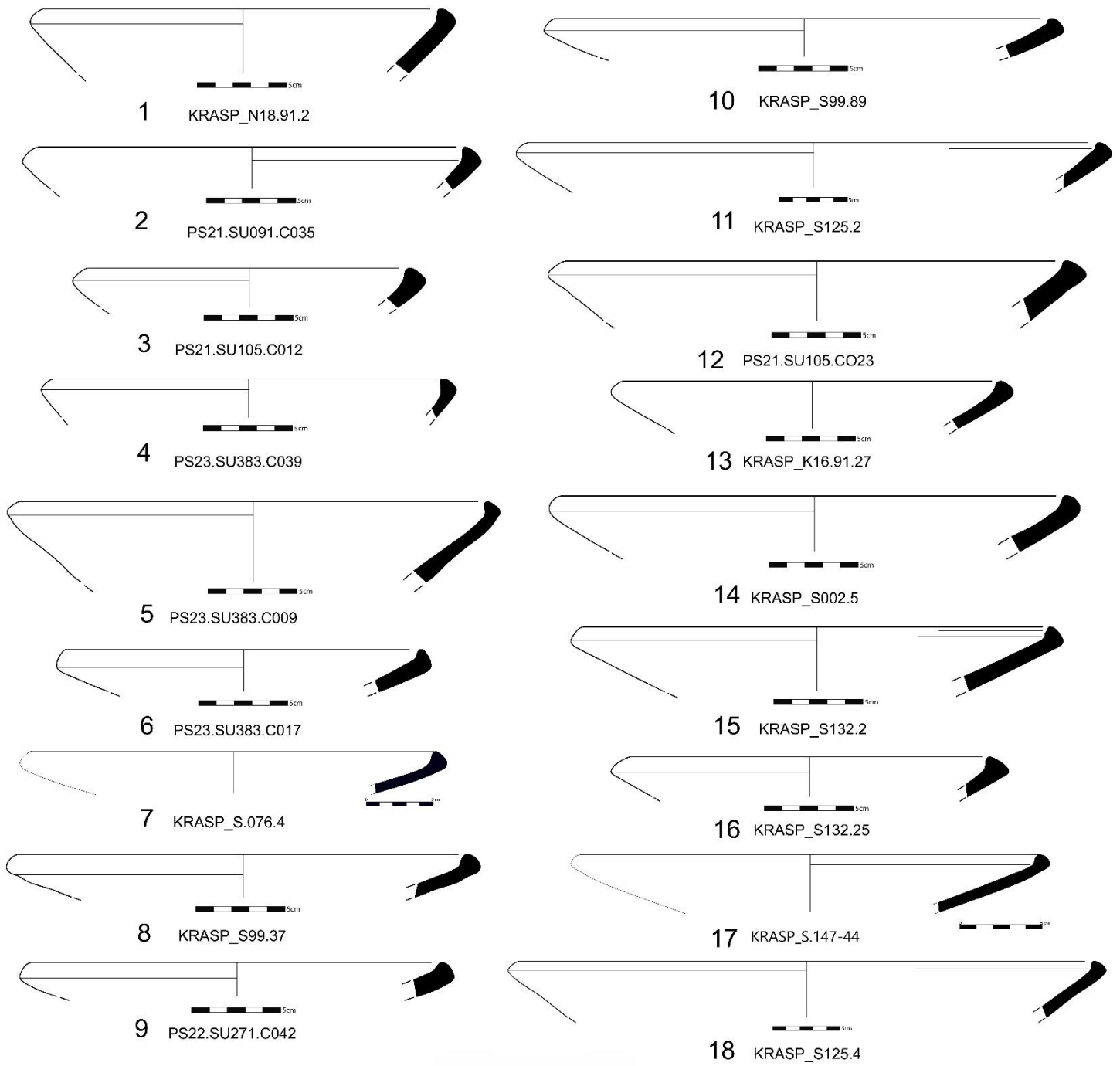
CATALOGUE FIGURES



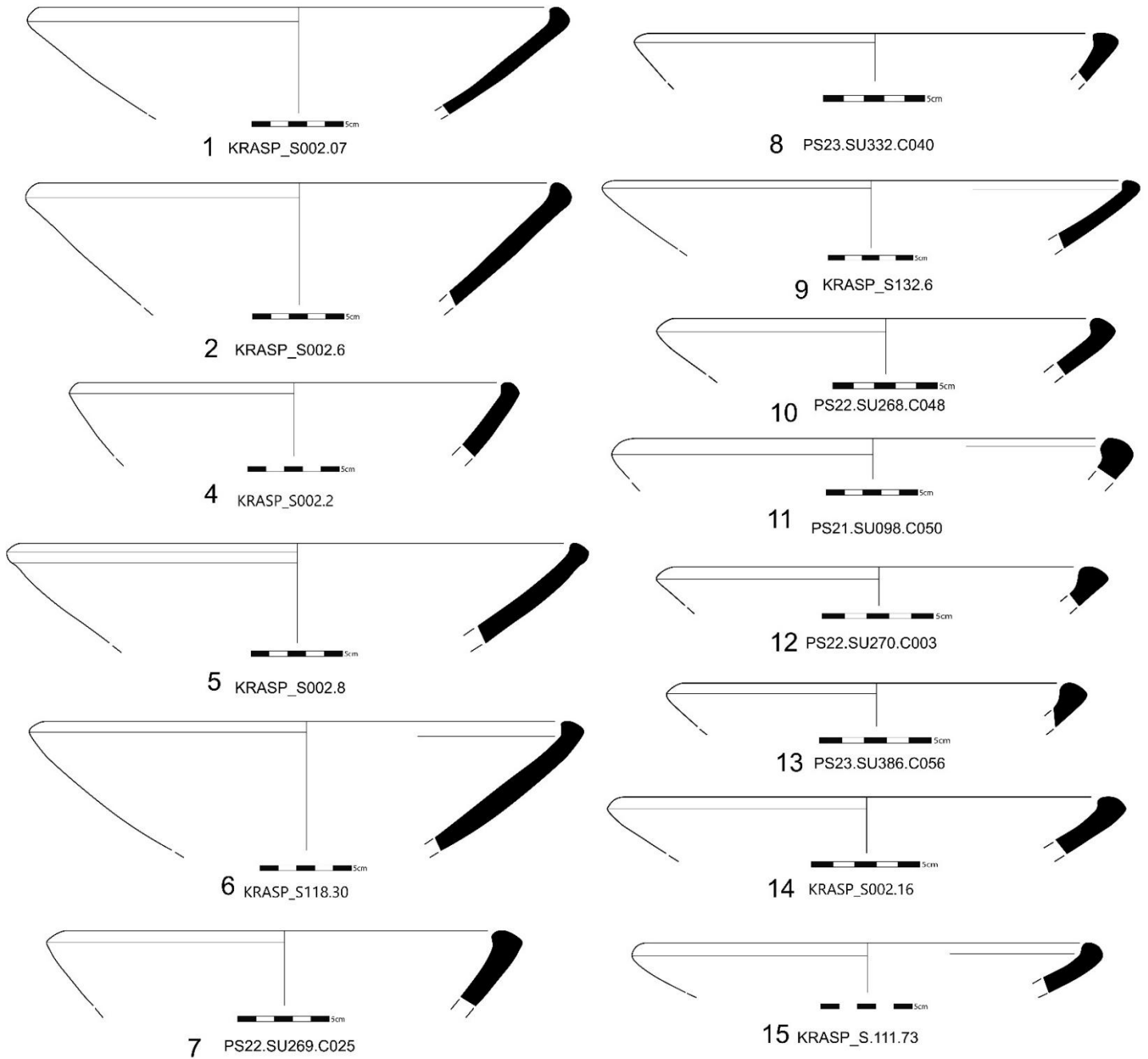
Catalogue Figure 1: SSBO1



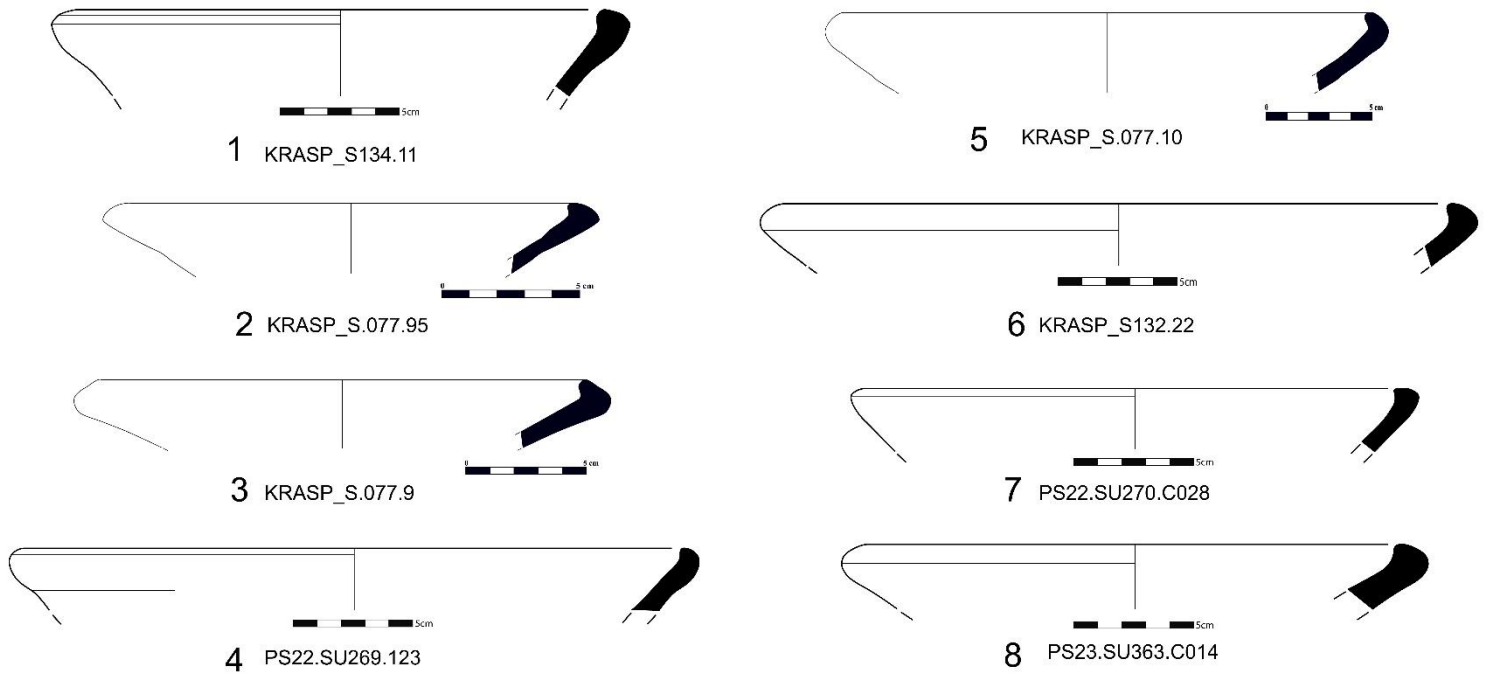
Catalogue Figure 2: SSBO1



Catalogue Figure 3: SSBO2



Catalogue Figure 4: SSBO2



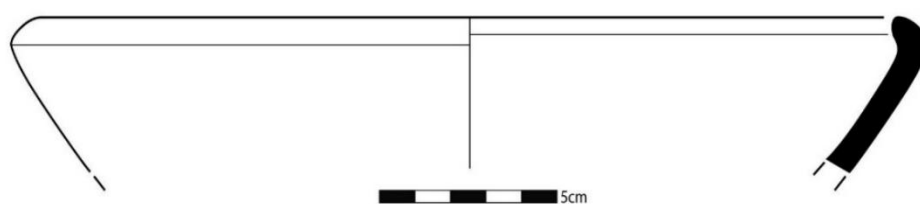
Catalogue Figure 5: SSBO2



1 KRASP_S002.15

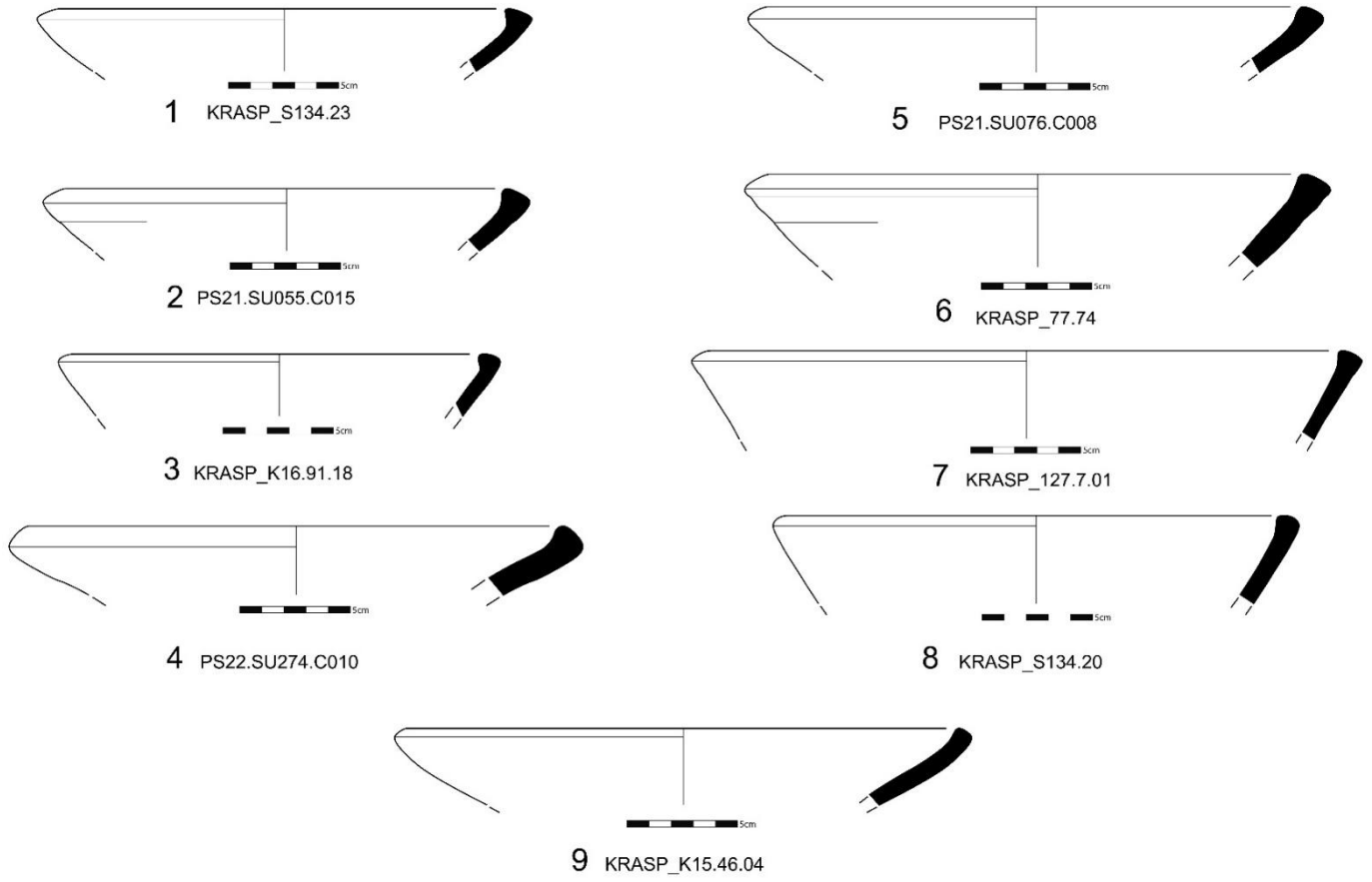


2 KRASP_S134.19

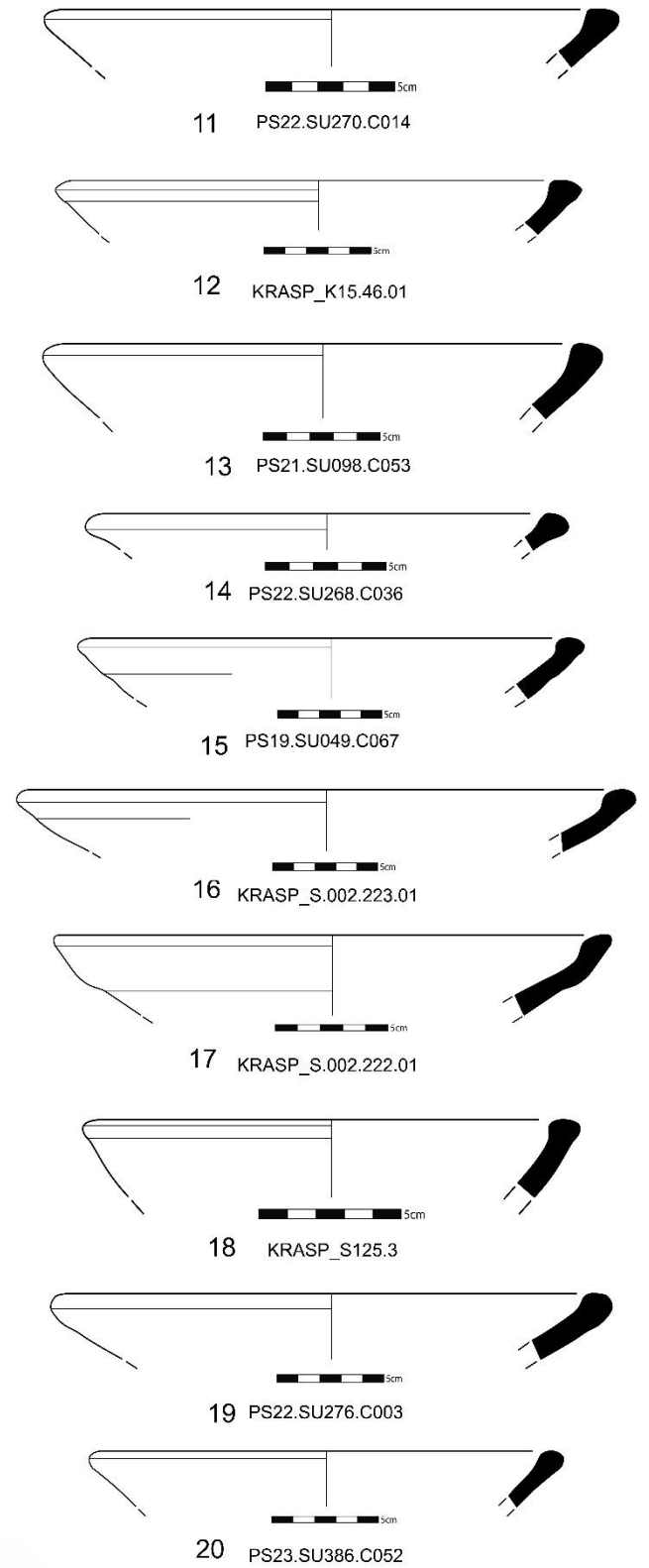
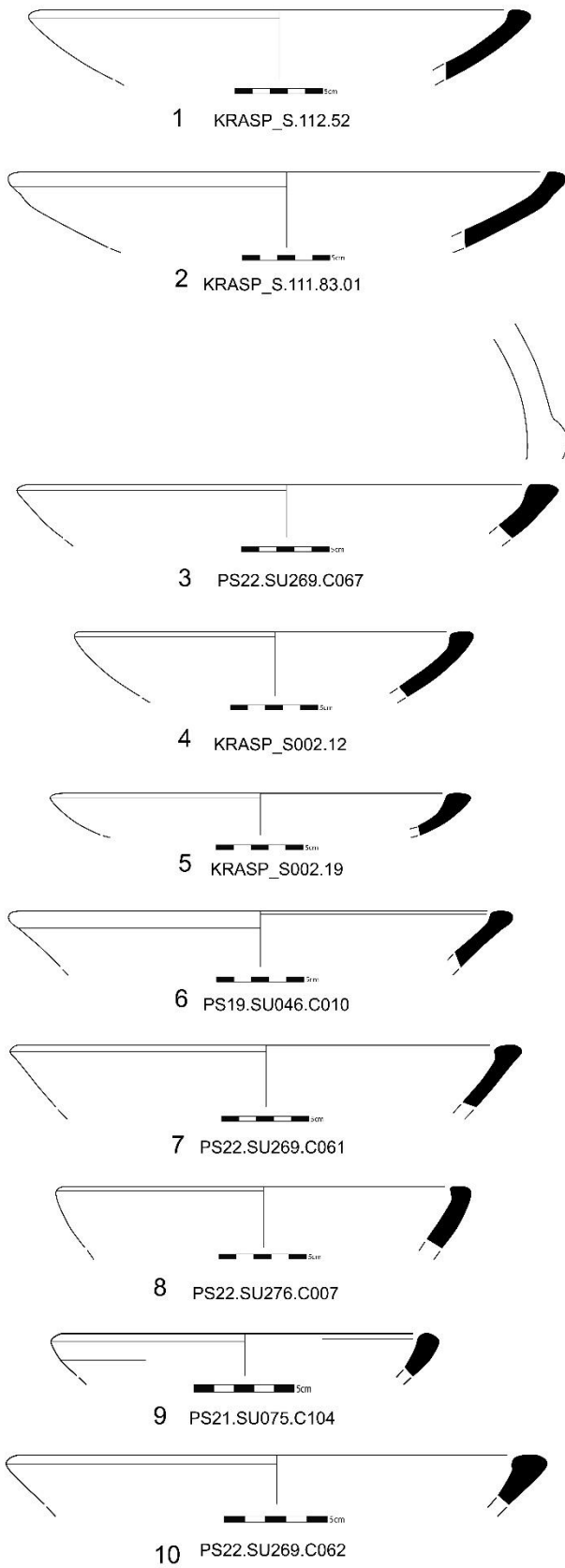


3 KRASP_S124.16

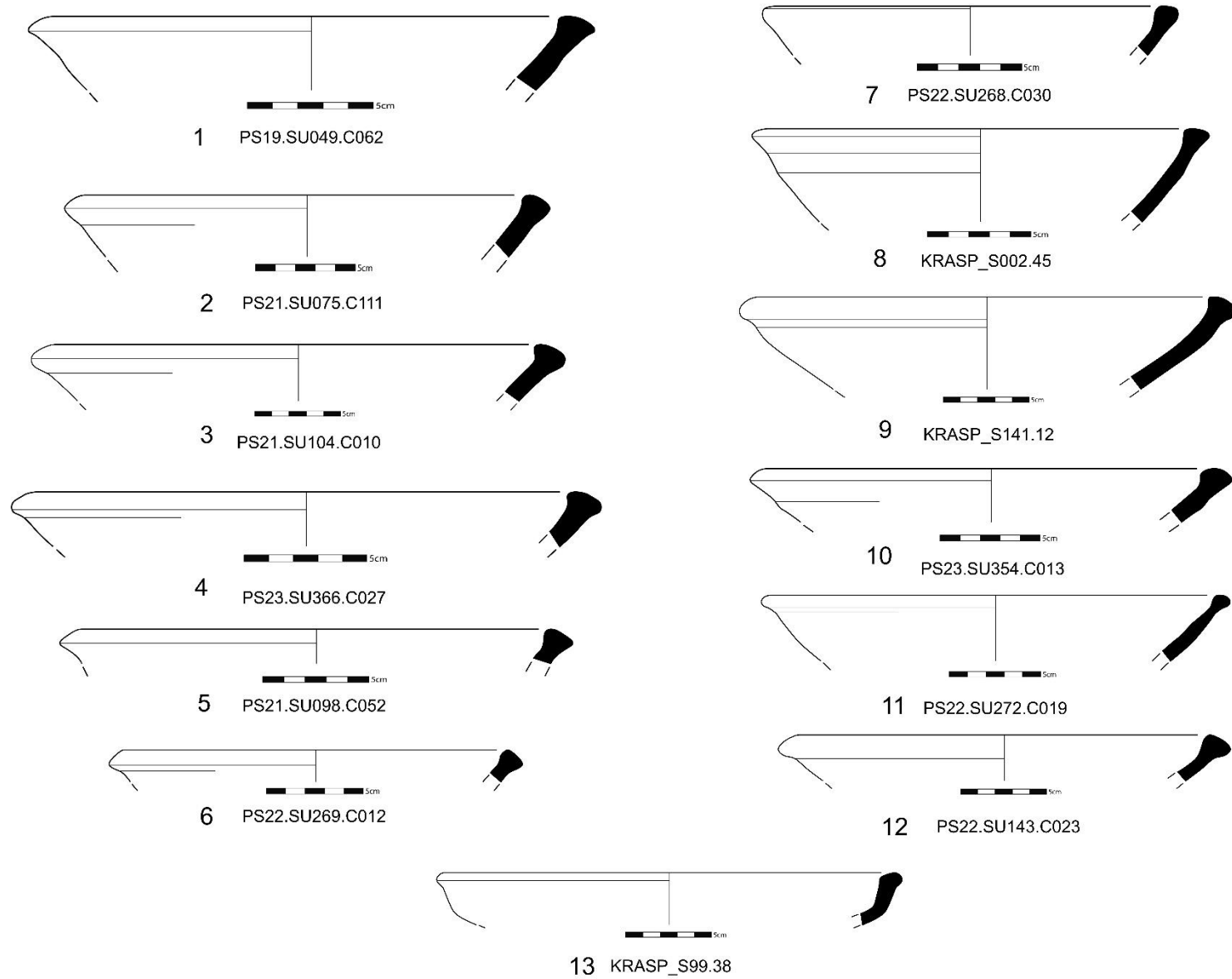
Catalogue Figure 6: SSBO3



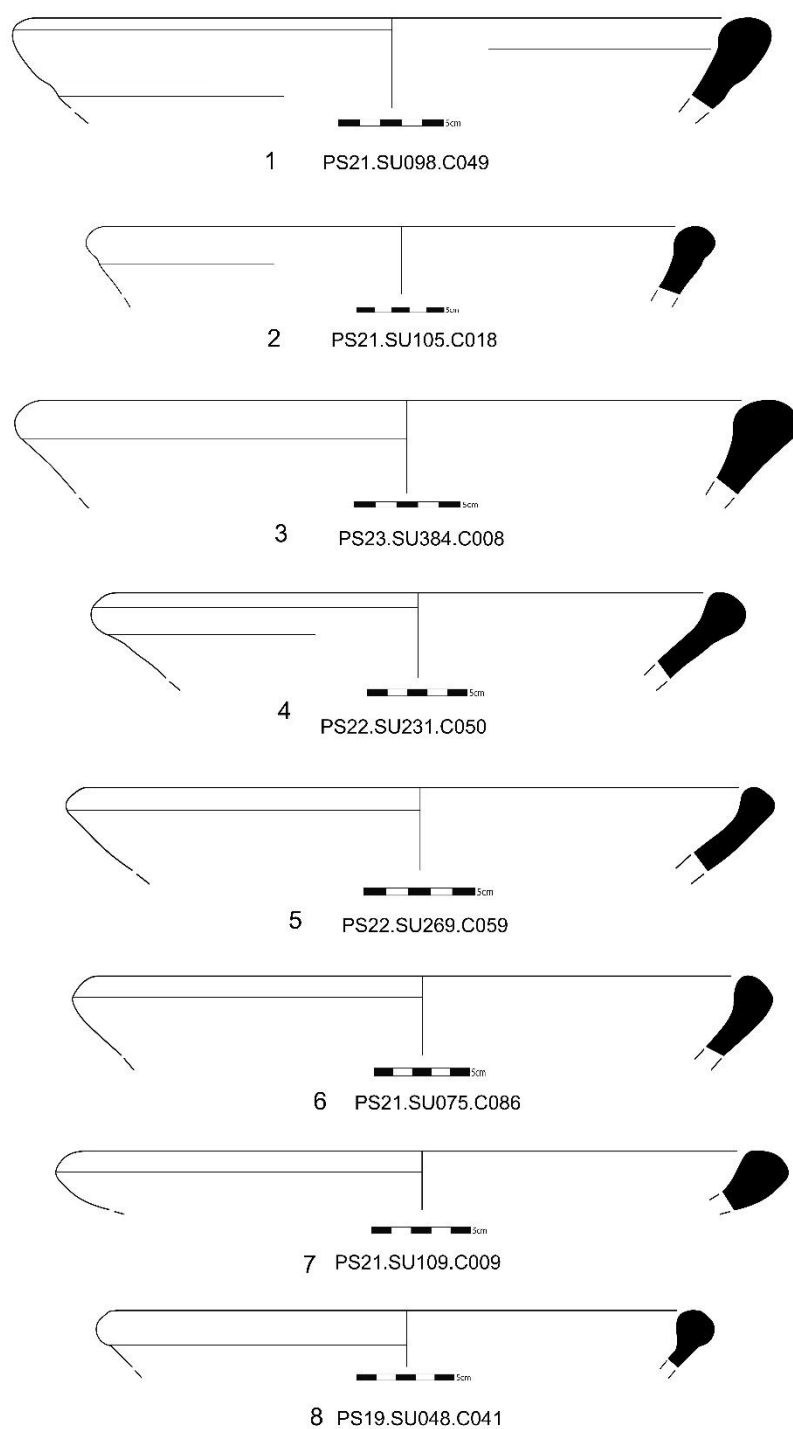
Catalogue Figure 7: SSBO4



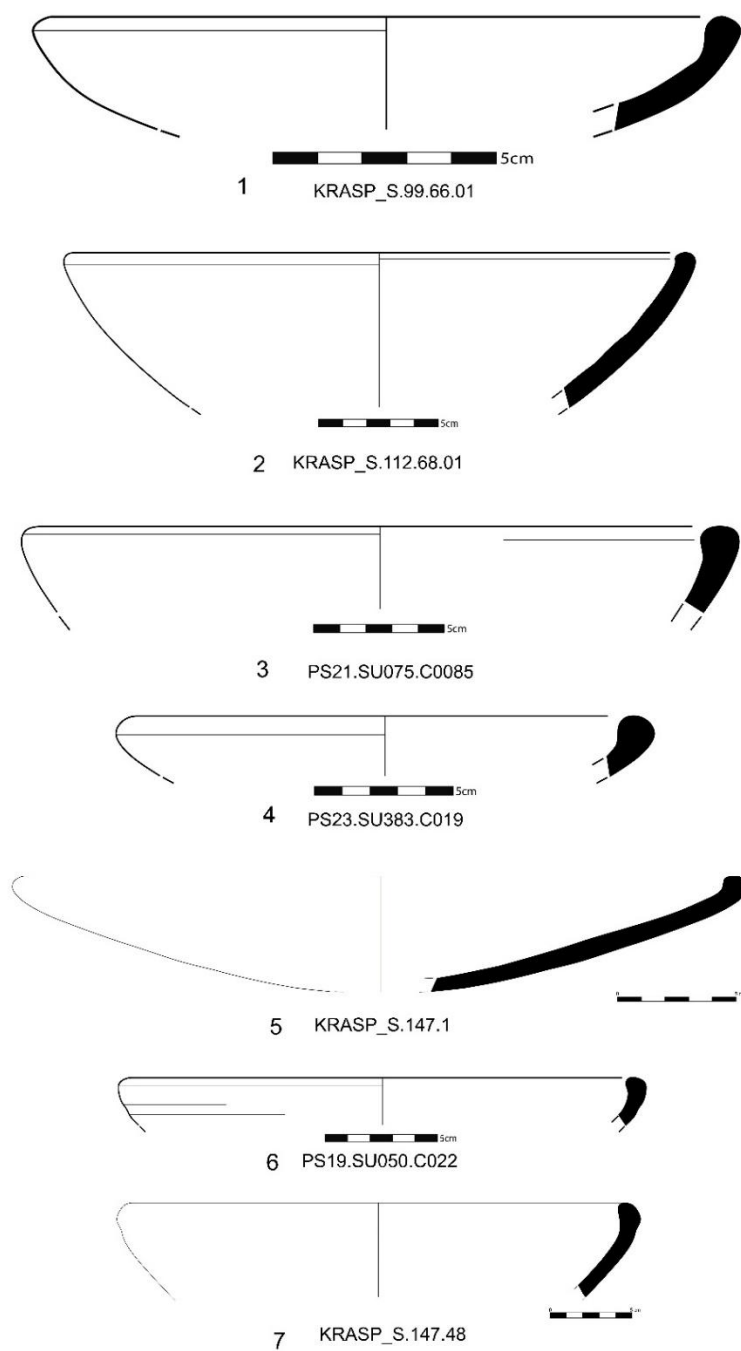
Catalogue Figure 8: SSBO5



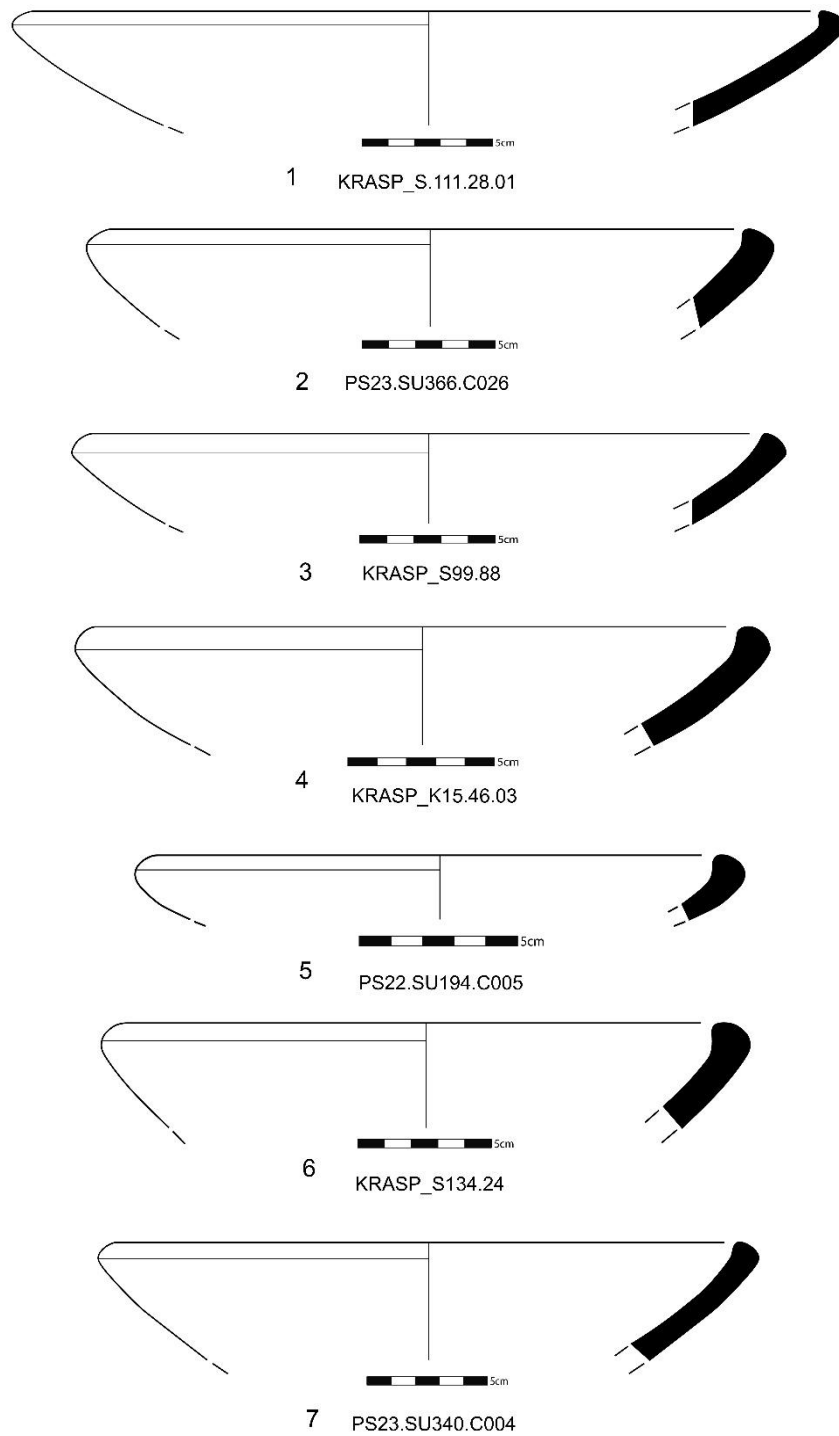
Catalogue Figure 9: SSBO6



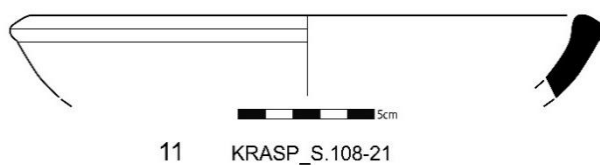
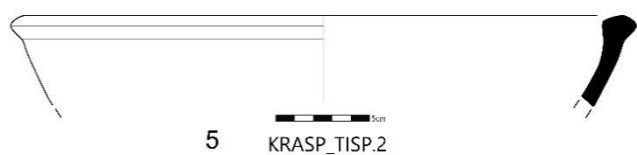
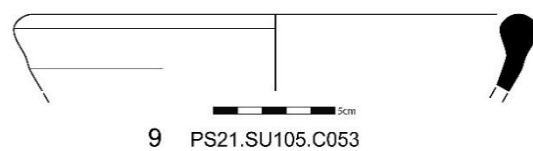
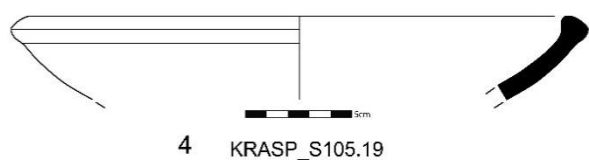
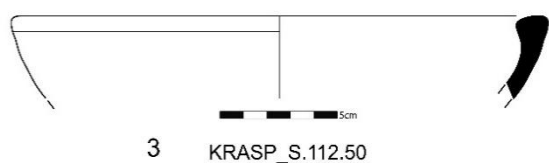
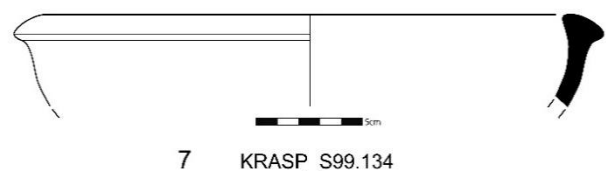
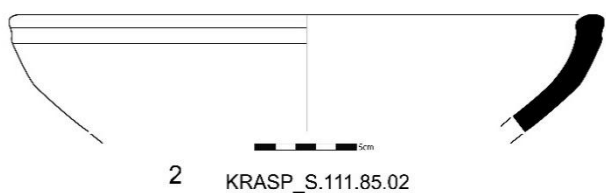
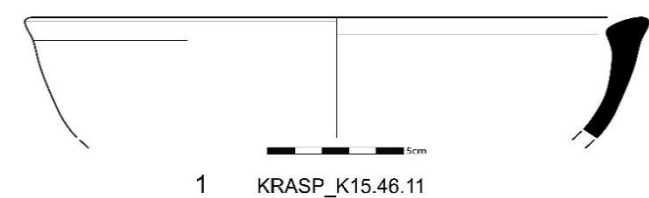
Catalogue Figure 10: LSSBO1 (1-7), LSSBO2 (8)



Catalogue Figure 11: HSBO1



Catalogue Figure 12: HSBO2



Catalogue Figure 13: HSBO3