The Early Iron Age across the Mediterranean and Near East is increasingly being understood as a highly dynamic period socially and politically. In the context of Anatolia, the end of the Hittite Empire and the western Anatolian polities brought about varied responses throughout the geo-political landscape, which arguably influenced societies of the Middle Iron Age. This movement from the Early to Middle Iron period (ca. 1200-800 BCE) will be examined, for the dynamics which took place during these centuries were arguably instrumental in giving Middle Iron communities their appearance as we currently understand them historically and archaeologically.

In examining the character of political authority during the Early-Middle Iron Age in central Anatolia, I define it as a process of coordinating material and symbolic resources in order to promulgate a sense of social order and enabling agency. I shall examine the extent to which storage practices were implicated in these socio-political developments. Storage is a means by which people manage and preserve resources for variable lengths of time, and the aim will be to examine the extent to which such management and control was involved in the workings of political authority.

Two sites in separate regions of central Anatolia – Gordion and Çadır Höyük – will comprise the case studies informing the discussion. To investigate the connection between storage and political authority, I shall focus on identifying
areas used for storage in the settlements, based on material culture associated with the activity; changing patterns through time; and the association between these shifts in storage patterns and other changes visible in the archaeological record. This, in turn, will allow for a discussion of the degree of connection between storage with the political authority workings at the two sites, and what this may articulate about Early-Middle Iron Age dynamics in central Anatolia.
Several people played a role in the writing of this thesis, whether directly or indirectly, and have made it a better work and a more stimulating and interesting process. Short-comings remain exclusively my own.

First I would like to thank my supervisors Dr Naoíse Mac Sweeney and Prof Ian Whitbread for their assistance throughout the process, from the beginnings of my vague ideas on writing about the Anatolian Iron Age, to honing the topic and connecting it to pertinent material which would provide a point of discussion. I thank Ian for sharing his know-how on pottery analysis, from typologies to intricate analysis such as petrography. I particularly thank Naoíse for agreeing to take on the task of guiding this project and myself, and for her continual support, from mundane thesis-related matters to enabling me to go to the 2017 AIA conference.

Particular thanks go to the people running and involved in the two archaeological projects which furnished me with the raw data for my analysis. I would like to thank the director of Gordion, Prof Brian Rose, and the directors of Çadir Höyük, Profs Sharon Steadman and Greg McMahon, for giving an unknown student the opportunity to work at these two marvellous and different-from-one-another sites, and taking an interest in my somewhat unusual topic of research.

I would also like to thank Dr Gareth Darbyshire, the Gordion archivist, for his support of my work, stimulating conversations on the site, punk music and making available unpublished material; and Prof Mary Voigt for answering my queries on Early Iron Age Gordion from the 1988-89 excavations. I thank also particular team members: Dr Gebhard Bieg, Dr Beth Dusinberre, Braden
Cordivari, Lucas Stephens and Kate Morgan, for helping me clarify my ideas, listening to me expostulate on the importance of storage practice in the context of political workings, providing bibliographic material, and going on field trips to neighbouring sites.

At Çadır Höyük, Dr Jennifer Ross deserves particular thanks for answering my queries on her excavations of the Iron Age levels, Iron Age pottery classification, and providing unpublished material relating to the excavations in trench USS 4. I thank Dr Marica Cassis, the ideal depot work companion, and commiseration on disciplinary problems shared by the Byzantine and Iron Age disciplines, as well as letting me cheekily work on some of the Byzantine artefacts from the site.

I also thank the excavators at Kaman-Kalehöyük for hosting me in 2015 and answering my questions regarding the site, particularly Drs Sachihiro Omura, Masako Omura and Kimiyoshi Matsumura.

Thanks are due to my many friends at University of Leicester, not only for adopting me as one of their own, but also helping at various points in the course of this work, whether proofreading or bouncing around ideas, thanks to Jane Ainsworth, Eleonora Zampieri, Doug Mitcham, Sarah Newstead, Bori Nyiri and Giacomo Savani. Particular thanks also due to Matt Mandich and Bastiaan Steffens for letting me use their office in the final days leading up to the first submission deadline while all the furniture in the offices was being overhauled.

I would also thank my old friends Will Anderson and Michelle Negus Cleary, with whom I’ve worked for a long time in the field, for their support of my archaeological endeavours and maintaining the ‘sanctity’ of our team
aspirations, and Will for reading and commenting on some of the chapters of this work.

Last but not least, to my parents, for continually playing the vital, yet often unseen role, which has contributed towards the successes in my life.
CONTENTS

Chapter 1. Introduction 1

Chapter 2. The State of Research on the Anatolian Iron Age 11

Chapter 3. Interpreting Politics, Authority and Power – Theoretical Approaches 52

Chapter 4. Conceptualizing Storage 78

Chapter 5. The Archaeology of EIA-MIA Gordion 115

Chapter 6. Storage at EIA Gordion 146

Chapter 7. Storage at MIA Gordion 161

Chapter 8. The Archaeology of the Çadır Höyük and the Kızılırmak Region in the EIA-MIA 197

Chapter 9. Storage at EIA-MIA Çadır Höyük 220

Chapter 10. Political Authority & Storage in EIA-MIA Central Anatolia 251

Tables 277

Figures 310

Bibliography 371
### LIST OF IN-TEXT TABLES

Table 7.1. YHSS 6A Narrow-Necked Amphora MNV 171
Table 7.2. YHSS 6A Open-Mouthed Amphora MNV 173
Table 7.3. YHSS 6A Storage Jar/Pithos MNV 175
Table 7.4. YHSS 6A Storage Vessel MNV (TB and CC buildings) 182
Table 7.5. Storage Ceramics and weaving equipment counts, TB and CC buildings 184
Table 7.6. Storage ceramics and weaving equipment relative percentage, TB and CC buildings 184
Table 9.1. EIA torpedo jar rim diameter, USS 4 223
Table 9.2. EIA Open-mouth jar rim diameter, USS 4 225
Table 9.3. EIA holemouth jar rim diameter, USS 4 225
Table 9.4. EIA pithos rim diameter, USS 4 229
Table 9.5. EIA-MIA torpedo jar rim diameter, USS 4 232
Table 9.6. EIA-MIA open-mouth jar rim diameter, USS 4 233
Table 9.7. EIA-MIA pithos rim diameter, USS 4 234
Table 9.8. MIA torpedo jar rim diameter, USS 4 236
Table 9.9. MIA open-mouth jar rim diameter, USS 4 237
Table 9.10. MIA holemouth jar rim diameter, USS 4 238
Table 9.11. MIA pithos rim diameter, USS 4 239
Table 9.12. MIA pithos dimensions, Boğazköy, Büyükkaya 240
**LIST OF APPENDIX TABLES**

Table 1. Operation 3 YHSS 7 Phases (adapted from Voigt 2009b)  277  
Table 2. Operation 4 YHSS 7 Phases (adapted from Voigt 2009b)  277  
Table 3. Operation 5 YHSS 7 Phases (adapted from Voigt 2009b)  277  
Table 7. Operation 6 YHSS 7 Phases (adapted from Voigt 2009b)  278  
Table 5. Operation 10 YHSS 7 Phases (adapted from Voigt 2009b)  278  
Table 6. Operation 11 YHSS 7 Phases (adapted from Voigt 2009b)  279  
Table 7. Operation 14 YHSS 7 Phases (adapted from Voigt 2009b)  279  
Table 8. Operation 3 YHSS 7 large vessel inventory  280  
Table 9. Operation 4 YHSS 7 large vessel inventory  280  
Table 10. Operation 5 YHSS 7 large vessel inventory  281  
Table 11. Operation 10 YHSS 7 large vessel inventory  282  
Table 12. Operation 11 YHSS 7 large vessel inventory  282  
Table 13. Operation 14 YHSS 7 large vessel inventory  283  
Table 14. YHSS 6A Megaron 2 storage vessel inventory  283  
Table 15. YHSS 6A Megaron 3 storage vessel inventory  284  
Table 16. YHSS 6A Megaron 4 storage vessel inventory  284  
Table 17. YHSS 6A CC 1 storage vessel inventory  287  
Table 18. YHSS 6A CC 2 storage vessel inventory  287  
Table 19. YHSS 6A CC 3 storage vessel inventory  288  
Table 20. YHSS 6A TB 1 storage vessel inventory  289  
Table 21. YHSS 6A TB 2 storage vessel inventory  290  
Table 22. YHSS 6A TB 3 storage vessel inventory  290  
Table 23. YHSS 6A TB 4 storage vessel inventory  291  
Table 24. YHSS 6A TB 5 storage vessel inventory  291  
Table 25. YHSS 6A TB 6 storage vessel inventory  292  
Table 26. YHSS 6A TB 7 storage vessel inventory  292
Table 27. YHSS 6A TB 8 storage vessel inventory

Table 28. List of EIA locus descriptions at Çadir Höyük bearing storage ceramics

Table 29. Çadir Höyük EIA torpedo jar inventory, USS 4

Table 30. Çadir Höyük EIA open mouth and holemouth jar inventory, USS 4

Table 31. Çadir Höyük EIA pithos inventory, USS 4

Table 32. List of EIA-MIA locus descriptions at Çadir Höyük bearing storage ceramics

Table 33. Çadir Höyük EIA-MIA torpedo jar inventory, USS 4

Table 34. Çadir Höyük EIA-MIA open mouth and holemouth jar inventory, USS 4

Table 35. Çadir Höyük EIA-MIA pithos inventory, USS 4

Table 36. Çadir Höyük MIA torpedo jar inventory, USS 4

Table 37. Çadir Höyük MIA open mouth and holemouth jar inventory, USS 4

Table 38. Çadir Höyük MIA pithos inventory, USS 4

Table 39. Çadir Höyük MIA krater inventory, USS 4
LIST OF FIGURES

Chapter 1

Fig.1.1. Conventional periodization in Anatolia (adapted from Sagona & Zimansky 2009) 310

Fig.1.2. Map of Anatolia with key cultural and political entities and sites in the EIA-MIA, ca. 1200-550 BCE. Italic small caps indicate cultural entities without seeming political cohesion (author’s drawing) 311

Fig.1.3. Map of Anatolia with key geographical and hydrological features (author’s drawing) 312

Chapter 2

Fig.2.1. Anatolian geography in the LBA, ca. 13th century BCE (author’s drawing) 313

Fig.2.2. Hittite king list and regnal years (adapted from Glatz & Ploudre 2011) 314

Fig.2.3. Map of the Sakarya-Porsuk region with key sites bearing Iron Age material (author’s drawing) 315

Fig.2.4. The Midas Monument façade (adapted from Gabriel 1965) 316

Fig.2.5. Map of the Kızılırmak region with key sites bearing Iron Age material (author’s drawing) 317

Fig.2.6. EIA-MIA radiocarbon determinations from Boğazköy, Gordion, Çadir Höyük and Kaman-Kalehöyük (adapted from Gorny et al. 2002; Genz 2004; Matsumura & Omori 2010; Manning & Kromer 2011; McMahon 2015) 318

Chapter 4

Fig.4.1. Storage silos by the Upper City fortification wall at Boğazköy (adapted from Seeher 2001) 319
Fig. 4.2. Storage magazines with pithoi in Temple 1 at Boğazköy (adapted from Neve 1969) 319

Chapter 5

Fig. 5.1. Panoramic view of Gordion from Küçük Höyük, looking north-west (author’s photo) 320
Fig. 5.2. Aerial view of Gordion with labelled sectors (Google Earth 2012) 321
Fig. 5.3. Excavations of the Citadel Mound, the YHSS 6A Destruction Level (adapted from Sams 1994b) 322
Fig. 5.4. The YHSS (Yassihöyük Stratigraphic Sequence) chronology of Gordion (adapted from Voigt 2013) 323
Fig. 5.5. Pre-YHSS 6A levels excavated beneath Megaron 5 (adapted from Gordion Excavation Notebook 56, 1965) 324
Fig. 5.6. Overall plan of the YHSS 7 excavations, showing both phases (adapted from Voigt & Henrickson 2000a) 325
Fig. 5.7. The Burnt Reed House (BRH) plan (adapted from Voigt & Henrickson 2000a) 326
Fig. 5.8. YHSS 7B ceramic assemblage (author’s drawing; adapted from Voigt & Henrickson 2000b) 327
Fig. 5.9. YHSS 7B ceramics (author’s photos) 328
Fig. 5.10. YHSS 7A ceramic assemblage (adapted from Henrickson 1993, 1994, Voigt & Henrickson 2000a, 2000b) 329
Fig. 5.11. Plan of YHSS 6B (adapted from Voigt & Henrickson 2000a) 330
Fig. 5.12. The Post and Poros (PAP) Structure, YHSS 6B (adapted from Voigt & Henrickson 2000a) 331
Fig. 5.13. The pre-terrace phase of YHSS 6A (adapted from Sams 1994b) 332
Fig. 5.14. YHSS 6 ceramics (adapted from Henrickson 1995) 333
Chapter 6

Fig. 6.1. YHSS 7B handmade wide-mouth pots (author’s drawing; adapted from Voigt & Henrickson 2000a) 334
Fig. 6.2. Vessels from EPB I and NCT IVb strata (adapted from Sams 1994b) 335
Fig. 6.3. YHSS 7B pithos fragment (author’s photos) 336
Fig. 6.4. EBA pithos from Boğazköy (adapted from Orthmann 1963) 336
Fig. 6.5. MBA-LBA pithoi from the Gordion Common Cemetery (adapted from Mellink 1956) 337
Fig. 6.6. YHSS 7B CKD Structure (adapted from Voigt & Henrickson 2000b) 338
Fig. 6.7. YHSS 7A storage vessels (adapted from Voigt & Henrickson 2000a, 2000b) 339

Chapter 7

Fig. 7.1. Examples of YHSS 6B storage vessels, EPB sequence (adapted from Sams 1994b) 340
Fig. 7.2. Main storage vessel types, YHSS 6A Destruction Level (adapted from Henrickson 2001; author’s drawing) 341
Fig. 7.3. Narrow-necked amphorae, YHSS 6A Destruction Level (author’s drawing) 341
Fig. 7.4. Open-mouthed amphorae, YHSS 6A Destruction Level (adapted from Henrickson 2001, Sams 1994b) 342
Fig. 7.5. Examples of storage jars/pithoi, open-mouth type, YHSS 6A destruction level (adapted from Henrickson 2001) 342
Fig. 7.6. Rim sherd of a giant pithos, P 257, Tumulus J (ca. 7th century BCE) (author’s photo) 343
Fig. 7.7. YHSS 6A Destruction Level with contexts exemplifying storage function (adapted from Sams 1994b) 344
Fig. 7.8. The Early Phrygian Gate, with pithos hollows indicated in the
North Court (adapted from Young 1955, 1956, 1957) 345

Fig. 7.9. Plan of YHSS 5, with the PPB Building indicated (adapted from Sams 1994b) 346

Fig. 7.10. Sequence of construction phasing on the Citadel Mound and the appearance of storage vessels (author’s drawing) 347

Chapter 8

Fig. 8.1. Location of Çadir Höyük in the context of the Kızılırmak region, with associated sites (author’s drawing) 348

Fig. 8.2. View of Çadir Höyük from the north (author’s photo) 348

Fig. 8.3. Southern exposure of Çadir Höyük, with an outline of the main stratigraphic levels (author’s photo) 349

Fig. 8.4. Trench plan of Çadir Höyük, with USS 4 highlighted (adapted from Gorny 2008) 350

Fig. 8.5. View of USS 4 excavations, 2015 (author’s photos) 351

Fig. 8.6. Example of typical Iron Age deposits in USS 4 (2014, adapted from drawing courtesy of J. Ross) 352

Fig. 8.7. Çadir Höyük chronological sequence (adapted from Gorny et al. 2002, Steadman et al. 2013) 353

Fig. 8.8. Çadir Höyük EIA chaff tempered pottery, USS 4 (author’s photos) 354

Fig. 8.9. Plan of LBA Boğazköy (adapted from Neve 1994) 355

Fig. 8.10. Aerial view of Alişar Höyük, with the extent of the Iron Age settlement highlighted (Google Earth 2013) 356

Fig. 8.11. Alişar IV painted kraters (adapted from Von Der Osten 1937b) 357

Fig. 8.12. Plan of the Alişar 4b-aM settlement (adapted from Von Der Osten 1937b) 357

Fig. 8.13. Plan of the Alişar 4aM citadel (adapted from Von Der Osten 1937b) 358
Chapter 9

Fig.9.1. Çadır Höyük EIA storage vessel typology (author’s drawing) 359
Fig.9.2. LBA torpedo jar, example from Boğazköy (adapted from Schoop 2009) 360
Fig.9.3. Open-mouth jar, LBA example from Boğazköy (adapted from Schoop 2009) 360
Fig.9.4. LBA Pithoi from Temple 1 at Boğazköy (adapted from Bittel et al. 1969) 361
Fig.9.5. Pithos base, FCN13745 (author’s photo) 361
Fig.9.6. Pithos body sherd with rope decoration, FCN15128 (author’s photo) 362
Fig.9.7. Çadır Höyük EIA-MIA storage vessel typology (author’s drawing) 362
Fig.9.8. Çadır Höyük MIA storage vessel typology (author’s drawing) 363
Fig.9.9. Alişar 4aM torpedo jar (adapted from Von Der Osten 1937b) 363
Fig.9.10. MIA pithoi from the Büyükkaya, Boğazköy (adapted from Genz 2004) 364
Fig.9.11. MIA pithoi from the Büyükkaya, Boğazköy (adapted from Genz 2004) 365
Fig.9.12. Pithoi from Building A, Alişar 4aM (adapted from Von Der Osten 1937b) 366
Fig.9.13. ‘Large jars with large orifices’, Alişar 4b-aM (adapted from Von Der Osten 1937b) 367

Chapter 10

Fig.10.1. Aerial view of Şabanözü-Killik Tepe (Google Earth 2012) 368
Fig.10.2. Aerial view of Hacıtuğrul, with B. Tezcan’s excavation trenches visible (Google Earth 2012) 369
Fig.10.3. View of the side of Hacıtuğrul mound, looking south-west (author’s
Fig. 10.4. B. Tezcan’s excavations on the south side of Hacıtuğrul, showing monumental ashlar masonry foundations with a rubble core (author’s photo)
**LIST OF ABBREVIATIONS**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA</td>
<td>Archäologischer Anzeiger</td>
</tr>
<tr>
<td>AmAnthropol</td>
<td>American Anthropologist</td>
</tr>
<tr>
<td>AmAntiq</td>
<td>American Antiquity</td>
</tr>
<tr>
<td>AJA</td>
<td>American Journal of Archaeology</td>
</tr>
<tr>
<td>AJSL</td>
<td>American Journal of Semitic Languages and Literatures</td>
</tr>
<tr>
<td>AnAnt</td>
<td>Anatolia Antiqua</td>
</tr>
<tr>
<td>AncCivScythiaSiberia</td>
<td>Ancient Civilizations from Scythia to Siberia</td>
</tr>
<tr>
<td>ANES</td>
<td>Ancient Near Eastern Studies</td>
</tr>
<tr>
<td>ANRW</td>
<td>Aufstieg und Niedergang der Römischen Welt</td>
</tr>
<tr>
<td>AoF</td>
<td>Altorientalische Forschungen</td>
</tr>
<tr>
<td>AP3A</td>
<td>Archaeological Papers of the American Anthropological Association</td>
</tr>
<tr>
<td>ARA</td>
<td>Annual Review of Anthropology</td>
</tr>
<tr>
<td>ArchDial</td>
<td>Archaeological Dialogues</td>
</tr>
<tr>
<td>ARC</td>
<td>Archaeological Review from Cambridge</td>
</tr>
<tr>
<td>AS</td>
<td>Anatolian Studies</td>
</tr>
<tr>
<td>AST</td>
<td>Araştirma Sonuçları Toplantısı</td>
</tr>
<tr>
<td>AWE</td>
<td>Ancient West &amp; East</td>
</tr>
<tr>
<td>BABesch</td>
<td>Bulletin Antieke Beschaving</td>
</tr>
<tr>
<td>BAI</td>
<td>Bulletin of Asia Institute</td>
</tr>
<tr>
<td>BaM</td>
<td>Baghdader Mitteilungen</td>
</tr>
<tr>
<td>BASOR</td>
<td>Bulletin of the American Schools of Oriental Research</td>
</tr>
<tr>
<td>BMECCJ</td>
<td>Bulletin of the Middle Eastern Culture Centre in Japan</td>
</tr>
<tr>
<td>CAJ</td>
<td>Cambridge Archaeological Journal</td>
</tr>
<tr>
<td>CurrAnthropol</td>
<td>Current Anthropology</td>
</tr>
<tr>
<td>EA</td>
<td>Epigraphica Anatolica</td>
</tr>
</tbody>
</table>
EJA – European Journal of Archaeology
Historia – Historia: Zeitschrift für Alte Geschichte
HistTheory – History and Theory
IrAnt – Iranica Antiqua
IstMitt – Istanbuler Mitteilungen
JAA – Journal of American Anthropology
JAnthArch – Journal of Anthropological Archaeology
JAMT – Journal of Archaeological Method and Theory
JAOS – Journal of the American Oriental Society
JAR – Journal of Archaeological Research
JAS – Journal of Archaeological Science
JESHO – Journal of the Economic and Social History of the Orient
JFA – Journal of Field Archaeology
JHS – Journal of Hellenic Studies
JHistSociol – Journal of Historical Sociology
JIES – Journal of Indo-European Studies
JMA – Journal of Mediterranean Archaeology
JNES – Journal of Near Eastern Studies
JSA – Journal of Social Archaeology
KST – Kazı Sonuçları Toplantısı
LatAmAntiq – Latin American Antiquity
MIO – Mitteilungen des Instituts für Orientforschung
MDOG – Mitteilungen der Deutschen Orient-Gesellschaft zu Berlin
NEA – Near Eastern Archaeology
OIC – Oriental Institute Communications
OJA – Oxford Journal of Archaeology
Origini – Origini. Preistoria e Protostoria delle Civiltà Antiche
SciAm – Scientific American
ST – Studia Troica
TAD – Türk Arkeoloji Dergisi
TÜBA-AR – Türkiye Bilimler Akademisi Arkeoloji Dergisi
WA – World Archaeology
1.1. Preliminaries – Themes and Intentions

Discussions of political apparatus are not a new subject in the context of historical and archaeological work conducted in the ancient Near East. Since the beginning of scholarship in the region, the evidence from early complex societies has frequently fostered debates surrounding their characterization and make-up, with a particular focus on empires, kingdoms and city-states. While research over the past several decades has done much to develop and elaborate the categories constituting these complex political apparatus, only recently have scholars begun to focus on and critically interrogate the processes connected to their emergence, development, and changes in strategies employed in their maintenance through time.

In the context of Anatolia, broadly encompassing modern Turkey, particularly in the Iron Age (ca. 12th-4th centuries BCE), less work has been done to examine conventional assumptions about the make-up and workings of state apparatus. In central Anatolia, the concept of a Phrygian Kingdom or Empire has cast a long shadow in the archaeological and historical discourse. Narratives about Phrygians, their state and the fabled King Midas of the Golden Touch are well known, transcending studies of the Anatolian Iron Age. However, these narratives have contributed towards particular assumptions about the nature of political authority which are not necessarily borne out by the archaeological evidence.
My intention is to show that political authority and statehood are not easily categorized or static ‘things’, but are built on continuous processes and social practices which are time and context specific, resulting in socio-political formations that do not necessarily conform to pre-conceived models. The processes I intend to examine involve shifts in storage practices over the course of the Early-Middle Iron Age (EIA-MIA hereafter) periods at the central Anatolian sites of Gordion and Çadır Höyük, what these shifts may articulate about the wider social and political workings at the respective sites and their wider landscapes (discussed in Chapter 10). In turn, this will lead to a discussion on the character of political authority that offers a more regionally specific perspective on its workings, which, in turn, offers new perspectives on the traditional interpretations of political developments in central Anatolia.

The aim of this thesis will be therefore to define and explore the change in storage practices over the course of the EIA-MIA at Gordion and Çadır Höyük, and examine the extent to which they accompany other site-wide changes evinced in the archaeological record. Accordingly, changes in political authority formation will be inferred and discussed in relation to this. A related question which will be discussed is whether it is possible to speak about the existence of a territorial Phrygian kingdom or empire in the MIA in relation to what the archaeological evidence presents.

1.2. Anatolia in the Iron Age – Terms, Concepts and Cultures

Archaeologically, the initial centuries of the Iron Age lie ‘somewhere between the subject matter of prehistoric archaeology, Classical archaeology, and
history…a somewhat awkward period for all three disciplines’. Though D. Margomenou’s discussion revolves around EIA northern Greece, the statement is equally applicable to issues surrounding scholarship of the earlier Iron Age in Anatolia. Being in this kind of scholarly borderland, studies of the period have attracted specialists from a considerable diversity of backgrounds, prehistoric to philological.

The Iron Age in Anatolia broadly dates to 1200-330 BCE (subdivided into three phases of early, middle and late, Fig.1.1), spanning from the end of the Bronze Age to Alexander the Great’s campaigns and conquests across the Near East. As I shall discuss, chronology and periodization of the Iron Age continue to be dogged by issues stemming from the paucity of absolute dates and a lack of concentrated excavation of the pertinent levels at different sites. Nevertheless, these schemes continue to be used as a shorthand for discussing the respective periods, and, consequently, I shall continue to use them here.

The Early Iron Age has traditionally been viewed as a socio-political interregnum between the end of the Late Bronze Age (LBA hereafter) and developments visible in the MIA. LBA political entities such as the Hittite Empire in central Anatolia and polities making up the land of Arzawa in the west seemingly disappear during the late 13th-early 12th century BCE, echoing the social, political, economic and environmental upheavals across the Mediterranean and the Near East (see more in-depth discussion in Chapter 2, Section 2.2.1.).

---

2 Some scholars favour a slightly later date of ca. 1180 BCE on the basis of changes in material culture, radiocarbon dates and environmental data (e.g. Hnila 2012; Seeher 2006a; Müller-Karpe 2012), though this, of course, is reflective of region and site-specific processes.
Typical markers associated with LBA communities, such as centralized production, long-distance trade (by land and/or sea), extensive bureaucracy and administrative systems, and a prestige goods economy largely disappear or are transformed, operating on a smaller scale. These shifts, and accompanying changes in settlement patterns and material culture, have made the EIA somewhat difficult to detect and define archaeologically, and, in the absence of written texts, the EIA has traditionally been called a ‘dark age’.

From the 10th/9th century onwards, however, archaeologically visible changes take place which come to define the MIA. These include the emergence of new centres, accompanied by monumental architectural programmes, increased inter-regional interaction, and prestige goods based economies. This period, conventionally lasting until the mid-6th century, a period in which several archaeologically and historically attested socio-political entities arise across Anatolia, such as Lydia, Caria and Lycia in the west; Syro-Anatolian (also known as Neo-Hittite) polities in the south-east; Urartu in the east; and, of course, Phrygia in central Anatolia (Fig.1.2). Several of these entities have been variously dubbed as states, kingdoms, or empires, whose political power and cultural influenced waxed and waned over a period of some three centuries leading up to the Achaemenid Persian annexation of Anatolia in the 550s-540s BCE.

In addition, the archaeological work conducted on MIA cultures has often been complemented by contemporary historical source material where available. This is the case, for example, for Urartu and the Syro-Anatolian polities, whose kings documented key political events and personal achievements of their reigns. The Assyrian Annals are another important, though non-Anatolian, source, for several kings during the 9th-7th centuries BCE were involved in Anatolian
affairs, thus making reference to settlements, geographies and individuals of the time. Greek and Roman sources provide additional source material on MIA Anatolian populations and individual rulers, though the details and the chronological sequences, and mythological-historical narratives they provide are problematic.

Historically, the LIA marks the period in which the Achaemenid Empire (ca. 550-330 BCE) exercised hegemony over Anatolia. Archaeologically, however, the Achaemenid period does not mark significant breaks in the overall cultural character of Anatolia, with the degree of Persian impact continuing to be debated.3 Accordingly, even the conventionally perceived end of the Iron Age in the 4th century is a matter of debate.4 Though Hellenic and later Roman cultures and their institutions were to have their respective impact across Anatolia, the general condition of political decentralization of vast geographies and lack of comprehensive top-down cultural and political imposition ensured that Iron Age material culture, sense of identity and even institutions continued to have a legacy well into the 1st millennium CE.6

Having introduced the chronological framework, I shall now discuss the geographical setting. Central Anatolia is dominated by a substantial upland plateau (Fig.1.3), characterized by its harsh climate of hot summers and cold winters. The plateau itself is bounded by the Taurus Mountains in the south, the uplands of the Kızılirmak River basin in the east; the Pontic Mountains in

---

4 This period has not been studied in detail across Anatolia. Work at Gordion since 2015 will help to clarify this issue through excavations of early Hellenistic and Late Iron levels, which are ongoing (Rose 2017a, 2017b).
5 Thonemann 2013: 3.
the north, and the Lake District and the so-called Phrygian Highlands in the west. Though primarily comprised of rolling plains, the plateau itself is elevated and punctuated by mountainous zones, such as the Sivrihisar Dağlar rising above the Eskişehir Plain, and the volcanic landscapes of Aksaray, Niğde and eastern Konya Plain, constituting Cappadocia. To the east, in the Kızılırmak bend, the geography is considerably more elevated, comprising the foothills of the Pontic Mountains.

Therefore, geographically, the plateau constitutes a relatively coherent unit of analysis, which is to some extent reflected in material culture characteristics in periods up to the later 1st millennium BCE. This status is also applicable from a historical perspective. With south-eastern Anatolia connected to the Mesopotamian sphere⁷ and the west with the Aegean,⁸ central Anatolia has often been viewed as subject to more ‘indigenous’ developments, particularly in earlier prehistory.⁹ However, by being adjacent to these regions, it has also acted as an important interface across which interactions took place.¹⁰

Key hydrological features of central Anatolia are Tuz Gölü, a large salt lake, the Kızılırmak River to the east, and the Sakarya and Porsuk rivers in the west. These rivers have often served as notional political and cultural boundaries,¹¹ though the precise way in which such boundaries functioned at the time is still a matter of debate. In the past, archaeologists and historians have certainly found them useful as means of compartmentalizing cultures, though the

---

⁸ Greaves 2007: 8. See also papers in Stampolidis et al. 2015.
⁹ Düring 2011.
resolution of excavations and surveys complicates the picture, as well as the way in which ideas of power and territorial control were conceived in the past.

1.3. *The Early-Middle Iron Age ‘Transition’*

While much recent research in Iron Age Anatolian archaeology has focused on the Bronze-Iron transition,\textsuperscript{12} less critical attention has been paid to the developments marking the movement from the EIA to the MIA (ca. 11th-9th century BCE). The significance of this period lies in view of the fact that it is during this time that state entities such as Phrygia emerged.\textsuperscript{13} Thus, while state collapse has been a prominent feature of the discourse, their origins are no less significant and deserve similar scrutiny.\textsuperscript{14}

1.4. *Political Authority*

The framework I intend to use in this thesis falls under the concept ‘political authority’, which I discuss in Chapter 3. My preference for this term stems from its relative neutrality and freedom from temporally and culturally weighted terms such as ‘state’ and ‘kingdom’. This language also allows a framework that stresses that different levels of political authority (and social inequality) are omnipresent in society, subject to continual negotiation and, depending on the circumstances, formalization, which implicates a wider range of material culture and more abstract notions of culture manipulated by social groups.

\textsuperscript{12} E.g. Fischer et al. 2003; Müller-Karpe 2012.
\textsuperscript{13} Summers 2012a, 2012b.
\textsuperscript{14} E.g. İlgi Gerçek 2017.
This perspective also underlines the idea that political authority may be discontinuous and not wholly implicated within material culture relationships at given points in time. In addition, the use of this term allows for greater flexibility and acknowledgement of dynamism in the post-Bronze Age centuries across the Anatolian landscape, emphasizing bottom-up approaches rather than using pre-determined categories and concepts towards which society is presented as moving teleologically towards statehood (see discussion in Chapter 3).

1.5. Storage and Political Authority

The storage of resources and commodities is one key indicator of economic and political conditions in ancient societies. Yet, while abundant evidence relating to storage has been found in several excavations of Iron Age sites, it has been relatively understudied on its own terms. While ample evidence of storage practice has been found over the past six decades of excavation, there has been little research focusing on the way in which storage practices are connected with social dynamics within communities, and its role in political authority processes. Studies done in other contexts and time periods will contribute towards the formation of frameworks for looking at storage as one component in the forces surrounding political authority.

Much has been written about the role of economic control in the context of Near Eastern state formation and maintenance,\(^\text{15}\) and study of storage practices also allows thinking about the extent to which the political and the economic spheres come together, for, arguably they are not always mutually co-extensive,

\(^{15}\) E.g. Maisels 2010; Bolger & Maguire (eds.) 2010; Paulette 2015, 2016.
and may also serve to work against one another.\textsuperscript{16} Looking at site-specific case studies will allow for an examination of the dynamics of political authority and storage, and the way in which their influence on one another fluctuated over the EIA-MIA period.

1.6. Structure of the Thesis

This thesis is broadly divided into two parts. The first part will commence in Chapter 2 with a review of the scholarship on the Anatolian Iron Age, focusing on a selection of themes which have played a dominant role in shaping discourse and understanding of the period, particularly in the context of the political authority theme I intend to examine.

Following this, Chapter 3 will deal with the theoretical frameworks I intend to use for interpreting the archaeological material, beginning with an overview of the scholarship on state workings and formation, and concluding with the political authority framework I shall use, and its relevance and applicability to studying EIA-MIA socio-political developments.

This will be followed in Chapter 4 by a treatment of storage as an archaeological framework for studying socio-political dynamics and the degree of its connection with the emergence of formalized political authority. Storage has received considerable attention in other archaeological fields, such as in the Americas and the Mediterranean, and with increasing interest in the Near East, particularly Mesopotamia and the Aegean Bronze Age, and I shall discuss a selection of case examples which have discussed the role of storage in the

\textsuperscript{16} E.g. Frangipane 2007: 159.
workings of the political economy. The discussion in Chapter 4 will conclude with the analytical methodology I intend to use for examining storage practices at my chosen case study sites.

In the second part of the thesis, the analysis and interpretation of the material from the case study sites themselves will be presented. Chapters 6, 7 and 8 will deal with Gordion, beginning with an overview of the site’s archaeology in Chapter 6, and treating the material culture relating to storage in the EIA and MIA periods in the ensuing chapters. Chapters 8 and 9 will follow a similar format, with a focus on the site of Çadir Höyük, beginning with an overview of the site and its immediate region in Chapter 8, while Chapter 9 will discuss the data.

Chapter 10 contains a more holistic, interpretative discussion of the respective sites, focusing on the way in which the regions in which Gordion and Çadir Höyük are situated can be conceived of in the context of new narratives of socio-political transformation during the EIA-MIA. The discussion will also consider how interpretation of storage contributes towards understanding political authority workings in Iron Age Anatolia, and what further research agendas may arise from the conclusions reached.
2.1. Introduction

Though the Iron Age has for a long time been something of an ‘ugly duckling’ of ancient Anatolian studies, caught between Bronze Age and classical archaeology, the period has in recent decades begun to be treated on its own terms. This has occurred in tandem with the developments in survey and excavation methods, leading to new research questions and interpretative frameworks. However, a few ‘lingering relics’ continue to feature in the discourse of the central Anatolian Iron Age, conditioned by historical narratives and culture-historical perspectives on state formation.

I shall begin with an overview of some of the key cultural complexes in the central Anatolian Iron Age, coming to a focus on Phrygia, the polity considered to have politically dominated much of the region during the 10th-8th centuries BCE. This will be followed by a discussion on the chronology of the period, tracing the ways in which the scholarship has drawn on a range of evidence, from philological to scientific, in order to reconstruct sequences of events and situate cultural fluctuations and occupational sequences of discrete sites in relation to one another. The second part of this chapter will deal with a selection of themes which have featured prominently in Iron Age discourse, coming to a focus on existing interpretations of state apparatus.

2.2. Cultures and Societies of Anatolia in the Bronze and Iron Ages

While no holistic work exists on the Anatolian Iron Age, specialists working on respective cultures have generated robust bodies of work. In the interest of
contextualizing my discussion on central Anatolia, I shall briefly present an overview of the Hittite Empire, followed by the Iron Age in the first half of the 1st millennium BCE. While central Anatolia was connected with other regions with varying degrees of intensity and character through time, but it is beyond the scope of the research presented here to address the contribution these interactions made in relation to the themes I am pursuing in this work.

2.2.1. LBA Background – The Hittite Empire

The LBA has often cast a substantial shadow over scholarship of the Iron Age, one that has for a long time been qualitative. However, for the purposes of contextualization and discussions of continuity which will feature in the case study chapters, it is necessary to give a brief overview of the period and the way in which it has been presented in studies of the Iron Age, particularly the EIA. Initially seen as contrastive, scholars in the last two decades have sought to define – through new methods and research questions – levels of continuity between the two periods specific to different regions in order to understand the effects of the end of the Bronze Age, and the social, political and cultural influences that continued to be felt into the Iron Age. In order to contextualize the discussion of the Iron Age, it is necessary to provide an overview of the LBA in order to demonstrate the extent to which changes.

By the end of the LBA, Anatolia was characterized by several polities which exhibited considerable socio-political complexity and cultural elaboration (Fig.2.1). Knowledge of the period, particularly in historical terms, comes primarily from the Hittites. Their hegemony of central Anatolia, spanning the 17th-13th centuries BCE, is a significant example of the development of complex society and apparatus of statehood in the context of the ancient Near East. The Hittites have come to be known primarily for their monumental infrastructural projects, extensive
bureaucracy, centralized production of goods, military capability, technological innovations (e.g. forging of iron),\(^1\) and extensive trade and diplomatic relations with other contemporary powers.\(^2\) Accordingly, Hittite archaeology has been, for the most part, one of imperialism\(^3\) – dominated by philology, studies of monumental art and architecture, and cosmopolitan society.\(^4\)

The Hittites as a political entity formed in relatively obscure circumstances during the 17th century BCE.\(^5\) Archaeological and textual evidence points to a series of conflicts enveloping the Cappadocian and Kızılınak regions, with several sites boasting destruction levels or hiatus in occupation during the MBA-LBA transition period.\(^6\) The origins of the Hittites themselves (and their linguistic kindred, the Luwians) and their time of arrival into Anatolia remains disputed, as there is little in the archaeological record to enable the definition of their presence and movements prior to the early 2nd millennium BCE.\(^7\) The Assyrian administrative documents from the trade colony period (ca. 1900-1700 BCE) at Kültepe-Kaneš have yielded evidence of Indo-European names and other vocabulary,\(^8\) indicating that the Hittites and Luwians were well established in central Anatolia by the 2nd millennium BCE, thereby implying their certain arrival by the mid-late 3rd millennium, if not earlier. The decipherment of their languages – preserved on clay and bronze tablets, seals/sealings, and rock-cut monuments – in 1917 identified them as Indo-European, which paved the way for the decipherment of various attested sister

---

1 Muhly et al. 1985; Muhly 2011: 870.
4 See Bryce 2002 for expanded view; Glatz 2007, 2009, 2011, 2012, 2015, Glatz & Ploudre 2011 for more nuanced, archaeologically driven perspectives which are emerging in studies of imperializing cultures as a reaction against the predominantly textual reconstructions of Hittite society.
6 Sagona & Zimansky 2009: 250; Seeher 2011: 378. The degree of contemporaneity between the various attested destructions is yet to be established through careful archaeological analysis.
languages attested in the 2nd and 1st millennia BCE, such as Palaic, Lycian, Carian, Lydian, Pisidian and Sidetic.

The Hittite royal dynasty (see Fig.2.2 for a list of rulers and their chronology) originated in the city of Kuššara, a locale still unknown archaeologically though perhaps located somewhere in the Anti-Taurus region. The selection of Boğazköy as the new capital also suggests new initiatives in the spheres of political discourse, and a reconfiguration of the socio-political landscape. Consequently, the Kızılırmak River region became the core zone of Hittite hegemony.

Historically, the early (or Old) Hittite period is characterized by military campaigns and conquests across central Anatolia and as far afield as Syria and Mesopotamia. The seeming successes were quite short-lived, and a testament to the problem of implementing and maintaining political infrastructure over a wider landscape. Indeed, the political system itself was not entirely stable, and by the Middle Hittite period, dynastic infighting and competition for the throne, coupled with the expansion of neighbouring peoples – such as the Hurrians and the Mitanni in south-eastern Anatolia; and the Kaška from the north – affected the consolidation of Hittite authority. An attempt to address this is evinced by the Edict of Telipinu, which deals with issues and formulation of laws regarding royal succession, and gives some impression of the workings and limitations of Hittite authority, and responding to past/mitigating future problems.

---


10 Hattuša was first settled in the Early-Middle Chalcolithic period (ca. 5500 BCE). By the MBA, it had expanded and was known as Hattuš, a city of the Hattic people who inhabited the Kızılırmak region.


12 Indeed, it is also likely that the ventures were not intended to be such.

13 This period is defined by virtue of the change in cuneiform palaeography in the written record, rather than changes in the archaeological record.

14 Hoffmann 1984.
The question remains of the extent to which these shifts and events were impactful within the broader social sphere, as our understanding of the finer chronology of the LBA and accompanying cultural developments, particularly beyond Boğazköy, are still rudimentary.\textsuperscript{15} While the earlier Hittite phases at Boğazköy are not very well understood, recent excavations have shown that the site at the time was well-fortified and perhaps encompassed an area of 76ha.\textsuperscript{16} The early Hittite writings relating to the exploits of kings preceding the Old Hittite period, such as Anitta, who is reputed to have destroyed Hattuša when it was still a Hattic city, are unsubstantiated by archaeology. Indeed, the evidence rather suggests a gradual development of Boğazköy from the MBA into the Hittite takeover.\textsuperscript{17} In terms of material culture, such as ceramics, there is also a great deal of continuity from antecedent periods.\textsuperscript{18}

Consequently, the co-extension between political and material culture change is not so clear cut, as the political events described in writings amounted to relatively short-lived events without lasting impact. Recent research has sought to move away from a structuralist or typological perspectives of examining imperial systems, to looking at Hittite hegemony as fluid through time, context specific, and unevenly distributed throughout the landscape (see more detailed discussion in Chapter 3).\textsuperscript{19} One of the first works which sought to explicitly address this issue is that by R. Gorny, who discusses the effect of Hittite imperialist ventures in the context of Alişar Höyük (see further discussion of this site in Chapters 8 and 9), 72km south-west of Boğazköy. Gorny cites the significance of ideological appropriation the Hittites undertook at Alişar (an important cultic city at the time) and filling the void of the loss of Assyrian trade networks in order to facilitate the implementation of new political authority ventures.\textsuperscript{20}

\textsuperscript{15} Mielke et al. 2006; 2011.
\textsuperscript{16} Secher 2006a: 201.
\textsuperscript{17} Schachner 2015.
\textsuperscript{18} Sagona & Zimansky 2009: 262.
\textsuperscript{19} Glatz 2007, 2009; İlkı Gerecek 2017.
\textsuperscript{20} Gorny 1995.
Most research on the Hittites has been devoted to the New Kingdom or Empire phase, a period characterized by substantial political reform; further attempts at strategic territorial expansion, primarily in western Anatolia, the Pontic region, Kizzuwatna (modern Adana and Kahramanmaraş provinces) and north Syria; and infrastructural works at Boğazköy itself and in the wider landscape. This period is also by an increase in textual evidence in terms of quantity and subject variety, which has allowed scholars reconstruct in some level of detail the political manoeuvring, the character of Hittite society, the character of Hittite society,21 Anatolian geography,22 and the way in which the landscape and production of monuments therein articulate narratives about Hittite political authority.23

During the Empire period, Boğazköy itself expanded considerably to encompass an area of some 167ha bound by a 6km circuit wall. The wall was punctuated by several gates, with many of them boasting anthropomorphic, zoomorphic or fantastical representations, acting as protective guardians. The city itself is subdivided into several zones, comprising temples, storage areas, palatial compounds and residential areas (see discussion in Chapters 4 and 8). Across central Anatolia, the LBA levels at many sites boast material culture that has been frequently associated with Hittite imperializing ventures. This includes pottery (see discussion in Chapter 8), glyptics, writing, and architectural planning. Several of these sites became increasingly important administrative and/or surplus accumulation centres (typically of grain) connected with the capital (see further discussion in Chapter 4).24

Politically, the textual evidence from the Empire period shows the Hittites active on several fronts, most notably the Levant, the Khabur River basin and western

---

21 Bryce 2002.
22 Weeden & Ullmann (eds.) 2017.
24 Singer 1984. These are called AGRIG towns (see Chapter 4), of which there were up to 40 within in central Anatolia.
Anatolia. In the Levant, this culminated in a clash between the Hittites and Egypt ca. 1274 BCE, ultimately inconclusive and resulting in a treaty concluded by the two powers fifteen years later, now known as the Treaty of Qadeš. The document deals with the compromises and concessions on the part of both sides in order to achieve peace.

In the LBA, western Anatolia was comprised of a series of socio-political entities whose dominance, influence and prosperity fluctuated through time, falling under the toponym of Arzawa, a generic term describing several individual political entities (Fig.2.1) which had alternating peaceful and conflicting relationships with the Hittites for over two centuries. First mentioned in the records of Hattušili I, Arzawa is first cast as a major Hittite adversary during the reign of Tudhaliya I/II, when several entities formed the so-called Aššuwa League against the Hittites, which was ultimately defeated by them.

The different polities continued to have complex political relations with central Anatolia till the end of the LBA, which is attested in textual evidence from the period. This is primarily illustrated by a series of documents relating to the interests of the Hittites and Ahhiyawa in the region. Ahhiyawa seems to refer generically to the Aegean and/or mainland Greece, and the Hittite writings add dimension to the political and military machinations it undertook in western Anatolia over many decades, beginning consistently in the later 14th century BCE. The most significant document relating to these activities is the so-called Tawagalawa Letter, which deals with the politically disruptive and anti-Hittite actions of Piyamaradu (possibly a

---

25 Bryce 2005: 47; Mac Sweeney 2010. For a recent archaeological overview of western Anatolia in the 2nd millennium BCE see Pavúk 2015.
27 E.g. Beckman 1996; Beckman et al. 2011.
28 Beckman et al. 2011: 101-22. The letter is dubbed thus owing to the mention of the brother of the king of Ahhiyawa – Tawagalawa (likely a Hittite rendering of the Mycenaean Etewoklew). It would be more accurate to call it the Piyamaradu Letter owing to its content.
descendant of a king of Arzawa or connected with the Hittite royal family), who was likely advancing the interests of Ahhiyawa in the region. The writer of the letter (probably Hattušili III) adopts a conciliatory tone, seeking a resolution to the long-standing problem through the extradition of Piyamaradu to Hattuša or his settlement in a non-Hittite dependent locale.

The Hittites consolidated their political rule in strategic areas, such as the Syro-Anatolian region and the west through a system of vassalage and the apportioning of regnal seats to cadet branches of the royal family. Aleppo and Carchemish are two key examples of the latter strategy, with Šuppiluliuma I appointing two of his sons as governors of the cities after conquering them. Indeed, a remnant of the dynasty continued to rule Carchemish in the Iron Age, with its rulers styling themselves as ‘Great King’, a title generally used only by the Hittite king in the LBA. The vassal treaty system was one of the lynchpins of the Hittite political system outside of areas of direct control. Such agreements were predicated upon swearing allegiance to the Hittite king and his successors; provision of troops for the Hittite army; informing on anti-Hittite activity; no dealings with foreign rulers; and the payment of tribute. In turn, it was the duty of the Hittite king to provide sponsorship and protection to the vassal.

The realities of the ways in which vassalage functioned is evinced in several surviving treaty texts. The examples which contain historical preambles are particularly informative as they show the manner in which events and circumstances predicate the formulation of the terms in the treaty. This is well-illustrated by the treaty between Tudhaliya II and Sunaššura of Kizzuwatna, which shows long-standing

---

30 Bryce 2012: 14, 52.
31 Van De Mieroop 2004: 152; Bryce 2012: 53.
32 Van De Mieroop 2004: 152.
33 Beckman 1996 for a compilation of several examples from the Empire period.
34 Beckman 1996: 14ff.
interests of the Hittites in the region, particularly in the context of the attempts by
the Mitanni and Hurrians to broaden their political interests there, and its strategic
proximity in relation to the Levant and Syria. The Alakšandu Treaty, drawn up
between Muršili II and Alakšandu the king of Wiluša (Troy), is another important
document outlining the Hittite stipulations of conduct in view of Wiluša’s (military)
vassal status. Wiluša is also mentioned in the Tawagalawa Letter, as a point of
conflict between the Hittites and Ahhiyawa, though seemingly resolved at the time
of the letter’s composition.\textsuperscript{35}

In terms of material culture, the most obvious and widespread evidence associated
with the Hittites has been a class of plain, buff ware pottery with a restricted range
of forms. Viewed in the past as an instrument of Hittite political authority and
seemingly passive adoption, recent work has shown that paying attention to the
variation in the types of shapes through time, and the breadth of the suite has the
capacity to yield more contextualized information about preferences and
consumption practices.\textsuperscript{36} To that end, the new turn in studying Hittite ceramics
entails focusing consumption and the role of agency.\textsuperscript{37} The types of forms
manufactured and consumed suggest the use of this pottery, reflecting some level of
imitative practice taking place.\textsuperscript{38} Contextual analysis suggests that no particular
‘Hittite pottery kit’ that was exported to different parts of central Anatolia,\textsuperscript{39} but
rather processes of selective adoption, which did not necessarily reference
specifically practices involving this pottery enacted at Boğazköy. Following the end
of the Empire, the manufacture of plain buff wares ceases. This suggests that it was
an instrument indexing particular practices that lost their value in the course of
socio-political transformations which took place during the LBA-EIA transition.

\textsuperscript{35} Beckman \textit{et al.} 2011: 117. Indeed, Wiluša appears in Hittite records consistently from the early 14th
century BCE, first as a member of the Aššuwa League, and later as a Hittite vassal polity.
\textsuperscript{36} C.f. Anderson 2014.
\textsuperscript{37} Glatz 2015b: 189.
\textsuperscript{38} Glatz 2015b: 204-05.
\textsuperscript{39} Consequently, Glatz prefers the term NCA (north-central Anatolian) pottery to refer to these ceramics
(Glatz 2007) in order to bypass ethnic and colonialist connotations of the term ‘Hittite’.
The Hittites made extensive use of monumental architecture to reflect the political and ideological initiatives they undertook in order to promote their rule. Inheritors of MBA architectonic practices, which pioneered the increased use of worked stone in the construction of buildings and fortification walls.\(^{40}\) However, Hittite works have an increased tendency towards massive scale, evinced by the prolific use of cyclopean masonry, at Boğazköy itself and other regional centres.

In terms of urban planning, the Hittites showed increased interest in founding settlements on difficult topography, best evinced at Boğazköy itself. Infrastructural works in general were important means by which new political orders were promoted. A good example of this is Kuşakli-Šarišša (210km south-east of Boğazköy), which was a Hittite foundation, boasting imported urban planning and architectural conventions into newly-incorporated territory.\(^{41}\) Another important component of Hittite architectonic practice was the development of extra-urban complexes devoted to cultic practices. Examples include Yazılıkaya on the north-east side of Boğazköy, which incorporates the crevices of the living rock; and built structures, such as the sacred pool complexes at Eflatun Pınar and Yalburt Yaylası in the Konya province.\(^{42}\)

A further important medium which is illustrative of the attempt to implicate the physical environment within political workings during the LBA is the practice of commissioning rock-cut landscape monuments.\(^{43}\) While this tradition was already some two millennia old in the Near East prior to the LBA, there are no precedents in Anatolia itself.\(^{44}\) A monument typically represents the figure of the individual who commissioned it, accompanied by a short inscription, or an inscription in isolation.

\(^{40}\) Harmanşah 2011: 633.
\(^{42}\) Harmanşah 2015.
\(^{43}\) Ehringhaus 2005 for a comprehensive catalogue of LBA rock-cut monuments.
\(^{44}\) Glatz & Ploudre 2011: 44.
Some more elaborate monuments, such as those at Yalburt Yaylası, are sometimes accompanied by inscriptions. Monuments are also often located at springs, gorges or passes – areas of ideological and/or political significance.\(^{45}\)

The inscribed and figurative monuments have been interpreted as located in contested locations, their commissioning and making being reflective of the necessity to periodically reify political in particular region.\(^{46}\) These monuments are also of great interest due to the fact that the majority were commissioned by high officials; ‘princes’ (men from the extended royal family); vassals; and foreign rulers.\(^{47}\) Thus, monuments commissioned by the Hittite kings themselves are comparatively fewer, which creates a picture of political power as periodically quite diffused in the LBA, requiring extended material interventions in the landscape in order to communicate messages of power on the part of the patrons of the monuments. It is also clear that the technologies relating to and means for commissioning such monuments were not monopolized by Hittite kings themselves, indicating a level of political devolution and even factional competition present among the upper strata of LBA society.

As mentioned, the rock-cut monuments were frequently adorned with inscriptions. A substantial amount of written evidence exists from the period, one reason as to why texts have tended to take a leading role formulating research agendas, while archaeology has often played a subordinate role.\(^{48}\) The Hittites adopted the cuneiform script from Mesopotamia sometime in the 17th century BCE and Hittite quickly became the administrative language used throughout Anatolia, even among populations (in the west in particular) which did not speak it.\(^{49}\) In terms of genre, the range of texts is quite broad, with poetry, historical annals, ritual, augury, law,

\(^{45}\) Harmanşah 2011: 635.  
\(^{46}\) Glatz & Ploudre 2011: 58.  
\(^{47}\) Glatz & Ploudre 2011: 49, Table 2.  
treaties, and varied forms of administration. A second important group of texts is that of the rock-cut monuments, which frequently boasted hieroglyphic inscriptions in Luwian. While the origins of the script continue to be debated, this form of writing did survive end of the LBA, gaining prolific use among Syro-Anatolian and east-central Anatolian elites.

The conclusion of the LBA in Anatolia marks the end of the various polities mentioned in the Hittite archives and the Hittite Empire itself. The reasons for decline – which took place across much of the Mediterranean and Near East – were multivalent, including economic collapse, military conflict, natural disasters, and general social disaggregation. The latest research shows that the decline of the Hittite Empire was gradual, and that Boğazköy was underwent a protracted process of abandonment. In terms of destruction, only official buildings (temples and palaces) were torched after the city was abandoned, while residential areas were left untouched. This has led J. Seeher to argue that the last king, Šuppiluliuma II, may have moved the royal court and administration to another location, which is yet to be discovered archaeologically. Similarly, the continued use of Hittite dynastic names in several Syro-Anatolian city-states (see following section) may be reflective of the survival of cadet branches of the royal line into the Iron Age.

Elsewhere across Anatolia, research is showing that the transformations taking place during the LBA-EIA transition are regionally specific, and that old metanarratives

---

52 The literature on this topic is vast, but some of the key references include Tainter 1988; Yoffee & Cowgill (eds.) 1988; Laffineur (ed.) 1999; Bryce 2003; Fischer et al. (eds.) 2003; Dickinson 2006; Schwarz & Nichols (eds.) 2006; Bachhuber & Roberts (eds.) 2009; McAnany & Yoffee (eds.) 2009; Cline 2014; Knapp & Manning 2016.
53 Seeher 2010: 221.
54 Seeher 2010: 221. This is evident at other points in Hittite history when the court at Boğazköy came under threat.
55 Bryce 2012: 61-62. Alternatively, it may be non-dynastic rulers adopting the names in order to give themselves a degree of political legitimacy and a pseudo-genealogical connection with Hittite royalty.
of rapid and wholesale collapses are often too general to explain the processes that took place. In the course of development of new research questions, fieldwork methods and absolute dates, the Bronze Age-Iron Age transition is coming under reassessment, as is the cultural and political legacy of the Hittites in the regions they controlled. Given the increased emphasis on characterizing Hittite hegemony as unevenly distributed across the landscape and through time, it is not surprising that different regions of Anatolia which were controlled and/or interacted with the Hittites exemplify respectively idiosyncratic dynamics in the Iron Age.

2.2.2. Iron Age Cultures and Polities

The gradual dissolution and transformation of the LBA socio-political apparatus and systems of interaction in the late 13th-early 12th century BCE brought with it varied responses to this change across the Anatolian plateau. The region comprising south-eastern and south-central Anatolia and northern Syria and the Levant was one which saw relative continuity in the midst of the socio-political disruptions at the end of the LBA. Here, a series of Syro-Anatolian city-states were established, which enjoyed political prominence during the 11th-8th centuries BCE. These included Carchemish, Kummuh, Gurgum, Milidia and Que (Fig.1.2). Several bore influences resulting from movement of Hittite/Luwian speaking people from central Anatolia (comprising, in some instances, the elites of the former empire), manifested in the artistic traditions, genealogical claims, and the use of Hieroglyphic Luwian script in public inscriptions. As noted in Section 2.2.1., it is likely that branches of the royal dynasty at Boğazköy came to inhabit one or several of these city-states.

This ‘Hittitizing’ sphere also extended westwards to Cappadocia at the south-eastern end of the Konya Plain, which was known in the Iron Age as Tabal in contemporary

56 Dodds Swartz 2007; Matney 2011; Bryce 2012.
Assyrian writings, further entities existed which continued to be selective practitioners of Hittite-Luwian culture, prominent examples being Tyana (or Tuwana) and Kimik Höyük. One impressive example of this is the rock-cut relief at İvriz showing Warpalawas, the king of Tyana (fl. late 8th century BCE), paying homage to the storm god Tarhunzas. The depiction of Warpalawas is particularly noteworthy due to the intricate depiction of the king’s garb, adorned with intricate geometric patterns and clasped by a fibula, paralleled by artefactual evidence from Gordion.

Tabal and the south-central Anatolian region is of particular significance owing to its status as an intermediary between Phrygia and the Syro-Anatolian sphere, which facilitated the spread of ideas and technologies. Cilicia, which comprised the city-state of Que (Adanawa) in particular was an important interface between the Phoenicians and the Luwians, built on trade contacts but having important cultural influence. Further important work has been done at Kilise Tepe and Porsuk Höyük, both of which are located in ‘rough’ Cilicia and contain extensive Iron Age sequences. As I shall discuss in Chapter 7, the presence of Syro-Anatolian influenced material culture at Gordion was of some significance at a key moment in the site’s history in the context of its political authority developments.

In western Anatolia, Lydia, centred around the middle Gediz (Hermus) River plain and Marmara Lake to the north, has been seen historically as the successor of Phrygia as a major power which, at its height, presumably stretched all the way to the Kızılırmak River. From still-obscure origins following the end of the LBA, the polity

---

57 Postgate 1973: 30; Crespin 1999; Wittke 2004; d'Alfonso 2012; Mora & d'Alfonso 2012; Summers 2012a.
58 Fielder 2005. Iron Age Tyana remains unexcavated, though important finds associated with the site have been several (decontextualized) fragments of Phrygian language inscriptions (Brixhe & Lejeune 1984; Brixhe 1991; Varinlioglu 1991; Vassileva 1992; Mellink 1979, 1998).
59 Balatti & Balza 2012; Highcock et al. 2015.
60 Van Dongen 2013, 2014.
62 Hansen & Postgate 1999; Postgate & Thomas (eds.) 2007; Postgate 2008; Bouthillier et al. 2014.
rose to prominence in the early 7th century BCE and continued under the rule of the Persians (6th-4th centuries). While the precise origins of the Lydians remain obscure,\(^{64}\) it is clear that they were in part descendants of the Bronze Age Indo-European people who inhabited the LBA polity of Šēha River Land.\(^{65}\) Their language, attested in some 113 known inscriptions in various media, belongs to the Anatolian Indo-European group.\(^{66}\)

Most of the knowledge of Iron Age Lydia has come the capital Sardis, located on the southern foothills of the Boz Dağ mountain range, overlooking the Gediz (Hermus) River plain. However, a very small percentage of the Iron Age site has been excavated,\(^{67}\) owing to the substantial overlying Hellenistic, Roman and Byzantine levels. Excavations in diverse areas comprising the ancient city, such as the Sart (Pactolus) River banks, in the foothills of the so-called acropolis have yielded a variety of contexts such as gold refining and jewellery workshops,\(^{68}\) domestic quarters,\(^{69}\) large fortifications,\(^{70}\) and palatial buildings with ashlar masonry foundations.\(^{71}\) North-west of Sardis, leading up to the shores of Lake Marmara is an open landscape dotted with many burial tumuli – over 500 arranged into some 117 clusters believed to constitute kinship groups.\(^{72}\)

As in the case of the Hittites, historical evidence (written by Greeks and Romans) has played a significant role in informing the sequence of events and cultural development in Lydia,\(^{73}\) particularly in the absence of firm archaeological evidence. However, work undertaken since 2005 by the Central Lydia Archaeological Survey

\(^{66}\) Littmann 1916; Buckler 1924; Melchert 2004; Gérard 2005.
\(^{67}\) Roosevelt 2009: 59.
\(^{68}\) Hanfmann (ed.) 1983.
\(^{69}\) Roosevelt 2012: 904.
\(^{70}\) The fortifications have not been fully published but are well documented in the preliminary reports from the 1970s onwards.
\(^{71}\) Ratté 2011.
\(^{72}\) Roosevelt 2006: 70.
has shifted research questions towards understanding the wider region through time by examining settlement types and patterns, which have also served to contextualize Sardis itself in terms of the way it interacted with the wider hinterland.\(^7^4\)

The most prominent neighbours of the Lydians were the Greeks, who over the course of the 11th-9th centuries BCE founded new or settled former LBA settlements (e.g. Ephesus, Miletus and Smyrna) that ultimately developed into **poleis**,\(^7^5\) which had extensive interactions with Anatolian societies on the coast and further inland.\(^7^6\) By the Archaic period (ca. 750-480 BCE) the region was known as Ionia, becoming the cultural and political focal point of the Greek speaking world. The western Anatolian littoral was therefore an important interface for interaction between the Greeks and Anatolians throughout the 1st millennium BCE, which was manifested in influences on material culture, ideology, funerary customs, and political and matrimonial relations.\(^7^7\)

The Lydians also had Anatolian neighbours – the Carians and the Lycians – who inhabited the southwest, descendants of LBA inhabitants of Karkiša\(^7^8\) and the Lukka Lands,\(^7^9\) mentioned in Hittite writings. In the 1st millennium BCE, the Carians and Lycians gain historical and archaeological prominence. The Carians are well known in their role as mercenaries in Egypt during 26th ‘Saite’ Dynasty (ca. 664-525 BCE), where they left considerable archaeological and textual traces.\(^8^0\) Prominent excavations include those at Aphrodisias, where a long prehistoric sequence was explored, including the Iron Age, which, unfortunately, remains scantily represented.

---

\(^7^5\) Osborne 2009; Greaves 2011.
\(^7^6\) DeVries 2005; Greenewalt 2011.
\(^7^8\) Cf. Oreshko 2017, who views Karkiša as a north-western polity on the basis of the fact that is listed among the polities of the Aššuwa coalition suppressed by the Hittite king Tudhaliya I/II (ca. 1450-1420 BCE).
\(^7^9\) Gander 2010.
\(^8^0\) Ray 1982; Frei & Marek 1997; Gander 2010; Carless Unwin 2017.
due to later cutting and levelling activities.\textsuperscript{81} The Lycians appear prominently in the \textit{Iliad} as important allies of the Trojans under the leadership of Sarpedon and Glaucus,\textsuperscript{82} though it is only recently that the region they inhabited has begun to be better understood archaeologically, particularly for the Iron Age.

Archaeological work on pre-classical remains in south-west Anatolia was for a long time limited, leading to the view that settlement in these periods was intermittent. The Balboula Survey, directed by J. J. Coulton in the late 1980s-early 1990s addressed this problem directly,\textsuperscript{83} one outcome has been systematic survey of Çaltular Höyük, which has shed further light on pre-classical habitation.\textsuperscript{84} In addition, long-term French excavations at Xanthus, the former capital of Lycia, have provided an important reference point for discussing the Lycian culture archaeologically.\textsuperscript{85} The Lycian region has also yielded much epigraphic evidence, allowing for some degree of reconstruction of the social and political structure in Lycian communities.\textsuperscript{86}

Northern and north-western Anatolia have received comparably less archaeological investigation as a whole, partly owing to the difficult terrain. In the case of northern Anatolia, this has led to historically rooted views of the region as marginal, geographically and culturally.\textsuperscript{87} The presumed Iron Age inhabitants, the Paphlagonians, are mentioned in the \textit{Iliad},\textsuperscript{88} and other classical writers, though archaeological traces of what may be viewed as Paphlagonian culture have been difficult to identify. In order to address the archaeological lacuna, the Project Paphlagonia survey (1997-2001),\textsuperscript{89} directed by R. Matthews in northern central Anatolia (Çorum and Çankırı provinces), sought to clarify settlement patterns

\textsuperscript{81} Joukowsky 1986, 1991; Greaves 2008; Mac Sweeney 2011a.
\textsuperscript{82} \textit{Iliad} 17.150.
\textsuperscript{83} Coulton (ed.) 2012.
\textsuperscript{84} Momigliano \textit{et al.} 2011.
\textsuperscript{85} See the \textit{Fouilles de Xanthos} series, published from 1951 onwards by the French excavators.
\textsuperscript{86} Bryce 1986.
\textsuperscript{87} Anderson 2011: 5-7.
\textsuperscript{88} \textit{Iliad} 2.851-57.
\textsuperscript{89} Matthews & Glatz (eds.) 2009.
through time, and address key questions such as the nature of the relations between the Hittites and their long-time antagonists, the Kaška, and the character of pre-Bronze Age settlement in the region. Ongoing excavations at Oluz Höyük in the Amasya province have also yielded important information on the Iron Age in the region.

Apart from the on-going excavations at Troy and Daskyleion (an Achaemenid satrapal capital in the 6th-4th centuries BCE), and the Granicus River valley survey, north-western Anatolia is another region that has seen sporadic investigation of pre-classical remains. Historically, the region seems to have had an ethnically diverse population, with some scholars supposing that the Etruscans originated here. Another historically attested population is the Mysians, who are mentioned in Homer and Herodotus. As is the case with several cultures discussed in this section, the archaeological evidence is not co-extensive with the historical. However, one intriguing find related to the Mysians has been an inscription found in the village of Üyücek, 40km west of Kütahya, viewed as a possible example of their language, though now rather viewed as a dialect of Phrygian.

In eastern Anatolia, the most significant political entity of the Iron Age was Urartu, prominent during the 9th-7th centuries BCE. A number of sites have been identified and excavated across eastern Anatolia (particularly in the region around Lake Van),

---

90 Glatz & Matthews 2005; Glatz 2017. See also Seeher 2010 for a discussion of the possible connections between the Kaška and EIA pottery traditions in the Kızılarımak region.
94 Rose et al. 2007.
95 An exception is the excavation of Neolithic settlements, exemplified by the work at Ilıpınar and Barcın Höyük.
96 Kloekhorst 2012.
97 Iliad 2.858; Hdt. 1.171.
98 Cox & Cameron 1932.
99 Bayun & Orel 1988. Cf. also a more recently discovered fragmentary inscription from Parion which is also Phrygian but shows some possible dialectical variation (Brixhe & Keleş 2011).
north-western Iran, western Armenia and Naxçıvan, comprising fortified elite centres. The Urartians borrowed heavily from their long-time enemies the Assyrians, taking the cuneiform script and iconographic traditions, gaining a level of cultural and political centralization which seems to have taken place within a very short space of time.¹⁰⁰ Our understanding of Urartu spans the archaeological and historical disciplines, with several kings leaving behind inscriptions recording the deeds of their reigns, also corroborated to a degree by Assyrian records. Excavations of several sites initially focused on the elite contexts of sites, but in more recent years, there has been increased interest in examining the lives of ordinary people.¹⁰¹

2.2.5. Phrygia

Historical Phrygia was situated within the geography loosely bounded by the Sakarya and Porsuk Rivers (Fig.2.3). According to conventional narratives, the Phrygian culture originated in the presumed migration of the Phrygian people from south-eastern Europe at the end of the Bronze Age, who settled in the region and founded a powerful kingdom or empire which dominated the central plateau during the 10th-8th centuries BCE. Mention of Phrygia invariably conjures up narratives of the semi-mythical King Midas, who – in Greek and Roman narratives – exemplifies the archetypical tropes of eastern despotism, wealth and hubris.¹⁰² Such stories provided the initial impetus for archaeological investigation and definition of Phrygia, which continue to be evoked in discussions of the archaeology and history of the culture.¹⁰³

Interest in Phrygia accompanied the antiquarian explorers of the 19th century CE and the subsequent development of archaeology as a discipline. The discovery of the

¹⁰¹ Stone 2005.
¹⁰² Sams 2012b.
so-called Midas Monument, a large, cultic rock-cut façade (Fig.2.4), close to the village of Yazılıkaya in the Türkmen Dağ highlands of south-west Eskişehir province in 1800 by the British officer and antiquarian W. M. Leake\textsuperscript{104} arguably marks the beginning of modern Phrygian scholarship.

Much of the initial work concerning Phrygia revolved around the excavations of Gordion, the presumed capital (see discussion in Chapter 5) consisting of a large settlement surrounded by over 200 burial tumuli in the immediate landscape on the banks of the Sakarya River. The excavations have yielded a wealth of information about society at the site and the sophistication of different industries, such as those pertaining to textiles, metal and woodworking, and ceramics. Plentiful evidence of this comes from the main mound of the site dating to the 9th century BCE. In addition, the spread of material culture perceived as Phrygian across central Anatolia, such as grey ware pottery, megaron plan buildings, textiles and bronze fibulae, have been interpreted as indicative of the spread of Phrygian hegemony (see further discussion in Section 2.4.5.).

Following a fiery destruction of significant portions of the citadel around 800 BCE, the area was rebuilt and Gordion entered a phase of prosperity and presumed political dominance. Though historical writings point to a period of Lydian political subjugation in the 7th century BCE,\textsuperscript{105} this has been difficult to corroborate archaeologically, and the implications of possible Lydian authority in the region have not been fully discussed. While Gordion’s prosperity and economic importance continued into the Achaemenid period,\textsuperscript{106} its loss of political importance eventually led to its diminution and gradual abandonment by the end of the Hellenistic period.\textsuperscript{107}

\textsuperscript{104} Leake 1824.
\textsuperscript{105} Mellink 1991: 649; Dusinberre 2002; Rose 2012: 16.
\textsuperscript{106} Voigt & Cayler Young Jr. 1999.
\textsuperscript{107} There is Roman occupation at the site, lasting ca. 50-300 CE, though quite modest in scale.
2.3. Archaeological Work in the ‘Phrygian’ Regions

Over the past 15 years, several overviews of central Anatolian Iron Age archaeology have been published, focusing holistically on the region, or on respective cultures. The recent volume edited by S. Steadman and G. McMahon in particular is significant for bringing together discussions of ‘diverse’ Iron Ages. While the Anatolian Iron Ages volumes have also played an important role, their content has tended to focus more on site based studies, surveys, or material culture, rather than a holistic discussion of the Iron Age across Anatolia. In dividing my discussion into the Sakarya-Porsuk and the Kızılırmak regions, I shall contextualize my case study sites by discussing the character of significant archaeological work done in the respective regions.

2.3.1. The Iron Age in the Sakarya-Porsuk Region

Most sites with Iron Age occupation in the region have been detected through extensive survey. In particular, the most wide-ranging work has been that of T. Efe and T. Tüfekçi Sivas and H. Sivas. Efe focused primarily on detecting mounds and seemingly unsystematic collection of ceramics to provide a broad chronological range for the respective sites. One issue of the method employed by Efe is that the category for the Iron Age seems to be exclusively grey ware pottery, which, given

---

108 E.g. Fischer et al. 2003; Genz 2011; Kealhofer & Grave 2011.
109 Roller 2011; Gunter 2012.
the ware’s longevity (ca. 9th-3rd century BCE), makes it an inaccurate dating and cultural assignation tool in the absence of stratified excavations. Sivas and Sivas, on the other hand, documented Iron Age rock-cut monuments façades, chamber tombs, stepped altars, and presses.

A series of intensive surveys have been conducted in connection with the Gordion excavations within a 40km radius of the site during 1996-2002, clarifying settlement patterns from the Bronze Age to Medieval times as well as collecting environmental data. This has taken a more systematic approach compared to previous surveys, which focused on detecting mounds. The full publication of these surveys is yet to be undertaken, which will contribute significantly to knowledge of the wider landscape around Gordion.

In terms of excavations, apart from Gordion (whose archaeology I shall discuss in detail in Chapter 5), Iron Age levels have been excavated at Şarhöyük-Dorylaion, Ballhisar-Pessinus and Midas City. Şarhöyük, on the outskirts of Eskişehir, is one of the biggest mounds in the region. This site contains remains from the EBA to Ottoman periods, making it significant for understanding long-term developments, but little has been published since excavations began in the late 1980s. One important find from the site has been a Luwian seal dating to the LBA, which has generated discussion about the site’s relationship with the Hittite Empire. Iron Age pottery from the site has also been sampled by the Anatolian Iron Age Ceramics Project, in order to better understand the character of ceramic production at the site in the MIA, and the way in which it compares to practices elsewhere in the Sakarya region.

114 Kealhofer 2005b.
118 Grave et al. 2012.
The site of Pessinus, underneath the modern village of Ballıhisar, is perhaps better known for its Roman remains and historical association with the cult of Kybele, the Anatolian mother goddess, but contains some evidence of Iron Age occupation. Limited excavations beneath a 1st century CE Roman temple have yielded fragmentary LIA contexts and material culture in the form of grey ware and silhouette style pottery, and a bronze fibula.\textsuperscript{119} Retrieved radiocarbon samples have dated these contexts to the early 4th century.\textsuperscript{120} However, the nearby site of Tekören (8km north of Pessinus) presents more comprehensive evidence of the Iron Age, through a rock-cut chamber tomb, stepped monument and liquid press on the eastern edge of the modern village.\textsuperscript{121} The actual Iron Age settlement at Tekören has not yet been found, but the site seems to have had a long occupation history, with plentiful evidence of Bronze Age occupation encountered in ploughed fields directly south of the Iron Age monuments.\textsuperscript{122}

The discovery of Midas City, as mentioned in Section 2.2.5, arguably set the stage for modern studies in the Phrygian culture. The site constitutes a substantial tufa outcrop boasting rock-cut façades, niches, semi-iconic idols and step monuments – sometimes accompanied by inscriptions in the Phrygian language. On top of the outcrop was a MIA settlement. Several excavations and surveys of Midas City and neighbouring sites have been conducted,\textsuperscript{123} with more recent work re-evaluating the interpretation and chronology of the monuments.\textsuperscript{124}

\textsuperscript{119} Lambrechts 1969: 85; Devreker & Vermeulen 1995a, 1995b; Krmanovic, in press. The silhouette style pottery is perhaps 7th-6th century BCE (personal observation, 2010).
\textsuperscript{120} Devreker & Vermeulen 1996: 85; Devreker \textit{et al.} 2003: 146.
\textsuperscript{122} Anderson 2010; personal examination of material collected by Ghent University in 1990-91 and 1996 (2010).
\textsuperscript{123} Gabriel 1952, 1965; Haspels 1951, 1971; Strobel 2009. More sustained excavation projects, however, have focused on EBA sites, such as Demircihöyük, Küllioba and Keçiçayırı.
\textsuperscript{124} Berndt-Ersöz 2006.
2.3.2. The Iron Age in the Kızılırmak Region

In comparison with the Sakarya-Porsuk region, archaeological work in the Kızılırmak area has been more intensive, particularly in terms of excavation. While the number of excavated sites in the Kızılırmak region is higher, some have been excavated many decades ago, rendering their correlation with more modern work problematic, while others still await comprehensive publication.

Prominent examples that have been and continue to be investigated in the Kızılırmak region include Boğazköy-Hattuša, Alacahöyük, Alişar Höyük, Kerkenes Dağ, Büyüknefes-Tavium, Uşaklı Höyük, Yassihöyük, Büklükale and Kaman-Kalehöyük (Fig. 2.5). Further significance of this geography stems from the fact that it constituted the heartland of Hittite culture and political authority in the LBA, whose capital was at Boğazköy. Accordingly, much of the research focus in the region has been devoted to the Bronze Age, though interest in the Iron Age has increased over the past two decades in the light of attempts to understand post-Hittite socio-political reconfiguration in the region. Indeed, it is arguably the case that the encountering of Iron Age levels in the course of projects focusing on the Bronze Age has led to an interest in the former.

Iron Age material culture (i.e. pottery) was first identified at the end of the 19th century at Boğazköy and also at Kültepe-Kaneş, best known as an important Assyrian trade colony site in the MBA, just south of the Kızılırmak basin. More extensive evidence for the Iron Age came in the first few decades of the 20th century in the early excavations of Boğazköy, Alişar Höyük and Kerkenes Dağ, though the Iron Age was never a dedicated focal point for study until relatively recently. Excavations at Kaman-Kalehöyük, beginning in 1986, were the first in the region to

---

125 I shall discuss Boğazköy, Alişar and Kaman in more detail in Chapter 8, as they will provide comparative material for my discussion of storage ceramics of EIA-MIA Çadır Höyük.
126 Genz & Mielke 2011.
focus prominently on the Iron Age, generating a full sequence of the period spanning most of the 1st millennium BCE. Since then, work at Kerkenes Dağ, Çadır Höyük, Tavium and Boğazköy has continued to clarify the Iron Age in the region.

Initial surveys of the Kızılırmak region were conducted by H. H. Von Der Osten in the 1920s and 1930s, who sought to document remains from all periods, though his chief interest was in prehistory. Since then, much survey work has been attached to and stemming from work done at several of the above-mentioned sites. Among the most wide-ranging surveys have been those conducted in tandem with the excavations at Kaman Kalehöyük. They have been conducted over a large area combining the Ankara, Aksaray, Nevşehir, Kırşehir, Kırıkkale and Konya provinces, yielding sites from the Neolithic to Turkish periods. Some key results include the finding of Kaman IIId type (EIA) ceramics at several locales, highlighting the fact that EIA sites are not necessarily as rare as has been previously considered, highlighting the fact that knowledge of material culture assemblages belonging to the EIA remains rudimentary, rather than signifying an actual absence of settlement. This is significant as it counters the narratives of population depletion, movements and ephemeral settlement which have featured prominently in the discourse, which will be discussed in Section 2.5.

Culturally and politically, the Kızılırmak region has for a long time been considered to have been part of Phrygia in the Iron Age, particularly prior to more detailed investigations which have defined ceramic and settlement horizons. In view of these discoveries, new absolute dates, and revision of old narratives of the EIA, this view has been called into question. The research presented in this thesis will therefore

---

128 Von Der Osten 1927, 1929.
129 E.g. Omura 2011. See also the Kaman-Kalehöyük website, http://www.jiaa-kaman.org/en/aas_index.html, for a complete list (and some uploaded pdf files) of the publications on the site.
130 Omura 1998: 45-46.
132 Von Der Osten 1937a, 1937b; Summers 1994.
Contribute towards a new view of the region through examining storage and political authority.

2.4. Chronology & Periodization of the Central Anatolian Iron Age

Chronology continues to foster some of the most topical discussions in Iron Age studies. Initial scholarship on the Iron Age derived chronology from historical events. As excavations proliferated, pottery from well-stratified sites, coupled with established typologies in Greece and the Near East, began to play a more significant role in finer dating within this framework. The invention of scientific dating was a watershed moment for archaeology, however, in some instances in Iron Age archaeology, the influence of history continued to exert dominance in interpretations of chronology.

Several works have discussed the problems surrounding regional comparisons, absolute dating, and the duration of cultural elements on a regional or site-based level. As noted in the previous chapter, the Iron Age in Anatolia broadly occupies the 1200/1180-330 BCE period, and is broken up into three phases of early, middle and late (Fig.1.1). The beginning and the end of the Iron Age as a whole have not been subject to criticism or significant revision, but internal subdivisions based on sequences from respective sites continue to be debated. Connected to this is what is being used to define temporal boundaries between periods within the Iron Age at sites, with destruction events and architectural building phases being the most common tools employed by scholars.

---

Accordingly, while sites are situated within the broad, tri-partite chronology, most have their own internal chronological systems based on correlations between evidence of cultural change (stemming from stratigraphic and corresponding artefactual analysis) and the presence of absolute dates, where available. The body of dates has increased considerably in the last two decades, with Gordion, Boğazköy, Kaman-Kalehöyük and Çadır Höyük bearing important sequences for the Iron Age with absolute dates (Fig.2.6).

The Boğazköy sequence in particular is significant as it spans the 12th to the 9th century BCE.\textsuperscript{136} This has not only allowed for secure pinpointing of introductions and changes in ceramic styles and settlement plans, but also provides firmer ground for regional comparisons. Though several sets of dates have been obtained from Kaman-Kalehöyük via radiocarbon and dendrochronology, the use of different laboratories for radiocarbon dating has resulted in a discrepancy of results. For example, the dates of the EIA phase IId1 exhibit a variance of 200 years.\textsuperscript{137} As a result, the Kaman team has continued to focus on relative dating provided by ceramic comparison with other sites in the region and further afield. Thus, phases IId1-3 have been dated to the EIA (11th-9th centuries BCE) and IIc1-IIa6 (9th-7th centuries BCE) to the MIA.\textsuperscript{138}

The re-dating of the MIA at Gordion, as discussed in a recent monograph,\textsuperscript{139} has contributed towards an important revision of Iron Age chronology in central Anatolia. Radiocarbon dates were obtained from the YHSS 6A Destruction Level in the 1960s, though they did not conform to the historically influenced interpretations of chronology at the time than initially believed and were not embraced (they were considered too high in the context of historical frameworks),\textsuperscript{140} leading to a floating

\textsuperscript{136} Genz 2004: Table 2.
\textsuperscript{137} Matsumura 2005: 95.
\textsuperscript{138} Matsumura 2005, Pl.5.2-2.
\textsuperscript{139} Rose & Darbyshire (eds.) 2011.
\textsuperscript{140} Voigt & DeVries 2012: 23-24.
chronology until additional dates and revisions of material culture typologies were implemented in the 1990s and early 2000s. The revision of the destruction level date to a century higher (ca. 800 BCE) has had significant implications for wider Iron Age chronology across Anatolia, which scholars have largely accepted.\textsuperscript{141}

However, the overall paucity of radiocarbon dates across the central Anatolian plateau has made establishing contemporaneity of phenomena across regions challenging, but remains an important focal point for discussion in establishing the character of regional dynamics to complement those that are site-based. Indeed, some sites which were excavated prior to the invention of radiocarbon dating, such as Alişar Höyük, continue to float chronologically, reliant on artefactual comparison with other sites in the region. Nevertheless, the availability of absolute dates from other sites in their region has helped to better define the possible timespan for Iron Age Alişar.

2.5. Themes Characterizing the Study of the Anatolian Iron Age

Though a multitude of thematic angles may be articulated in discussions of Iron Age archaeology which have influenced and characterize the state of research, I shall deal with a selection that are most pertinent to this work, namely the role of the LBA, the concept of the ‘dark age’, the impact of historical texts, and the Phrygian migration. I shall conclude with a discussion of current perceptions of Phrygia as a state, which is in many ways a product of the aforementioned themes.

2.5.1. The Concept of the ‘Dark Age’

\textsuperscript{141} I shall discuss this in more detail in the overview of the archaeology of Gordion in Chapter 5.
As discussed in Section 2.2.1., the end of the Hittite Empire was less cataclysmic than earlier scholarship considered, and it is becoming increasingly clear that responses to the end of the Bronze Age in Anatolia varied in different locales. The transition into the Iron Age has frequently been looked at through a top-down perspective – consequently, the seeming loss and/or abandonment of complex social apparatus such as bureaucracy, literacy, trade, and centralized production in the EIA has contributed towards an impression of primitive societies living in a relatively isolated fashion throughout the landscape, and often in impermanent settlements.142

Consequently, views of the Iron Age, particularly the EIA, as a period of dissolution in historical and archaeological meta-narratives led to the initial perspectives on the EIA as a ‘dark age’ – ‘a period of extensive migrations, disturbance and land hunger’,143 giving the impression of a socially, politically and culturally disaggregated landscape. The view has been further reinforced by the lack of written records,144 a view that owes more to the dominance of historical perspectives rather than the archaeological record’s capacity for articulating societies and dynamics of the period.145

This also has implications for conceptualizations of social structure. The EIA has consequently been perceived as a period of egalitarian structures, owing to the lack of constituents characterizing more complex, stratified societies in the LBA and MIA. In the Marxist perspectives of V. G. Childe, for example, the advent of iron technology implied by the Iron Age brought about greater equality among communities, owing to the plenitude and dispersal of iron ore,146 which contrasted

142 E.g. Voigt 2013: 186.
143 Mellaart 1954: 177.
145 Moreland 2001, 2006. E.g. Nicola 1999 for a discussion on the potential of using faunal remains from Kaman-Kalehöyük to question established discursive paradigms on the EIA.
146 Childe 1951: 35-36.
the relative rarity of resources used to make Bronze (i.e. tin), allowing for the metal to be implicated within asymmetrical power relationships.

However, there has generally been a marked shift in the significance of the term, particularly in the last 15 years of scholarship, to the point where it is increasingly being seen as a convention devoid of its literal meaning.¹⁴⁷ New research questions and methodological approaches, particularly those emphasising on material culture, have gained prominence. For example, in other scholarship, studies of post-Bronze Age periods have emphasized ideas of increased social dynamism and permeability. In his study of post-Mycenaean Tiryns in mainland Greece,¹⁴⁸ P. W. Stockhammer has argued that in the wake of the collapse of the Mycenaean palatial system, the vacuum left by the upper social strata created a situation of flux, which manifested itself in the emergence of new, self-styled elites who sought to establish control by the construction of the hall building at Tiryns and association with the Mycenaean past through manipulation of Mycenaean material culture, such as the display of earlier Late Helladic III (ca. 1300-1200 BCE) stirrup jars.¹⁴⁹

While Tiryns is exceptional in having somewhat weathered the upheavals at the end of the LBA, this demonstrates the capacity of material culture approaches to yield information regarding post-Bronze Age dynamics. Such reassessments are leading to views that the EIA is a rather dynamic socio-political period, in which the disaggregation of relatively centralized polities furnished social groups with new opportunities to configure themselves and their wider environment. Indeed, this may not be always visible in archaeology; and this is in part due to past orientation of methods and research questions, but it is an important premise upon which to build

¹⁴⁸ One of the few Mycenaean centres which escaped wholesale destruction and abandonment.
¹⁴⁹ Stockhammer 2009.
a narrative that accounts for the socio-political developments that took place during the EIA, which resulted in formations of the MIA.

A few scholars still consider the concept of the ‘dark age’ to be viable in discourse. G. Summers indicates that, in lieu of a lack of absolute dates and a seeming interregnum in cultural complexity, the term can be seen as appropriate.\textsuperscript{150} However, instead of seeing the EIA as a period of fragmentation, it may alternatively be seen as a period of increased dynamism, in which people are more actively reconfiguring their socio-political environment in the wake of the dissolution of overarching systems of authority.\textsuperscript{151} Moreover, as I shall discuss in Chapter 10, social relations were less dependent on materializing strategies in this period, which accounts for the difficulty in intimating dynamics from the archaeological record, rather than assuming that absence of evidence is evidence of absence.

2.5.2. The Role of Texts

As alluded to above, the role of historical texts has been an important one in shaping interpretations and research questions on the Iron Age. Despite the fact that the peoples of the central Anatolian Iron Age themselves did not leave behind much textual evidence, the writings of the Greeks and Romans have been used extensively to fill the historical lacunae and create narratives for understanding the development of the different cultures,\textsuperscript{152} and the role of ruler figures responsible for enacting political change.

\textsuperscript{150} Summers 2008: 208-07.
\textsuperscript{151} Cf. Stockhammer 2009.
\textsuperscript{152} Andrèn 1998; Zimansky 2005; Rosen 2006.
The foremost ancient authors on the Iron Age period in Anatolia are Herodotus (5th century BCE) and Strabo (1st century BCE).\textsuperscript{153} Herodotus in particular has been viewed as a significant source on account of his relative temporal proximity to the events he discusses, and his status as a Greek from Anatolia. Another important set of sources are the annals of a number of Assyrian kings who reigned during the 8th-7th centuries BCE. These texts comment on the political and military activities of eastern central Anatolia,\textsuperscript{154} providing important independent evidence on different interests in the region.

The common strand running through the Greco-Roman and Assyrian texts is their overt or underlying focus on elite personages and their activities, as well as references to ethnic groups and geographical locales. In discussing sovereigns and their capacity for power and rule, these narratives are important devices on which archaeology has drawn its interest in discussing politics, in which terminology used in the texts becomes a proxy for the discussion of the existence of large political entities.\textsuperscript{155} This has, therefore, led to the characterization of Phrygia as a state (see discussion in Section 2.4.5.), whereby the textual information, bearing terminology associated with political rule, has been used as a proxy for characterizing socio-political organization of central Anatolia in the MIA.

Similarly, the narratives of decline and seeming darkness following the end of the LBA are drawn from historical/philological perspectives. G. Woolf argues that classical historians (who have been influential in shaping Iron Age historical narratives) are predisposed to writing in this mien due to the fact that the source material itself deals with such themes and narrative arcs.\textsuperscript{156} This, in conjunction with


\textsuperscript{154} Postgate 1973: 23; Berndt-Ersöz 2008.

\textsuperscript{155} Smith 2011: 417. See, for example, Khatchadourian 2016 for the way in which Herodotus’ view of what constitutes a Persian satrapy has skewed modern debates on the concept.

\textsuperscript{156} Woolf 2017: 113.
culture-historical approaches that deal with the spatial extent of cultures as well as their beginning and end in time, came to solidify the narratives of Phrygia as originating in the aftermath of Hittite collapse, dominating the central Anatolian plateau, and undergoing a loss of political (and consequently cultural) influence at the hands of the Lydians.

2.5.3. The ‘Phrygian Migration’

The impact of historical narrative on archaeology brings me to consider the next key theme which has long characterized discourse on the Iron Age in central Anatolia – that of the Phrygian migration. The socio-cultural landscape at end of the LBA in Aegean, Anatolia and eastern Mediterranean has been frequently interpreted as one shaped by migrating groups to account for changes evident in the archaeological record. The likes of the Dorians, Ionians, and ‘Sea Peoples’ being key players in the narratives of movement in the Aegean and Eastern Mediterranean. Some of these actors – such as the Dorians and the ‘Sea Peoples’ – have often been cast as the architects of this disintegration. In the context of central Anatolia, as noted in Section 2.2.5., the people who settled there, having moved from south-eastern Europe, fall under the ethnonym of Phrygians, who went on to found a powerful polity with Gordion as its centre. The impetus for the migrationist view is ultimately derived from Herodotus, who states:

οἱ δὲ Φρύγες, ὡς Μακεδόνες λέγουσι, ἐκαλέοντο Βρίγες χρόνον ὅσον Εὐρωπήιοι ἐόντες σύνοικοι ἦσαν Μακεδόσι, μεταβάντες δὲ ἐς τὴν Ἀσίην ἅμα τῇ χώρῃ καὶ τὸ ὀνόμα μετέβαλον ἐς Φρύγας.

---

157 E.g. Drews 1993b: 63; Cline & O’Connor 2003; Hitchcock 2013. The literature on this topic is substantial, particularly regarding the Sea Peoples, the perspectives on whom have been considerably revised and expanded in the past decade.

158 E.g. papers in Tuna et al. (eds.) 1998; Manoledakis 2016.

159 Voigt & Henrickson 2000a, 2000b; Sams 2011: 606.
The Phrygians, as the Macedonians say, called themselves “Bryges” at a time when they dwelt in Europe and were neighbours of the Macedonians; they changed their name to “Phrygians” at the time of their crossing into Asia.\(^{160}\)

In the context of the arrival of Phrygian and Phrygian speakers in Anatolia, it has been supposed that the landscape became largely depopulated following the end of the Bronze Age, allowing for the vacuum to be filled by new populations.\(^{161}\) This also carries with it the assumption that the migration was large scale. This is in tandem with narratives that have portrayed Anatolia as a bridge between Europe and the Near East, whereby cultural innovations have tended to accompany population movements, rather than be ‘indigenous’ to Anatolia itself.\(^{162}\)

What is often overlooked is that Herodotus is reporting a narrative circulating among groups inhabiting northern Greece in the classical period, as opposed to Anatolian evidence, which in itself should suffice to invoke scholarly scepticism. Herodotus himself does not express endorsement (or a lack of) of this narrative, which is also significant, particularly in the light of the fact that contradictory evidence concerning their origins is presented in the Histories.\(^{163}\)

Nevertheless, the preference for the migration narrative has led to its treatment as a ‘condition’\(^{164}\) that has allowed scholars to pursue other interpretative frameworks concerning the Phrygians in central Anatolia. One outcome of the philologically influenced interpretations is that they imply the movement of a single, seemingly

\(^{160}\) Hdt.7.73. Translation is my own.


\(^{163}\) See Drews 1993a, who highlights the conflicting narratives of autochthony versus migration. Xanthus the Lydian, a contemporary of Herodotus whose work survives in fragments and summaries by later authors, is the only other known early source which discusses the Phrygians and favours a migrationist perspective (Strabo.14.29). In contrast, the Iliad (2.862-63) seems to imply a western Anatolian origin for the Phrygians, grouping them with the Mysians, Maeonians (Lydians), Carians and Lycians.

\(^{164}\) Burmeister 2000: 539.
homogenous ethnic group, which severely downplays the complexity of notions of ethnicity in the past, and the multi-ethnic and multi-cultural nature of Anatolia in the Bronze Age. This also invokes colonialist views of the European Phrygians ‘conquering’ a sparsely inhabited landscape and creating the conditions for civilisation. The historical evidence on the Phrygians is also fundamentally external to them, and removed in time and space from the events and processes it discusses, which, in the absence of Phrygian perspectives, limits its value.

In terms of archaeological evidence, the role of Gordion has been an important one in the context of bolstering the migration narratives. Excavations of the EIA levels at the site showed considerable changes in architecture and pottery, which was characterized as having affinity with material from Turkish Thrace and Bulgaria. More recent work at Gordion on the archaeobotanical remains detected some anomalies in the EIA material which have been (tentatively) interpreted as evidence of new arrivals at the site. In the recent publication of the archaeobotanical remains from the EIA levels at the site, N. Miller notes the anomalous presence of einkorn wheat and remains of planks of alder wood not native to Anatolia as possible evidence of new arrivals. Such views have also been applied to explaining the change in ceramic styles (See discussion in Chapter 6). Such views have prominent culture-historical overtones – implying the movement of a single, seemingly homogenous ethnic group into a relatively empty landscape, accounting for archaeological evidence of change. It demonstrates that people moved, but does not consider the implications of this process.

---

165 Emberling 1997; Jones 1997; Curta 2005.
167 Miller 2010: 69.
168 Van Dommelen 2014: 478.
169 Van Dommelen 2014: 479.
Recent debates in scholarship on migration have emphasized the necessity of developing models accounting for time and context dependent phenomena,\textsuperscript{170} rather than general models to be imposed on archaeological data \textit{post facto}. This seeks to bypass culture-historical perspectives on the movement of particular kinds of material culture and puts the focus on several questions that arise from treating migration as a process to be examined in its own right, and the implications it carries for social and cultural change.

For the most part, recent debate has turned in favour of archaeologically motivated interpretation, in which migrationist perspectives have been downplayed or eschewed.\textsuperscript{171} M. Voigt, following the excavation of secure EIA levels at Gordion, has qualified earlier view by positing the possibility of several movements.\textsuperscript{172} M. Vassileva proposes the idea of a more complex cultural \textit{koine} in a geography encompassing north-west Anatolia and south-eastern Europe, stemming from an amalgam of Balkan and Anatolian elements, which were part of more intricate movements at the end of the LBA and into the EIA, calling it a “Thracian-Phrygian cultural zone.”\textsuperscript{173}

However, Gordion may present a particular set of conditions which we should be wary of generalizing to larger tracts of post-Bronze Age central Anatolia. If a Phrygian migration from south-eastern Europe took place, we would expect some evidence of seemingly intrusive populations in north-western Anatolia. However, settlement in this broad region during the LBA-EIA is quite sparse,\textsuperscript{174} leaving little with which to corroborate the narrative of migration. Likewise, the picture of the Sakarya region in the LBA and EIA is quite low resolution. The paucity of excavated sites and well-defined artefact assemblages dating to these periods preclude

\textsuperscript{171} Genz 2003b: 85-88; Killebrew 2005: 46, note 8; Strobel 2008: 200-01.
\textsuperscript{172} Voigt & Henrickson 2000a: 46.
discussions of the degree of continuity versus change that took place during this period.\textsuperscript{175} However, there several multi-period höyüks (settlement mounds built up over centuries of habitation) in the region, and investigation of them may yield further information to clarify the impression of the EIA and possibly the temporality of some of these processes.\textsuperscript{176}

Recent work has emphasized intra-Anatolian movements following the end of the LBA which may also be grouped within the migratory category. Work at Kaman-Kalehöyük has suggested that there may have been a northward movement of people from Cilicia into the Kızılirmak basin, evinced through strong material culture parallels.\textsuperscript{177} Discussions in connection to the abandonment of Boğazköy suggest the possibility of population movements from the Pontic zone.\textsuperscript{178} As discussed in Section 2.2.2., the movement of relatively small groups, in this instance members of the Hittite royal family. This denotes the potential significance of smaller-scale processes that took place over an extended period of time,\textsuperscript{179} and ideas relating to ‘scales of movement’, which are more critical of contextual conditions and the resulting motivators for movement.

Nevertheless, the paradigm of the Phrygian migration has played an important role in the cast of central Anatolia, and the arrival of the Phrygians from Europe has been concomitant with the foundation of a political entity implicating a wide territory during the 10th-8th centuries BCE. This perspective has played into notions that a Phrygian state appeared with the arrival of the Phrygians themselves, as a kind of

\textsuperscript{175} In comparison, the Chalcolithic and EBA are relatively well-defined, see, for example, Efe 2003 and Sari 2013.
\textsuperscript{176} Anderson 2010, unpublished manuscript; Niewöhner \textit{et al.} 2013: 101. A banded pedestal base vessel from Aktepe (Niewöhner \textit{et al.} 2013: Fig.11) appears to have some similarity to EIA examples found at Çaltılar Höyük in south-west Anatolia, which have been dated to the 10th-9th centuries BCE (Momigliano \textit{et al.} 2011: 85-86, Fig. 24). Pedestal base vessels are common at MIA Gordion though their affinity with the Aktepe examples has not been ascertained.
\textsuperscript{177} Matsumura 2005: 503.
\textsuperscript{178} Strobel 2008: 200-01.
\textsuperscript{179} Burmeister 2000: 540.
*deus ex machina* taking the region out of a ‘dark age’ and setting it onto the path of civilization,\(^{180}\) and the historically attested perspectives of political organization. In addition, the status of the Phrygians as ‘European’, being speakers of a language related to Greek, has also arguably played into unspoken colonialist, and even orientalist, notions as the west bringing cultural advancement to the east.\(^{181}\)

### 2.5.4. Phrygia as a State

Interestingly, there has been little direct engagement with problematizing interpretations of the socio-political developments associated with the notion of Phrygia as the preeminent socio-political entity in central Anatolia. The most recent published report on the fieldwork activities at Gordion continue to present a map of Phrygia in control over much of central and north-western Anatolia,\(^{182}\) giving the impression of a substantial territorial entity.

Recent perspectives continue to consider Phrygia as a powerful state to be a scholarly *fait accompli*, encapsulated in E.-M. Wittke’s statement that ‘as a rule, Phrygia is mentioned in research as an “empire”… Gordion is supposed to be the capital’.\(^{183}\) Many of the arguments supporting this revolve around citing the production and economic capacity of Gordion,\(^ {184}\) the ability of its rulers to initiate large infrastructural projects,\(^ {185}\) and the presence of burial tumuli in the immediate landscape.\(^ {186}\) These are two factors frequently cited as indicators for unambiguous state-level organization. Consequently, Phrygia has come to be understood as a

---

\(^{182}\) Rose 2017: Fig.1.  
\(^{183}\) Wittke 2007: 335. See also Miller *et al.* 2009: 916; Gunter 2012: 798.  
\(^{184}\) Voigt & Henrickson 2000a: 37, 52. Berndt-Ersöz 2012: 25  
\(^{186}\) Liebhart *et al.* 2016.
state,\textsuperscript{187} kingdom\textsuperscript{188} or empire,\textsuperscript{189} with the terms often being used interchangeably, and built on the migration theories and historical evidence discussed above.

Thus, some commonly agreed upon and archaeologically definable markers are used for determining statehood,\textsuperscript{190} which include social stratification; urbanization; centralization of production; elaborated craft specialization; literacy; monumental building projects; organized warfare; maintenance of long-distance interactions; and creation of ideology to support such a system. While several of these may be deduced from the archaeological remains at Gordion itself, others are less evident, which leads to questions on the nature and processes involved in social and political organization, and what this holds for notions of statehood (see discussion in the following chapter and Chapter 10).

In some instances, scholars have intimated that authority in Phrygia was concentrated within a single individual,\textsuperscript{191} a view that stems from western European political discourse on the kingly body as the focus focal point for political power.\textsuperscript{192} The frequent evocations of Midas as the great king of Phrygia, further supported by evidence from Greco-Roman and Assyrian texts,\textsuperscript{193} reinforces this narrative. This also predates the necessity for the existence of a hierarchical system, in which the complex economy and infrastructural projects of Gordion in the 9th century BCE would be seemingly impossible without a top-down system of control. This interpretation has been somewhat weakened by recent studies in ceramic


\textsuperscript{189} Rose 2012: 1.

\textsuperscript{190} E.g. Peebles & Kus 1977; Flannery 1998; Marcus & Feinman 1998: 5-7; Matthews 2003: 95-96; Maisels 2010: 15.

\textsuperscript{191} Sams 2012: 53.

\textsuperscript{192} Smith 2015: 65.

\textsuperscript{193} Berndt-Ersöz 2008.
petrography, drawing on material from Gordion. Though mainly finer ware pottery was sampled for the study, the results suggest that production took place in the wider landscape up to 20km away from Gordion itself over the course of the MIA to the Hellenistic period.\textsuperscript{194}

On the other hand, the production of textiles and brewing of alcohol on the main mound may suggest a more implicit interest on the part of a ruling body in directing these two aspects of production. In looking at these examples, it may be seen that, by the end of the 9th century, political management of different aspects of the economy at Gordion was far from absolute, but rather selective in its emphasis practices which demanded political focus, according to perceived cultural and social needs. However, this also raises the problem of whether geographic dispersal of these activities and their not being subject to political control are co-extensive.\textsuperscript{195}

This perspective is also top-down, where the \textit{a priori} existence of ‘elites’ predicates issues of control and coercion for economic gain as something inseparable from the construction of political authority. Thus, most interest in detecting political formation in the archaeological record has been directed towards finding evidence that allows confirmation of what kind of ‘type’ they conform to, rather than what the processes of ‘doing’ are (see further discussion in the following chapter).\textsuperscript{196}

In considering the wider geography, whether it is possible to translate the workings of Gordion as indicating a wider geographic domination is less certain.\textsuperscript{197} Indeed, it is never discussed what this would entail in practical terms. As has been outlined in

\textsuperscript{194} Grave \textit{et al.} 2009: 2171.
\textsuperscript{195} Brumfiel 1995: 127.
\textsuperscript{196} Smith 2011: 419. The emphasis on production and economics stem from Marxist perspectives where economic considerations are a drive for political formation, putting forward the notion of economic, and thus, historical determinism in the development of social complexity.
\textsuperscript{197} Roller 2011: 562. The argumentation in this paper is somewhat problematic in that the view that Gordion was the centre of a Phrygian state is espoused, yet the way in which this translates to landscape control is not clear, as argumentation for the existence of a Phrygian state is usually predicated by the presence of extended territorial control.
other scholarship, geographical distance from a presumed centre has an adverse effect on authority,\textsuperscript{198} and the nature of extended spatial control has never been problematized in the context of central Anatolia. Interpretations have usually been couched in culture-historical terms, such as the geographical extent of MIA grey ware ceramics has been assumed to demonstrate seemingly passive acceptance of Phrygian culture,\textsuperscript{199} as well other constituents, such as cultic installations and Phrygian language inscriptions.

To that end, my intention is to focus on processes implicating material resources and accompanying practices to discuss the workings of political authority as a process. These ideas seek to bypass the pitfalls of ethnic and cultural labelling, as well as regarding statehood as constituting a series of \textit{a priori} categories to which the classification would conform. In discussing a selection of theoretical framework in the following chapter, I shall delve further into this issue and formulate the framework I intend to use for interpreting the EIA-MIA archaeology of Gordion and Çadir Höyük.

\textsuperscript{198} Stein 1998, 1999: 44ff; Glatz & Ploudre 2011: 36.
\textsuperscript{199} Summers 1994, 2008.
CHAPTER 3. INTERPRETING POLITICS, AUTHORITY AND POWER - THEORETICAL APPROACHES

3.1. Introduction

Discussions of socio-political developments in ancient societies, falling under categories such as kingdoms, empires, states and polities (terms which are often used interchangeably), have been part of debates in archaeology since the discipline’s early days and continue to foster extensive discussion. As a lynchpin for modern social organization, the literature examining political organization in the ancient world is considerable.

Early scholarship on statehood often had a teleological overtone, looking to the past in order to understand the way in which modern socio-political conditions came about, while recent approaches have focused on problematizing the terminology such as ‘state’, stressing of time and contextual processes governing political practice, and even so far as ‘reverse engineering’ accepted terminology and interpretative paradigms.¹

First, I shall begin by discussing the term ‘state’ in its modern conceptions and the way in which this has created an umbrella under which several different views on the genesis, workings and characteristics of state entities. In the context of this, I shall discuss a selection of theoretical models which have provided archaeology with means for interpreting ancient states. I shall use the term ‘state’ in this discussion as it is comparatively more neutral than ‘kingdom’ or ‘empire’ and encompasses different kinds of political organization.

¹ Smith 2015.
The chapter will conclude with the interpretative approach I intend to use in discussing Gordion and Çadir Höyük, drawing on recent approaches in discussing ‘political authority’, a focus on process rather than entity, and the way in which this is applicable to the particular dynamics of central Anatolia in the EIA-MIA period.

3.2. The State as Socio-Political Organization – Modern Conceptions

The adage ‘you know it when you see it’ may well be applied to thinking about the state as an entity governing socio-political organization. Often vaguely referred to as ‘an ultimate point of reference for political practice’, attempts to define the state have viewed it as an entity beyond society, denoting the separation in the disciplinary treatments via political and sociological studies respectively. The state cannot be seen directly as a tangible entity, but its workings and outcomes surround and affect our everyday lives. Much of the discourse also functions on the premise of reconciling the relationship between those who exercise political power/authority (individuals and/or social groups); the state as an abstract entity; and the populace being subject to, consuming, and negotiating the exercises of political power/authority and the presentation of the state as an entity.

Despite this seeming conundrum, the character of simultaneously real and unreal affords ways of thinking about state apparatus which bridge material and abstract means for discussing its genesis, workings and transformation. Archaeology and history are therefore aptly poised to engage in such a

---

4 Remains plural as it comes from a 4th declension (u-stem) noun in Latin.
discussion, and my focus in this thesis is a material culture perspective informing interpretation on socio-political organization.

The English noun ‘state’ comes – via French – from the Latin *status*. The latter word refers to a manner of standing and posture, ranging from physical attributes to condition and (social) circumstances, whether pertaining to individuals or society and government. The basic meaning of ‘state’ shares several of these attributes: the particular combination of circumstances/attributes associated with persons or things at a point in time.\(^5\) This predicated the notion that a state is not necessarily a permanent thing but subject to transformation, with each ‘state’ representing a temporally contingent set of material and ideological conditions.\(^6\)

Indeed, if we examine the vocabulary associated with political power and statehood in different cultures and periods – such as *imperium* and *res publica* in the Roman world,\(^7\) *polis* in Archaic and Classical Greece,\(^8\) and *xšaqa* in Achaemenid Persia (see discussion in Section 3.5.) – gives some insight into the complex nature of the workings and perceptions of states. What all of these terms share in common is their embracing of material and abstract constituents as vital to the cultural conceptions, production and maintenance of statehood, which I shall discuss further in Section 3.5.

Modern western conceptions of statehood and exercising of political power have their roots in Renaissance and Enlightenment discourse.\(^9\) In the former, N. Machiavelli’s *The Prince* is one of the principal discourses on the topic in early

---


\(^7\) Mattingly 2011.

\(^8\) Osborne 2009. The Greek world has further complexities in the form of *ethnos* (federal) states, which have a different structure to *poleis*.

modern continental Europe. The addressee of the work is a hypothetical sovereign figure (a position acquired either through heredity or one’s elevation to status brought about by the backing of fellow citizens) tasked with exercising rule – as an end unto itself – from the apex of a political edifice. According to Machiavelli, the combination of playing off factions against one another, creation of alliances, and enacting calculated balance of magnanimity and violence are all permissible and, indeed, desirable, in the acquisition and maintenance of power.\(^{10}\)

Machiavelli’s work is notable (particularly in its time) for its dispensing with theological morality and metaphysical ideals on statehood,\(^{11}\) pursuing instead emphasis on maintaining equilibrium between actual social factions and institutions,\(^{12}\) making *The Prince* an important forerunner of contemporary notions of *realpolitik*.\(^{13}\) Though it is not made explicit in the work by the Machiavelli, the underpinnings of processes enacted to gain political power by actors are bound up in employing a diversity of such strategies and resources at their disposal.

Key Enlightenment texts on statehood include T. Hobbes’ *Leviathan* and J.-J. Rousseau’s *Discourse on the Origins of Inequality*. Hobbes discusses the concept of the commonwealth, in which the individual renounces self-governance to a higher, authority-bearing institution (at whose summit is a sovereign figure) whose function is tasked with government, implementation and maintenance of law and order.\(^{14}\) Rousseau’s work deals with the question of whether social

---

\(^{10}\) Machiavelli 1976: 159ff, 173.

\(^{11}\) Service 1975: 23.


\(^{13}\) Yates 2001: 367.

\(^{14}\) Rogers 2010.
inequality is predicated by natural or socially constructed laws, leading him to view human evolution as co-extensive with the rise of increased inequality.¹⁵

A common thread in the treatises of Machiavelli, Hobbes and Rousseau is their characterization of the state as a substantial superstructure built on asymmetrical relationships.¹⁶ This notion has been further elaborated upon in the writings of K. Marx and F. Engels, who also saw the (capitalist) state, headed by a ruling class, as an entity that exploits labour through the accumulation of surplus and protects itself by means of property rights.¹⁷

Marxist views have been quite popular in archaeology, particularly via the work of M. Weber, who further elaborated Marx’s thinking on states, devoting attention to processes involved in their emergence, character and maintenance.¹⁸ This stems primarily from Weber’s own interest in economic theory and its applicability to studying ancient societies such as Mesopotamia, Egypt, Israel, Greece and Rome.¹⁹ The most prominent early exponent of Marxist theory in archaeology was V. G. Childe,²⁰ followed by other scholars since.²¹ One of the most recent treatments has been by B. Routledge, who has made use of Italian Marxist philosopher Antonio Gramsci’s ideas for interpreting political organization in antiquity (see Section 3.5.).²²

¹⁵ Rousseau 1984.
¹⁶ While many have written on the subject of states and power relations between the Enlightenment and Marx, in the interests of brevity, I shall pass over these discussions. See, for example, Jessop 2007, Dillon 2010.
¹⁸ Anter 2015.
²⁰ Childe 1950.
What this selection of perspectives on the state (and much political philosophy) has in common is a distinct lack of focus on ‘the object matter of political life’, the material culture and conditions that are arguably instrumental in the production and maintenance of different political conditions. Rather, their focus is on the direction and degree of limitation of individual human action, as prescribed by the authority invested in and exerted by the state.

Thus, (political) power has been frequently associated with the capacity of groups or individuals to direct and advance their interests. In focusing on the human capacity for action, there has been less consideration of the means, particularly the material, which were actively used in developing and maintaining political influence. This has also been the case for several approaches used in archaeology, though, as I shall discuss in the ensuing sections of this chapter (particularly in Section 3.6.), a turn towards considering the material record has come to the forefront of several strands of study dealing with the political apparatus of ancient state entities.

3.3. Socio-Political Development through the Lens of Archaeology

A. T. Smith writes that ‘…the State has afforded us conceptual cover for typological debate and varied emplotments of metahistorical schema…’, making it a convenient term that embodies the complexity, contestuality, and contradictions involved in the making and maintenance of socio-political institutions. Indeed, scholars have also noted the way in which archaeological frameworks for discussions of ancient states have been coloured by modern

---

24 Bawden 2004: 118.
western conceptions of state and politics,\textsuperscript{26} which will be seen in some examples I shall discuss below.

However, at its most simple, a state may be seen as a palimpsest of attributes, conditions and attitudes constituting a degree of order, subject to transformation through the effect of internal and external dynamics. The aptitude of archaeology at interpreting longue durée processes lends it well to examining how such conditions, attributes and attitudes constituting states come about, are maintained, and transformed by way of the material record.

In the following section, I shall discuss some theoretical frameworks which have been applied in archaeology to discussing the characteristics and conditions governing state entities. The models I have outlined above discuss the state as a seemingly bounded entity, yet it is clear historically that states do not exist within a vacuum. Internal and external factors play a role, further exacerbating the transformative aspects which bring about different conditions of and attributes characterizing socio-political organization through time. The extent to which this is acknowledged in archaeological and anthropological literature on socio-political organization will be illustrated in the following section. The models I discuss fall broadly into three categories: independent, dependent, and interdependent, in terms of the way they view socio-political development.

3.3.1. Independent Development: Evolutionism and Neo-Evolutionism

The application of evolutionist and neo-evolutionist perspectives on socio-political organization in archaeology came about with an increased interest examining factors which propelled social and political developments as a

\textsuperscript{26} Smith 2003: 34.
response against culture-historical perspectives, which viewed social and political change as stemming from external factors. The earliest discourse on evolution came in the 19th century with the advent of a deeper awareness of human prehistory and the accumulation of colonialist encounters in the Americas, Polynesia and Australasia. One key issue evolutionist thinkers faced was the differences in the rates of developments between discrete societies – some changed rapidly, while others were relatively static for millennia.27 This became conjoined with ideas of biological difference between human populations, leading to qualitative ruminations on the base of race/ethnicity in the context of social and cultural evolution.

The perspective posits the view that societies evolved from simple to complex, and in tandem with the imperialist ideology of the age, propagated the view that Europeans were appropriately fitted to rule over societies which were viewed as comparably lacking in complexity.28 These views were augmented by the work of C. Darwin, whose ideas on biological evolution in stressing patterns of random variation and adaptation, where the process of natural selection resulted not only in cultural differences in human groups, but also in their biological capacity to make use of culture,29 played an influential role on archaeological thinking. Such ideas had wider social currency in the 19th century, having been used to explain and validate contemporary class systems, colonialist enterprise and gender roles assigned according to differences in biology.30 In essence, these approaches were interested in accounting for the origins and development of contemporary European nation states, and archaeology became a means by which evidence could be marshalled to demonstrate these assertions.

The ideas expressed by Darwinist thinking in the 19th century had considerable influence on ideas concerning social and cultural evolution in the New Archaeology. One of the main tenets of the processualist school was the importance of recognizing culture’s continual adaptation to the environment, which results in changes visible in the archaeological record. Culture was seen as an adaptive mechanism, and archaeology’s capacity in examining the long-term became key in tracing the process through which this adaptation took place.

In terms of socio-political organization culminating in the development of the state, cultural processes came to be defined as stages which societies would undergo. This perspective constitutes the main tenet of the neo-evolutionist framework, originally proposed by M. Sahlins and E. R. Service on the basis of ethnographic work. In essence, they proposed that society moves progressively in the following fashion: band > tribe > chiefdom > state, in a manner that is definable across time and space. Each stage is defined by a series of attributes societies are considered to have borne.

<table>
<thead>
<tr>
<th>Band</th>
<th>Tribe</th>
<th>Chiefdom</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local autonomy.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intermittent informal leadership.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

31 Binford 1964.
33 Sahlins & Service (eds.) 1960; Service 1962, 1975; Flannery 1972: Fig.1; Routledge 2014: 9-10.
The detection of markers for complexity in the table above has led to the creation of ‘check-lists’ through which such development is defined, and a linear process which societies undergo in order to reach each stage. As in the case of earlier evolutionist models, the developments that took place were perceived as relatively independent of one another, despite the seemingly similar cultural features they exhibited at each evolutionary stage. Thus, the developments in discrete regions such as Egypt, Mesopotamia, China and Mesoamerica were perceived as having a similar ‘running sheet’ for social and political development independent of one another.

The state, according to Service, is characterized by a formalized edifice of civil law and government, distinguished through their institutionalized character. For Service, government is a necessity that came about to manage communities as they increased in size and proliferated in terms of their institutions. In addition, the neo-evolutionist perspective has also tended to focus on large-scale dynamics of state entities, which is arguably symptomatic of contemporary western political discourse of perceiving states as seemingly monolithic (and stable) entities.

As has been pointed out recently in critical scholarship, neo-evolutionist perspectives have had a masking effect on the fraught nature of the processes involved in progressive increase in social complexity, particularly in terms of sustaining specific kinds of social discourse that allows the maintenance of certain practices associated with the state apparatus. Thus, neo-evolutionist perspectives have had a masking effect on the fraught nature of the processes involved in progressive increase in social complexity, particularly in terms of sustaining specific kinds of social discourse that allows the maintenance of certain practices associated with the state apparatus. Thus, neo-evolutionist perspectives have had a masking effect on the fraught nature of the processes involved in progressive increase in social complexity, particularly in terms of sustaining specific kinds of social discourse that allows the maintenance of certain practices associated with the state apparatus.

---

34 Service 1975: 5, 7.
35 Service 1975: Table 1.
perspectives have undergone extensive critique, primarily on the basis of the fact that one size does not fit all in the inherently multivalent quality of the past in different contexts, and the generally essentialist quality of the framework. The means of categorization have therefore been perceived as ahistorical in their application, without fully considering the temporal and contextual dynamics of particular cultures. A number of critiques have stemmed from the adoption of sociological perspectives, such as those of A. Giddens, which stress the role of human agency in the perpetuation and transformation of cultural precepts, rather than a purely adaptive response to the environment as being the prime driver of cultural change.

Despite the sometimes strident critique, the approach has continued to have currency, through varying degrees of revision. N. Yoffee’s work on early Mesopotamian city-states continues to make use of the broad concept of the model, while putting more emphasis on transformational capacities of these entities. Other examples include the notion of ‘evolution without stages’, which puts forward the idea that the institutions making up societies be used as the means for documenting change, rather than the use of a priori categories with which archaeological evidence is presented as conforming.

Similar attempts to move away from a pre-figured typology are evinced in the concept of ‘evolution of cooperation’, revolving around conceptualizing the emergence of statehood as an amalgam of actions between groups and individuals which act cooperate at increasingly more intricate levels of social organization accompanying rises in demography, and proliferation of

---

41 Pauketat 2007: 54.
42 Giddens 1984.
43 Carneiro 2003; Marcus 2008; Stanish & Levine 2011.
45 Marcus & Flannery 1996.
specialization and hierarchical elaboration. Yet, some of these approaches are still reliant on detecting particular categorical markers in ancient societies, which illustrate pre-conceived notions of complexity, and, therein, contention with the problem implied teleology.

3.3.2. Dependent Development: World-Systems Theory and Secondary State Formation

The world-systems approach became prominent in the 1970s with the work of I. Wallerstein, whose primary interest was understanding the beginnings of European capitalist systems on a global scale, beginning in the 16th century CE. Essentially, the framework relies on the presence of an economic system in which discrete cultural and political entities are implicated. The adoption of the framework in archaeology shows in part culture-historical and diffusionist models prevalent prior to the 1960s. With the advent of New Archaeology, greater interest was accorded to interpreting the development of cultures as a product of their contexts and environments, subject to an evolutionary progression accounting for change though time. Systems thinking therefore contributed towards emphasizing the compartmentalized character of cultures.

The essence of the world-systems framework is predicated upon the existence of economic entities. The processes involved in economic organization give rise to systems, which, if combined with a relatively coherent political system, gives rise entities that may be characterized as states, empires and the like. Thus, world-systems approach professes scepticism towards a priori existence of states and empires, stressing rather the constituent forces – such as economic

---

46 Stanish & Levine 2011.
47 Ur 2016: 487.
48 Wallerstein 1974a, 1974b, 2004; Wallerstein et al. 1987. See also Sherratt 2010 for a good overview of the use of the framework in archaeology.
50 Wallerstein 2004: 16.
organization and modes of production – that make up larger entities, which are connected with one another. Accordingly, entities which are discrete culturally, ethnically and ideologically may be connected with one another\(^{51}\) by virtue of economic interests, as is exemplified by contemporary capitalism.

The workings of a world-system are predicated upon asymmetrical relations between political/economic entities, based on their relative political and economic power.\(^{52}\) This asymmetry is expressed through the use of the terms ‘core’ and ‘periphery’. Cores tend act as monopolistic focal points for control of production and production itself.\(^{53}\) Peripheries, in contrast are characterized as less capable of exerting control over modes of production and economy, resulting in a flow of products from peripheries to cores.\(^{54}\) One outcome resulting from the interaction between cores and peripheries is what has been called secondary state formation,\(^{55}\) whereby the influx of goods and ideas from the former to the latter brings about a shift in the latter’s socio-political character and organization.

The world-systems framework has seen wide-ranging use, from understanding the Uruk expansion in the 4th millennium BCE Mesopotamia, the LBA Mediterranean,\(^{56}\) to the workings of the Ottoman Empire and its increasing engagement with a wider European economy from the 16th century CE onwards.\(^{57}\) Therefore, despite the seeming focus of the framework on economics, it is also bound up within the workings of statehood and political authority, for the function of such systems is predicated upon the existence of state entities.

\(^{51}\) Wallerstein 2004: 23.
\(^{54}\) Wallerstein 2004: 28.
\(^{55}\) E.g. Joffe 2002.
\(^{56}\) Papadimitriou & Kriga 2013.
\(^{57}\) Wallerstein 1979; Wallerstein \textit{et al.} 1987; Fenwick 2013.
As noted, the framework has been prominently applied to interpretations of the so-called ‘Uruk phenomenon’ – the spread of southern Mesopotamian cultural constituents northwards, as far as the upper Euphrates and Tigris River basins. In considering south Mesopotamia’s poverty in resources required to sustain complex societies, such as timber, metals and other prestige goods, the city-states in the region engaged in colonializing enterprises or the setting up of enclaves in non-local settlements to facilitate the acquisition of these resources.\(^5\) This resulted in the spread of southern Mesopotamian material culture such as coarseware pottery, glyptic technology and architecture to the aforementioned regions in Anatolia, among others.

Interpretations of the Uruk system highlight one key issue of core/periphery model: as presupposing an asymmetrical relationship between the latter and the former, which may be also interpreted as a colonialist enterprise. It assumes that information from the core, such as modes for socio-political organization, are subject to seemingly passive willingness in adoption by communities of a periphery.

Further critiques of the world-systems framework as applied to the Uruk phenomenon have highlighted its generalizing tendency, big picture discussion stemming from processual archaeology, a focus on growth and collapse of state entities, and minimal focus on people as actors, but rather respondents to larger forces and external stimuli.\(^5\) Material culture is presented as moving about largely of its own accord, or directed from a distance by ‘self-aggrandising individuals or factions’.\(^6\)

\(^6\) Algaze 2001: 201.
Another well-known work inspired by systems thinking is the C. Renfrew’s *The Emergence of Civilisation*. In the work, Renfrew focuses on the prehistoric Aegean, treating it as an ‘analytical island’ – an independent system in which the characteristics of the respective Aegean islands are grouped into a single pan-Aegean entity. The Aegean is accordingly presented as autonomous: its cultural, economic and technological developments did not arise from external influences. Indeed, Renfrew’s model also shows influence of evolutionist thinking in considering the Aegean as moving through stages of socio-political and cultural development.

Consequently, with the world-systems framework being economic in its analytical outlook, it is also bound up within the workings of statehood, as the function of such systems is predicated upon the existence of state entities. As in the case of the problems associated with evolutionist thinking, which takes as its basis *a priori* assumptions of stages on socio-political development, the use of world-systems frameworks in archaeology has often assumed somewhat absolute in discussing socio-political asymmetry and definitions of cores and peripheries. Wallerstein himself has cautioned that the world-systems approach he advocates is particularly suited to interpreting the nascent capitalist world-economy of early modern Europe; its relevance to interpreting prehistoric societies, for example, would require modification or an alternative framework.

3.3.3. Interdependent Development: Networks, Heterarchies and Peer-Polity Interaction

One outcome of the critique of systems thinking was the development of frameworks that emphasized heterarchic socio-political organization, in a bid

---

61 Renfrew 1972.
to provide an alternative to models that implied asymmetrical, top-down relationships between discrete entities, rather than an overarching system being in charge of several dependencies. The intent was also to demonstrate that socio-political entities actively chose and negotiated elements, a view seen in post-colonialist inspired discourse on LBA interactions in the Mediterranean.

Discourse on heterarchy originally grew out of systems thinking, with an emphasis competition, instability and conflict as factors which can lead to socio-political transformations. Heterarchies are therefore horizontally integrative structures, which, despite having their own respective hierarchies, do not absorb others into a unified system of one dominating several. Political authority is pluricentric, dispersed, and varying in power according context-specific dynamics. The peer-polity interaction model, formalized in the 1980s and built on heterarchy inspired thinking, and is based on the premise of the existence of several autonomous socio-political units which engage in a variety of interactions, such as trade, warfare, emulation and competition, with these factors affecting their character and development.

The peer-polity model has been an important framework the understanding of the formation and dynamics of the Minoan ‘palaces’ that emerged in the MBA on Crete, but has also seen use in other studies, such as those of early medieval Britain, Mesoamerica, Mesopotamia, Iron Age western Europe, and Greek poleis.

---

66 Maisels 2010: 16.
69 Cherry 1986; Schoep 2002a, 2002b; Schoep et al. (eds.) 2012.
70 Renfrew & Cherry (eds.) 1986.
Another volume which discusses this topic is *Heterarchy and the Analysis of Complex Societies*, a special issue in the *Archaeological Papers of the American Anthropological Association* journal. C. Crumley views heterarchy as a way of relating elements which have potential to be ordered in relation to one another in different ways.\(^7\) The relative emphasis put on the discrete elements in respective communities shifts according to changes in interests and values through time, bringing about continuous negotiation over what constitutes political capital.\(^7\)

In terms of developments from the model posited by Renfrew, Crumley advocates the exploration of different modes from which heterarchical relationships may be interpreted – scale, power and value.\(^7\) In highlighting the importance of ‘decision[s] provid[ing] the raw material for later change’,\(^7\) there is greater emphasis on the role of agency as shaping these dynamics. Heterarchy is thus more of ‘a principle for social organization’\(^7\) whose components undergo modification through time depending on the social and political conditions.

Heterarchical frameworks have also been used to interpret the archaeological record in LBA Cyprus. P. Schuster Keswani views the development of polities on the island as better suited to the heterarchical framework to be able to explain the degree of diversity shown by developments of respective settlements in their landscapes, on local and regional scales.\(^7\) She interprets socio-political organization at LBA Enkomi, eastern Cyprus, as fluctuating between centralized and hierarchy and heterarchy by means of the management

\(^7\) Crumley 1995: 3.  
\(^7\) Crumley 1995: 3.  
\(^7\) Crumley 1995: 4.  
\(^7\) Crumley 1995: 4.  
\(^7\) Brumfiel 1995: 129.  
\(^7\) Schuster Keswani 1996: 211.
of metalworking at the site. Though during this period there is increased specialization in this craft, the wide distribution of metal workshops and raw material hoards throughout Enkomi has been used to argue for a lack of centralized political authority which controlled the distribution and made the spatial distribution of materials more concentrated.77

Despite the popularity of the heterarchy model in its eschewing of centralized, top-down perspective on socio-political development,78 one issue of heterarchical systems is their subjection to the problems of neo-evolutionist approaches, in that there is an assumption in the cyclical character of hierarchical characteristics of political control in respective polities.79 In proposing a regional network analysis of Crete (building on the peer-polity interaction model), C. Knappett and I. Schoep argue for a more regionally and temporally nuanced model of looking at socio-political formation in Bronze Age Crete using the concept of political economy, rather than state, to discuss the variations across the island.80 This is viewed in terms of energy investment and costs as being the informants of decisions which drove the developments and consequent variation in scale of the sites.

3.4. A New Approach – Political Authority

While the approaches discussed in the sections above have made important contributions to the studies of ancient political organization, several show their interest in detecting political formation in the archaeological record as finding evidence that allows confirmation what kind of ‘type’ the political formations conform to, rather than what the processes of ‘doing’ are, which create

77 Keswani 1996: 238.
78 Keswani 1995: 216.
79 Keswani 1995: 216.
80 Knappett & Schoep 2012.
conditions for social practices which lead to particular socio-political manifestations.81

Scholars have accordingly made modifications to the models in order to better explain the particular political systems in their studies, which has led to a greater interest in the way in which material culture was implicated within political processes. A. T. Smith, for example, advocates analyses of ‘embodied regimens, rituals, habits, and activities that reproduce, and undo, sovereignty in interactions from the spectacular to the everyday’.82

In taking the basic assumption of the state as made up of practices with time and context specific forms and attributes, I shall follow some common strands in recent scholarship which put emphasis on socio-political organization as something subject to continuous making.83 To that end, I shall use the term ‘political authority’ rather than ‘state’ in discussing processes in central Anatolia during the EIA-MIA, as it brings greater focus on the processes involved, rather than an entity. Therefore, my intention is not to eschew the notion of the ‘state’, but rather focus on aspects which deal with archaeologically detectable social practices that change through time. The notion of ‘state’ tends to emphasize more the idea of a holistic and homogenous entity, particularly in the context of the central Anatolian Iron Age, as discussed in the previous chapter. Consequently, in adopting the idea of political authority as process, my intention to reorient the discussion towards that of social practices and their associated material culture, and the extent to which they became implicated in political workings.

81 Smith 2011: 419.
82 Smith 2011: 419.
83 Notions of process are obliquely hinted at in the philosophical works discussed in Section 3.2., though not explicitly focused on. For example, Machiavelli discusses the importance of maintaining political power through constant enacting of strategy.
In a recent work on theories associated with statehood and archaeology, B. Routledge defines the state as a ‘process embedded in a specific historical bloc that unites (by time/space proximity) a discordant ensemble of social forces and positions’, where force and consent operate in tandem to generate the particular conditions of this social process.\textsuperscript{84} It is constituted of ‘selective and strategic articulation of cultural resources embedded in this ensemble by means of specific intellectual products…that seek to fix their meaning in relation to an overarching moral order or “global” identity’.\textsuperscript{85}

Routledge draws his viewpoint from the Italian Marxist philosopher Antonio Gramsci, whose theories on politics and society sought to demonstrate ways in which state-like structures used material and cultural resources to become an eminent means of mediating social relationships. Hegemony, to use Gramsci’s term, denotes the generation of political authority through the articulation and manipulation of aspects of social experience with which society as a whole can identify. This constitutes Gramsci’s concept of the ‘historical bloc’, a given point in time when relative unity among factors sustaining political authority is achieved.\textsuperscript{86}

Views on process and assembling have been expressed by other scholars, particularly those working in the context of Meso- and South American archaeology. In discussing ‘political power’, some define it as an ability by groups or individuals to set agendas,\textsuperscript{87} which may be seen as an assemblage of material and immaterial resources designed to cement their own socio-political position and promulgate initiatives that implicate a wider array of social groups.

\textsuperscript{84} Routledge 2004: 37.

\textsuperscript{85} Routledge 2004: 37.

\textsuperscript{86} Gramsci 1971: 366, 370.

\textsuperscript{87} Bawden 2004: 118; Maisels 2010: 3.
One of the key tenets to emerge out of the last two decades of discourse in Bronze Age Cretan archaeology is an emphasis in bottom-up perspectives on production, exchange, consumption, administration and ritual. Differences in the distribution of resources in the landscape was rendered into different responses and interactions by communities, leading to respective cultural and political expression – with accompanying contrasts in the archaeological record – that varied through time.

Such perspectives have also made their way into scholarship on political authority in Anatolia itself. In her analysis of the way power was structured and enacted within the Hittite Empire, C. Glatz states that ‘empire is always in the making, and therefore subject to continuous modification’. Thus, while she continues to use the term ‘empire’, Glatz provides an alternative view on the concept – as encompassing a continually developing and fluid entity responding to socio-political circumstances within and without its direct sphere of control. We may talk about ‘empire’, but characterizing the kaleidoscopic character of its workings allows us to better understand the particularities of respective empires. Her analysis uses the distribution and quantitative patterns of plain buff ware pottery, glyptics, and rock-cut monuments in order to think about the differences in hegemonic processes in different areas of Anatolia connected with Hittite political interests.

This may be also seen in recent work by L. Khatchadourian on the Achaemenid Empire. Drawing on the work of A. T. Smith and his framework of sovereignty, her work is largely object oriented, and she develops the framework of the ‘satrapal condition’ as a way of discussing the workings of
material culture in the maintenance of Achaemenid authority. She assigns several categories to objects, each of which have specific roles in the workings of political authority. Following Smith, Khatchadourian also accords object with considerable capability in influencing human action, partly in a bid to overcome the relational problem of subject-object relations and colonialist asymmetry, somewhat downplaying the capacity of human agency.

However, as a partial counterpoint to the emphasis accorded to objects, Khatchadourian’s discussion of the difficult-to-translate Old Persian term xšaça (pronounced ‘h-sha-sra’) offers an insight into conceptions of political authority the Achaemenids had that embraced the real and unreal. The term is interpreted as encompassing abstract and material constituents of rule. Xšaça is constituted in the physical world, and despite having a sublime source, it is mutable, subject to impulses of human intentionality manifested in rebellions and attempts at restoration of rule.

Such a definition of xšaça is an apt metaphor for the way in which material and immaterial come together in a discourse on political authority. Arguably, the Latin imperium and res publica may be viewed in similar ways in the context of political change in Rome, particularly in the transitional period from the Republic to the Principate, in which old concepts were accorded further meanings stemming from new political motivations to give a semblance of continuity from the past, as encapsulated in Augustus’ propagandistic assertions of his restoration of the Republic following decades of turmoil.

---

92 Khatchadourian 2016: 60ff.
93 Khatchadourian 2016: xxix.
94 Endowed by Ahuramazda.
95 Khatchadourian 2016: 4.
96 Res Gestae.1.34.
T. Paulette, in examining Mesopotamian city-states of the 3rd millennium BCE, views states as ‘complex, often fragile, constructions’ with their extent rarely being equivalent to their aspirations. While his work discusses the emergence of states, he cautions that these processes did not necessarily signify a unified, integrationist approach in the workings of society, politics and the economy. He notes that palace and temple institutions sometimes acted antithetically to one another, marshalling other groups within the community. This resulted in systems in which political authority was unevenly distributed across time, social groups and institutions, and the economy. Paulette emphasizes that a significant part of the population in ancient Mesopotamia was outside of the workings of political authority and control, and that Mesopotamia in the 4th-3rd millennia BCE was comprised of several states actively engaged in social practices that contributed towards the formation of state apparatus. However, it is important to differentiate between the integrative and aspirational rhetoric professed by ancient authority figures and the reality – the practicalities and limits of such declarations in direct application, for they are sometimes antithetical to one another.

What is also important to stress in this example is that particular abstract notions of statehood existed and were being elaborated by social groups in respective city-states. One strategy political authority makers in Bronze Age Mesopotamia used was propaganda through drawing on ‘an existing conceptual repertoire, a shared cultural logic or worldview already incorporat[ing] a specific understanding of authority’.

---

97 Paulette 2016: 86. See also Paulette 2015 for an expanded treatment.
99 Paulette 2016: 98.
100 Paulette 2016: 103.
102 Paulette 2016: 97.
Another way of achieving this was channelled in the production and management of grain, and the accompanying labour. Paulette recognizes the problematic character of the term ‘state’, though nevertheless prefers to continue to use it by arguing that time and context specific ideas relating to what we may call statehood were in circulation and used by groups to mobilize society, politics and the economy to promote particular world views.\(^\text{103}\)

Some of these ideas are associated with established definitions of heterarchy (see Section 3.3.3.), particularly C. Crumley’s definition which implies the capacity of a wide array of material or immaterial constituents being implicated within ongoing negotiations of ranking and unranking,\(^\text{104}\) depending on time and context specific values prevalent in communities. Similarly, R. McC. Adams sees the developments of complex communities in Bronze Age Mesopotamia as a palimpsest of context-specific factors, in which political centralization and formalization is one possible outcome of socio-political organization, not a pre-condition towards which all city-states strove,\(^\text{105}\) reiterating the common criticism of neo-evolutionist thinking in archaeology.

A. T. Smith, in discussing socio-political dynamics in the Bronze Age Caucasus, uses the term ‘political sovereignty’,\(^\text{106}\) which he defines as of authority as in a constant state of becoming, punctuated by displays of violence (actual and figurative) aimed at generating conditions for the legitimacy of said authority.\(^\text{107}\)

Thus, sovereignty is focused on the forms of social relations and the way they are constituted in different contexts.\(^\text{108}\) Smith’s work takes a highly materialist approach, in which the objects are afforded considerable power in directing

\(^{103}\) Paulette 2016: 103.
\(^{104}\) Crumley 1995: 4.
\(^{105}\) Adams 2012: 11.
\(^{106}\) Smith 2011: 2015.
\(^{107}\) Smith 2011: 416.
\(^{108}\) Smith 2011: 416.
human action. In noting that material culture has been marginalized in the workings of the political process, he stresses that material culture is manipulated and created through human agency, which sets up a stage for variable dialectics between people and things that result in different socio-political formations. Smith also acknowledges the term’s applicability to what he calls the ‘micropolitics’ of the household, in terms of the way in which the domestic sphere is implicated within perceptions and responses to more complex political apparatus.

To that end, Smith’s concept of ‘political sovereignty’ is most closely allied to the approach I am adopting in terms of its interest on process, and the different means through and scales of society at which political workings may be negotiated. Smith’s interest is determining the way in which social relations (and the material culture implicated therein) constitute structures regardless of scale, though his work has focused predominantly more complex political entities.

Political authority constitutes a set of practices and structures that employ material and immaterial resources in its development. To that end, some form of political authority is always present in societies, regardless of the way it is concentrated and invested – whether within one individual as part of a traditionally conceived pyramidal top-down system, or across a number social groups in order to prevent something like the latter from forming. Authority may also be discontinuous, specifically evoked in response to particular circumstances. Moreover, it may not be necessarily tied to the material record, making it more difficult to detect in cultures and periods which do not boast traditionally conceived markers associated with socio-political complexity.

---

110 Smith 2015: 2.
111 Smith 2015: 11, 50.
113 As has been argued for Ubaid communities in Mesopotamia, see Frangipane 2007.
In the context of the EIA-MIA of central Anatolia, this becomes significant as this period was arguably quite fluid and dynamic following the end of the LBA. This will allow for a stance of communities having fundamental understandings of power and its extent, regardless of form, which, following specific circumstances and impetus, is elaborated and maintained into forms perceived as socially necessary. Which social practices were implicated within these processes depends on context. In this thesis, my intention is to emphasize and examine material processes and practices related to storage practice. The need to store goods over variable periods of time is a significant component of settled society. As storing implicates issues of control, my discussion will examine the way in which changes in storage practices are illustrative of changes in authority in terms of the way control of resources was managed and what this suggests about the shift of the control across different social groups.
CHAPTER 4. CONCEPTUALIZING STORAGE

4.1. Introduction

‘…storage in itself, as a complex process, has been somewhat summarily treated in most contributions on political economy. The main emphasis has been on production, exchange and consumption, with storage seen simply as a stage in the exchange process’.

Our daily lives are surrounded by storage, even though we may not explicitly think about it. The digital age has brought with it proliferation of virtual storage – ever increasing demands are made on the storage capacity of telephones, computers and servers in the quest for the collection and management of information and media. Currently topical issues relating to government and corporate surveillance of private citizens, from retained data of internet searches, has highlighted the significance of the storage and retention of vast quantities of information in order to track and compile information on groups and individuals.

Such enterprises rely on the storage of data in order to facilitate searching and analysis that would allow groups in governments and the corporate sector to formulate initiatives for the purpose of bringing about desired social and political outcomes, whether to serve the needs of a capitalist economy, or to influence decision making with a view to serve civil interests. As this example shows, storage (of information in this instance) can be implicated within political spheres in order to augment political power, depending on the perceived social and political needs and objectives espoused by governments.

1 Christakis 2008: 3.
To that end, storage fundamentally deals with controlling things, control that can be implicated within the workings of political authority.

In the more distant past, storage played a similar role in society – acting as one constituent in which social practices and meanings were framed through control over the collection, retention and distribution of resources. In the preceding chapter, I discussed political authority as a form of practice in which material and immaterial constituents were harnessed by social groups in order to legitimize social order narratives and distribution of power.

In this chapter I shall begin by discussing some definitions of storage, followed by an overview of examples drawn from the Americas, Mediterranean and Near East in which storage of resources has shown demonstrable significance in the developments associated with political authority. I shall also present a brief overview of storage related evidence in Anatolia, taking into account material primarily from the Bronze Age owing to the more plentiful excavated examples. The chapter will conclude with a discussion of the importance of examining storage in the context of the workings of political authority in Iron Age Anatolia.

4.2. Defining Storage

In essence, storage may be viewed as a series of strategies and processes by which people from various scales of society preserve material and immaterial resources for varying lengths of time. It entails decisions surrounding what, when, how and why store something, which leads to such decisions informing practices relating to people’s actions involved in defining (materially and

3 Margomenou 2005: 34.
conceptually) the parameters relating to access and visibility of stored goods. This, in turn has the potential to shape the degrees of social (in)equality in communities; the character of relationships between storage, consumption, and production; the material character of storage through time; and even ideological associations between storage practice and goods being stored. To that end, storage practice implicates and has the potential to bring about different kinds of social organization, as will be demonstrated in the ensuing discussion.

Storage is therefore a mechanism that cuts across social groups, each of which have different degrees of control over the production and management of goods being stored. This is also predicated upon the will to store and accumulate itself, the conceptual connection between the control of foodstuffs, and directing social relationships, amounting to the workings of political authority. In this chapter, I focus on the materially detectable aspects of storage, though I shall preface the discussion of the material constituents by a brief discussion on the immaterial aspects of storage. Arguably, abstract conceptualization informs material outcomes we see in the archaeological record, and, indeed, changes which accompany shifts in socio-political mechanisms.

As noted in the opening quote of this chapter, storage has often been understood as a given in the development of increasingly complex societies in ancient times. These ideas are evident in the work of V. G. Childe, who saw food surplus storage as a key element in the development of complex societies, though he did not focus on storage itself as a nexus for social practice.

---

4 Kuijt 2009.  
6 Other aspects, such as more abstract ones dealing with knowledge, are discussed, by Hendon 2000.  
7 Hendon 2000: 42; Margomenou 2008.  
8 Childe 1951, 1954; Margomenou 2005: 47.
Interpretations such as Childe’s saw storage as a way of maintaining surplus to safeguard against environmental risk, to engage with aspects that see storage as one component in defining social change. As a result, these discussions have focused on the significance of surplus and food production as an important social endeavour, and this, in turn is reflected in developments and changes in socio-political practice. Indeed, some quite recent scholarship continues to view storage (particularly the formalized kind) as a component in the cultural evolution paradigm. In these interpretations, storage has not been presented as direct focus of discussion, but rather as an important yet subordinate constituent which makes possible social and political endeavours.

Storage has played a prominent role as a marker in socio-political developments in the context of theories dealing with social and cultural evolution, some of which I have discussed in Chapter 3. This is further exemplified by the new volume discussing storage as a marker implicated within socio-political development in society, edited by L. Manzanilla and S. Rothman. This volume highlights the connection of storage with evolutionist models of analyzing socio-political development, though attempts to bypass the linear character of neo-evolutionist perspectives through stressing multi-linear pathways to social development, and the short-comings of E. Service’s original model. While the authors acknowledge the importance of contextual and temporal variation in storage practices, they emphasize the presence of general cross-cultural and temporal patterns that allow some degree of evolutionist thinking to inform discussions about storage and political authority.

---

10 Manzanilla & Rothman (eds.) 2016.
11 Manzanilla & Rothman (eds.) 2016.
12 Rothman & Manzanilla 2016: 313.
K. Christakis discusses community storage in early state societies in three-fold terms: as a way of mitigating possible shortages in the event of environmental impact; generating surplus as part of political obligations; and to provide for events involving conspicuous consumption, in which community cohesion would be reasserted.\textsuperscript{14} While the latter is independent of storage practice, the capacity to cater for such events is predicated upon the accumulation and distribution of staple goods, alcohol, and the like, and the way in which this is organized. In terms of the facilities for communal storage themselves, Christakis proposes that they would be relatively large in scale and set apart from architecture that played host to other institutions, such as religious and civic.\textsuperscript{15} However, he argues that many of the suppositions surrounding storage practice, particularly communal storage, have been based on \textit{a priori} hypotheses that did not reflect the archaeological evidence.\textsuperscript{16}

Storage is therefore an ever-changing palimpsest of practices and things involving the manipulation of goods and information in the context of (re)distribution, which change through time and variation in social practices. While the workings of political authority in general are predicated upon a level of control of storage, it has not often been a focal point through which research on power mechanisms in ancient times has been investigated.\textsuperscript{17}

\section*{4.3. Archaeological Research on Storage}

\textsuperscript{14} Christakis 2014: 203.
\textsuperscript{15} Christakis 2014: 204.
\textsuperscript{16} Christakis 2014: 211.
\textsuperscript{17} E.g. in Morris & Scheidel (eds.) 2009, storage is mentioned in passing a handful of times throughout the text. In the recent overview of ancient Anatolia (Steadman & McMahon (eds.) 2011), storage is mentioned throughout the volume, though little detailed discussion is devoted to it, apart from M. Frangipane on Late Chalcolithic Arslantepe and A. Çilingiroğlu on Iron Age Ayanis (see Section 4.4.3.4.). In his discussion of Sumerian agriculture and land management, M. Widell, remarkably, does not discuss storage (Widell 2012).
D. Margomenou, in discussing the material condition of storage remains notes that the ‘limitations in the availability of evidence of storage are also due in part to the particularities of occupation... [and] methodological choices on the part of excavators’. While ample evidence of storage has been unearthed by archaeologists across the Mediterranean and Near East, the interpretation of storage beyond functionalist concerns of mitigating environmental factors and as a sign of social complexity has begun to be a focal point in scholarship relatively recently, and I shall outline a selection of these perspectives in the ensuing discussion. I shall begin with an outline of work done on storage practices in pre-Columbian Americas, followed by research in the Bronze Age Mesopotamia and Crete, followed by an evaluation of evidence from four Anatolian sites dating to the Bronze and Iron Ages.

4.3.1. Storage and Political Authority in Meso- and South American Archaeology

Ideas of storage have been explored at some length in Meso- and South American archaeology, particularly regarding the practice’s contribution towards the formation and maintenance of political apparatus of societies. To that end, the interpretative and methodological literature on storage in the field is quite well developed. Scholars have focused on identifying the range of storage types in the archaeological record; their distribution throughout the landscape; goods stored; and the way in which modifications in storage practice through time were connected to transformations in political authority, particularly in connection to formalized storage apparatus.

19 In the interest of brevity, I shall outline a selection of discussions as the topic has received much attention in different sub-fields of archaeology outside of the Mediterranean and Near East.
Work on earlier periods in South America has also been conducted, such as the Initial Period (ca. 1800-1000 BCE) cultures of Peru. Polities such as the Sechín Alto Complex in central coastal Peru in this period exhibited complex social and political apparatus, which was manifested in increased site hierarchy and differentiation in function; formalized architectural and urban planning; and, of course, control of subsistence strategies. In terms of storage itself, a good example comes from the site of Pampa de las Llamas-Moxeke, consisting of a massive architectural complex (Huaca A) on an elevated mound, composed of 38 rectilinear rooms of varying sizes, based on a modular design imposing highly restricted access and visibility.

Pollen evidence from Huaca A points to a variety of products having been stored, as well as cloth and possibly other valuable goods. Moreover, the function of these structures was not confined exclusively to storage, but likely served administrative purposes (evinced by the presence of cylinder and stamp seals) and, by extension, acted as a referent to political authority. In addition, the Huaca is flanked by a substantial open space (a plaza) to the east, which functioned as a gathering place for large groups, playing host to reinforcing narratives of political authority through public events and ceremonies. Similar complexes of varying scale have been found at other sites in the Sechín Alto Complex. The modular, square room architectural plan has been interpreted as an index of control and political authority, reinforced by the possible presence of additional administrative functions and restrictions in access and visibility.

Another important component relating to the management and storage of goods in pre-Columbian communities of the Andes was instruments used for

---

22 Pozorski & Pozorski 2016: 117.
accounting and information collection. The key device used for this was called a *quipu* (in use ca. 8th-16th century CE, with possible earlier examples\(^{25}\)), strings or yarns punctuated by knots indicating numerical figures attached to a header, which functioned as a mnemonic device for figures.\(^{26}\) A type of abacus, *yupana*, was also used, for more complex quantifications.\(^{27}\)

In the context of discussing the pre-Inca Chimú Culture in Peru (ca. 850-1470 CE). J. Topic argues that the importance of the *quipu* and the *yupana* of accounting is to be viewed in connection with the spatial dimension of storage, enacted via a bureaucratic process. The structures associated with storage at Chimú sites are called *audiencias*, buildings constructed in a u-shape with interior features such as troughs, bins and niches, as well as hosting administrative functions.\(^{28}\) Topic views the changes in the morphology of *audiencias* through time and the use of *quipu* as indicative of increased control and formalization of the management of goods, as well as developments in the structure of social groups concerned with the bureaucratic workings that controlled storage.\(^{29}\)

Other important indicators of storage practice discussed in South American contexts include ceramic storage vessels, which are also an important component of storage practice in the Mediterranean and the Near East, as I shall discuss below. In the context of pre-Inca Empire upper Mantaro Valley in Peru (prior to the 15th century CE), storage vessels at a number of sites were highly elaborated and occurred in high frequency, which has been interpreted as contributing towards the reinforcement of the local elites’ status, and association with feasting activities,\(^{30}\) themselves arenas in which this elaboration

---

\(^{25}\) Mann 2005.
\(^{26}\) Topic 2016: 135-36.
\(^{27}\) Topic 2016: 138.
\(^{28}\) Topic 2003: 251, 2016: 141-43, Fig.6.
\(^{29}\) Topic 2003: 251.
of status took place. Some types of storage jars also occurred in elite contexts only.\textsuperscript{31}

Following the Inca conquest of large tracts of western South America, the overall social system in which feasting and storage remained unchanged, but became tied to the Inca economic and ideological spheres; and the use of Inca ceramic vessels subsumed local types.\textsuperscript{32} This shows that, while the processes and material constituents of storage remained essentially the same, they became associated with new narratives of political authority and concepts of social order.

Discussion of storage in the context of the Inca Empire itself has also been a prominent feature of South American archaeology. For the Inca, the maintenance of political authority centred on labour service (e.g. agriculture, construction projects, mining and warfare) owed to the empire, with the emperor acting as an intermediary between it and the people.\textsuperscript{33} The labour service was rewarded with allocations of food, \textit{chicha} (maize beer), and also marriage, all of which were directed to reinforce social hierarchy and the overall political system.

Thus, the Inca directed their initiatives towards the accumulation of surplus, directed towards the feeding of workers for state projects and also festivals. This demanded the development of appropriate infrastructure. The proliferation of storerooms throughout the landscape was on a prodigious scale.\textsuperscript{34} For example, the storage facilities at Huánuco Pampa, an Inca administrative centre in the north central Andes, are particularly vast in scale,

\begin{footnotesize}
\begin{itemize}
    \item Sinopoli 1991: 158.
    \item Sinopoli 1991: 158.
    \item Routledge 2014: 91-92.
    \item D'Altroy & Hastorf 1984.
\end{itemize}
\end{footnotesize}
amounting to nearly 500 spaces devoted to this function.\textsuperscript{35} In addition, many sites boasting such expanded storage facilities were purpose-built for such functions (often in proximity to produce yielding land), with settlements comprised of the general population being situated elsewhere, though nearby.\textsuperscript{36} The storerooms themselves have also been interpreted as part of the overall accounting system of the Inca, highlighting their standardized morphology and spatial arrangement as indicators of a proxy means for counting.\textsuperscript{37}

The above discussion demonstrates that storage has been viewed as an integral part of political authority initiatives in different cultures and time periods in pre-Columbian Meso- and South America. The level of administrative elaboration (in the form of accounting and recording) and control over the movement and accumulation of goods testifies to the importance of surplus and politicization of the economy. This, in the case of the Inca in particular, was given a further ideological dimension in casting the emperor as the owner of all agricultural land, creating a system of obligation and reward. Storage is therefore presented as a material means for demonstrating varying degrees of control exercised by social groups,\textsuperscript{38} with the tracing and characterizing the developments of these at different social levels being an important scholarly focal point.

4.3.2. Mediterranean and Near Eastern Archaeology

In comparison to Meso- and South American archaeology, systematic study of storage and its connection with the workings of political entities has received more limited attention in the Mediterranean and Near East. However, the last decade in particular has shown increased emphasis on storage and its

\textsuperscript{35} Topic 2016: 147.
\textsuperscript{36} D’Altroy 2015: 409ff.
\textsuperscript{37} Topic 2016: 162.
\textsuperscript{38} Rothman 2016: 20-21.
implication within the workings of socio-political developments, particularly in the context of Bronze Age Mesopotamian and Cretan archaeology, which I shall briefly discuss below.

4.3.2.1. Storage and Political Authority in Mesopotamian City-States

Bronze Age Mesopotamia provides some of the most comprehensive evidence for storage and the practice’s connection with the workings of political authority. Indeed, the city-states dotting the landscape provide a rather poignant example of the importance of staple production, and its implication within political and ideological spheres. Indeed, N. Yoffee states that ‘an emblem of many early states is the architectural provision of enormous or hugely extravagant storage spaces, both for this world and for the next’. Recent scholarship in particular has sought to directly address storage, particularly in ways that go beyond functionalist perspectives of top-down management and surplus accumulation and thereby the political economy. Though these components were essential to the economies of several Mesopotamian city-states, recent work has focused on interpreting the character of the wider processes, strategies and effects of storage practice and management of resources.

The recent work by T. Paulette strives to combine theoretical perspectives with existing archaeological material to interpret the role of storage in socio-economic workings of Mesopotamian city-states in the 3rd millennium BCE. He encapsulates the relationship between political authority and surplus staples

39 Yoffee 2004: 36.
40 Paulette 2015: 22.
41 Paulette 2015: 21.
in the phrase ‘grain made kings’, citing the Sumerian text *The Debate between Sheep and Grain* to illustrate a contemporary view of the fundamentals defining the power of a city-state. He is particularly interested in the idea of political authority as a process, in considering that states are ‘complex, often fragile, constructions’ with their extent rarely being equivalent to their aspirations. Paulette focuses on the highly formalized end of the spectrum of socio-political organization, in which storage as a large-scale activity is intimately implicated in the workings of political authority.

His work also employs the framework of the moral economy, in which he views grain not merely as a staple but also as a symbolic index at which social, political and economic met. Accordingly, transactions involving grain gained political overtones and a means for perpetuating power asymmetries and socio-economic inequalities, as well as being a basis for community building. Paulette thus interprets storage facilities as referents to notions of ‘economic security, abundance, divine favour, stability, and freedom from want’, whilst simultaneously having a different set of meanings for those who could not access these spheres.

Paulette uses the framework of ‘moral economy’ to discuss the role of storage and management of grain in Mesopotamian city-states. The moral economy involves defining ways in which communities understood and experienced inequality; duty and rights regarding access to food; and the practical means of managing and acquiring goods, as well as ways in which risk was perceived. The practicalities of storing grain were therefore implicated within the overall

---

43 Paulette 2016: 85.
45 Paulette 2016: 86.
46 Paulette 2015: 30.
47 Paulette 2015: 30-31.
moral economy, being an important node at which the practices and intentions surrounding the economy, politics and ideologies of households and the state intersected.\textsuperscript{50}

In Mesopotamia, population concentration within centres became one reason for which the development of new and elaborate storage strategies became necessary, which accompanied the developments in political authority and accompanying technology. As Paulette notes, the earliest written documents from the Late Uruk and Jemdet Nasr periods (ca. 3200-2900 BCE) have a strong preoccupation with the redistribution of grain from groups in authority to those dependent on the institutions they were involved in.\textsuperscript{51} Therefore, though we have detailed information of the mechanisms involving the management of foodstuffs, there is little information regarding the function of the spaces themselves in which storage took place.\textsuperscript{52}

Textual evidence from 3rd millennium BCE cities such as Lagaš, Šuruppak and Girsu offer detailed information relating to the flow of goods from producers to storage facilities, and the range of personnel involved.\textsuperscript{53} The quantities of goods such as grain recorded allow for reconstruction of the scale of the facilities required for the storing of goods, which is also reinforced by excavated evidence, particularly, for example, from Uruk,\textsuperscript{54} and Šuruppak.\textsuperscript{55} Taking into account the system of landholdings in 3rd millennium Mesopotamia and the distances involved in the movement of goods, Paulette envisages networks of storage facilities in the cities and also the wider landscape.\textsuperscript{56}

\textsuperscript{50} Paulette 2015: 38-39.
\textsuperscript{51} Paulette 2016: 88.
\textsuperscript{52} Paulette 2016: 88.
\textsuperscript{53} Paulette 2016: 88.
\textsuperscript{54} Nissen \textit{et al.} 1993; Englund 1998.
\textsuperscript{55} Martin 1988.
\textsuperscript{56} Paulette 2016: 91-92.
Considerable power invested in the figure of the *ka-guru* (granary supervisor), who features prominently in 3rd millennium texts relating to the collection and distribution of goods. By the Akkadian and Ur III periods (ca. 2300-2000 BCE), the *ka-guru* was a high-level official with connections to the elite political sphere, and invested with a level of authority in matters of the management of goods that did not necessarily require his presence in the contexts in which transactions took place.\(^{57}\)

The attempt by the Akkadians to create a pan-Mesopotamian state ca. 2300 BCE is an important example that has implications for the reworking of the social, political and economic entanglements that were, up to that time, specific to respective city-states. In keeping the fundamentals of these systems intact, the Akkadians instituted a bureaucratic shift in land holdings and a divergence in some of the processes involving the administrative pathways which goods took.\(^{58}\) In this period, we see the emergence of highly elaborated palatial architecture, one feature of which is a myriad of magazine spaces arranged around courtyards, making the locales important nodes for the accumulation, storage and distribution of goods. Such changes in the mechanisms at the onset of the Akkadian period provide fertile ground for analysis of political transformation processes through the changes in material culture and artistic styles,\(^{59}\) manipulation of the past,\(^{60}\) and management of resources.

### 4.3.2.2. Storage and Political Authority on Bronze Age Crete

Some of the most comprehensive research in the Mediterranean on storage has been conducted on the island of Crete in the MBA-LBA (ca. 2000-1200 BCE).

---

\(^{57}\) Steinkeller 2004; Paulette 2016: 96.

\(^{58}\) Paulette 2016: 92-93.

\(^{59}\) McMahon 2012: 656.

\(^{60}\) Michalowski 1993.
As discussed in the previous chapter, debates on social complexification and state formation, the role and function of the Minoan palaces on the island of Crete has been a prominent one. As a proxy and/or vehicle for these processes, the storage of agricultural produce has featured as key marker in the discourse. The importance of storage in the Cretan Bronze Age was first recognized by A. Evans, who connected the pithoi in the storage magazines at Knossos with the workings of the economy of the Minoan palaces.\textsuperscript{61} A fuller and more systematic analysis was given by C. Renfrew in his interpretation of the Aegean in the context of world systems theory. For Renfrew, large-scale, surplus storage practice was associated with social complexity,\textsuperscript{62} and thus situated within an evolutionist paradigm as a marker of said complexity.\textsuperscript{63}

Though the exact functions of the palaces continue to be debated, it is likely that one of several would have been a surplus gathering and redistribution locale, as originally posited by Renfrew.\textsuperscript{64} This interpretation of large-scale storage at the palaces, in conjunction with the discoveries of Linear A (and later, Linear B) texts, contributed towards interpretations of palaces as centralized places in which surplus storage existed and palatial administration functioned.\textsuperscript{65}

To that end, there has been considerable scholarly focus on agricultural storage in the context of MBA-LBA Crete, and the way in which this played a role in the development functioning of palatial society. Further discoveries of late EBA non-palatial settlements (in particular, Vasiliki and Myrtos Fournou Korifi, ca. 2300-2000 BCE) and contexts have broadened the discussion of storage and its

\textsuperscript{61} Evans 1935: 629ff.
\textsuperscript{62} Renfrew 1972: 288-89.
\textsuperscript{63} Christakis 2008: 2.
\textsuperscript{64} Renfrew 1972: 297. See Christakis 2011 for a more recent and revised perspective.
\textsuperscript{65} Knappett & Schoep 2000.
role in society.\textsuperscript{66} The emphasis put on storage in these contexts shows an intense interest in the management of produce.

The excavation of Minoan palaces at Knossos, Phaistos, Malia, Zakros and Galata yielded significant evidence of large-scale architectural and ceramic storage. Particularly conspicuous components of the palaces are the storage magazines, long corridor-like spaces accessed via a long hall, in which large ceramic vessels were installed for storing grain. Though integrated within the palaces, these magazines were, nevertheless, self-contained.\textsuperscript{67} For example, at Knossos in the second palace period (ca. 1700-1400 BCE), much of the western portion of the palace was devoted to storage magazines, with each bearing up to 30 pithoi, and each one having a capacity of almost 600 litres.\textsuperscript{68} At other palaces, such as Malia, storage arrangements resemble those at Knossos, with the addition of dedicated silos for large-scale, long-term grain storage.\textsuperscript{69} At the smaller palaces of Zakros and Galatas, the storage areas are not architecturally integrated into the overall palace in the same way as at Knossos and Malia, but are separate buildings.\textsuperscript{70}

Accompanying the excavation of storage areas at sites, scholars also developed and adopted frameworks to interpret the role of storage within the socio-political systems on Crete. One such framework is that of ‘social storage’, a means by which foodstuffs are exchanged for non-foodstuffs with an understanding that the latter may be exchanged anew with the former.\textsuperscript{71} Such transactions are, accordingly, context specific factors such as the environment, social integration in a given locale, and available storage technology. In the

\textsuperscript{66} Warren 1972; Tenwolde 1992.
\textsuperscript{67} McEnroe 2010: 86.
\textsuperscript{68} McEnroe 2010: 75.
\textsuperscript{69} Privitera 2014: 433.
\textsuperscript{70} McEnroe 2010: 87.
\textsuperscript{71} O'Shea 1981.
context of Bronze Age Crete, the specific patterning of these factors has been used to interpret the rise palatial culture.

Recent interpretations of storage capacities of the LBA palaces (also in the case of Mycenaean Greece) suggest, rather than mass surplus banks, they operated on scaled-down principles of a prestige economy, with different palaces specializing in the administration and distribution of different kinds of goods.\(^72\)

The work of K. Christakis has also created new ground for thinking about storage in Bronze Age Crete and its role in the processes of the socio-political system. According to him, palaces were controlled by a ruling social group, which concerned itself with economic management, in the midst of which was the appropriate administering of storage to different goods.\(^73\) This, in turn, suggests the direct role of these groups in the administering of practices involving the material setting of storage, whether architectural or object based. One important contribution of his research has been the proposal of five categories of storage behaviour of non-palatial communities based on the analysis of patterns found across Crete in the Late Minoan IB period (ca. 1500-1450 BCE).\(^74\)

Christakis argues that the evidence supporting communal storage is more ambiguous than assumed in past scholarship.\(^75\) Contrary to the heterarchical perspectives that have been popular in interpreting the political workings of the palaces, instead showing that, in terms of storage, this particular set of practices was centralized, signifying the importance of such management of staple goods in the context of the workings of Minoan political authority.\(^76\) He acknowledges the complex biographies of the respective sites, leaving room for context and

\(^{72}\) Schoep 2006.
\(^{75}\) Christakis 2014: 201.
\(^{76}\) Christakis 2014: 211.
time specific interpretations of the relationship between storage and political authority through time. He also stresses the importance of examining domestic, non-palatial contexts,\textsuperscript{77} in order to gain a wider interpretative spectrum of storage practice across society and the possible relationships between different groups as expressed through resource management.

In a recent overview of studies on the storage of Crete, S. Privitera highlights the co-extension of storage with state formation on the island, and a focal point on the production, use and consumption of means of storage (i.e. pithoi) in the full range of contexts.\textsuperscript{78} He notes that there has been less focus on other types of storage, particularly built installations, leading to his discussion of storage silos at Ayia Triada, and their relation to a bigger picture of the character of long-term grain storage in the Bronze Age Mediterranean and its role in the workings of states.\textsuperscript{79}

In terms of ceramic storage at Minoan Palaces, the presence of pithoi at settlements of different scale has furnished scholars with additional evidence for different storage media. Detailed typologies and studies have been undertaken at points over the decades,\textsuperscript{80} though the most comprehensive work has been that of Christakis.\textsuperscript{81} As he notes, most studies of Cretan ceramics have tended to focus on finewares, highlighting the under-valued importance of utilitarian pottery, such as pithoi, in interpreting patterns of production, consumption, and wider socio-political mechanisms.\textsuperscript{82}

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{77} Christakis 2008: 3.
\item \textsuperscript{78} Privitera 2014: 433.
\item \textsuperscript{79} Privitera 2014: 434.
\item \textsuperscript{80} Warren 1972; Tenwolde 1992; Day 1997.
\item \textsuperscript{82} Kotsakis 2005: 1.
\end{itemize}
\end{footnotesize}
Another interesting set of archaeological features at the palaces at Knossos, Phaistos and Malia which have been frequently associated with storage are the so-called *kouloures* (dating to the MBA at Knossos and Phaistos; LBA at Malia). These features – deep, stone-lined pits, differing somewhat morphologically at respective sites – has raised the question as to whether or not they were used for large-scale storage of grain. For example, some scholars have argued that they were for refuse, while others have viewed them as hollows for planted trees.

More recent work has proposed to view the *kouloures* as functionally variable though time at each site, and that some may have at specific points in time been used for grain storage, though this is no longer detectable in the archaeological record. In terms of access and control, the location of the *kouloures* outside of the palaces, typically in the western open court, has been used as an argument in favour of their communal use, despite the fact that they were well within palace bounds.

If this is the case, it is reflective of changes in resource management practices throughout the use-life of the palaces over the course of the MBA-LBA. This in turn may be reflective of changes in the character of political authority and the way in which the spatial and architectural reality reflected this. The question remains: if the *kouloures* were initially used for storage then abandoned at the end of the first palace period, what were the new strategies and means developed in order to compensate.

---

83 Evans 1921: 390; Strasser 1997, who considers only the *kouloures* at Malia to have been used for storage, but those at Knossos and Phaistos not.
84 Preziosi 1983.
86 Christakis 2014: 208-09.
87 Christakis 2014: 209.
Privitera’s interpretation highlights the importance of process and change in storage strategy, and given the connection of the *kouloures* with the palaces, the role of political authority workings in the management of staples; as well as the difficulty of interpreting the architectural palimpsest making up the palaces as current archaeological artefacts. This seems to be supported by Linear A and B documents, which detail the distribution of surplus grain across different locales in the landscape.88

4.3.3. *Storage in Central Anatolian Archaeology*

In the context of Anatolia, a good deal of evidence has been unearthed related to storage activities from the Neolithic period onwards, though large-scale storage begins in the Bronze Age, accompanying mechanisms of increased evidence for social stratification.89 The creation of dedicated architectural spaces and the development of large ceramic vessels for storage purposes are some of the key introductions connected with increased social stratification, though they have received limited research and theoretical considerations. This is evident at a number of sites across Anatolia, such as EBA III (ca. 2300-2000 BCE) Norşuntepe in the south-east,90 and proliferating across Anatolia by the MBA-LBA, exemplified by evident excavations such as those at Troy (see Section 4.4.3.3.), Beycesultan,91 Külttepe-Kaneş,92 and Kuşaklı-Šarišša.93

Consequently, storage and its connection to political authority and accompanying issues of social practice, economy and ideology have been investigated to a limited degree. For the most part, excavators have identified

89 Cf. Çevik 2007.
91 Dedeoğlu & Abay 2014.
92 Dercksen 2008.
storage facilities in sites, and discussed them in terms of their significance in the context of discussions seeking to demonstrate the economic workings of highly developed polities in the form of surplus accumulation. However, the development and changes in storage practices, and the degree to which this was implicated in wider socio-political shifts evident in sites, has not been explored. Indeed, our knowledge about household level storage in the Bronze and Iron Ages is also quite limited.

4.4.3.1. Boğazköy-Hattuša

Some of the best excavated examples of large-scale storage come from the MBA-LBA in central Anatolia. At Boğazköy, several areas of the city have demonstrated evidence of this, in particular a large magazine/silo complex along the south wall of the Lower City, magazines associated with the Temple 1 complex, also in the Lower City. The latter magazine/silo complex (Fig.4.1) measures some 118m x 33/40m, comprised of 16 chambers measuring 6m x 13-16m each, and is situated against the fortification wall dividing the Lower and Upper Cities. This silo complex seems to have been constructed in the early Hittite period (certainly by the 16th century BCE). The scale of this particular facility suggests the capacity to feed some 20,000 people for a year when at capacity.

---

94 E.g. Massa 2016, a work on socio-political complexity in EBA western and central Anatolia, in which storage is mentioned once.
96 Neve 1969.
97 Seeher 2000: 356.
98 Seeher 2006a: 201. The complex was destroyed by fire in the 16th century BCE, dated by means of C14.
Excavations in 2000 have shown that the earthen bottoms of cell spaces were lined on the bottom with straw to provide insulation for the deposited grain.\textsuperscript{100} The Temple 1 complex demonstrates the characteristic architectural spaces in the form of narrow magazines filled with pithoi (Fig.4.2) set into the ground. Further finds include a large earthen silo cut into the ground and bedded with stones on the in the Upper City, close to the fortification wall between the Lion and Sphinx Gates.\textsuperscript{101}

In sum, these storage facilities suggest the presence of long-term, bulk storage one may expect at a large political and religious centre. Indeed, they are also good examples of the extreme end of the spectrum of large-scale surplus accumulation. The particular positioning and planning of the silo against the Upper-Lower City wall is also highly political, signalling power of the rulers to coordinate such infrastructural works and enact a level of organization to accumulate such an amount of grain.

Textual evidence from Hittite archives (evinced from the Old Hittite period onwards) has also contributed significantly towards our understanding of mechanisms surrounding the collection and distribution of surplus grain in the context of imperializing political systems in Anatolia. Several centres across central Anatolia were accorded the status of an AGRIG Town.\textsuperscript{102} The AGRIG Towns in essence functioned as surplus banks which funneled resources to the capital; a group of officials was specifically appointed in order to administer this movement resources between the centres and the capital.

\textsuperscript{100} Seeher 2000: 356.
\textsuperscript{101} Seeher 2002.
\textsuperscript{102} AGRIG is a Sumerian logogram, denoting a position official position relating to administration or supervision (Singer 1984: 97).
One prominent example of this is Alişar Höyük (to feature prominently in the discussion of storage and political authority of Çadır Höyük in Chapter 9), which became an AGRIG Town and wintering station for the Hittite army in the LBA. Further discussions of the specific functions and status of AGRIG officials (whose roles was similar to that of ka-guru officials in Akkadian and Ur III Mesopotamia, see Section 4.3.2.1.) have also been undertaken, as well as the types of storage facilities under their jurisdiction, which seems to have been chiefly concerned with foodstuffs as opposed to other goods.

4.4.3.2. Kaman-Kalehöyük

Excavations at Kaman-Kalehöyük have demonstrated quite well the sheer volume at which staple good storage operated during the Hittite Empire period. Stratum IIIb (early LBA) has yielded foundations of monumental stone buildings in the central area of the mound, with associated stone-lined silos with mud plastered bottoms. Smaller pits also abound in the Bronze and Iron Age levels at the site, denoting the different social scales at which agricultural storage took place. Indeed, it has been argued that the large scale storage in the LBA level at Kaman is indicative of the site’s connection with Boğazköy as a supplier of surplus grain. Contexts from Stratum III have also yielded a substantial quantities of pithoi. Indeed, they are reminiscent of structures in Mesopotamian cities, such as Ur; and EBA Levant, as exemplified Amaziya, Nahal and Lachish. Contemporary textual evidence has also been conjoined with the archaeology of Kaman-Kalehöyük, leading Fairbairn and Omura argue that the (Sumerian) logogram ÉSAG, mentioned in Hittite texts in reference to storage,

---

105 Fairbairn & Omura 2005.
may also refer to the large storage silos found in Stratum III at the site. In Hittite texts, the term ÉSAG generically refers to lined, subterranean storage pits, without specificities of scale.

The archaeological record of Kaman also contains significant numbers of pits. While the ancient pit-digging has created difficulties for archaeologists in truncating and mixing deposits, their sheer number and variability in scale is indicative of the importance of this kind of strategy in the management of goods, from the EBA to the Iron Age. In the latter period, plaster-lined pits are interspersed across the respective sub-phases, often concentrated in extramural areas between houses, indicating an emphasis on individuated, household level storage, which probably also extended to agricultural production itself. In Stratum IIc (ca. 8th century BCE), a degree of formalization of storage seems to have taken place, evinced in the presence of rectilinear, semi-subterranean rooms with plaster lining. Analysis of the floors of several of these spaces brought to light copious evidence of phytoliths, affirming the interpretation of a storage function for these rooms. In terms of ceramic storage, the Iron Age strata have yielded several examples of large storage vessels. One characteristic new to the Iron Age ceramic storage repertoire is ledged rims (though different morphologically to those from Gordion and other western sites) and an increase in painted decoration.

Evidence of several storage spaces across the Stratum IIc settlement suggest the presence of several communal storage points to households pooling resources and redistributing them amongst themselves in a way that circumvented restricted accumulation of surplus under the control of particular

---

110 Matsumura 2015, pers. comm.
111 Omura 2011: 1101.
groups. The increased interest in the making and consumption of decorated storage vessels may have acted as a way of marking household or group identity. The final publication of the architecture and ceramics of the Iron Age would allow for a fuller discussion of these social dynamics.

4.4.3.3. Hisarlık-Troy

In western Anatolia, recent work at Troy has begun to examine the character and implications of storage practices beyond recording and description of the evidence. The excavations of H. Schliemann, W. Dörpfeld and C. Blegen have all noted the significance of storage facilities at the site throughout the respective periods. The excavations of Dörpfeld in particular yielded substantial evidence of well-preserved storage facilities are best evinced in phases VIIa (ca. 1300-1200 BCE). These consisted of a series of magazine-like rooms along the inside of the citadel wall (paralleling the situation at Boğazköy), in which pithoi were placed, set into the ground. The pithoi themselves range 1.5-2m in height. In considering the numbers excavated (supposedly some 75 by Dörpfeld and a similar number by Blegen), large-scale storage with a view of surplus accumulation was practiced at Troy VIIa, with perhaps some degree of centralized control. Due to the nature of the old excavations the remains of the Troy VIIa citadel were not adequately recorded, which precludes discussion of the relationship between the excavated storage facilities and other putative structures on the mound.

---

115 Blegen et al. 1958: 24. See also Dörpfeld 1902.
117 Kibaroğlu & Thumm-Doğrayan 2013: 44.
Recently, scholars working at Troy conducted petrographic analysis on a sample of 24 pithoi from the Bronze Age, with most examples being from the LBA (late VI and VIIa phases, ca. 1400-1200 BCE), and a few from the EBA. A number of fabric groups were distinguished, with at least four clay sources ranging from 10-25km distance from Troy. This is of interest as it is likely that pithoi were made in the wider landscape and transported to Troy, which seems to counteract prevailing views that such vessels are too unwieldy to have been made at a distance from the site at which they were consumed. This also appears to be the case for other locales in the Mediterranean during the LBA, such as Italy.

A recent study of the phase VIIb pottery from Troy provides additional insight into changes in storage patterns in the EIA. Among the changes in the ceramic assemblage, the work of P. Hnila and C. Aslan has shown a discontinuation in the making and use of pithoi compared to the LBA, suggesting a change in the economic and political apparatus following the city’s destruction and depopulation at the end of phase VIIa. Ongoing study of VIIb pithoi is being undertaken by D. Thumm-Doğrayan.

4.4.3.4. Urartu

For the Iron Age, important evidence for large scale storage and its association with political authority comes from several Urartian centres in eastern Anatolia, dating to the 9th-7th centuries BCE. P. Zimansky connects the pithoi

---

118 Kibaroğlu & Thumm-Doğrayan 2013.
119 Kibaroğlu & Thumm-Doğrayan 2013: Fig.3.
120 Schiappelli 2015.
121 Aslan & Hnila 2015: 187.
123 Other important evidence comes from Göllü Dağ in the Cappadocian region, though limited excavations over the past 40 years preclude discussion. The cell plain of several buildings at the site perhaps indicate a storage function.
excavated at Urartian centres as vessels that are ‘political’, not appearing in regions outside the bounds of the political entity in contemporaneous locales. Arguably, the level of formalized storage as a whole exhibited at Urartian centres may be grouped within this conceptual sphere.

Some of the most conspicuous evidence of storage in the archaeological record belonging to the Iron Age has been excavated at Ayanis (ancient Rusahinili Eidurukai) on the eastern shore of Lake Van, composed of a citadel complex with an extensive lower town constructed in the 7th century BCE. Excavations, which began in 1989, focused initially on the main citadel, which yielded substantial fortification walls, a temple on the summit of the hill, and a system of subterranean storerooms, with several containing large ceramic pithoi embedded into the ground. Recent work by A. Batmaz has put more focus on the significance of sacral storage at Ayanis (and other Urartian sites, such as Karmir-Blur in Armenia and Upper Anzaf in Turkey). In the paper, he discusses the manner in which votive objects (primarily associated with warfare) were donated to temples and their respective gods by kings. The storerooms in question were comprised of basements beneath the main floor level of the temple courtyard at Ayanis and elsewhere on the citadel.

The storage space beneath the temple was comprised of narrow magazines, connected by confined passages boasting pithoi in which the metal objects were stored; and rooms in which objects were placed on shelving. Storage facilities constituting what has been termed the ‘West Storage Area’, comprised of basements with upper storeys, with pithoi set into the floors in neat rows.

125 Çilingiroğlu 2001: 68.
126 Batmaz 2015.
Evidence has also been found, in West Storage Area Room 6, of a mechanism utilizing pipelines used to convey goods (perhaps oil and/or wine) from the upper storey to the pithoi.\textsuperscript{127} Elsewhere, evidence for grain storage is evident from the burned remains of wheat found in the bottoms of pithoi, as in West Storage Area Room 7.\textsuperscript{128}

In the East Storage Room area, the excavators note some differences compared to the West. The pithoi recovered were larger, and marked with Urartian cuneiform or hieroglyphs, and associated with bullae, leading to the view that this area was connected directly with the storage needs of the temple itself.\textsuperscript{129} In the temple area of Ayanis itself, the subterranean storerooms are situated on the southern end of the courtyard. In terms of form, they are confined, cell-like structures, lined with mud-brick, and covered with a wooden roof that also made up the floor of the temple courtyard in this area.

Other sites boast a similar arrangement. Excavations at Uç Kale, Çavuştepe (ancient Sardurihinili, ca. 8th century BCE) have yielded similar subterranean storage facilities. Rooms I and II, constituting the basements of a temple to Haldi built by Sarduri II (ca. 763-735 BCE), were accessed via mud-brick stairways from an upper storey. As at the Ayanis temple, both rooms of Uç Kale were used for storing weapons and other metal objects, though, unlike at Ayanis, not within pithoi.\textsuperscript{130} However, in his reconstruction of Uç Kale, M. T. Tarhan implies the possibility of the presence of ceramic vessels as storage media in the basement rooms.\textsuperscript{131}

\textsuperscript{127} Çilingiroğlu 2001: 70.
\textsuperscript{128} Çilingiroğlu 2001: 71.
\textsuperscript{129} Çilingiroğlu 2001: 75.
\textsuperscript{130} Tarhan 2007: 271, 273.
\textsuperscript{131} Tarhan 2007: Fig.7.1.
Building on this evidence of multi-storey structures, also drawing on extant terracotta models of Urartian architecture, has led Batmaz to posit a reconstruction in which storage rooms are an integral component in Urartian spatial planning. He also connects the practice of storing weapons and other metal objects with wider historical processes and the socio-political importance of Urartian conflicts with the Assyrians. The primary dedicatee of these objects was Haldi, the chief god of the Urartian pantheon, whose province was warfare. Batmaz notes that the many of the objects – helmets, shields, spears, and quivers loaded with arrows – would not have had a practical use in warfare, but were rather symbolic indexes to the province of war, dedicated to propitiate the war god for a favourable outcome. In addition, these objects were also used in ceremonial contexts, such as parades or coronations, whereby dedicated objects, conceptually transformed into the property of the god, in being used in these formalized events, would endow kings with legitimacy in their political authority and power.

This created a reciprocal relationship, in which the god endows the king with political power, and the king, upon being victorious, continues the cycle by dedicaing more objects to the god for future guarantees of victories and maintaining the relationship of authority and legitimation. We also have possible onomastic evidence for these spaces in the term adunusini (in the temple inscriptions from Ayanis itself, as well as Karmir-Blur and Kef), which, Batmaz argues, denotes storerooms in which weapons and metal object dedicated to the god were held.

The practices enacted by the Urartians likely draw on older Mesopotamian traditions dating back to the MBA (and also exploited by Urartians’ rivals, the

---

132 Batmaz 2015: Fig.5.
133 Batmaz 2015: 146.
Assyrians), in which divinized weapons given to kings would serve to legitimate and empower them.\(^{135}\) This form of sacral storage is thus implicated within a prescribed set of practices (a chaîne-opératoire) associated with the assertion of political authority invested within a kingly body. The storage of ceremonial weapons within the temple charges them with such symbolic value, enabling their use in processes of reification of political authority.

Recent research has also sought to examine storage practice through an ethnographic study at modern Ayanis village, examining the way in which meat and milk products in particular were managed and stored, and the way in which this may be used as a tool to think with in interpreting the storage of similar goods on the basis of the evidence from the Iron Age settlement at Ayanis.\(^{136}\) Further research has been conducted on the pithoi themselves from the Ayanis temple storerooms and their role in large-scale grain storage, with the work of A. Erdem considering the significance of spatial distribution of the pithoi, as well as their wares in discussing their role in the storage mechanisms at the site.\(^{137}\)

4.4. Storage & Political Authority

As a series of processes and strategies involved in the management of goods, storage practices are one means by which scholars may examine social organization. Storage is fundamentally reflective of control, and the choices involved in storing goods accordingly involve the practices involving decisions and motivations made by individuals and groups. In looking at political authority construction and maintenance as a way of organizing, directing, and

\(^{135}\) Batmaz 2015: 147.
\(^{136}\) Erdem 2015; Erdem & Çevik 2015.
\(^{137}\) Erdem 2011.
articulating particular social values, storage is one materially patent means through which this may be done. By controlling knowledge, access to, and visibility of goods, storage practices are implicated within mechanisms intended, as a part of the practical enacting of political narratives, to exert greater control over the resources. Consequently, storage, by removing the necessity of relatively immediate redistribution, has the capacity to bring about recursive social obligations.\textsuperscript{138} Political authority becomes a means for supervision and justification for accumulation and delayed redistribution.

An increased role of authority in the management of goods may be equated with the displacement of the goods from their primary unit of production to their point of their storage. This may result in movement of goods from the control of one set of social groups to others, implicating ideas of power. Thus, social groups which gain increased ability to control the production and amassing of goods may practice accumulation beyond the needs of subsistence, and impose barriers of access, visibility and debt on the resources, used as means of reinforcement and/or negotiation of social boundaries.

Archaeologically, a high degree of formalization may be manifested in more formalized contexts dedicated to storage, e.g. away from domestic areas, and in proximity to other institutions, such as the ideological and/or political. In the context of Anatolia this often takes the form of a walled citadel separated from the rest of the settlement, which often has dedicated (sometimes monumental) storage facilities, as exemplified in the discussion of Boğazköy. In some instances, this is connected with the sacral sphere, seen in the storage facilities connected with the temple at Urartian Ayanis.

\textsuperscript{138} Leppard 2014: 492.
Administrative technologies such as seals, sealings and tablets, are also implicated within coordination of goods, denoting control through management and objective quantification.\textsuperscript{139} It is important to note that such modes of organization are not necessarily drivers or outcomes of complex state systems of socio-political organization (particularly in the neo-evolutionist sense),\textsuperscript{140} which predicates more detailed attention to the role storage played in socio-political workings of communities.\textsuperscript{141} To that end, a context-based examination of the evidence in conjunction with theoretical models drawing on social, cultural, cognitive, and environmental studies have the capability of more nuanced models of socio-political organization.

4.5. Methodology

Even in instances of high quality archaeological data, storage is difficult to quantify in terms of overall possible volume in given contexts.\textsuperscript{142} Consequently, my interest is less in defining estimates of storage volume, as the archaeological evidence I have examined is too fragmentary to support such a discussion.\textsuperscript{143} To that end, my intention is to highlight the constituents and character of storage practices in the archaeological record, as a preliminary study for demonstrating the way in which analysis of storage may contribute towards understanding political dynamics in the context of the Anatolian Iron Age, and other periods.

\textsuperscript{139} It is important to note that this evidence does not provide direct information about storage facilities, their capacity, and goods being stored.

\textsuperscript{140} Margomenou 2005: 38-39.

\textsuperscript{141} Cf. Kirch 2010, who discusses pre-contact Hawai‘i, which, though possessing a complex level of political development, had an entirely redistributive economy.

\textsuperscript{142} Christakis 2008: 1.

\textsuperscript{143} Paulette criticises the fact that quantification related discussions of storage are largely absent or abstracted in Mesopotamian archaeology (Paulette 2015: 15).
The primary constituents of storage practice I shall examine in my analysis of the two case study sites comprise ceramics, architecture, and pits. I have chosen these on the basis of their relative ubiquity in the archaeological record. The fundamental points of analysis will be the following:

- A focus on pits, ceramics and architecture as indicators of storage practice.
- The presence/absence of pits, ceramics and architectural storage remains in the respective occupation phases defined at each case study site falling within the 1200-800 BCE period.
- Correlation between the relative presence of ceramics, pits and architectural storage in their respective time periods.
- The overall character and degree of uniformity in storage ceramics through time and in different contemporaneous contexts of the respective sites.
- Consideration of additional function/s of contexts in which storage activities took place.

As a baseline for the analysis, I shall note the presence and absence of these elements through the EIA-MIA timespan at the respective case study sites in order to determine the extent to which any significant patterning may be discerned, and the way in which this is connected to the themes of political authority development. This, in turn, will allow for a fuller understanding of the dynamics of political authority at EIA-MIA Gordion and Çadır Höyük.

144 A category of ‘other’, containing bins and perishables such as skins, sacks and baskets, will also be referred to in the discussion, though direct evidence for these remains is inconsistent or implied.
In this thesis, I am focusing less on defining the contents of the storage, as this is predicated upon the level of preservation of contexts and materials, which is an issue for future research (see Section 10.4). Gordion generally boasts better preservation, but past recording practices were not often sufficiently detailed regarding the quantity of materials, nor was all excavated material retained. In most cases, surplus goods such as grain, are the underlying focal point, in view of the theoretical perception of surplus accumulation as a hallmark of complex states, which plays into narratives of Phrygian imperialism.

**Ceramics**

The most detailed the analysis will focus on ceramics, as it is the most plentiful evidence of storage practice from both case study sites. I shall focus on classifying pottery forms according to the degree of standardization they exhibit in terms of shape and key characteristics outlined in the following tables, which exemplify the categories employed in the recording of storage ceramics at Gordion and Çadır Höyük.\(^\text{145}\)

<table>
<thead>
<tr>
<th>Operation</th>
<th>Phase</th>
<th>Locus</th>
<th>Lot</th>
<th>Number</th>
<th>Part</th>
<th>Form</th>
<th>WT (cm)</th>
<th>RD (cm)</th>
<th>Colour</th>
<th>Fabric</th>
<th>Surface, Decoration</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>735</td>
<td>17</td>
<td>51</td>
<td>YH28561.1</td>
<td>rim</td>
<td>pithos (LBA)</td>
<td>1.6</td>
<td>45</td>
<td>5YR 6/8 reddish yellow</td>
<td>small-medium quartz/grit, small mica;</td>
<td>wheel finished</td>
</tr>
</tbody>
</table>

\(^\text{145}\) Recording practices at each study site will be explained at the beginning of respective analysis chapters.
Gordion YHSS 7 recording categories.

<table>
<thead>
<tr>
<th>Type</th>
<th>Source</th>
<th>Inventory No.</th>
<th>Part</th>
<th>Ware</th>
<th>Fabric</th>
<th>WT (cm)</th>
<th>ERD (cm)</th>
<th>RD (cm)</th>
<th>GPD (cm)</th>
<th>Max D (cm)</th>
<th>GPH (cm)</th>
<th>H (cm)</th>
<th>BD (cm)</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Jar</td>
<td>Sams</td>
<td>P 1470</td>
<td>shoulder fragment</td>
<td>red</td>
<td>coarse</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11</td>
<td></td>
<td></td>
<td>M2, main room</td>
</tr>
</tbody>
</table>

Gordion YHSS 6 recording categories.

<table>
<thead>
<tr>
<th>Year</th>
<th>Context</th>
<th>Date</th>
<th>Priority</th>
<th>Number</th>
<th>Part</th>
<th>Form</th>
<th>WT (cm)</th>
<th>RD (cm)</th>
<th>Colour</th>
<th>Fabric</th>
<th>Surface, Decoration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>L.101</td>
<td>EIA</td>
<td>1</td>
<td>FCN8142</td>
<td>rim</td>
<td>pithos</td>
<td>1.6</td>
<td>52</td>
<td>varied - grey outer, red inner</td>
<td>medium/large quartz, large grit - coarse</td>
<td>smoothed interior/exterio</td>
</tr>
</tbody>
</table>

Çadır Höyük recording categories.

The differences in the recording categories of Gordion YHSS 6 material are due to the fact that the material is drawn from G. K. Sams’ publication.

The abbreviations for the measurement categories are explained in the following table:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WT</td>
<td>Wall thickness</td>
</tr>
<tr>
<td>ERD</td>
<td>Estimated rim diameter</td>
</tr>
<tr>
<td>RD</td>
<td>Rim diameter</td>
</tr>
<tr>
<td>GPD</td>
<td>Greatest preserved diameter</td>
</tr>
<tr>
<td>Max D</td>
<td>Maximum diameter</td>
</tr>
<tr>
<td>GPH</td>
<td>Greatest preserved height</td>
</tr>
<tr>
<td>H</td>
<td>Height</td>
</tr>
<tr>
<td>BD</td>
<td>Base diameter</td>
</tr>
</tbody>
</table>
In combination with the characteristics outlined in the table above, I shall also pay attention to form as a defining marker for storage vessels, especially in the case of Çadir Höyük and EIA Gordion, where the material is highly fragmentary and as yet unpublished. The material from MIA Gordion, generally better preserved and more plentiful, has been classified in Sams’ publication, which I shall use as a departure point for the analysis. These data will allow me to discuss variety of vessel types dedicated to storage, the degree of vessel standardization, and whether any specific trends may be seen through time concomitant with site-wide changes.

Concerning individual pottery sherds, examples from both sites represent the minimum vessel number (MNV) for each designated type from given contexts, unless otherwise noted. MNV is favoured over overall sherd counts as it allows for closer determination for the actual number of vessels present. In total, 1465 items were examined and recorded during the course of a total of three weeks of fieldwork at Gordion and Çadir Höyük. In considering single sherds, the analysis will focus on diagnostic rims, as this is the easiest means for identifying storage vessels and types in the category of vessel, given the level of fragmentation of the material and the taphonomic processes at both sites. I have recorded other diagnostic material, such as bases and handles, and shall occasionally refer to them in instances where their status as once having belonged to storage vessels is obvious.

Analysis of non-diagnostic sherds was eschewed owing to the relative uniformity of pottery fabrics used for different vessel types, particularly in the EIA at both sites, making it often difficult to distinguish storage vessels. While it is obvious that body sherds with a thickness of over 1cm, for example, may

---

146 This includes published material. Reconstructed vessels are counted as a single item.
be categorized as having once constituted storage vessels, storage vessels are also capable of being thin-walled, which creates potential ambiguity. Eschewing these may give the impression that storage vessels are underrepresented in the archaeological record.147

The other important and related question on the identification of storage vessels (and the issue discussed above regarding body sherds) is regarding ware types. Both Gordion and Çadir Höyük each present their own set of issues. Concerning Gordion, the analysis of EIA material is ongoing; while the earlier MIA pottery, which has been published, has been classified according to forms rather than wares. At Çadir, particular storage wares have not yet been independently identified, and my own fieldwork was too brief to complete this undertaking. My analysis is therefore more focused on shapes as a starting point for further work to build on. The preservation of the ceramics, particularly at Çadir Höyük, is such that determining the capacity of vessels was not possible, except in very general terms and relative between different vessel types. Likewise, the condition of some reconstructed the vessels from Gordion, and fieldwork time constraints, did not permit the recording of vessel capacity.148

Regarding the contents (and therefore precise function) of ceramics, I make some basic assumptions about the contents stored in them (liquid or solid) on the basis of their forms (open versus closed shape) and approximate size; and the contexts in which the vessels themselves are found. In the absence of application of techniques such as residue analysis, or extensive preservation of the stored remains themselves (e.g. carbonized wheat), further discussion is not pursued in this thesis, though presents an avenue for possible future research (see Section 10.4).

147 Cf. Hnila 2012: 12.
Where possible, I shall also draw on comparanda from contemporary settlements in order to further clarify the discussion. This will be particularly the case for Çadir Höyük, owing to a number of near-by excavated sites which have yielded EIA-MIA remains.

**Pits**

Pits are some of the most ubiquitous form of storage in the ancient Near East, primarily interpreted as devoted to storing staple goods. In the context of this thesis, pits feature most prominently in the EIA phases of the discussed sites. Due to the often complex taphonomy of the respective sites (see Chapters 5 and 8) the detection of pits has often been difficult. They were frequently cut by other features (architecture or other pits), truncated by levelling activities, or repurposed with secondary functions (i.e. rubbish dumps).

My discussion of pits will be mostly confined to EIA Gordion, as the pits during this period of habitation were used for storing staple goods (see Chapter 7). Given the pending state of publication of the EIA excavations, the full data concerning capacity and contents of the excavated pits will become available in due course. Indeed, N. Miller notes that the sampling of pits for flotation during the 1988-89 excavations was inconsistent (in terms of quantity and volume of material from deposits).\(^{149}\) Owing to the frequent repurposing of pits and recording practices, gaining meaningful information regarding patterns of use was inconsistent.\(^{150}\) Pits are also present at Çadir Höyük, though their morphology suggests a function other than storage (see Chapter 9), indicating that any pits related to food storage were located elsewhere on site.

\(^{149}\) Miller 2010: 21.

\(^{150}\) Miller 2010: 37.
Architecture

Architectural storage forms functionally demarcated areas of the built environment in settlements dedicated to this function. This may include space hosting other methods of storage, principally containers (e.g. ceramics and perishable items such as skins and baskets); or purpose-built granaries/silos. One way of distinguishing between the two types of spaces may be whether doorways were constructed on the ground level of the structures (container storage) with the containers themselves inside; or had to be entered from above (granary/silo). I shall discuss architectural storage in the context of Gordion, distinguishing between spaces hosting containers or the goods themselves. Some discussion is also devoted to the possible kinds of commodities that were stored in these spaces. In the absence of archaeological or textual evidence, the discussion is necessarily speculative, yet highlights an avenue for future research (see Section 10.4).
CHAPTER 5: THE ARCHAEOLOGY OF EIA-MIA GORDION

5.1 Introduction

Uninterrupted cultural deposits spanning the LBA-MIA make Gordion one of the key settlements in central Anatolia for understanding the transition between these periods. As discussed earlier, though many discussions have revolved around the LBA-EIA transition, less systematic analysis has been paid to the EIA-MIA transition. In this section, the archaeological material from Gordion (overall contexts, assemblages and material culture such as pottery) spanning the EIA-MIA will be evaluated, and questions will be raised according to the themes of this work, relating to ways in which socio-cultural change and the development of political authority may be extrapolated from the pertinent evidence.

5.2. Overview of the Site

Gordion (Yassihöyük, literally ‘flat mound’), lies 120km south-west of Ankara (Figs.2.1, 5.1) and is a multi-period site primarily known for its Iron Age remains. The site is located on the banks of the Sakarya River, south of its confluence with the Porsuk, situated in the midst of an extended agro-pastoral landscape. North-east of the mound is a ridge occupied by many burial tumuli (there are over 200 in the general vicinity of Gordion),¹ which date from the mid-9th century BCE to the Hellenistic period.² Since the earliest excavations, the site has been synonymous with Phrygian culture and ethnic identity, and was the capital of their state in the 10th-8th centuries BCE.

¹ Liebhart et al. 2016: 628.
² The earliest excavated example is Tumulus W (Young 1981), redated to ca. 850 BCE following the establishment of the new chronology.
In the wider landscape, several other multi-period mounds have been detected which would have had significant relationships with Gordion in the Iron Age, though this remains largely uninvestigated (see discussion in Chapter 7 and 10). Indeed, accurate knowledge of settlement patterns in the region around Gordion is somewhat obscured by the action of the Sakarya and Porsuk Rivers, which has resulted in thick alluvial build-up over the past several millennia; and agricultural activity, which has no doubt obliterated sites with less substantial levels of occupation.

Gordion itself is comprised of several sectors (Fig.5.2). The Citadel Mound is the most prominent component of the settlement, rising some 15m above the plain and enclosed by a substantial fortification wall. Most of the work throughout the history of excavations has focused on the eastern half of the Citadel Mound, interpreted as the domain of elites on the basis of monumental architecture, production and storage facilities and finds of prestige goods. The excavated area of the Citadel Mound is divided into three main zones (Fig.5.3) – the Outer Court, flanked by megaron buildings on either side, leading to a partition wall and short stairway granting access to the Inner Court, also boasting megarons, two of which are the largest excavated at the site. To the west, two rows over 100m in length of megaron plan buildings stood, comprising the ‘service quarter’ of the so-called Terrace (TB) and Clay Cut (CC) buildings, which hosted textile and food production, and storage, which I shall discuss in Chapter 7. The Citadel Mound itself was bisected by a street for much

---

3 Kealhofer 2005b remains hitherto the only publication on the Gordion regional surveys, giving an overview of the history of the work which began in 1987, and preliminary results of the surveys conducted 1996-2002. Several other unpublished documents exist, particularly those detailing the early survey work (Sumner 1992; Wilkinson 1992). See Doonan 2012 for a short but useful overview of survey archaeology in Anatoli.

4 Marsh 1999; Kealhofer 2005b; Marsh & Kealhofer 2014.

5 Sams 1977; Burke 2010.
of the Iron Age,\textsuperscript{6} which divided the citadel from a largely unexplored western sector.\textsuperscript{7}

Surrounding the Citadel Mound is the Lower Town, a fortified area which boasted domestic and production quarters, and some monumental architecture, determined on the basis of excavations conducted in the 1990s.\textsuperscript{8} One prominent feature of the Lower Town is Küçük Höyük to the south-east, a substantial mud-brick fortified structure thought to have been constructed in the 7th century BCE.\textsuperscript{9} Kuş Tepe, on the north end of the Lower Town, is thought to be a similar structure, though it has not been excavated. Beyond the Lower Town is the Outer Town, the extent of which has been identified through surface survey and selective excavation. Contexts here are also mostly domestic in character and date to between the 6th and 4th centuries BCE,\textsuperscript{10} the period in which Gordion reached its maximum extent.

Gordion was first identified by the German philologist A. Körte in the late 19th century on the basis of readings of Greek and Roman texts,\textsuperscript{11} and trial excavations were directed in 1900 by himself and his brother G. Körte.\textsuperscript{12} Their work focused on the south-west and north-east edges of the Citadel Mound and five tumuli. These early excavations gave a general impression of Gordion and the various periods represented, particularly the site’s connection with the Greek world, as well as hinting at its prosperity alluded to by mythologically infused historical writings.

\textsuperscript{6} Voigt 2002: 194, 2013: 199.
\textsuperscript{7} Most of the excavations in this area have taken place on the fringes of the mound, and on post-Iron Age levels (Goldman). Where the Iron Age has been reached has been only later MIA levels (YHSS 5-4) have been reached (Voigt & Cuyler Young Jr. 1999).
\textsuperscript{8} Voigt & Cuyler Young Jr. 1999.
\textsuperscript{9} Excavations of Küçük Höyük remain unpublished.
\textsuperscript{11} Körte 1897.
\textsuperscript{12} Körte & Körte 1904.
The first phase of sustained investigation was conducted during 1950-73 under the direction of R. Young, from the University of Pennsylvania. Young’s excavations focused on the ‘Early Phrygian’ remains on the Citadel Mound, in particular the so-called ‘Destruction Level’ (Fig.5.3), a late 9th century BCE phase of the citadel, much of which was devastated in an extensive conflagration, then sealed in a 2-5m layer of clay fill, upon which the subsequent citadel was built.13 Excavations on the Citadel Mound yielded an elite quarter enclosed by a substantial fortification wall, entered via a monumental gateway. Most of the buildings are of a megaron type (a bi-partite structure with a front porch area and a larger space at the rear, often framed with a central hearth), used variously for production, as well as being more formalized settings for receiving audiences, and acting as repositories or even temples. Young also excavated several burial tumuli, including the largest – Tumulus MM –, revealing the scope and wealth of funerary paraphernalia.14

Following a hiatus, fieldwork resumed in 1988. Under the direction of G. K. Sams and M. Voigt, excavations focused on other areas of the site, such as the Lower and Outer Towns; refining the overall chronology of the site and implementation of a new periodization scheme (YHSS – Yassihöyük Stratigraphic Sequence, Fig.5.4) which will be referred to in this work; combined intensive/extensive surveys in the wider Gordion region; renewed work on the western portion of the Citadel Mound (summarily explored by the Körtes and largely unexplored by Young); and gathering information about the later Iron Age and post-Iron Age levels of the site, namely the Hellenistic and Roman,15 but also the fragmentary medieval layers on top of the Citadel Mound.

13 DeVries 1990: 377; Rose 2012: 5.
14 Young 1981.
Upon the passing of the directorship to C. B. Rose, remote sensing techniques have been adopted (2007-ongoing), adding further information about the nature of the fortification walls surrounding the Lower Town, the general character of the urban plan within the Lower Town itself and also on the western portion of the Citadel Mound. In terms of excavation, a trench adjacent to the old excavations of the CC buildings (Fig. 5.3) was initiated to clarify the character of the street bisecting the mound, and its entrance gate at the south end of the mound. This level has yielded important medieval layers (14th-15th century CE), some Roman and substantial Hellenistic/LIA deposits.

One of the most significant outcomes of the last 15 years of work at Gordion has been the re-evaluation of the chronology of the Destruction Level (YHSS 6A). For a long time, the date was synchronized with purported historical events, which stated that Gordion was destroyed in the late 8th century by the Cimmerians, marauding Iranian tribes which wreaked havoc across Anatolia. Reassessment of stratigraphy, artefact typologies, and new suites of radiocarbon determinations and dendrochronological analysis have yielded a late 9th century date. This re-dating has not been without controversy, but has generally been accepted by Iron Age scholars on the basis of developments, absolute dates, and material culture comparanda at other sites.

Gordion is thus an important site for understanding chronology, cultural and political development in the region, and as a hub for interactions between eastern, western, and southern Anatolia. However, it remains the only

---

17 Rose 2017a, b.
18 Young 1951: 12; 1953: 18; 1956: 262-63.
21 Genz 2011: 335.
extensively investigated site in the immediate region, giving a somewhat asymmetrical picture of the archaeology in the wider landscape.

5.3. *ELA (YHSS 7) Gordion*

5.3.1. *The ELA in the 1950-73 Excavations*

ELA material was first encountered in Young’s first season of excavations in the course of digging a sounding (the North-Central Trench, NCT) in the middle of the Citadel Mound to gain a picture of its overall stratigraphy.\(^{22}\) Level IVa in this trench (which fortuitously passed through the main room of YHSS 6A Megaron 12), yielded a number of examples of ELA pottery.\(^{23}\) Recent revaluation of the evidence by M. Voigt has led her to suggest the presence of at least ELA two houses in the trench, on the basis of the presence of relatively complete vessels,\(^{24}\) implying the presence of relatively intact floor levels. The presence of Bronze Age pottery noted by Young may be explained through ELA digging into earlier strata and using the earth as part of building construction (See discussion in the following section and Chapter 6).

Further pre-MIA levels were encountered during the excavation of a sounding in Megaron 10 (YHSS 6A-B) in a renewed attempt to understand the overall stratigraphy of the site, yielding 18 distinguishable layers reaching back to the EBA.\(^{25}\) Evaluation of pottery from these soundings by G. K. Sams suggests that the lack of defined ELA levels or associated pottery in the Megaron 10 was due to the removal of strata in the course of later remodelling.\(^{26}\) ELA pottery

---

\(^{22}\) Young 1951: 10-13.


\(^{24}\) Voigt 2013: 185.

\(^{25}\) Young 1966: 276; Gunter 1991: 3-4.

\(^{26}\) Sams 1994a: 8.
does occur within two levels (4-5) of the sounding, though it is always mixed with MIA and/or Bronze Age material.

Excavations beneath the floor of Megaron 5 in 1965, a building dating to the early phase of YHSS 6A, offered another glimpse into contexts that existed prior to the formalization of the citadel (Fig.5.5). Digging revealed ‘a whole complex of beam beds and post-holes, another large round hearth with oven and storage bins built of kerpiç [packed earth] to one side of it, and an irregular line of holes left by small posts. These evidently belonged to an earlier structure of Phrygian times whose plan cannot yet be made out’.²⁷ The row of postholes may have been the remains of a building not unlike the Burnt Reed House of YHSS 7A, dug in 1988-89 (see Section 5.3.2.). The pottery from this level yielded a stamped and painted sherd, and a round mouthed jug in association with the oven stratified above the posthole structure level.²⁸ However, no characteristic EIA pottery seems to have been encountered, and the posthole structure appears not to have been excavated in detail, as the description in the pertinent field notebook is brief and no associated artefacts are discussed. The beam-bed structure, however, likely dates from YHSS 6B.

Further EIA material was excavated in the so-called Early Phrygian Building (henceforth EPB) in 1965,²⁹ 1969 and 1971.³⁰ This structure was an entrance gate into the complex on the Citadel Mound, associated with the early fortification wall dating to YHSS 6B, or perhaps even earlier. Digging in the deposits below the EPB (phases I-IIa/b) yielded EIA pottery,³¹ though without

---

²⁷ Young 1966: 272.
²⁸ Sams 1994a: 15.
secure contexts. EPB I in particular is seen by Sams as possibly predating YHSS 6.32

5.3.2. The EIA in the 1988-89 Excavations

Excavations in 1988-89 sought to clarify the problem of the LBA-EIA transition in the re-evaluation of the overall stratigraphic sequence of Gordion, and also to determine how MIA society and material culture developed at the site from earlier periods. A series of trenches were initiated in the YHSS 6A Outer Court, which have yielded the most significant amounts of EIA material and, for the first time, extensive architectural contexts of this period (Fig.5.6).

The initial phase, YHSS 7B, is comprised of a number of partially agglutinating, semi-subterranean buildings,33 constructed from mud and reeds with a cobble foundation.34 The exterior of the two best preserved buildings (CKD and SSH Structures) boasted hearths and mud-plastered bins.35 The buildings were surrounded by open areas and adjacent pits, used for storing grain.36 In the subsequent EIA level – 7A –, several structures from 7B go out of use and are dismantled, before a single large building is constructed. This building, dubbed the Burnt Reed House (henceforth BRH, Fig.5.7), was constructed from mud and wood, featuring a plastered interior and associated exterior storage pits. Interior features included an oven, storage bins, a pot stand, grinding implements, loom weights,37 and a mud-plastered platform decorated with pilasters,38 probably used as a work area, not unlike facilities found in the early

33 This method of construction for generic domestic housing continues at Gordion well into YHSS 4 (Voigt & Cuyler Young Jr. 1999).
36 Voigt & Henrickson 2000b: 333.
megarons of YHSS 6A (see Section 5.4.2.1.). Mention is also made of a pit adjacent to the building which was full of pottery, bronze, and iron artefacts.\[39\]

The size of the BRH in comparison to the buildings of YHSS 7B, and its associated material culture has led to the view that the structure played host to some kind of significant activity,\[40\] but a lack of general knowledge about other YHSS 7A buildings hampers this perspective. Indeed, the fragmentary building excavated by Young beneath Megaron 5 (discussed above) seems to be another example of a structure following the architectural style of the BRH, perhaps suggesting a similar date.

The end of the BRH is marked by destruction in a fire and its subsequent dismantling. Further buildings were subsequently constructed over it (PHT and SWS Structures), following the architectural techniques of YHSS 7B. These buildings were, however, quite ephemeral and not in use for a long time. The SWS Structure in particular was a building lined by orthostats,\[41\] though it is not discussed much in publication other than being defined as a non-domestic building, based on ‘aspects of its form and contents’.\[42\] The latest YHSS 7 structures were partially dismantled before the area was filled in to form the series of open courtyard surfaces that make up YHSS 6B.\[43\] The ceramics from these levels denote parallel manufacture of handmade and wheelmade buff pottery.\[44\]

\[39\] Voigt & Henrickson 2000b: 351. No detailed discussion is presented on the character of the metals and the presumed chronology of the pit.
\[40\] Voigt & Henrickson 2000a: 46.
\[41\] Voigt 1994: 269.
\[42\] Voigt 1994: 269.
\[43\] Voigt 1994: 270.
5.3.3. The Dating of YHSS 7

The chronology of the EIA at Gordion relies primarily on the bookending effect of the conventional LBA chronology, with the period ending ca. 1200-1180 BCE, and a hypothetical reconstruction for the beginning of the MIA at Gordion itself, marked by the end of the BRH phase and the laying down of the initial courtyard phase marking YHSS 6B.

Drawing on the 1988-89 data, M. Voigt supposed that YHSS 7 dates to 1100-950 BCE.\(^{45}\) This range was predicated upon a view that there was a brief occupation hiatus at Gordion following the end of the LBA, stemming from one possible interpretation of a ‘ricey clay’ layer separating the LBA and EIA in the excavated trenches, visible in the baulk of Operations (trenches) 3 and 5.\(^{46}\) Consequently, the beginning of the EIA phase at Gordion is deemed not to have begun later than the 11th century BCE.\(^{47}\) Alternatively, it may be that this particular area of the mound did not see much if any activity between the end of the LBA and the initial YHSS 7 phases. Voigt allows that defining the chronological and taphonomic relationship between the respective EIA structures, particularly those of YHSS 7B, is difficult owing to pit and construction phase cuts, and the generally ephemeral character of the architecture.\(^{48}\)

YHSS 7A is somewhat problematic, with the BRH being the only structure representing this phase, and the subsequent layers suffering from extensive pit cutting and levelling. A series of recently published dates drawn from charcoal samples excavated in the BRH place the range of the phase in the 1000-900

---

\(^{45}\) Voigt 1994: 270.
\(^{46}\) Voigt 1994: 267-68.
BCE range,\textsuperscript{49} while short-lived samples from the building (drawn from grain), fall in the 920-825 BCE range (99.7% probability),\textsuperscript{50} with a favouring towards the earlier end of the spectrum for its destruction.\textsuperscript{51} This affirms the earlier proposition of the date of the BRH as likely to be ca. 950 BCE.\textsuperscript{52} In the light of these dates and Gordion’s now higher chronology, this presents some interesting implications for the pace of socio-political development at the site (see the discussion in the following chapters).

One proposed explanation for the seemingly rapid pace of development is the arrival of a second wave of migrants at the site (perhaps from the west), also used to explain the emergence of the YHSS 7A wheelmade buff pottery.\textsuperscript{53} In the light of this, we should anticipate the presence of such material culture at other sites in the Sakarya region dating to the EIA and perhaps earlier. No surveys have yielded buff pottery like that found at Gordion and the closest excavated sites have not yielded such material. The nearest excavations of a roughly contemporary site, at Şarhöyük in the northern outskirts of modern Eskişehir (125km west of Gordion), which have been taking place since 1989, do not seem to have yielded comparable material, though very little has been published, including preliminary reports (see discussion Chapter 2).

5.3.4. YHSS 7 Ceramics

Two distinctive pottery types appear over the course of the EIA, both of which have been associated with migratory episodes at the site, particularly the arrival of the Phrygians into central Anatolia, following the discursive paradigm set by historical texts, as discussed in Chapter 2. Their difference from the LBA

\textsuperscript{49} Voigt 2011: Fig.6.3a.
\textsuperscript{50} Voigt 2011: Fig.6.12.
\textsuperscript{52} Voigt 2011: 30.
\textsuperscript{53} Voigt & Henrickson 2000b: 355.
ceramic repertoire has further cemented these ideas, which, however, remain difficult to substantiate when considering a wider regional discussion, particularly due to the lack of excavated sites with EIA levels.

YHSS 7B pottery (Figs.5.8-9) in particular has been noted for its discontinuous character when compared to LBA and MIA wares. It is exclusively handmade and quite narrow in repertoire, boasting a few shapes confined to bowls, jugs and large jars, with mottled surfaces ranging from brown and black, indicative of uncontrolled, low temperature firing, to more uniformly buff. The fabric is generally coarse, with medium-large quartz inclusions and gold mica flecks, reflecting the character of one local (Sakarya River) clay source. The generally friable fabric has resulted in the preservation of very few complete/reconstructable vessels. The surfaces of the ceramics are often mottled, owing to the firing techniques, or a relatively uniform dark hue. It is likely that the manufacture of pottery in YHSS 7B was based on the household level, and there was no interest/need for technological elaboration. Though most of the pottery is related to cooking and consumption, some, as I shall discuss below, is may have been connected to storage practice.

The preliminary publications discussing EIA pottery have focused on outlining the parameters surrounding production, but less attention has been paid to consumption, which implicate ideas of the way in which the material culture ‘was utilized and conceived in fields of practice’. The preference for hand making may have also been a conscious choice, rather than ignorance of wheel-making, which plays into ‘dark age’ society tropes and puts a qualitative cast

---

54 Voigt & Henrickson 2000b: 342.
55 Voigt & Henrickson 2000b: 342.
56 Henrickson 1993: 115.
57 Voigt & Henrickson 2000b: 342.
onto the differences in aspects of production in the EIA, compared to the LBA and MIA. The final analysis and publication of EIA pottery is currently taking place, which will allow for fuller discussion of the implications the material presents.

EIA handmade pottery is also frequently decorated. The hand making, forms and decoration have been used to argue in favour of evidence of a Phrygian migration. What has not been considered in detail is the question of the handmade pottery being representative of ceramic traditions practiced in the wider hinterland in the LBA, beyond the influence of Hittite socio-political spheres, an argument which has been put forward in recent discussions of the changes in EIA ceramic repertoires in the Kızılırmak region (see discussion in Chapters 8 and 9). This raises research questions concerning handmade pottery in the MBA-LBA, which have hitherto not been investigated (or, indeed, identified) in detail the context of the Sakarya region.

In YHSS 7A, handmade wares continue, but new types are also introduced – a variety of buff ware that is typologically distinct from the handmade wares, as well as the earlier LBA buff pottery. This pottery type, confined to the floor levels of the BRH, has further significance in that the potter’s wheel returns as a method of manufacture, and several vessel shapes anticipate those of YHSS 6, which in turn have a long history of manufacture well into the later Iron Age and Hellenistic period. In addition to the potter’s wheel, the character of the pottery also suggests a return to the use of kilns for firing, which were not used in YHSS 7B. Most of the pottery recovered from YHSS 7A comes from

---

61 The MBA pottery of Demircihöyük, which has been published (Kull 1988) presents one avenue for analysis. The intensive surveys of the Pessinus team at Tekören in 2009 have also identified Bronze Age material at the site (Anderson 2010).
63 Voigt & Henrickson 2000b: 349.
64 Voigt & Henrickson 2000b: 349.
the BRH, making the overall quantity of the assemblage quite small. The vessels from the building are particularly noteworthy in that they come from a primary context (found in association with the oven), with several examples intact or reconstructable. Typologically, the assemblage becomes increasingly diverse, with various jar types, carinated goblets, grooved bowls, pedestal based vessels and storage jars present (Fig. 5.10).\(^\text{65}\)

Some difficulties associated with interpreting and characterizing the YHSS 7A buff wares include the difficulty of determining the comparative percentages of handmade and buff wares, since YHSS 7A buff ware body sherds are sometimes difficult to distinguish from YHSS 8 buff types.\(^\text{66}\) A further difficulty associated with the YHSS 7A buff wares is that no certain parallels for this type of pottery have been encountered at other sites with excavated EIA contexts.\(^\text{67}\) Also, knowledge of the diversity of ceramic repertoires in the Gordion region from the Bronze Age onwards and the position of handmade pottery in their midst is rudimentary, thus hindering discussion. In addition, no examples of EIA buff ware have been recognized from other excavations on the mound which penetrated EIA strata, such as the NCT, Megaron 10 and EPB soundings.

Though the BRH contexts are distinctive for their lack of handmade pottery, in YHSS 7A it is likely that both wheelmade and handmade wares were made and consumed, though differentiated in their function and use contexts, as a number of pits associated with the BRH also yielded a significant amount of broken pottery, dating to both phases of the Iron Age.\(^\text{68}\) In particular, one pit, perhaps slightly post-dating the BRH, yielded a sample of 177 sherds, with

\(^{65}\) Voigt & Henrickson 2000b: 351.
\(^{66}\) Voigt & Henrickson 2000b: 349.
\(^{67}\) Voigt & Henrickson 2000b: 351.
handmade wares comprising 69% of the group and buff wares 31%.\textsuperscript{69} It should also be noted that the destruction of the BRH by fire had re-fired the pottery inside it, which could account for its buff character;\textsuperscript{70} the information from the above mentioned pit suggests that buff firing was part of the potting \textit{modus operandi} in YHSS 7A.

Indeed, the mixture of wheelmade and handmade pottery in post-BRH phases parallels evidence from other EIA sites in Anatolia, notably Troy VIIb, where handmade pottery was used for cooking and low-volume storage, while finer wares were used for dining.\textsuperscript{71} A similar scenario may have existed in the latter part of YHSS 7A as part of the diversification of the ceramic repertoire and accompanying shifts in social practices which used pottery to mark such differences. I would argue, for example, that the so-called ‘utility pot’,\textsuperscript{72} a coarseware single-handled vessel with a flat base, which becomes the dominant cooking vessel type over YHSS 6-3 at Gordion, has its roots in the single-handled cooking pots from YHSS 7B. Certain buff ware shapes, as has been noted by the excavators, become part of the standard plain and fineware repertoire in later times.

No mention is made of EIA buff wares in the R. Young era publications, perhaps stemming from the difficulty of distinguishing sherds, particularly non-diagnostic ones, from LBA pottery.\textsuperscript{73} Indeed, R. Henrickson argues that, apart from carinated bowls, there is a lack of EIA buff ware examples in material from the Young period soundings.\textsuperscript{74} Consequently, it is tempting to argue that the BRH assemblage is exceptional, but the extent to which this is the case

\begin{footnotes}
\item[70] Henrickson 1994: 108.
\item[71] Aslan & Hnila 2015: 187, 192.
\item[72] Henrickson 2001: Fig.4.
\item[73] Voigt & Henrickson 2000a: Fig.7.4.
\item[74] Henrickson 1993: 122.
\end{footnotes}
cannot be said due to a lack of other excavated buildings belonging to the same phase as the BRH. The possible BRH Structure counterpart excavated underneath Megaron 5 by Young (see Section 5.3.1.) offers a parallel, but the levels are considerably disturbed and were not excavated at a significant depth to obtain further data.

Material from a later stratigraphic level (Beam Bed Structure) likely dates from YHSS 6B, with pottery being primarily coarse and occasionally painted (see further discussion in Chapter 7). Ledge-rim vessels, several of a storage type, are quite prominent. Yet, it is unclear how much deposit mixing occurred in these phases, which would account for the presence of later material in earlier strata. In sum, YHSS 7A strata remain under-represented in the current knowledge of the EIA at Gordion, due to taphonomic factors and problems of identification.

On the whole, the continuation of handmade pottery during YHSS 7A, and the formulation of what became the canonical ‘Phrygian’ assemblage in YHSS 6 indicates a shifting industry and social organization, with increased interest in specialization of ceramic manufacture and changing social composition that called for the production of varied gradation of ceramics and likely their implication within increasingly socially differentiated contexts. A diachronic comparison of the respective percentages of handmade and wheelmade wares would inform interpretations about shifts in ceramic production, and, in turn, social structuration involving this, as the manufacture of both respective types is suggestive of patent differences in social organization.

75 Young 1966: 272.
5.4. MLA (YHSS 6) Gordion

5.4.1. YHSS 6B Archaeological Contexts

In YHSS 6, the character of the overall settlement at Gordion on the Citadel Mound changes dramatically (Fig.5.3). Any YHSS 7 remains were cleared, and various levelling layers of artificial fill and hard packed surfaces were laid down before the commencement of the construction of a formalized building plan. The first level – YHSS 6B – is comprised of a series of large open courtyard spaces punctuated by structures, including the early fortification wall girding the mound (Fig.5.11), the EPB and so-called Polychrome House gates, and the eventual construction of the first megaron plan buildings. A series of phases comprising YHSS 6B have been documented in the 1988-89 excavations, which evince alternating periods of construction and use. Compared to the EIA levels, there is significantly less evidence of animal and plant remains, suggesting that the management and processing of such resources shifted elsewhere on the site accompanying the change in the function of the citadel.

One interesting building belonging to YHSS 6B is the Post and Poros (PAP) Structure (Fig.5.12), dubbed on account of its construction using wooden posts and poros limestone blocks), built in close proximity to the EPB, and excavated in 1963 and 1993. This building, belonging to the end of YHSS 6B, is an early megaron plan type, though more elaborate and shorter lived than the contemporary Megaron 10 situated to the north-east. It was constructed with a stone slab foundation (which also acted as the building’s pavement) and

---

punctuated by postholes and beam-beds, forming support for the roof and walls.

Like a typical megaron, the PAP Structure boasts a ‘porch’ and main room plan, though the porch is open, unlike that of subsequent megarons at Gordion. The initial excavation of this building was done by R. Young, and the plan shows the poor state of preservation of this level, particularly in the areas associated with the fortification wall. The western portion of the building was excavated in 1993 by M. Voigt. For the most part, the structure, as initially seen in the Young excavations, was robbed out, with only a few paving stones and one wall block remaining in situ.

The significance of this building has been marked through its likely adornment with zoomorphic sculpture and reliefs in the form of lions and birds. The lion sculptures were found in 1955 in the foundation rubble of a YHSS 5 building overlying Megaron 1, and also in the clay fill covering YHSS 6A. Further fragments were found in 1988-89 during excavation of the uppermost YHSS 6B courtyard phases. In terms of style, the sculptures have strong connections with examples from the Syro-Anatolian sphere in the 10th-9th centuries BCE, particularly at Carchemish and Zincirli-Sam’al, where they were used to adorn gate buildings.

The poros limestone used to make the sculptures has led to the view that they were made at the same time as the PAP Structure was decorated with them.

---

81 Young 1964: Pl. 87, Fig. 32.
82 Voigt & Henrickson 2000b.
83 Young 1956: 261.
This view was reinforced in the 1988-89 excavations, as the uppermost YHSS 6B courtyard phase filled with stone-cutting debris yielded a poros wing fragment. 1993 excavations of the PAP Structure further affirmed the stratigraphic connection with this courtyard phase. On the whole, the PAP Structure seems to have had a short use-life before it was dismantled. Its remains were used as fill and building material, accounting for the varied stratigraphic distribution of the sculptural and building fragments.

My cursory examination of the pottery (conducted in 2016) belonging to the PAP Structure trenches (Operations 15, 18 and 19) shows a preponderance of LBA types and some EIA handmade wares, indicating significant disturbance and redeposition of strata during the initial construction of the building and certainly in its dismantling and subsequent constructions.

To the north-east of the PAP Structure, Megaron 10 was constructed, another early megaron plan building built adjacent to the EPB. Unlike the other YHSS 6B known structures on the Citadel Mound, Megaron 10 was not dismantled in the building works of YHSS 6A, but was raised and continued to be maintained and used until the end of the phase.

As mentioned above, two gate buildings were constructed punctuating the early fortification wall, the EPB and Polychrome House. The former has provided an interesting and important stratigraphic sequence of four levels associated with its use life (EPB I-IV, with some sub-phases) on its western side, plus additional levels (V-VII) connected with YHSS 6A constructions. The EPB was built with a narrow passage and constructed from limestone blocks, preserved up to 1m in height, with alternating courses of stone and wooden beams. At

---

89 Young 1966: 273-74.
some stage, the building was remodelled with a narrower entrance inside the citadel and was given a roof, indicated by a central line of postholes along the corridor.\(^9\) It has been supposed that the construction of this building actually belongs to the EIA, initially implied by Young in his report,\(^9\) and later by DeVries and Sams, who note the presence of a mixture of LBA and handmade EIA pottery in the EPB I level and an isolated group of pre-EPB floors.\(^9\)

At some point during YHSS 6B, the Polychrome House was constructed to the south-west of the EPB, called thus on account of the coloured stones used in its construction. It served as a new entry point into the citadel complex, suggesting some level of reorientation of building plans and other unknown buildings and complexes on the mound. The Polychrome House also escaped the demolition works beginning in YHSS 6A by being incorporated into a new, larger gate building, dubbed the Early Phrygian Gate in the literature.

On the west side of Megaron 12, another structure belonging to YHSS 6B was excavated in 1961 and 1965. Called the Northwest Enclosure, this building measures 10.1 x 7.75m, and was built of stone paving slabs flanked by wooden beams following the exterior perimeter of the structure.\(^9\) The strata immediately below the building contained mostly EBA and some LBA pottery,\(^9\) denoting the approximate height of the Bronze Age mound in this area (see Section 5.4.3.).

Regarding the chronology of YHSS 6B, no absolute dates have been generated for this period. However, following the current interpretation of the relative chronology, new dating of wood remains from the YHSS 6A megarons of the

---

9 Young 1966: 274.
91 Young 1966: 274.
Inner Court and the likely late date of the YHSS 7A BRH Structure, these works took place over some half a century between 950-900 BCE. Due to the fragmentary remains, it is difficult to postulate the time intervals in the construction phasing. It is possible there is some overlap between the later YHSS 7A phases and some of the initial YHSS 6B constructions, primarily the early fortification wall and the EPB, which has been postulated by G. K. Sams on the basis of stratigraphic and ceramic analysis.

5.4.2. YHSS 6A Archaeological Contexts

Whatever other structures from YHSS 6B existed aside from those discussed above were cleared at the end of the phase, signalling the next major phase of remodelling on the citadel. In YHSS 6A, probably at the very end of the 10th century BCE, the Citadel Mound was subject to an increasingly formalized construction plan, work which continued until the end of the 9th century BCE, when much of the citadel complex was destroyed by fire. During this period, the ‘classic’ form of the Citadel Mound took shape, traditionally associated with the florescence of Phrygian culture and power. YHSS 6A is the most comprehensively studied stratum at Gordion, and has contributed most significantly to the interpretations of the site and, by extension, much of central Anatolia thought to be under Phrygian hegemony.

5.4.2.1 YHSS 6A, the Pre-Terrace Phase

The earlier known phase of YHSS 6A (Fig.5.13) includes the construction of a monumental gateway on the east side of the Polychrome House, which itself is incorporated into this structure. Passing through the gate, the visitor would

---

95 Kuniholm 2012.
have entered a large open courtyard flanked by two megarons on either side. One of these was Megaron 10 from YHSS 6B, not demolished, but incorporated into the overall plan of YHSS 6A. Beyond these megarons is an upper terrace (the Inner Court), also boasting an open court flanked by various megaron buildings, the largest of which is Megaron 3, an impressive edifice measuring 30.4m x 18.3m, built using a combination of a wooden beam skeleton encased in stone with a mud-brick superstructure, with a clay plastered interior, and two rows of wooden columns that would have supported a second storey.

The remains from these early megarons offer some insight as to function, despite the fact that they were largely cleared prior to demolition. Megarons 6, 7 and 8 were each furnished with an oven, grinding implements in the latter and possible loom weight in the former, leading to the view that the functions of these buildings pre-figured those of the TB and CC buildings. It is likely that a row of north-south oriented megarons existed in this area, prior to the dismantling and sealing of those to the west beneath the terrace of the service quarter.

5.4.2.2. YHSS 6A, the Destruction Level

In the mid-9th century, further significant alterations were made to the citadel complex (Fig.5.3). Megaron 4 was constructed on the north side of Megaron 3, the pre-terrace phase Megarons 6-8 to the north-west were demolished, and the western portion of the citadel quarter was raised on a new terrace. A series of

---

100 Young 1968: 239.
101 Young 1968: 239.
102 DeVries 1990: 375-76.
103 DeVries 1990: 376-77.
so-called terrace buildings (TB 1-8) were constructed flanking the rear of Megarons 1-4, spanning a total length of 105m. Also megaron in plan, the material culture found inside them – copious amounts of loom weights, spindle whorls, ceramics and grinding stones – suggests a food and textile production area, as well as storage functions, which I shall discuss in Chapter 7. The buildings likely had a second storey, evinced by the rows of postholes forming a central nave and side aisles. Adjacent to the ‘street’ west of the terrace buildings is a mirror image of megaron plan structures, though only three have been excavated. These are the CC (‘clay cut’) buildings, which had similar functions as the terrace buildings and likely extended to the same length on the terrace.

5.4.2.3. The Dating of the Destruction Level

In 2003, the Gordion team published a series of new dates for the Destruction Level, giving the works on the Citadel Mound a late 9th century date.\(^{105}\) As noted in Chapter 2, recent publication of a monograph dedicated to the rationalization of the new chronology has sought to put together the respective scientific analysis and material culture studies to arrive at an understanding of the chronology of the Destruction Level, but which also affects understanding of temporally adjacent periods.\(^{106}\) Since the initial publication of the revised chronology, the findings have not gone without controversy, with some scholars strongly contesting the validity of the new dates on the basis of scientific methodology,\(^{107}\) and material culture comparisons from other sites.\(^{108}\) However, the general consensus has been in favour of the higher chronology,

\(^{105}\) DeVries et al. 2005.
\(^{106}\) Rose & Darbyshire (eds.) 2011.
\(^{107}\) Keenan 2004.
and comparative radiocarbon dates and material culture from other central Anatolian sites favour the new determinations.¹⁰⁹

The new date for the destruction has also prompted a revision of construction phasing on the citadel of the discrete buildings, primarily on the basis of dendrochronology and wiggle matching.¹¹⁰ This has made it possible to situate the works at different points in the 9th century, with major construction episodes being in the late 10th/9th, middle and last quarter (see Discussion in Chapter 7, Fig.7.10).

5.4.2.4. YHSS 6 Ceramics

Several components of the YHSS 6 assemblage (Fig.5.14), as noted above, have their origin in YHSS 7A, particularly loop-handled cups, ledged rim vessels, and plain and carinated bowls. One major marker of YHSS 6 pottery is its typically dark grey colour and a specific suite of shapes, which comes to dominate much of the central Anatolian ceramic assemblage down to the Hellenistic period.¹¹¹ This uniformity through time occasionally makes dating difficult, particularly for material collected in surface survey. In general, the YHSS 6 ceramic repertoire increases significantly, with a wide range of coarse and fine wares present. Aside from grey wares, painted wares are also a prominent feature of the assemblage: a dark-on-buff variety exhibiting geometric and zoomorphic designs probably influenced by the contemporary Alişar IV wares from the Kızılırmak region (See Chapter 8), as well as examples of proper Alişar IV wares themselves.

¹⁰⁹ Summers 2008; Genz 2011.
¹¹⁰ Manning & Kromer 2011.
¹¹¹ Henrickson 2005: 124.
Despite the breadth of the ceramic repertoire in YHSS 6, knowledge of the extent of the contexts from which the material comes from is more limited. As excavations of YHSS 6 have focused on the Citadel Mound, information that would add depth to the patterning of ceramics in domestic contexts at Gordion is lacking. Moreover, it has not been possible to detect the overall character of the transition into the YHSS 6 ceramic repertoire, apart from the hints given by the YHSS 7A buff ware prototypes. Excavations of the fills within the EPB sequence, where much EIA handmade ware was found prior to the 1988-89 excavations, demonstrate a break from handmade to wheelmade grey wares; indeed, no mention of YHSS 7A buff wares is made in the final publication of YHSS 6 pottery. The NCT sondage excavated by Young offers further hints, with evidence of early, coarse YHSS 6 pottery exhibiting possible experimentation in kiln atmosphere to achieve dark hues.

Petrographic studies have been conducted on YHSS 6 pottery (albeit focused on finer wares) and have added further information to the picture of ceramic manufacture at Gordion. In this period, the clay sources become more varied, and often at greater distance from Gordion, indicating that ceramic production was shifted to other locales and brought to the site as a finished product. Petrographic analysis of the pottery from the late MIA city of Kerkenes Dağ in the Kızılirmak region has also demonstrated a high proportion of non-locally made vessels. The evidence from Kerkenes has been used to argue in favour of outsourcing of production of certain goods within a wider geography, and the evidence from Gordion may denote a similar scenario. This, in turn, suggests a high degree of social organization in the ability to marshal goods and

---

112 Information about the later periods (YHSS 5-4) is more secure (Voigt et al. 1997; Voigt & Cuyler Young Jr. 1999) but is beyond the scope of this work.
113 Sams 1994a: 34.
114 Sams 1994a: 34.
116 Kealhofer et al. 2010: 89-90.
resources from far afield, and raises the question of whether any kind of higher authority was involved in regulating production.

The picture of ceramic production at Gordion has been complemented by ceramic petrography studies of MIA pottery from other sites in the Eskişehir province, drawn from mostly from surface surveys and some excavations.\textsuperscript{117} The analyses have shown that ceramic production was regionally specific, with various focal nodes of manufacture existing similar ceramics.\textsuperscript{118} Though the production of ceramics with similar wares and shapes is indicative of an interest in participating in a shared ‘language’, resulting in regional ‘dialects’ where local and regional meanings intersected.\textsuperscript{119} However, patterns of use and consumption no doubt differed considerably,\textsuperscript{120} to the point that the use of similar shapes and the like needs to be complemented by an analysis of patterns of consumption in order to define particular contextual meanings from the material.\textsuperscript{121} This in turn raises questions in relation to the values and perceptions of certain products in different locales, be it regions or within sites themselves.\textsuperscript{122} Lack of publication of excavated material from other sites, and a preponderance of survey material used by the Anatolian Iron Age Ceramics Project complicates analysis, but allows for theoretical positions to be tested by further analysis and research questions.

As pottery making seems to have been \textit{ad hoc} and at a household level in YHSS 7B,\textsuperscript{123} the changes beginning in YHSS 7A are arguably connected with changes in the socio-economic significance of pottery,\textsuperscript{124} for example, whether the

\textsuperscript{117} Grave \textit{et al.} 2012.
\textsuperscript{118} Grave \textit{et al.} 2012: 403.
\textsuperscript{119} Anderson 2014: 135, 141.
\textsuperscript{120} Cf. Grave \textit{et al.} 2012: 402.
\textsuperscript{121} Anderson 2014: 134.
\textsuperscript{122} Anderson 2014: 133.
\textsuperscript{123} Voigt & Henrickson 2000a: 43.
\textsuperscript{124} Arnold 1985: 101.
introduction of the EIA buff wares may represent increasing commodification of ceramics, and this may in turn be related to other potential changes like diet preferences, and the role of dining as a locus/event for social negotiation, whether on a small or large scale, and, indeed, changes in the patterns and character of storage. The fragment of a pedestal goblet from YHSS 7A (Fig.5.9) implies some of these developments, though the generally restricted nature of the ceramic corpus hinders further interpretation. However, given the evidence demonstrated from YHSS 6, it is reasonable to assume that these processes were underway during the latter part of YHSS 7.

5.4.3. The Taphonomy of Gordion

As is common to höyükş in the Near East, the taphonomy of Gordion is quite complex, offering uneven representation of respective periods in different areas of the mound. Owing to its destruction and lack of significant subsequent disturbance, YHSS 6A gives an exceptional glimpse into the primary functions of the various contexts of the Citadel Mound in the late 9th century BCE. The secure character of these contexts was assured in their burial by a thick layer of fill (up to 5m) upon which subsequent construction took place. In comparison, there is comparatively little artefactual material attributable to YHSS 6B owing to the continual remodelling and construction of during YHSS 6A. As noted, a few structures initially built in this period were maintained, while the remainder were largely demolished and sealed beneath a terracing fill.

Similarly, any remains that existed prior to the construction of the TB and CC buildings in the western area of the Citadel Mound exposure, the so-called ‘pre-terrace’ phase of YHSS 6A, were cleared and replaced with a thick stratum of

125 For example, these dynamics have been observed and discussed for LBA/EIA Beycesultan in western Anatolia (Mac Sweeney 2011a).
rubble fill. A sounding dug beneath TB 6 in 2014 yielded an EBA phase directly below the rubble fill of the terrace.\textsuperscript{127} The depth of this fill (up to 5m) suggests that quite substantial cultural levels (MBA to EIA) were removed in preparation for the construction of the terrace.

The disturbance of YHSS 7 from the 1988-98 excavated area is variable. 7B structures, being semi-subterranean, partially cut into the LBA strata, though not to a great depth. Though a number of the 7B structures were relatively well preserved, a number of refuse pits were cut into the overall area following the end of the phase, which belong to YHSS 7A. Part of the reason for the good preservation is a lack of demolition/abandonment and rebuilding on the same spot, rather, buildings were constructed in an adjacent (empty) area.\textsuperscript{128}

However, the degree of contemporaneity of the discrete constructions has been difficult to define.\textsuperscript{129} Some of the 7B structures bear \textit{in situ} material, such as the CKD Structure, the best preserved building of the period.\textsuperscript{130} LBA pottery is also present in a collapse layer associated with the floor of CKD, which has been interpreted as material dug up and reconstituted in the midst of EIA building material.\textsuperscript{131} This is a phenomenon paralleled across YHSS 7B deposits, denoting that, if a hiatus in occupation took place at Gordion at the end of the LBA, it was very brief.

The pattern for construction and deposition in YHSS 7A follows that of the earlier period, with the BRH partially cutting into earlier material, while the structures in the eastern portion of the excavated area were partially dismantled and filled in, and subject to extensive pit digging. The BRH itself was destroyed

\textsuperscript{127} Rose 2017: 155-56.
\textsuperscript{128} Voigt 1994: 267.
\textsuperscript{129} Voigt 1994: 267.
\textsuperscript{130} Voigt & Henrickson 2000b: 333.
\textsuperscript{131} Voigt & Henrickson 2000b: 333.
by fire, abandoned and eventually filled in, leading to relatively good preservation. Most of the pottery from the BRH was found in association with the oven, yielding a number of reconstructable vessels and primary use contexts. A number of pits associated with the BRH also yielded a significant amount of broken pottery, dating to both phases of the Iron Age.\textsuperscript{132}

As mentioned, the EIA phases exhibit extensive ‘pitting’ activity, much of which post-dated each main phase of construction and habitation. Because of the restricted excavation contexts and lack of knowledge of the overall morphology of the site during this period, it is difficult to propose how different areas were used at different points in time, and for how long they held their respective functions. It is likely that settlement morphology at EIA Gordion was no less complex, particularly in a period of time when a formalized architectural and settlement plan for the main mound was not yet enacted.

Therefore, as we only know about the EIA in any substantial degree from the Outer Court trenches, it is impossible to estimate the possible duration of the EIA at the site, and it may well be that this area was subject to different processes to the rest of the mound. Indeed, the excavators suggest that the lack of diachronic modification of the buildings in phases 7B and 7A imply relatively short spans.\textsuperscript{133} There is indication of the continuous use of one structure throughout YHSS 7B and 7A, bearing a number of broken but restorable ceramic vessels also dating to both phases in its deposits,\textsuperscript{134} though no detailed documentation has yet been published on this building.

To that end, while our knowledge of the ‘Early Phrygian’ YHSS 6 settlement at Gordion is quite detailed owing to the large exposure, the work involved in

\textsuperscript{132} Voigt 1994: 270.
\textsuperscript{133} Voigt 1994: 268, 270.
\textsuperscript{134} Voigt & Henrickson 2000b: 341.
constructing this level did much damage to earlier remains on the mound, the excavations of which offer fleeting glimpses into life at the site prior to the MIA.

5.5. Implications of Changes from YHSS 7 to 6

It is clear that socio-political change was relatively rapid at Gordian during the YHSS 7-6 transition. In the EIA, Gordian seems to have been a village community with a lack of formalized social stratification, and social organization predicated upon more egalitarian forms of interaction (see discussion in Chapter 10). This is suggested by a relative lack of differentiation in the artefact assemblages from the discrete buildings and uniformity in building type. However, we must also take into account the fact that our view of the EIA at the site is essentially a ‘keyhole’ perspective. While our understanding of domestic contexts is relatively good, it is possible that other kinds of contexts existed at the site located elsewhere, which have been razed by MIA infrastructural activities. The relatively rapid reconfiguration at Gordian over the course of some three centuries may point to greater continuity from the Bronze Age, not merely in terms of the resident population, but also in the maintenance of regional connections and socio-political apparatus.

The planning and construction that began at the end of the EIA would have required considerable forethought, organization and consensus among various social groups at the site (perhaps even in the wider region). The constant modification of the citadel area throughout YHSS 6 suggests active making and maintenance of particular discourses on authority. It may be argued that the role of food and textile production, which took place in the TB and CC buildings, played a role in the maintenance of relationships that enabled the
continuous construction projects on the Citadel Mound, and probably elsewhere around Gordion. The construction of the burial tumuli north-east of the site, beginning in the 9th century BCE, may have also been implicated within these social dynamics. In the following two chapters, I shall further draw out the archaeological evidence, focusing on the shifts in storage practices in the EIA and MIA respectively, which will inform the synthesis and interpretation of political authority workings in Chapter 10.
6.1. Introduction

In discussing the connections between political authority and storage practices at EIA-MIA Gordion, it is intriguing to note that the considerable changes visible in the archaeological record took place over some three centuries (ca. 1100-800 BCE). Naturally, these have socio-political implications, and one way in which this may be traced is through noting the shifts in the character of storage practice through time. The underlying discussion in this and the ensuing chapter will be tracing the development from a seemingly household-based economy with a relatively loose/limited degree of politicization, to an increasingly stratified society with a diverse range of strategies related to storage and resource management.

The focus of this chapter will be outlining the character and material constituents pertaining to storage practice in the EIA YHSS 7 levels at Gordion, and to speculate on the connection these processes had with evolving changes in political authority that took place at the site over the course of the EIA-initial MIA period. I shall focus on the material from the 1988-89 excavations owing to the more comprehensive nature of the recording and quality of data, supplemented by EIA material recovered from earlier excavations.

In addition, much of the discussion and data presentation in this chapter is cursory owing to the fact that the EIA material from the 1988-89 excavations is currently undergoing final publication. To that end, it will be interesting to see the extent to which the views presented here will be borne out by further analysis.
6.2. **Storage in the EIA**

The discussion will begin with an overview of the types of storage evident (and implied) in the EIA phases of Gordion. Due to the character of the evidence, the presence of some of these forms is speculative, and, accordingly, I shall focus my discussion on pits and ceramics, which constitute the clearest evidence for storage practice in the EIA.

As part of the reanalysis of the overall stratigraphic sequence at Gordion beginning in 1988, a new phasing scheme was implemented in which each cultural phase was given a three digit number. The first digit denotes the period corresponding to the newly YHSS scheme, while the second and third digits represent significant phases (architectural or depositional episodes). Excavated features connected with these phases given additional numbers following a decimal point. Thus, the EIA is subdivided into a number of levels in the 799-700 range, the first digit being the overall cultural phase (corresponding with YHSS 7), while the remainder denote different phases within the period. A breakdown of these and their description is given in Tables 1-7. I have further subdivided them into the different trenches (Operations, see Fig.5.6) from which the material was excavated. Each artefact was given its own sequential (YH, for Yassihöyük) number.

The discussion will focus material from the early and middle phases of the overall EIA sequence (Phases 775-725, see Tables 1-7), that is, from levels associated with the CKD Structure (Fig.5.6), one of the earliest and well preserved EIA buildings in the excavated sequence, to the BRH Structure (Fig.5.6). While activity continued to take place following the end of the BRH phase (Phases 720-700), the ephemeral character of the architecture (e.g. the remains of the PHT and SWS Structures, which overlaid the BRH), eroded surfaces and preponderance of trash pits make these phases of more limited value to analysis.
6.2.1. YHSS 7B Large Vessels

In his initial examination of the EIA pottery from the 1988-89 excavations, R. Henrickson notes the difficulty in classifying storage vessels due to fragmentation of vessels, paucity of diagnostics and relative uniformity of the fabric.\(^1\) Despite the seeming lack of standardization of the handmade pottery, there are examples of large vessels which may have been made according to a specific typological style, perhaps associated with storage practices, though the full analysis and publication of the ceramics will bear this out. In my analysis, I distinguished six examples (Tables 8, 10, 13), always in the form of rim sherds, with varying degree of preservation of other areas of the body. Two further published examples are included in the discussion.

Classified as ‘large/wide-mouth pots’ or ‘open-mouth storage jars’ in the existing publications,\(^2\) these vessels are characterized by a triangular profile of the rim, flaring slightly, with a rim diameter range 30-45cm (Fig.6.1). These vessels are quite thin walled, however, ranging between 7-9mm. In keeping with YHSS 7B manufacturing techniques, the vessels are dark fired and have a coarse fabric. They generally have highly burnished interior and exterior, and are usually plain, though sometimes impressed, rope style or incised decoration on the rim is featured.\(^3\) A higher degree of decoration was sometimes undertaken, evinced by the so-called ‘deer pot’ (YH29401, Fig.6.1), coming from a YHSS 7B refuse pit.\(^4\)

Some examples were quite large, with sherd YH21507.3 having estimated rim diameter of 45cm, and another (YH21527.11) 38cm. Both, unfortunately, are without a primary context, coming from a refuse pit. Example YH20569.9 is noteworthy for the amount of the vessel preserved (Fig.6.1), yet unfortunately

---

\(^1\) Henrickson 1993: 108-09.
\(^3\) Henrickson 1993: 116.
\(^4\) On the basis of the extant dimensions from the examined sherds, the height of complete vessels may have been 40-50cm.
coming from a late EIA context just beneath the initial YHSS 6B courtyard phase. Another example, though slightly different in morphology, is YH21822 (Fig.6.1), excavated from contexts comprising the CKD/SSH Structure courtyard. This vessel is very well made, with sharply delineated faces on the inside of the rim, and highly burnished interior and exterior surfaces.

In terms of overall morphology, wide-mouth pots form a relatively standardized group, perhaps dictated by specific function associated with the type. Compared to other categories of EIA handmade pottery, wide-mouth pots are well made and denote a considerable degree of investment in manufacture, which raises question of value and purpose attributed these vessels. If they were indeed dedicated to storage, they would have used for short-term, low volume storage, perhaps serving to hold resources on hand in connection with food preparation. This may relate to the presence of bins in some buildings, such as CKD and SSH. The overall form of wide mouth pots, particularly the rim shape, is quite distinctive, which would facilitate their recognition and dating in the context of other excavations and surveys possible. Indeed, the varying nomenclature of these vessels in the initial publications suggests some uncertainty over their precise function.

No published examples of reminiscent wide-mouth pots have come from the Young era excavations which reached EIA levels, despite the vicinity of the trenches to the 1988-89 exposure. A variety of other large vessels coming from the EPB I and NCT IVb have been published by Sams (Fig.6.2), though these do not bear the triangular rim form of examples found in the 1988-89 excavations. Sams notes that firing variegation was confined to large closed vessels (dark exterior, buff/red interior), and may have been an intentional feature. These vessels have a 20-35cm rim diameter, with decorated rims, usually in the form of incised designs, and lugs.

---

5 Sams 1994b: Figs.3-4.
Another group of large, open mouthed vessels from NCT IVb has been published by Sams, who sees some of them as Iron Age interpretations of LBA storage vessels.\(^7\)

Examples of other types of storage vessels have been encountered in the course of the analysis which offer further insights in the possible extent of ceramic storage in the earlier part of the EIA. Body sherd YH21042, coming from the CKD Structure collapse deposit, is an interesting example (Fig.6.3) which may show additional range of storage vessels in the EIA at Gordion. The sherd boasts impressed style decoration just below the rim (which is missing), and has a 1.7cm body thickness, suggests that it is probably a storage vessel. It is burnished on the interior and exterior surfaces, with a coarse fabric characterized by gold mica flecks. It closely resembles an EBA rim sherd published by A. C. Gunter from level VI of the Megaron 12 sounding, which also has parallels elsewhere in central Anatolia (e.g. at Boğazköy (Fig.6.4). It is difficult to say whether sherd YH21042 is genuine EIA or a redeposited EBA sherd, though the similarities between some EBA wares, LBA cooking pot coarse wares and the EIA material raises further questions regarding continuity in ceramic manufacture and established paradigms of population changes at the end of the LBA (see further discussion in Section 6.2.1.).\(^8\)

Owing to the taphonomy of the EIA levels and the poor preservation of ceramics, it is difficult to say anything specific about the contents of these vessels. Their general location in domestic contexts suggests that they were connected with food preparation, perhaps holding grain – drawn from storage pits – ready for grinding and further processing. Alternatively, these vessels may have been used in more communal contexts of consumption, with perhaps the small bowls being used as dipping vessels.

---

\(^7\) Sams 1994a: 93.

\(^8\) Personal observation, 2016.
6.2.1.1. LBA Pottery in the EIA – ‘Noise’ or Narrative?

Many of the YHSS 7B contexts at Gordion also contain a significant amount of LBA material, brought up by the construction of the EIA houses and pit digging. The paucity of intact and reconstructable LBA vessels in these levels attests to the degree disturbance of the upper LBA strata. As a result of this, the quantity of LBA pottery across the EIA levels also dwarfs that of the EIA. This may be indicative of less significant on role of pottery in daily life in the EIA, and the lack of social apparatus such as that in the LBA, in which the manufacture and consumption of the plain buff wares (particularly plates and bowls) in quantity was indicative of emphasis being put on social practices associated with consumption. However, any future sampling of EIA levels from other areas on the mound, for example, may give a different picture.

Despite the problems of taphonomy, the question of whether some of the pottery, storage pithoi in particular, may have been actively reused in the EIA is an interesting one. Indeed, there may be some credence to this notion, particularly when considering that large storage vessels tend to be sturdy in construction and subject to reuse through time. It is clear from M. Mellink’s excavation of the Common Cemetery on the north-east ridge that in Bronze Age times, pithos burial was practiced at Gordion (Fig.6.5), as in many other places in central and western Anatolia at the time, and likely that pithoi were part of household and formalized economies at the site.

---

12 Further research is needed to clarify this point.
13 Mellink 1956.
The evidence of Common Cemetery pithoi, albeit in a funerary context (provided they are of secondary use), suggests the importance of surplus production throughout the MBA-LBA sequence, whether on a household or more formalized level. Moreover, the high quantity of plain buff pottery associated with consumption (i.e. cooking pots, bowls and torpedo jars) from the LBA strata would also argue in favour of the significance of resource management in the period.

In my analysis of the pottery from the 1988-89 excavations, I noted the presence of numerous large pithos and jar sherds. However, these are always extremely broken up, which diminishes somewhat the above interpretation, in view of the fact that if these vessels were reused in the EIA, excavated contexts would have yielded reconstructable vessels. This may be also due to the complex taphonomy of the EIA levels, in which pit cutting, construction and redeposition would have resulted in the breakup of any intact material.

Current interpretations of the ‘ceramic economy’ of YHSS 7B would suggest that the level of skill to make large storage vessels was not present. However, if such vessels were indeed manufactured during this period, what degree continuity might be deduced from earlier times, since storage vessels tend to be more typologically conservative than other types? These questions have implications for the nature of production (i.e. high level of expertise required to make such vessels) and the character of social dynamics following the end of the Late Bronze Age at Gordion, and whether socio-political change was as abrupt as the literature has implied. Thus, while there is no doubt of the level of discontinuity in the material culture, the socio-political implications behind these changes have been less well explored.

---

14 Cf. Mellink 1956: 22, who suggests that the category of ‘brick-red pithoi’ were exclusively made for funerary use.
6.2.2. YHSS 7B Pits

As already mentioned, the EIA levels are strongly characterized by the presence of pits, which were used for dumping and storage. In YHSS 7B, storage pits were dug in bell shape,\(^{16}\) and located in open areas associated with the buildings. This seems to have constituted the main form of storage for the EIA. In terms of morphology, the pits vary, with predominantly bell- and sometimes hourglass-shaped examples demonstrated, some reaching up to 1.5m in depth.\(^{17}\) These were predominantly seen in the stratigraphic profiles of the trenches.\(^{18}\) Though some were initially used for storage, they were often later repurposed for trash dumping. Owing to the current state of publication, the relationships between the pits and the buildings are unclear, particularly as none of the published plans demonstrate these pits.

There seems to have been a general lack of intramural pit storage at EIA Gordion, though the size of the excavated area may not indicate a representative sample of this form of storage. For example, the CKD Structure (Fig.6.6) boasts a small, intramural pit abutting the east wall. Archaeobotanical analysis suggests that the pits were used to store cereals.\(^{19}\) Given the Gordion region’s lack of amenability to sustained cultivation owing to variable annual precipitation,\(^{20}\) EIA households may have worked to generate a small surplus in the event of poorer yields, reinforcing the importance of pit storage.

6.2.3. Other Forms of Storage in YHSS 7B

The use of intramural bins was another prominent means for storage in YHSS 7B. Evidence of these features comes from the CKD and SSH Structures, in which they

\(^{16}\) Henrickson 1994: 106.
\(^{17}\) Voigt 1994: 268.
\(^{18}\) Voigt 1994: Pl.25.3.2.
\(^{19}\) Many pits in YHSS 7 seem to have had secondary use though it is implied that they were used for storage (Voigt 1994: 267).
are constructed from stone slabs coated in mud plaster. Another bin was found associated with grinding platform in CKD-SSH courtyard, showing that such activities were not confined to the intramural sphere. As a matter of interest, the twin roomed SSH Structure may have had functional delineation of the spaces. Whether this extended to the storing of goods is not clear. The exact capacity of these bins is not clear, though they would have served relatively short-term storage purposes in connection with intramural activities.

In terms of other types of storage practiced at EIA Gordion, it is likely that perishable materials also played a prominent role, perhaps in the form of skins and basketry. Though no examples survive from YHSS 7B, remains of a wicker basket have been found on the floor of the BRH (YHSS 7A), making it likely that such containers were involved in the management of goods.

6.2.4. YHSS 7A Storage Ceramics

Of the pottery excavated from the BRH floor deposit, several examples of reconstructable storage vessels and large diagnostic fragments were found (Fig.6.7). Vessels range from open to closed types, with simple or ledged rims. In terms of construction, the vessels were hand built and wheel finished. Generally, they are medium in size, and their capacity would have facilitated short-term storage of goods. As noted in the previous chapter, these vessels were subject to a secondary firing in the destruction of the BRH, making it difficult to determine whether they were originally buff. The fabric is medium grit with lime particles.

Amphora type vessels also emerge in this period, denoting evidence of liquid and dry good ceramic storage for the first time in the EIA. One example of a narrow-

---

21 Voigt & Henrickson 2000a: 42.
22 Henrickson 1993: 121.
23 Henrickson 1993: 120.
necked type (Fig.6.7, 3) and three open-mouthed types (Fig.6.7, 1, 2 and 4) are present in the published assemblage. Both of these vessel types become a significant part of the storage ceramic assemblage, as I shall discuss further in Chapter 7. The vessels are also distinguished by horizontal moulded bands and neck or shoulder handles, also a feature that continues into YHSS 6 wide and narrow-necked amphora vessels. The precise types of goods that were stored in these vessels has not been intimated in the current publications.

While the small size of the YHSS 7A assemblage hinders discussion regarding the degree of standardization of vessels, on the basis of the resumed use of the wheel in manufacture, and presumed functional delineation of the assemblage, I would argue that the excavated examples do represent standard types, especially in the light of their affinity with later (YHSS 6) storage vessels. The short-term liquid and dry good storage may also suggest increasingly complex elements involved overall storage practice, with smaller vessels being directly associated with household activities. While this seems to echo the storage suite of the preceding phase, which also had low volume ceramic vessels used for this purpose, changes in other aspects of the storage suite, particularly pits, denote a shift resource procurement and organization. In YHSS 7A, it is possible to distinguish between vessels for liquid and dry good storage, which hints at changes in social practices governing consumption and storing of goods in the period.

6.2.5. YHSS 7A Pits

Pits still continue to be used for storage in YHSS 7A, falling predominantly into cylindrical types, with one bell-shaped example. 24 A number have been determined

---

from the trench profiles. However, importantly, they become smaller in overall volume,\textsuperscript{25} perhaps suggesting the development of new strategies for storing.

The excavated area seems to have been occupied only by the BRH during this phase. Following the end of the BRH Structure’s occupation, a small, short-lived structure (PHT) was constructed on top, partially cutting into it, while the remainder of the area taken up by a series of pits and associated surfaces.\textsuperscript{26} Whether this is indicative of a semi-extramural area at this point in the EIA with storage and trash dumps remains unknown.

6.2.6. Other forms of Storage in YHSS 7A

Perishables, as discussed in Section 6.3.3., arguably continue to be used, and the BRH yielded an example of a carbonized wicker basket with plant remains, which may have fulfilled a short-term storage function. A substantial mud-brick feature excavated in the Megaron 10 sounding (Level 2), perhaps belonging to a late EIA phase, has been interpreted as a large storage bin of a no-longer extant structure.\textsuperscript{27} The feature is stratified below Megaron 10, and probably belongs to the late EIA.

Further interesting evidence that may be connected with resource management dating to the EIA at Gordion comes in the form of a scarab seal. Glyptic technologies may be viewed as an important proxy for processes involved in the management of goods, with a long history in the Near East, including Anatolia. Whether the example I discuss here has some connection to storage activities cannot be substantiated directly, but that later EIA inhabitants of Gordion may have made use of this technology is significant for the developments in social differentiation and by extension political authority.

\textsuperscript{25} Voigt 2015, pers. comm.
\textsuperscript{26} Voigt 2009: 15-16.
\textsuperscript{27} Sams 1994b: Pl.G.
The scarab seal in question was found amid foundation rubble of Megaron 9, paralleling Egyptian counterparts dating to the 21st Dynasty (ca. 1085-950 BCE).\textsuperscript{28} The Gordion scarab is no doubt re-deposited with fill comprising earlier levels. Whether it is a locally made product or coming from further afield is also unknown, though it is a copy of Egyptian examples. Nevertheless, the seal may indicate increased interactions and awareness of iconographic styles from quite far away. Moreover evidence for the use of seals in the subsequent period is minimal and inconsistent,\textsuperscript{29} which suggests that they were not an active part of the suite of administrative technology and resource management in the MIA. On the whole, however, the use of glyptics in Iron Age central Anatolia is quite rare and inconsistent,\textsuperscript{30} indicating that this technology was not used and implicated within administrative activities and the management of goods as in the Bronze Age.

6.3. Interpreting Storage at EIA Gordion

The overall character of storage in the EIA remains relatively consistent in terms of the key components present through time; pits, ceramics, bins and probably perishable containers such as skins and baskets. Pits constitute the main type of storage throughout the EIA sequence, though they diminish in volume in YHSS 7A. The status of ceramic vessel storage in YHSS 7B remains uncertain, though this in itself is interesting and raises the broader question of the extent to which pottery was perceived as an important component of daily life in the initial Iron Age at Gordion. At Troy in phase VIIb, for example, it is interesting to note that the initial phase (VIIb1) is marked by a discontinuity in the use of pithoi for storage.\textsuperscript{31}

\textsuperscript{28} Dusinberre 2005a: 21, 41.
\textsuperscript{29} Dusinberre 2005a: 22; Genz 2009: 314.
\textsuperscript{30} Genz 2009: 314.
\textsuperscript{31} Aslan & Hnila 2015: 187.
indicative of a shift in the perceived needs of accumulation and management of goods.

In YHSS 7A, better defined storage ceramics emerge, divided into types dedicated to liquid and dry good storage. However, the vessels still continue to be relatively low in volume, denoting that overall storage practice and resource management remained relatively stable and not focused on large-scale surplus accumulation. This also has implications for the way the economy was organized, and perhaps the YHSS 7A context is reflective of a transition on the Citadel Mound away from household based storage practices. In considering that this period may date to the first half of the 10th century BCE, arguably socio-political mechanisms were being enacted with led to the patent change of the Citadel Mound’s function, one of non-domestic activities and perhaps production. It ought to be kept in mind, however, that the 1988-89 excavations, though highly informative, offer a keyhole perspective on the EIA.

Some further information on pre-MIA ceramic storage vessels may be seen from level IVb in the NCT sounding. The mixed character of the deposit and a consequent inability to assign it to YHSS 7A or B limits interpretation, but a few remarks may be made on the material. Several examples have been published by Sams (Fig.6.2), who considers them as demonstrating a possible bridge between Bronze and Iron Age storage vessels, some of which he sees as Iron Age interpretations of LBA examples. This would suggest, overall, that our understanding of the ceramic repertoire from the EIA is far from comprehensive, and that the distinction between handmade and wheelmade, and a seeming lack of certain forms exemplified in the 1988-89 excavations does not account for the larger possible picture of EIA potting and, by extension, social apparatus. The ceramics

---

from the different trenches excavated over the years show a great deal of variety in form and ware.

Botanical and zooarchaeological studies may shed further light on the economy at EIA Gordion. The pattern for domesticates (bovids and caprids) stays relatively constant from the LBA to the MIA (with an emphasis, however, on caprids in YHSS 7) but there are some interesting patterns for non-domesticates.\textsuperscript{33} In YHSS 7B, a statistically significant portion of the assemblage is comprised of reptiles (mostly tortoise), while in 7A deer. Another from the faunal study is a significant presence of horses in the YHSS 7A assemblage.\textsuperscript{34} Their significance is of interest, as they are a high-maintenance animal with more limited utilitarian capabilities (particularly in ancient times) compared to asses and mules. While their role as a status animal has not been studied in the context of the Anatolian Iron Age, they were no doubt significant, evinced by images of horses and mounted warriors on ivory plaques from the tumuli and the Citadel Mound,\textsuperscript{35} and literary attestations of the Phrygians being adept warriors and horsemen.\textsuperscript{36}

The higher representation of wild fauna in YHSS 7 also corresponds with a higher ratio of wild flora and cereals.\textsuperscript{37} In terms of articulating the character of subsistence at Gordion during this period, it is suggestive of significant amounts of time devoted to hunting and other activities beyond the site, and an overall greater emphasis on pastoralism. Consequently, the overall economy at the site seems to have been mixed, with limited emphasis on surplus accumulation. Evidence of storage suggests that it is household based throughout the EIA. There is no indication of storage outside of the direct control of households, though, perhaps, by the end of YHSS 7A, such practices may have begun to appear in the wake of the functional changes

\textsuperscript{33} Zeder & Arter 1994.
\textsuperscript{34} Zeder & Arter 1994: 113-14; Miller 2010: 68.
\textsuperscript{35} Young 1960: Fig.25c, 1981: Pl.13; Kohler 1995: Fig.8.
\textsuperscript{36} \textit{Iliad}.3.184-87.
\textsuperscript{37} Miller \textit{et al.} 2009: 919.
taking place on the Citadel Mound over the course of the 10th century BCE, in conjunction with the diminution of pit size and increase in low-volume ceramic storage. The implications of this will be discussed further in Chapter 10.
CHAPTER 7 – STORAGE AT MIA GORDION

7.1. Introduction

The MIA at Gordion has for a long time been regarded as representing the height of Phrygian prosperity and power. Less attention has been paid, however, to how this was achieved and maintained, and the mechanisms involved in these processes. A discussion of storage practices turns attention towards these underlying practices – the cogs in the political authority machine – which have the capacity to articulate to a finer level of detail of the degrees of change, leading to suppositions of the kinds of motivations and directives which led social groups to implement and guide new strategies of resource management. Political authority took on an increasingly formalized aspect, and while this is reflected in the material culture, the workings of the different elements as reflective of alterations in the political authority narratives have not been highlighted to a significant degree.

Evidence for storage is considerably greater and better defined in the MIA at Gordion than in the EIA, though several questions remain surrounding resource management, which I shall explore in this chapter. Due to the sheer quantity of ceramic material excavated from the Citadel Mound, I shall confine myself to a more qualitative discussion of the different examples in terms of how such diversity is reflective of particular patterns and strategies involved in the management of goods.
7.2. Storage in the MIA

In the early excavations at Gordion, R. Young expressed hope of finding large, dedicated storage areas on the Citadel Mound, paralleling examples from the wider Near East and the Aegean. While one certain instance approaching the scale of Aegean and Near Eastern examples comes from the YHSS 6A citadel (see Section 7.2.2.2.) the bulk of the evidence for storage is confined to pottery. Nevertheless, the character of the extant storage evidence – and, indeed, absence of evidence – is also telling, as it has the potential to elucidate patterns and processes connected with storage practices and the way in which they changed. I shall begin with discussing the initial MIA phase, YHSS 6B, followed by a more comprehensive discussion of YHSS 6A. In examining the character of YHSS 6A, I would argue that the mechanisms implied by the workings in this period have their origins in YHSS 6B, to be verified by future work.

7.2.1. YHSS 6B Storage

As noted in Chapter 5, this level, despite its significance in examining the development of Gordion in the EIA-MIA transition, remains poorly understood due to the degree of truncation it underwent at the beginning of YHSS 6A. Some relatively secure contexts with published material (ceramic) come from the EPB sequence (layers II-III, probably dating to YHSS 6B), the Polychrome House and floors associated with Megaron 10. Full publication of the architecture, namely the early gate buildings, Megaron 10, and the PAP Structure is yet to be undertaken. Further difficulties surround attempts to link stratigraphic deposits from different areas of the mound due to the continual construction and demolition activities that took place during YHSS 6.

---

1 Young 1960: 242-43.
Nevertheless, some evidence of storage in the form of ceramics is present. Given the formalization of the Citadel Mound, it can be expected that storage moved elsewhere on the site, or became part of a new suite of practices connected with pottery and architectural space, as was the case for YHSS 6A (see discussion in Section 7.5.2.). In the light of this, it is interesting to speculate that the PAP Structure may have had a storage role, not necessarily of surplus goods, but as a repository not unlike the great megarons of the Inner Court.

7.2.1.1. Ceramics

Apart from the EPB sequence mentioned above, most of the pottery coming from pre-destruction levels excavated during the Young years comes from fills. The material I refer to here is selective and not representative numerically or in terms of repertoire. Moreover, there is a problem of distinguishing between YHSS 6B-A pottery due to their typological affinity, which would require the presence of appropriate material in secure contexts. For example, pottery from pre-Megaron 5 level (north end, fill resting on a plaster floor associated with hearth/oven, see Chapter 5) is essentially YHSS 6 in character, with a preponderance of coarsewares, grey wares, as well as examples with incised or painted decoration.

The EPB IIb contexts yielded a few sherds, including parallel stratigraphic levels in the Polychrome House. Sherd P 3100, a pattern moulded body sherd of a large vessel; and some ledged rim vessels, one with an estimated rim diameter of 35cm, and the other too fragmentary to provide a measurement. Correlation

---

4 Voigt 2011: 1079.
5 Gordion Notebook 119, 1965: 105-06.
of material excavated elsewhere with the EPB sequence shows that ledged and non-ledged rim storage vessels are documented as beginning in EPB IIb, sometime in the EIA-MIA transition. However, based on the discussion of the BRH material (Section 6.3.4.1.), the presence of ledged rim vessels in EIA contexts leads to the conclusion that they were manufactured and consumed more or less without break from YHSS 7A onwards. The EPB III layer yielded a few storage vessel sherds (e.g. sherd P 3366, Latrine Deposit 18-20) of grey ware, demonstrating the already well established stylistic conventions regarding reduced atmosphere firing in the MIA.

Ledged rim vessels have also been documented under the floor of Megaron 5, which was constructed in YHSS 6B, though it is not precisely mentioned whether this material is in association with the Beam-Bed Structure and hearth/oven belonging to the same phase. An example includes a possible ledged-rim storage vessel sherd (P 3291, with a rim diameter of 34cm) with stamped concentric circles on the inside of the rim. A good example of a large storage vessel associated with this phase comprises a substantial body fragment of a grey ware pithos (P 3383) with moulded horizontal ribs. Excavation of the floor of the oven revealed a packing layer with large ceramic sherds, which are not described in the pertinent notebook, apart from a largely intact loop handled cup in a burnished buff ware (P 3288), paralleling YHSS 7A examples (Fig.5.9).

Finds of storage vessel sherds in level IVb of the NCT sounding have been interpreted as transitional, with possible Bronze Age forms being imitated in the Iron Age. Examples published by Sams in particular are reminiscent of

---

7 Sams 1994b: Fig. 51.
8 Sams 1994a: 34.
open mouthed jars with a straight body,\textsuperscript{12} which are a common component of LBA ceramic assemblages in central Anatolia (Fig.9.3). This has implications for continuity of the use and manufacture of large storage vessels in the EIA, which remains somewhat inconclusive and could be due to the overall character of the sampled area on the mound.

On the whole, due to the nature of the YHSS 6B contexts, there is a general paucity of storage type vessels dating to this level borne from the excavations. However, the examples present show that large vessels are being manufactured and consumed in this period.

7.2.1.2. Wider Implications

YHSS 6B is also quite poor in paleobotanical and zooarchaeological data, which would help to articulate more clearly the character of the economy and the way goods were managed at the time. Analysis of the successive courtyard stages show a diminution in plant and animal remains.\textsuperscript{13} Though, this in itself is significant, and has been interpreted as indicating the move of plant and animal processing activities away from the excavated areas on the Citadel Mound in the wake of its reassignment of function and meaning. It is possible to infer from the formalized architectural developments, drawing somewhat on YHSS 6A evidence, that storage practices began to proliferate in form across respective social strata in order to cater for the strategies employed by the different social groups.

Little can be said regarding the full character of storage practice for this phase, though the functional change of the Citadel Mound and the initiation of a programme involving non-domestic architecture indicates also a change in the

\textsuperscript{12} Sams 1994b: Fig.56.223-24.

\textsuperscript{13} Zeder & Arter 1994.
way in which resources were managed at Gordion. To that end, it may be argued
that surplus production became increasingly important, and the development
of accompanying narratives to justify the production for and movement of
resources away from a household based economy which characterized the EIA.
Consequently socio-political narratives were being more strongly conflated with
economic ones in this period, and revaluation of what constituted social and
political status of groups and individuals underwent significant change.

At present, it is impossible to determine the size of the YHSS 6B settlement,
though it is likely that it occupied a good portion of the Citadel Mound. Whether habitation extended into the Lower Town is a matter of debate,
though it is likely that this was the case. Thinking about this is important as it
brings into focus ideas relating to communication of narratives. Aside from the
Syro-Anatolian connections (see Chapter 5), the emerging elites of YHSS 6B
Gordion were not isolated in their immediate landscape, constructing
monumental architecture with no one to communicate to. The appearance of
these works and mechanisms in the context of the Gordion landscape opens
up possibilities of thinking about the ways in which the inhabitants were
implicated in the works in terms of degrees of consensus, and the form which
management of resources took.

In the midst of these developments, the political challenge of the weavers of
political authority narratives in YHSS 6B arguably dealt with instating and
maintenance ‘of associations through the reproduction of the existing
relationship between rulers and ruled’. This raises questions of the way in

---

16 Contra Voigt 2002.
17 Osborne 2017: 103.
18 Osborne 2014: 196.
19 Smith 2015: x.
which an individual or group were distinguished within the wider community based on their status.²⁰

The built environment began to take on a more serious role, a more overt expression in the role material culture began to play in the political authority narratives. It became a way of creating new relationships between individuals and groups respectively through the mediation of the way in which they can interact in a particular environment by altering the parameters of the freedoms and restriction. The construction of the early fortification wall is one example. Traditional interpretations have often viewed such structures in functionalist terms as defensive,²¹ but they arguably have a more significant symbolic dimension, as a way of more or less permanently enshrining a discourse on social and political relationships between groups taking place at the site, and propagating messages in the wider landscape. Such infrastructural enterprises are important components implicated with material and abstract technologies of political authority. The ability to manage resources, which underpin technologies designed to promote constant political messages, becomes therefore an important element in the overall apparatus of political authority.

However, the ‘interruption’ of the YHSS 6B ‘narrative’ and its replacement by that of YHSS 6A is important to note, suggesting in a redirection in political authority workings. In addition, the discontinuation of the use of Syro-Anatolian influenced zoomorphic orthostats, and the dismantling of the building they adorned perhaps amounts to a kind of iconoclasm and replacement of antecedent political authority narratives with new ones.

²¹ Cf. Anderson 2013: 76-78.
7.2.2. YHSS 6A Storage

Being the most comprehensively excavated and published level, most of my discussion will focus on YHSS 6A. Much work remains to be done in terms of precisely defining the phasing of construction of different areas on the citadel,\(^{22}\) which also has implications on the character of political authority through time in the 9th century. Much of the direct evidence for storage in YHSS 6 is ceramic – many of the vessels excavated from this period were found in the TB and CC buildings, the megarons of the Inner Court, and in narrow magazines behind some of the megarons in the Inner and Outer Courts. However, I shall also discuss the few architectural contexts dedicated specifically to storage, such as the Early Phrygian Gate and the magazines behind the megaron buildings.

The quantity of material from the TB and CC buildings in particular is quite vast, with individual units registering up to 500 ceramic vessels (such as TB 7).\(^{23}\) The quantities discussed here come from published material, and therefore represent a restricted, albeit representative, sample of the total. Whether this represents accurate quantity proportions of the different vessel types is difficult to verify, owing to the fact that plenty of the material excavated 1950-73 was discarded and recorded in a summary fashion.\(^{24}\) Given the sheer quantity of material coming from the Destruction Level, the excavation and recording practices of the time, this is somewhat understandable.

It is likely that perishables also played a role in existing storage practices on the citadel, in considering the overall character of storage as being short-term, and the fact that goods were constantly circulating.\(^{25}\) This is supported indirectly by the presence of relatively low capacity vessels on the citadel, and the

\(^{22}\) Currently the subject of a PhD dissertation by K. Morgan at the University of Pennsylvania.
\(^{24}\) Cf. Burke 2015: 72.
\(^{25}\) Christakis 2008: 12.
prominence of liquid storage in the form of amphorae. Beer and wine would have had a limited ‘shelf life’ in comparison to grain when taking into account possible storage duration.

7.2.2.1. Storage Ceramics

G. K. Sams’ publication presents the breadth of the ceramic repertoire from the Destruction Level, ranging from coarse to finewares, with selected material from earlier periods also included. The sample of storage vessels is considerably greater in this period, due to the effect of the citadel’s partial destruction and sealing by the substantial clay layer in YHSS 5. As a result, this will allow for a more comprehensive discussion to substantiate ideas on the development of political authority in the period.

One important characteristic of the pottery from this period is that production seems to move away from the site itself. Petrographic analysis of the ceramics shows a significant degree of production taking place away from the site.26 While this pertains to jugs, jars and bowls, it appears that storage vessels were not sampled. Indeed, they may conform to a different pattern altogether. The sample material is also restricted to the citadel, which may also have its own signature not necessarily comparable to other parts of the site.27 It should also be noted that a significant quantity of the pottery from this level, owing to the intense heat of the fire that destroyed much of it, has vitrified or been re-fired. Therefore, examples of pottery which is now buff in colour may have originally been grey.

---

In discussing the storage vessels, I group them into three broad categories following Sams’ classifications of narrow-necked amphora, open-mouthed amphora/krater and storage jar/pithos (Fig.7.2). I shall deal primarily with intact/reconstructed examples from secure contexts, further complemented by other fragments which are typologically comparable.

**Narrow-Necked Amphora**

Narrow-necked amphorae (Fig.7.3) are subdivided into shoulder or neck-handed types, found on the Citadel Mound. The vessels occur in Megarons 3 and 4, CC 2-3, and TB 1, 4 and 8, making up an MNV sample of 18 vessels used as a basis for this analysis. These amphorae have an ovoid body and come in a range of sizes, with vertical handles, attached to the upper shoulder or shoulder to just below the rim. Their rim diameter is no greater than 20cm.28 The vessels consistently have a predominantly coarse fabric, with a red to buff ware, and handles are broad, strap type. The overall size of the vessels marks them out as eminently portable in character. While most are plain and wheel finished, some examples are elaborated with moulded designs, such as vessel fragment P 5748.29

Sams speculates that this amphora type originated in western Anatolia.30 It is clear from examining the EIA pottery that they have antecedents in the YHSS 7A corpus (Fig.6.7), particularly the shoulder-handled examples. In terms of earlier examples from further afield, similar vessels have been found in Stratum IX at Beycesultan in western Anatolia, dated to the late EBA (ca. 2300-2000 BCE).31 Further research is needed, however, in tracing these connections. At Gordion, these vessels are a long-lived component of the ceramic assemblages,

---

30 Sams 1994a: 82.
31 Lloyd 1972: Fig.P.54.2-3.
extending into the Hellenistic period. They were excavated primarily from Megarons 3 and 4, CC 2-3, and TB 1, 4, and 8 (Tables 15-16, 18-19, 20, 23, and 27).

Table 7.1. YHSS 6A Narrow-Necked Amphora MNV

Shoulder handled examples are confined to service quarter and also in Megaron 4. The EPB VII stratum (contemporary with the terracing works in the courts and the Unfinished Project, which took place in the last quarter of the 9th century) contains further examples, and some of the early tumuli (i.e. W). The use of these vessels, and in particular large examples, seems to come into prominence during YHSS 6A on the citadel, sometime in the first half of the 9th century. However, it is likely that they were also an important feature of the YHSS 6B ceramic assemblage.

Given the overall size of the vessels and the hand techniques required to build them (with wheel finishing) it is acceptable for the key dimensions (rim and base diameter, maximum diameter, vessel height) to be within a 10cm range as

32 Stewart 2010: 188-89.
reflecting standardization.\textsuperscript{34} In terms of shape, however, the vessels are quite varied,\textsuperscript{35} which may be due to the character of the relationship between the contexts of consumption and production, with potters adhering to a basic template of this vessel type. This may indicate something important regarding the consumers of the pottery on the citadel, and reflective of choices made by social groups, informed in part by certain functional necessities.

Shoulder handled examples tend to have a more standardized rim diameter (in the 11cm range, with two being 14-15cm). Vessel height ranges between 22-42cm, a base diameter 7-14cm and maximum width. Vessels are largely undecorated, with surface treatment typically consisting of burnishing. Neck-handled amphorae appear in Megaron 3 and 4, with one example from TB 8. In the context of the megarons in particular, the vessels were arguably more explicitly related to consumption practices, and short-term storage. On the other hand, shoulder handled examples are mostly confined to the TB and CC buildings (with the exception of one – body fragment – being from Megaron 4). This suggests a level of functional differentiation according to the different contexts in which the vessels have been found.

\textit{Open-Mouthed Amphora}

Open-mouthed amphorae (Fig.7.4, kraters and wide-mouthed amphorae are also put into this overall category by Sams) are a prominent part of the Destruction Level ceramic assemblage. The vessels occur in Megarons 3 and 4, and all the TB and CC buildings (apart from CC 1). The MNV sample used for this discussion is 36 (Tables 15-16, 18-27), significantly outnumbering their narrow-necked counterparts.

\textsuperscript{34} Cf. Rice 1987: 202-04.
\textsuperscript{35} Sams 1994a: 81.
In terms of shape, they closely resemble their narrow-necked counterparts. Their fabric is coarse to medium-coarse, with a few medium-fine examples, in a mostly red to yellow ware, with surface treatment ranging from plain to painted or stamped. Relatively consistent dimensions between the reconstructable examples denotes a level of standardization.

Sams notes however, that distinctions between amphorae and kraters in this category were sometimes blurred. In addition, the quantity of this vessel type is greater on the Citadel Mound than of the narrow-necked types discussed above. In terms of defining the two sub-categories of this vessel type, wide-mouth amphorae have a smaller capacity in comparison with the open-mouthed amphorae. Coarse to medium-coarse in fabric, the vessels are however, quite thin-walled, even in the largest found examples. In terms of overall quantity from the Destruction Level, this type outnumbers its narrow-necked counterparts.

---

36 Sams 1994a: 84.  
38 Sams 1994a: 83.
Kraters, as noted above, are a sub-category of open mouthed amphorae, distinguished by their generally larger size, with some vessels having up to a 90cm rim diameter.\textsuperscript{39} Sams interprets the Gordion vessels as having links to the eastern plateau, with several examples being Alişar IV in style (see further discussion in Chapter 9).\textsuperscript{40} Links with pre-YHSS 6A pottery are also evident in terms of overall scale and upper profiles.\textsuperscript{41} One important aspect of open-mouthed amphorae is that they are often highly decorated, either with painted or stamped designs. Contextually, kraters occur predominantly in the TB and CC buildings, with two examples found in Megaron 4 and one in Megaron 3.

In terms of storage function, these open mouthed vessels were most likely used for holding dry goods. Indeed, direct evidence of staple storage is evinced by some examples which contained the remains of carbonized grain (e.g. vessel P 4661 from building CC 3). Others were used for holding smaller ceramic vessels,\textsuperscript{42} denoting that their storage function was quite varied and not confined to staple goods.

\textit{Storage Jar/Pithos}

Several vessels of this type have been recovered from all the excavated contexts of Destruction Level (Fig.7.5). A MNV of 40 from secure contexts in the Destruction Level was used for this analysis. All the inner court megarons and service buildings contain one or more vessels, except for CC 2 and TB 1 (Tables 14-17, 19, 21-27).

\textsuperscript{39} Sams 1994a: 84-85.
\textsuperscript{40} Sams 1994a: 85.
\textsuperscript{41} Sams 1994a: 85.
\textsuperscript{42} Sams 1994a: 84.
In terms of shape varieties, they broadly parallel the narrow-necked and open-mouthed amphorae, with some being quite similar in form to the latter, and classified by Sams as amphora/storage jar. Several other idiosyncratic forms also occur. Like amphorae, some pithoi have a ledged rim, suggesting that they had lids sealing their contents. Pithoi are thick walled and would have probably been predominantly in grey ware, though the fire of the YHSS 6A destruction has given the majority of the recovered examples buff to red hues.43

In terms of shape, the vessels tend towards ovoid and ellipsoidal in form, with well-preserved examples ranging 60-80cm in height, making them comparable to the amphora vessels discussed above.44 The vessels are generally thick walled and coarse in fabric, with smoothed or wheel finished surfaces. A few examples also show more concentrated surface treatment, such as stamping, pattern banding, and plastic features a feature evident from YHSS 6B onwards.

---

44 Sams 1994a: 98.
As noted, while evidence of pithoi occurs across the whole excavated area of the Citadel Mound, particular concentrations were found in the TB and CC buildings, and Megarons 3 and 4. The latter building in particular boasts a significant number of examples, especially those with stamped designs. In the service quarter, TB 8 is noteworthy for having the highest number of pithoi. These concentrations of pithoi echo the pattern of spatial distribution of other storage vessels discussed so far. Beyond the citadel, several of the excavated tumuli contained pithoi, though not to the same degree as amphora type vessels.\(^{45}\)

Additional important, though negative evidence comes from the Early Phrygian Gate, which housed many pithoi in the second half of the 9th century BCE (see Section 7.2.2.2.). On the basis of the dimensions of the excavated hollows, these vessels had a maximum diameter that ranges 68-90cm.\(^{46}\) Unfortunately, measurements are not given for all the excavated hollows, and, indeed, inconsistent numbers of hollows are detailed in the notebook and publications. These vessels may have been the highest capacity vessels of the remains evident in the Destruction Level.

In considering other Iron Age comparanda, the most pertinent example comes from the Urartian fortified temple complex at Ayanis (ca. 8th century BCE, discussed in Chapter 4). Here, the temple complex boasted several storeroom magazines, with enormous pithoi set into the ground. However, these pithoi outsize the missing Gordion examples, with some exceeding 2m in height, with rim diameters of up to 80cm and maximum diameters of 1.5m.\(^{47}\) In addition, several Ayanis pithoi boasted cuneiform and hieroglyphic inscriptions detailing

\(^{45}\) Sams 1994a: 97-98.
\(^{47}\) Çilingiroğlu 2001: 74.
vessel capacity and contents. To that end, these pithoi were clearly devoted to long term, bulk storage, and the missing Gordion examples from the Early Phrygian Gate did not approach this scale, yet would have been similar in size or somewhat bigger than the MBA-LBA pithoi excavated in the Common Cemetery in the 1950s (Fig.6.5).

Fragmentary and intact examples of such large vessels come from other periods and contexts, demonstrating that they were a feature of the storage ceramic assemblage. P 4144, comprising a large sherd with stamped designs, coming from Megaron 8 from the pre-terrace YHSS 6A phase, below TB 8. Another good example of this is a rim sherd from Tumulus J (P 257, later 7th century BCE, Fig.7.6). Though chronologically later, it shows the scale on which the potters of Gordion manufactured vessels. One vessel (P 4513) recovered from TB 4 in YHSS 6A does approach this scale (maximum diameter: 88cm; height: 1m; rim diameter 48cm; base diameter 14.5cm), pithoi for the most part in the Destruction Level contexts are not so large in size. Unfortunately, due to the character of the taphonomy and preservation of material from the different phases, it is difficult to make further conclusions.

Evidence elsewhere in Anatolia and the Aegean indicates that pithoi, despite their bulk and unwieldy nature, were traded over, at times, quite long distances. However, no petrographic sampling has been conducted on MIA pithoi in order to determine whether this is the case, and the way in which such data would compare to the material that has been sampled.

48 Çilingiroğlu 2001: 74.
50 Kibaroğlu & Thumm-Doğrayan 2013.
Evidence for architectural space with a specifically dedicated storage function on the Gordion citadel is not entirely easy to define, aside from a few exceptions (Fig.7.7). This is in part due to the multi-function character of buildings, such as the megarons in the Inner and Outer Courts, whose precise function continues to be debated. It is more obvious in attached features to the main structures, such as Megarons 2 and 4, which had dedicated magazines constructed behind them, which housed ceramic vessels for storage. However, Megaron 4 itself may be more securely defined as a storage building, as I shall discuss below.

However, I shall focus the discussion on the North Court of the Early Phrygian Gate, which is the only example that unequivocally demonstrates storage of a scale larger than anywhere else in the excavated areas of the citadel. I shall also discuss the northern sector of the citadel complex, with reference to the YHSS 5 PPB Building, used for storage, and whether it had a similar predecessor in YHSS 6.

Broadly, YHSS 6A exhibits the earliest firm evidence for architectural spaces dedicated to storage in the Iron Age, which is concomitant with the social, political and economic developments at the site in the 9th century BCE. Whether such forms of storage existed in the preceding period is at present unknown.
Megaron 1 Magazines

The spaces flanking the north and west walls of Megaron 1 were adapted into storage magazines, subdivided by low, mudbrick partitions.\textsuperscript{51} The spaces flanking the west wall of the megaron in particular boasted reconstructable storage vessels, with the southern space having one vessel, and the northern space two.\textsuperscript{52} Young remarks that these spaces were entered from above, owing to a lack of access between them on the ground level.\textsuperscript{53}

Megaron 3

Megaron 3 is the largest excavated megaron structure in the citadel complex. As mentioned in Chapter 5, it measures 30.4m x 18.3m and it bore a second storey. The building has variously been interpreted as the royal residence or a temple,\textsuperscript{54} and the latter interpretation is intriguing if one considers the correlation between the temples and storehouses across the Near East and Aegean in different time periods. Significant quantities of burned artefacts were found in this building, comprised of ceramic vessels associated with consumption, wooden furniture with ivory inlays, textiles and metal tools.\textsuperscript{55}

Three storage vessels (two narrow necked amphorae and one pithos) were found against the walls of the inner room (Table 15). Also found in the building was a large brown-on-buff painted krater (with lid), which was no doubt used for serving liquids, perhaps used in association with the storage vessels. The amphora type vessels found in the building indicate some short-term liquid storage perhaps associated with consumption. K. DeVries has argued that

\textsuperscript{51} Gordion Notebook 61, 1956: 5.
\textsuperscript{52} Gordion Notebook 61, 1956: 25, 27, 28, 37.
\textsuperscript{53} Gordion Notebook 61, 1956: 37.
\textsuperscript{54} Voigt 2011: 1081.
\textsuperscript{55} Young 1962: 9-11; Voigt 2013: 192. This building and its contents still await full publication.
Megaron 3 was used for storage at the time of the fire on the citadel,\(^{56}\) despite the paucity of ceramic vessels having been found in the building. However, the structure did have a second storey, which may have had a storage function, e.g. for perishable goods such as textiles.

In this instance, among its proposed roles, Megaron 3’s association with Megaron 4 (see discussion below) ought to be considered as important, whereby it also functioned as a context for distribution – whether dispersal or accumulation – of goods at the time of the destruction.

**Megaron 4**

Megaron 4 (22m x 12.3m) was probably associated functionally with its larger counterpart on the south side. 25 storage vessels were found in this building (Table 16), the highest in the sample of this study. The four preserved storage amphorae may be regarded as *in situ* vessels. On the basis of rim and base diameter, height and maximum diameter, it may be said that they belong to a relatively standardized type of vessel for temporary storage and perhaps transportation of liquid vessels. Megaron 4 also has the highest incidence of decorated storage vessels, particularly those bearing stamps and freehand incisions.

During excavations of Megaron 4 in 1963, the excavators encountered what they interpreted as a storage space between it and Megaron 3. Unfortunately, the feature is cursorily discussed in the Gordion notebooks, however it boasted at least six plastered depressions of varying degrees of preservation.\(^{57}\) Some

---

\(^{56}\) Voigt 2012: 94.

pottery was recovered from this context, which included a mixture of fineware and coarseware sherds; a few storage vessel fragments were also recorded. 58

DeVries and Voigt have supposed that Megaron 4 was a temporary royal residence at the time of the destruction. 59 While similar material culture was found in the burned debris, the presence of gold, worked and unworked ivory, 60 along with the copious number of storage vessels, would rather suggest that it had a storage function.

TB and CC Buildings

While the service complex comprised of the TB and CC buildings was primarily devoted to the production of textiles 61 and likely also beer, 62 a number of the structures also fulfilled a storage function, shown by significant quantities of storage vessels. TB 3, 4, 7 and 8, and CC 2 and 3 have the highest concentration of storage vessels (five or more in each instance, see chart below Tables 18-19, 22-23, 26-27). CC 3 is noteworthy for having the highest number of pithoi and narrow necked-amphorae, making it arguably the building most specifically dedicated to storage in the service quarter.

59 Voigt 2013: 193, note 100.
60 Young 1964: 287.
Sams, following K. DeVries, argues that TB 1 and 2 were devoted mostly to storage, compared to the other TB buildings owing to the difference in distribution of material culture associated with food processing and weaving. While a smaller quantity of storage vessels was found in TB 1 and 2, several finds of raw precious metals have been found in these buildings, suggesting that they were used for temporary storing of these goods.

I would argue, therefore, that besides textile production and grain processing, these particular buildings doubled up as short-term storage facilities. The fact that they boasted a second storey adds further credence to the interpretation, and it may be argued that they were used for the storing of wool for the textile manufacture which took place in them, and perhaps even the finished products.

Consequently, the size and quantity of the vessels from TB and CC suggests that long-term staple good storage was located elsewhere. But, given the

---

unequivocal presence of production compels us to think about the nature of storage and its connection with the activities happening in these contexts. In addition, apart from foodstuffs, some vessels were used to store spindle whorls, needles and knives, demonstrating the multi-faceted character of ceramic storage (see also discussion in the ensuing section) and the fact that pots were contextually adaptable with regards to their designated function.

Interestingly, there is some correlation between higher quantity of storage vessels and lesser number of loom weights, evident in TB 3, 4 and 8, and CC 1 and 2. On the whole, in the buildings in which storage vessels feature, there is a lesser quantity of weaving equipment, which would argue in favour of their function tending more towards storage than other activities. These buildings however, continue to boast spindle whorls, resulting in a correlation between storage vessels and wool processing. Of course, taking into account vessel portability, the contextual information from the TB and CC buildings may reflect a temporary set of circumstances in the overall suite of activities which took place in them.

---

65 Burke 2005: 75.
66 Drawn from Burke 2010.
Table 7.5. Storage Ceramics and weaving equipment counts, TB and CC buildings

Table 7.6. Storage ceramics and weaving equipment relative percentage, TB and CC buildings

*Early Phrygian Gate, North Court*

When the YHSS 6A citadel and fortification wall were constructed, the gate building leading to the Outer Court was built incorporating the earlier YHSS
6B Polychrome House gate. This venture took place sometime in the mid-9th century, consisting of a second major wave of infrastructural modification in the Citadel Mound (Fig. 7.10). The Early Phrygian Gate (Fig. 7.8) was planned on an off-axis (likely aligned with Tumulus W) and the so-called North Court was made into a dedicated storage area. Evidence for this is demonstrated by a succession of drawings and photographs of pithoi ‘silhouettes’ in the preliminary reports from the 1950s. Unfortunately, no discussion of these remains is presented in the publications of the 1950s, and, indeed, the numbers of pithos hollows represented in the respective plans differs. Sams mentions this feature briefly in his publication of the YHSS 6 pottery, noting that pithoi were present in the initial phase of the building, then removed following refurbishment, with the hollows filled in. This was subsequently followed by a larger infrastructural project, which was left incomplete in the wake of the fire on the citadel.

Excavation of this feature remains best detailed in the Gordion notebooks. The court, measuring 16.2 x 12.6m, was intersected by a series of beams set into the floor demarcating paired rows of pithoi. Despite inconsistent records of the number of pithos hollows depicted on plans in the publications and notebooks of the North Court, though it is likely that the area could have held as many as 60-70 pithoi. The pithoi would have been situated on a lower/ground floor of the gate building, rendering them restricted in terms of access and visibility. As mentioned, the pithoi housed in this space would have been consistently

---

69 Young 1955: Figs. 26, 27, Pl. 7; 1956: Pl. 87; 1957: Pl. 88.
70 Young 1953: Figs. 27-27, 1956: Fig. 25, 1957: Fig. 3.
73 In the notebook, R. Young expresses hope that the architect would plot the pithos silhouettes onto an accurate plan of the North Court, but it is unknown whether this was undertaken.
larger than any of the published (and some unpublished) Iron Age storage vessels from the service quarter and the megarons of the Inner Court.

This evidence presents the earliest known example of formalized architectural and ceramic storage at Gordion. Other forms of storage on the citadel are primarily ceramic, and associated with the TB, CC and megaron buildings, though these contexts are multi-functional, and not solely equated with storage as being their primary function. The presence of pithoi in this location is of interest given its connection with one of main thoroughfares connecting the Citadel Mound with the Lower Town. The North Court of the Early Phrygian Gate would have therefore been a primary point for storage and management of goods on eastern half of the citadel, a kind of 'check-point' for the entry of goods, which would have then been redistributed across the different zones of the mound. It is unknown what was stored in these vessels, though foodstuffs (grain) are a likely candidate.

The timespan between the removal of the pithoi and the works of the Unfinished Project, which involved the raising of the courts in the eastern part of the citadel to be on the same level as the service quarter, the construction of a large drain, and the decommissioning of the Early Phrygian Gate. In addition, the original route to the Inner Court via the gate ceased functioning, and alternative pathways for moving goods and locations of storage would have been established at the onset of the new construction enterprise.

The presumed removal of the pithoi from the Early Phrygian Gate in itself is interesting, as such large vessels have an intrinsically architectonic quality, and are often left in situ in the event of destruction and abandonment of their use.

---

74 Voigt 2012.
75 Voigt 2012: 97.
context. Thus, their perceived value was such that warranted their removal from the Early Phrygian Gate and perhaps redeployment elsewhere on the mound, rather than being buried beneath levelling fill, is noteworthy.

As noted earlier, the North Court storage area bears some similarity with architectural storage facilities at the Urartian site Ayanis (see discussion in Chapter 4, Section 4.4.3.4.). Apart from the surplus bulk storage pithoi housed in magazines, additional basement rooms have been excavated in association with the temple on top of the citadel. These spaces formed a suite of ‘sacred storage’, in which numerous metal objects are sacrificially dedicated to the war god Haldi. What we also see in these contexts is that ceramic vessels (whether smaller capacity amphorae or large pithoi) were not necessarily confined to being used for storing foodstuffs, but were perceived as being multifunctional, perhaps beyond their original manufactured intent. This multi-functionality mirrors practices in the service quarter at Gordion.

The Northern Citadel – Unidentified Zone and the PPB Structure (YHSS 5)

The northern area of the citadel complex remains enigmatic due to limited and inconclusive excavations in the Young years. The major structure in this area is the so-called PPB (Phrygian-Persian Building, Fig. 7.9, excavated in 1967 and 1969, dating to YHSS 5. Nevertheless, I shall briefly discuss this building as it likely had a storage function, and its presence may have an implication for the presence/function of any antecedent building in the area.

This building is comprised of up to 12 small, cell plan rooms. Thought initially to be part of the YHSS 6A Destruction Level, recent revaluation of this

---

77 Çilingiroğlu 2011: 1057-58; Batmaz 2015.
78 Batmaz 2015.
unpublished building suggests that it belongs to YHSS 5. This is hinted at in Young’s description of the building as not having been buried by the layer of fill with which most of the citadel was covered after the YHSS 6A destruction, and the building’s cutting into the YHSS 6 fortification wall. Young also notes the presence of grind stones reused as paving slabs for the floors of the cells. He viewed the building as multi-phased in its construction, with a western set of ‘cells’ added in YHSS 5, probably used for ‘storage of produce accessible only from above’. He also noted the chronological range of artefacts from the fill within the building, comprising of ceramics (including sherds inscribed with Phrygian graffiti), bronzes and ivories spanning the YHSS 6-5 periods.

K. DeVries maintained that the building was constructed in YHSS 6, then raised in YHSS 5 to be on the same level as the contemporary structures. He interprets the building as a treasury store maintained and used over ‘generations’. He adds – echoing Young – that it was a storage facility presumably in its primary function when it was first constructed, and seemingly later followed as a treasury.

Given the general continuity in the YHSS 5 plan from YHSS 6, I would argue that the unexcavated northern sector may be a good candidate for large-scale, on-citadel storage, connected with the temporary, smaller-scale storage activities evinced elsewhere on the citadel, such as Megaron 4, TB 8 and CC 2-3, with the latter two being also associated with production. The current interpretation of the PPB was that it was one of two buildings standing side by side.

---

80 Sams & Voigt 2011: 163.
81 Young 1968: 235.
82 Young 1968: 235.
83 Young 1968: 234.
84 Young 1968: 235.
87 DeVries 1990: 380.
side in this part of the citadel, the other being to the west.\textsuperscript{88} Despite the limited publication and the structure’s repeated modification through obscuring its primary function, Young’s original assertion pertaining to its function is probably correct.

The question remains of what stood in this area during YHSS 6 and what connection did it have with the TB and CC structures? It is tempting to think that some similar kind of storage facility existed in this area, connected to the production activities of the service quarter. The stairway leading from the TB buildings to the north indicates that some further complex existed in this area, probably of some import. The area has been somewhat vaguely interpreted as the location of a ‘bastion’,\textsuperscript{89} and further excavation would clarify our understanding of it.

It is possible therefore that the northern area of the eastern Citadel Mound was devoted to large-scale, long-term storage, and may have been a point from which goods (particularly foodstuffs) were distributed to other parts of the citadel for further processing and consumption. Geophysical prospection in 2017 in the north-eastern zone abutting the fortification wall yielded evidence of a monumental structure perhaps similar in character to the PPB Building.\textsuperscript{90} Excavations in this area would help to clarify these hypotheses, as well as the status of the PPB Building itself, and the function of this part of the citadel in YHSS 6.

\textsuperscript{88} Pizzorno & Darbyshire 2012.
\textsuperscript{89} DeVries 1990: 379, 380.
\textsuperscript{90} Rose 2017b: 13-14.
7.2.3. Interpreting Storage in the MIA

In examining the architectural and ceramic storage on the Citadel Mound, it is possible to see the extent to which practices associated with this material culture proliferated concomitant with the socio-political changes at the site, which adds further interest when correlated with the appearance of different storage vessel types (Fig.7.10).

Pottery

In the MIA, storage pot repertoires expand considerably, though the level of continuity is difficult to define due to the nature of EIA repertoires, particularly YHSS 7A. Much of the 7A pottery has been interpreted as prototypical of YHSS 6, and comparison of forms and dimensions between the two bear this out. This is evinced by the introduction of narrow and open necked amphorae with ledged rims, which become a quantitatively significant category in the MIA. Other evidence from the EPB sequence and NCT IVa-b hints at the developments which took place during YHSS 6B and perhaps somewhat prior, as discussed in the previous chapter.

Based on their dimensions and accompanying volume, most of the storage vessels from YHSS 6A are essentially portable when empty. Therefore, they may be viewed as constituting short-term storage practice – suggestive of idea that the vessels on Citadel Mound are the last stage of storage prior to the redistribution, consumption or further production of goods. Thus, vessel numbers would have fluctuated in respective buildings according to the arrival and processing activities of the goods they contained.

Large pithoi appear to have been (re)introduced in YHSS 6, though future uncovering of secure YHSS 6B deposits would potentially clarify this and
extend the chronological range of these vessels. Negative evidence of these larger vessels comes mostly from the North Court of EPG, indicating that this form of storage existed at Gordion, but it has not been encountered in primary contexts of the excavated areas on the Citadel Mound.

Storage vessels are generally plain, but a concentration of examples decorated with stamped designs have been excavated in Megarons 3 and 4. This raises questions over identity and social status of those who were making use of these vessels, as such large and decorated vessels would have been communicators of information not only regarding the skill of the potter, but those who owned it and made use of it in a particular context.91 However, there is a general lack of highly decorated, high capacity vessels. Indeed, traditions of highly decorated pithoi appear not to have been practiced in Anatolian contexts, even in pre-Iron Age periods.

An interesting question for future research would be examining to what degree large pithoi at Gordion during YHSS 6 were political.92 That is to say, were they most intimately associated with elite social groups and an index for the management of resources and, by extension, a marker for political authority? Until domestic contexts belonging to YHSS 6 are excavated, this question cannot be answered. However, given their presence in YHSS 5 domestic contexts, it may be tentatively argued that, in general, pithoi were not politicized per se, though specific types, defined by capacity and/or decoration could have been.

The high degree of stamped decoration occurring on storage vessels in Megaron 4 may have been a way of marking their role within and belonging to specific

91 Christakis 2005: 81.
socio-political circles and accompanying practices. In some contexts, pithoi have even been argued to have had an architectonic function, as essential components of the internal furnishings of architectural settings.\textsuperscript{93} This in turn, particularly in elite contexts, would have been part of narratives of political authority, in which the pithos would be considered as an index to specific ideas regarding storage practice and management of goods.

The picture of ceramic storage practice on the Citadel Mound is further enriched by the fact that the pots were not necessarily always used for storing staple goods and liquids, as shown by evidence from the service quarter, where some vessels held smaller pots and weaving equipment.\textsuperscript{94} In general, however, the characterization of food production in the service quarter suggests the storage of grain in the ceramic vessels found in the TB and CC buildings, affirmed by the presence of carbonized grain in some examples.\textsuperscript{95} Similarly, the pithoi in the North Court of the Early Phrygian Gate may have served as a point of grain storage.

In terms of liquid storage, historical and archaeological evidence notes the Phrygians’ penchant for the production of wine, beer and mixed beverages.\textsuperscript{96} Analysis of ceramic and bronze vessels from Tumulus MM (YHSS 5) have been particularly productive in identifying compounds constituting a drink comprised of a mixture of wine, barley beer and honey mead.\textsuperscript{97} Direct evidence of alcohol production on the Citadel Mound has not been hitherto found, but the high number of medium to low volume narrow-necked vessels with shoulder or neck handles may be a proxy indicator for the storage of ingredients

\textsuperscript{93} Christakis 2005: 53-54.
\textsuperscript{94} Sams 1994a: 295.
\textsuperscript{95} Sams 1994a: 286; Miller 2010: 61.
\textsuperscript{96} Sams 1977.
\textsuperscript{97} McGovern 1999, 2010.
and manufactured drink. The perishability of alcohol further supports the idea of a short-term storage of the vessels.

Architecture

The Citadel Mound contained a mixture of primary and secondary function architectural spaces, with the latter being the more prominent type currently known from the excavations. Apart from Megaron 4 in the Inner Court, storage on the citadel is most evident in the service quarter. The outer court megarons seem to have had a minimal role in hosting storage, besides the magazines behind Megarons 1 and 2, and the North Court of the Early Phrygian Gate.

The buildings in Inner Court have also been interpreted as having a religious function, particularly Megaron 3, with Megaron 4 as an ancillary structure. This has been argued by L. Roller, who makes a connection between the façades at Midas City as mirroring the frontage of megaron buildings, such as those at Gordion, presenting a connection between rulers and the divine. Connection between large-scale storage, temples and production of goods is well attested in the Near East for several millennia, as discussed in Chapter 4. This may lend some weight to the notion of the largely unexcavated northern sector as playing host to large scale storage facilities, as seems to have been the case for the citadel during YHSS 5.

Excavations in the Lower Town have demonstrated the presence of monumental buildings constructed using ashlar masonry and associated terraces, which suggests formalized structures. Whether it can be argued that large-scale storage buildings existed in the Lower Town is an interesting proposition. As an area between the Citadel Mound and the Outer Town, the

---

Lower Town may have had important mediatory functions between the two locations. Taking into account the destruction of 800 BCE, it may be supposed that the Lower Town (and, indeed, the unexplored western half of the Citadel Mound) were intimately implicated in their relationships with the elite quarter on the Citadel Mound.

Though the TB and CC buildings hosted textile and food production, the presence of storage vessels has further implications for their function, given the vessels’ capacity, context, variety of forms, and quality of manufacture. As noted, TB 3, 4, 7 and 8, and CC 2 and 3 have the highest number of storage vessels (six or more in each instance), suggesting that at the time of the citadel’s destruction, they had a more prominent storage function. It is also of interest to note that in the aforementioned TB and CC buildings (apart from CC 3), there seems to be a correlation with higher numbers of storage vessels and a lack or low numbers of loom-weights, suggesting a connection with storage and initial processing of wool into thread (perhaps these buildings were also used to store wool), rather than weaving. On the whole, given the general portability of ceramic storage vessels in the service quarter, raises the question of whether timing/rotation was involved in the storage function of different buildings according to the activities taking place in them. The TB and CC buildings also likely had an upper balcony, evinced by the presence of aisles framed by postholes on the ground level, which would suggest additional storage areas, perhaps of raw materials for textile production and the finished products themselves prior to their distribution.

Storage was consequently multi-component on the Citadel Mound of Gordion in YHSS 6, with a significant amount of goods circulation. Large-scale surplus storage may have been located elsewhere on site or even off-site. It is of interest therefore to investigate the way in which the mechanisms thereof were
implicated in the control and visibility of resources, and, by extension, the development and workings of political authority. The kinds of storage facilities we might expect at Gordion for example silos, granaries and magazines hosting pithoi, such as those exemplified by LBA sites in Anatolia (and also the Aegean), have not yet been found, besides the evidence from the Early Phrygian Gate, if they were of such character.

The Missing Domestic Contexts

At present, there is no way of comparing storage taking place in the citadel complex and households during YHSS 6 due to a lack of excavated contexts of the latter. The reverse problem is partially true for YHSS 5, which boasts some excavated domestic contexts in the Lower Town,100 while the remains on the Citadel Mound continued to be for the most part industrial and public. Some further information from YHSS 5 comes from excavations in the Common Cemetery on the ridge currently occupied by modern Yassihöyük village. This area contained domestic areas prior to being covered in Tumuli I and H.101 The area was seemingly on the edge of Gordion in this period or outside of its immediate bounds.

However, given the overall cultural continuity between YHSS 6-5, arguably that domestic contexts in YHSS 6 would have had a similar arrangement to examples belonging to YHSS 5. That is, intramural storage in the form of one or two pithoi set into the ground of each dwelling.102 The examples from YHSS 5 (e.g. Operation 17 from the western area of the Citadel Mound) tend to have ledged rims and are often in highly polished and slipped grey ware.103

100 Voigt et al. 1999; Voigt & Cuyler Young Jr. 1999.
101 Anderson 2012.
102 Voigt & Cuyler Young Jr. 1997: Fig.22.
103 Personal observation, 2015.
Moreover, there is a lack of data from wider landscape/settlement contexts in order to compare manufacture and consumption patterns of storage ceramics between Gordion and the wider hinterland. This would be of significance particularly in the context of the arguments regarding the structuration of land allotment and organization of possible estates,\textsuperscript{104} which could have been the intermediary point of siphoning of goods between Gordion itself and the farmers growing the produce. To that end, there exists the problem of defining the primary unit of analysis at Gordion – the groups most closely tied to the subsistence activities. The evidence we have pertains to the latter links in the chain, concerned with processing, management and consumption which implicate more strongly activities associated with processing and consumption.

The implications of this discussion on the political authority at Gordion in the 9th century bear on issues regarding conceptualizations of Phrygia as a territorially expansive political entity, which I shall expand upon in Chapter 10. However, suffice to say that the activities of social groups involved in political authority maintenance were not involved in territorially expansive and colonializing enterprises traditionally interpreted as constituting the Phrygian state in this period. I shall return to this discussion in more detail in Chapter 10.

CHAPTER 8. THE ARCHAEOLOGY OF ÇADR Höyük AND THE KIZILIRMAK REGION IN THE EIA-MIA

8.1. Introduction

I shall now turn to Çadr Höyük, the second case study of this thesis. I shall begin with an overview of the site’s archaeology and come to a focus on the Iron Age, discussing the particular contexts informing the analysis, taphonomic processes, material culture, and chronology. Given the greater number of excavated sites in the wider region, I shall contextualize my discussion of Çadr within a discussion of other sites, namely Boğazköy, Alişar Höyük, which will allow for a discussion of dynamics on a more regional level, which will be expanded upon in Chapter 10.

8.2. Çadr Höyük – The Site and Excavations

Çadr Höyük is located in the Yozgat province of central Turkey, 197km east of Ankara (Fig.8.1). The site lies in an archaeologically rich area within the arc of the Kızılırmak River, and was first documented by H. H. Von Der Osten during his general surveys in the region in the 1920s. Located in the valley of the Eğri Öz river, the main mound, roughly conical in shape (‘çadır’ meaning ‘tent’ in Turkish), rises some 32m from the surrounding elevation (Fig.8.2), which comprises a terrace rising to the north-east, overlooking the river valley to the south/south-west. Systematic investigations of the site began with the Alişar Regional Survey project, based at the Oriental Institute in the University of Chicago, due to pending dam construction on the Eğri Öz in 1994, under the consideration that the site would be flooded. Though several sites have been

2 Von Der Osten 1927: 86.
flooded by Gelingüllü Dam, the projected water levels did not reach the terrace spur on which Çadır lies, permitting investigations which continue today.

One significant aspect of Çadır is the length of continuous occupation through the millennia at the site (Fig.8.3), a characteristic common to several others in the region. The earliest detected occupation – excavated in a sounding on the south side of the mound – dates to the Middle Chalcolithic, with radiocarbon determinations placing settlement in this period to ca. 5300/5200 BCE.\(^3\) The excavation of the sounding also suggested that earlier levels (earlier Chalcolithic and perhaps even Neolithic) may also exist, though this could not be pursued for technical reasons and height of the water table.\(^4\) The site continued to be occupied from the Chalcolithic without interruption until the end of the Late Iron Age, whose conclusion at the site has not yet been accurately identified.

A possible Hellenistic period settlement also existed on the mound itself, though the overlying Byzantine levels have obscured and/or removed most of these strata. A new research project is being initiated to conduct more systematic work the Hellenistic. Evidence of possibly very late LIA pottery (first half of the 4th century BCE), western Anatolian banded ware and Eastern Sigillata from the top of the mound\(^5\) on the western side beneath the Byzantine levels is prompting new research to fill the lacunae in the social history of these periods at the site.

The extant Late Antique to Middle Byzantine levels have been dated to the 6th-11th centuries CE from excavations on the mound summit and the so-called ‘Northern Terrace’ (80m north-east of the mound).\(^6\) The remains in the latter

\(^3\) Gorny et al. 2002: 117.  
\(^4\) Steadman 2015, pers. comm.  
\(^5\) Personal observation, 2016.  
location suggest the presence of a long-lived farmstead, while those on the mound, enclosed in a substantial fortification wall, constituting a mixture of domestic contexts and stables.\(^7\)

8.2.1. *The Iron Age at Çadır Höyük – Excavations in the 1990s*

Though the Iron Age settlement at Çadır Höyük covered the whole mound,\(^8\) only in the last decade or so have secure deposits have been subject to excavation and study. Remains belonging to the period were initially encountered in the first season of excavations in 1994.\(^9\) The first director of the project, R. Gorny, reported the presence of primarily LIA remains in the form of a fortification wall and ceramics which he dated to the Achaemenid period.\(^10\) However, most of the Iron Age ceramics excavated in the 1990s came from unstratified fill layers.

Most of the architectural remains belonging to the MIA and LIA were likely removed by Byzantine activity on top of the mound,\(^11\) giving a limited picture of the settlement sequence in these periods. This, in conjunction with the lack of MIA-LIA radiocarbon dates (see discussion in Section 8.2.1.2.), and the necessity of using cross-site comparisons, contributed towards the initially tentative interpretations on the nature of the Iron Age at the site. Despite this, it is possible to discern that the site was fortified in the MIA-LIA (dated through material in associated fills), evinced by the presence of at least two gate buildings – one on the south side, the other in the north – and the remodelling and maintenance of LBA fortification walls.

\(^7\) Cassis 2015, pers. comm.
\(^10\) Gorny 1995: 54. This dating (relative) was subsequently superseded.
From the early 2000s onwards, excavation of secure Iron Age levels focused on the southern slope of the mound, which has yielded an important and long-lived Iron Age sequence, the material from which will inform my analysis.

In terms of chronology, which I shall discuss in more detail in Section 8.2.1.2., the Iron Age broadly covers the conventional span of the period in central Anatolia, from the 12th to the 4th century BCE. Some radiocarbon dates have been obtained for the EIA, while the MIA and LIA are defined on the basis of relative, artefactual based chronology, as no absolute dates have yet been obtained from these levels.

8.2.1.1. Trench USS 4

Trench USS (upper south slope) 4 (originally 790.890 according to the grid division scheme) was opened in 2001 (Figs.8.4-6), though secure Iron Age levels were not reached until 2004.12 Initial excavations in this part of the mound, which also included USS 9, USS 10 and SMT 9 encountered highly mixed deposits yielding LBA and Iron Age pottery and debris from former mudbrick walls.13 The excavation of an *in situ* oven provided the first set of radiocarbon dates for the Iron Age, in the 12th-9th century BCE range.

While USS 4 was a small exposure to begin with (5m x 10m), it has been expanded to its current 10m x 10m dimensions. The initial excavations yielded a mixture of material in the form of denuded architecture and LIA pottery, including painted and banded wares.14 Copious evidence of slag from the LIA levels was also encountered,15 denoting industrial activity which took place

---

12 Steadman *et al.*, 2006: 35.
14 Gorny *et al.*, 2002: 120.
there over the duration of the Iron Age (see discussion below). While there
some surfaced were detected in association with plastered depressions

In the 2005-09 seasons, MIA levels were under excavation with the aim of
reaching the EIA, which was encountered in a test sounding in 2006 in the
eastern part of the trench. The EIA deposits from this sounding evinced a
structure with a plastered interior that was interpreted as having been used for
textile production, judging from the number of spindle whorls found. A
possible LIA gate was also uncovered in this area, with an associated installation
comprised of postholes. On the whole, architectural remains throughout the
USS 4 sequence

The MIA (and LIA) deposits in this area of the mound sat on top of a
substantial fill layer placed in preparation for the new building level. The
eypheral character of the phase, comprised of pits, plastered features, and
denuded mudbrick; coupled with artefactual evidence of loom weights,
modified sherds and spindle whorls indicates the presence of industrial
activity.

In 2006, USS 4 was expanded to the west in order to gain a more detailed
picture of the deposits. Excavations during 2006-09 unearthed a series of
plastered features comprised of pits and surfaces, punctuated by ephemeral
architecture. The earliest level reached boasted a structure with stone
foundations and associated plastered areas, which, following the cessation of its

16 Ross 2010: 68.
use, was filled in and a series of mud-brick features were built on top, presumably making up an intramural space.\textsuperscript{21}

Since 2012, excavation has been conducted across the whole 10m x 10m trench. Thus far, the overall Iron Age sequence is quite extensive, with the EIA deposits being up to 5m in depth overall.\textsuperscript{22} 2012 work focused on taking the overall trench down to the level of a sounding dug in 2006. Excavations yielded a sequence of plastered floors, walls with stone foundations, intra- and extramural spaces, and plaster lined pits all belonging to the EIA and MIA. The sequence excavated in 2012 in particular shows an alternation of fills, pit and floor levels,\textsuperscript{23} with little architecture, indicating that in these phases of the MIA, this area of the site was mostly an outdoor zone. The pits in particular are of note in that they were continuously replastered, indicative of an extended period of use.

The EIA phases in USS 4 were comprehensively excavated during 2013-15, reaching levels belonging to the transitional period interpreted as the ‘post-Hittite Bronze Age’. These strata are marked by demolition of mudbrick LBA structures and levelling in preparation for construction of the initial EIA construction activities. The principal contexts excavated in 2013 consist of some five EIA phases of construction and associated surfaces. Most of these spaces and features consist of partially preserved walls and floors, subject to razing and filling in before new phases of buildings and surfaces were constructed. As a result, these contexts are not easy to interpret, and the taphonomy of artefacts is not entirely reflective of their primary use contexts. Likewise, several layers of fill separate the different construction phases. Material found in them is accordingly, secondarily deposited. Numerous pits

\textsuperscript{21} Ross 2010: 68.
\textsuperscript{22} Ross 2010: 67.
\textsuperscript{23} Ross 2012.
also punctuate the phases, however, they were used for depositing trash or processing, often containing few artefacts such as pottery, metal and bone.

In 2013, a series of multi-phased, round, semi-subterranean structures was excavated belonging to the EIA. These rested on packed mud and mud-brick foundations and were subject to consistent modification through time.\(^\text{24}\) Plastered surfaces and pits were also found associated with these structures. Above these features were several layers of pits, plastered surfaces and levelling fills. Each of the main phases excavated is separated by a fill layer, often covering the area of the entire trench.

The 2014 season yielded more round, semi-subterranean structures resting on packed mud or mud-brick layers, with associated pits and plaster surfaces. These layers proved to be rich in phytoliths, refuse and iron slag.\(^\text{25}\) Deposits beneath these constituted stubs of earlier walls, interpreted as belonging to the end of the LBA, partially reused in the initial phases of the EIA. The 2015 excavations continued the work of the previous year, with the aim of defining whether the industrial activity of the Iron Age is evident in the latest levels of the LBA. One plastered installation, interpreted as connected with metalworking, bore associated slag and coarseware pottery.\(^\text{26}\) Associated with this feature was a mudbrick layer covering much of the trench, perhaps denoting redeposited collapsed walls originally built in the LBA.

In the 2016 season, a layer was reached which was termed by the excavators as the ‘post-Hittite LBA’ (early 12th century),\(^\text{27}\) a transitional level marked by extensive demolition of LBA architecture and remodelling of features in this

\[^{24}\text{Ross 2014: 1, 6.}\]
\[^{25}\text{Ross 2014: 4.}\]
\[^{26}\text{Ross 2014: 5.}\]
\[^{27}\text{Ross 2016, pers. comm.}\]
part of the mound. The excavated features consist of substantial mudbrick, clay and ash layers. It is thought that the LBA architecture, perhaps comprising a fortified casement wall, was demolished and formed a levelling fill layer for the subsequent phase/s.²⁸ While further analysis of this level remains to be fully undertaken, it is clear that occupation at Çadır Höyük was uninterrupted following the end of Hittite authority in the region. Therefore, questions arise relating to the way in which this process affected demographics and social dynamics at the site, and, indeed, the wider landscape.

The continuous use of the southern area of the mound throughout the Iron Age has implications for the character of artefact taphonomy throughout the different phases. The presence of EBA and MIA material in the initial EIA phases is indicative of extensive settlement modification, resulting in earlier material being cast up and redeposited in fill layers and pits.²⁹ USS 4 was primarily industrial in character, devoted to the working of textiles and metal, exhibiting a remarkable degree of continuity in function of this part of the site. It is likely that this was in part dictated by the prevailing wind direction, which would have taken the smoke and fumes away from the non-industrial areas of the settlement.

It is impossible to gauge the size of Çadır in the EIA as secure levels have not been excavated in areas besides USS 4. However, following evidence from the trench, the site may have been bounded by (demolished) LBA fortification walls, perhaps having an overall size of some 0.6ha. Excavations on the northern slope of the mound in the early 2000s discovered that the LBA fortification system continued to be used into the Iron Age, though how this is

²⁸ Ross 2016, pers. comm.
²⁹ Steadman et al. 2013: 133.
related to USS 4 levels is not yet clear, as the southern slope area seems to have been unfortified until the MIA.

8.2.1.2. Taphonomy

It is clear from the above discussion that the character of EIA deposits in USS 4 consists of periods (secondary) deposition, activity and demolition. This, in conjunction with the often ephemeral character of the various features, makes interpretation challenging. Though later Iron Age phases in USS 4 and on the northern slope of the mound offer evidence of more substantial architectural features, these are often isolated and their stratigraphic connection to one another has not yet been studied in detail. In addition, the younger strata of the Iron Age are significantly disturbed and lack associated architectural remains.

8.2.1.3. Dating the Iron Age at Çadır Höyük

At the time of writing, radiocarbon dates have been obtained only for the EIA (Fig.2.6). The first suite was obtained from the trench adjacent to USS 4 to the south in 2001. The excavators sampled an oven and pit with a date range of early 12th-mid 9th century BCE,\(^\text{30}\) giving a range for the EIA-initial MIA periods. In 2013, further dates were obtained from USS 4 itself, yielding a 12th-10th century BCE date range,\(^\text{31}\) with a concentration of dates in the 10th-9th century BCE drawn from L.244, an ashy layer excavated in 2013 in the middle of the USS 4 exposure, measuring some 1.5m x 2.1m.\(^\text{32}\) Thus, the range of the EIA at Çadır seems to be 12th century-900 BCE, which conforms to current conventional chronologies for the period in central Anatolia.

\(^{31}\) McMahon 2015: 23-24. Notes in the locus sheet denote also the recycling of older wood from the EBA and LBA taking place in the EIA.
\(^{32}\) Ross 2013: 61, 63.
No radiocarbon dates are yet available for the MIA and LIA, which continue to be defined in terms of relative chronology, such as the appearance of Alişar IV and Achaemenid wares and shapes respectively. However, the refinement of such sequences with associated dates at other sites in the region would lend working hypotheses for the chronological ranges of the periods in which parallel material appears, until such time as radiocarbon dates for the MIA and LIA at Çadır are available. To that end, the chronology of the Iron Age at Çadır, while still under the conventional tripartite division (see Fig. 8.7), awaits further refinement from the study of the artefacts and obtaining of more radiocarbon dates.

8.2.1.4. EIA-MIA Ceramics

The overall Iron Age ceramic assemblage at Çadır generally conforms to material found at other sites within the region, particularly Alişar and Boğazköy, which boast the best excavated sequences. A preliminary assessment of the Çadır material was conducted by H. Genz, who examined the mostly unstratified pottery excavated in the 1990s by correlating it with assemblages from Boğazköy, Alacahöyük and Alişar, with further comments by the excavators. Genz’s work affirmed Çadır’s connection with the material from the middle to late phases of the EIA (ca. 1200-1000 BCE) and MIA (ca. 950-700 BCE) at Boğazköy, from the decoration, range of shapes, and the pottery fabrics. It ought to be stated, however, that Genz’s analysis focused on the fine painted pottery.

---

34 Steadman et al. 2013.
35 Genz 2001: 159-60.
Recent analysis by J. Ross, the principal excavator of USS 4 and Iron Age specialist at Çadır, has built on the initial work by Genz, with a wider focus on different ware types. On the whole, EIA pottery at Çadır is fundamentally utilitarian. Two broad ceramic phases of the EIA have been identified, with the earliest shows a good deal of continuity with the LBA, and the latter being more transitional in character.\textsuperscript{36} Ross notes the continued presence of some a high number of LBA shapes (particularly in the lower EIA levels), though in period characteristic wares.\textsuperscript{37}

Much of the pottery is also handmade, sometimes wheel-finished.\textsuperscript{38} A prominent part of the assemblage is comprised of cooking vessels, plates and bowls made using the coarse, gritty and chaffy fabric (Fig. 8.8), frequently handmade, with the pottery for consumption being distinguished by the use of slip (red or brown). This pottery recalls Late Chalcolithic/EBA pottery of the site and the wider region, interpreted as a resurgence of ongoing EBA traditions which continued in wider hinterlands.\textsuperscript{39} It has also been interpreted as signalling the movement of hinterland populations outside of the Hittite spheres of influence, which would have had different social and cultural trajectories, reflected in one respect in the longue-durée ceramic traditions.\textsuperscript{40} In terms of decoration, these wares boast rope and fingernail impressions, and incised designs.\textsuperscript{41}

Another important EIA category is a buff ware with red painted decoration, usually linear designs and dot-filled triangles, present at a seemingly restricted number of sites, namely Boğazköy (middle-late EIA phases, ca. 1100-850 BCE),

\textsuperscript{36} Ross 2010: 68.
\textsuperscript{37} Ross 2010: 71; 2013: 133.
\textsuperscript{38} Ross 2010: 71.
\textsuperscript{39} Genz 2003b: 187.
\textsuperscript{40} Genz 2003b: 187.
\textsuperscript{41} Ross 2010: 71.
Alacahöyük, and Pazarlı.\textsuperscript{42} This ware is not very common throughout the region but nevertheless significant as being a marker for the EIA. Indeed, it has recently been supposed that the red painted decoration stems from regions further north: the excavators of Oymağaç-Nerik, Samsun province, have put forward the hypothesis that this ware type comes from the Pontic region, owing to its parallels with MBA-LBA material excavated in the deposits associated with the temple of the local storm god at Nerik.\textsuperscript{43}

At Çadır, wheelmade and handmade types coexist in the EIA levels, though at this stage of research relative percentages of the respective types throughout the stratigraphic sequence have not yet been determined.\textsuperscript{44} Also noteworthy are handmade wares imitating the LBA utilitarian buff wares – taking on LBA shapes but with EIA surface treatment.\textsuperscript{45} Also of interest is the comparative lack of finewares in the Iron Age deposits at the site. This could be partly due to contextual and taphonomic factors, but may also be reflective of Çadır’s status as a second or third order site in the landscape, in which community organization and social stratification were not entirely reflected in the consumption and practices associated with fineware pottery.

In terms of relative quantities of EIA ware types, full analysis of the material is ongoing, though there is distinct evidence of a mixture of types and methods of manufacture, indicative of different bodies of knowledge of ceramic manufacture existing at the site. For comparison, the initial phase of the EIA at Boğazköy contained mostly handmade, burnished pottery, with 31% of the assemblage having been made on a fast-turning wheel.\textsuperscript{46}

\textsuperscript{42} Genz 2004: 48.
\textsuperscript{43} Czichon \textit{et al.} 2016: 68-73; Mielke 2016.
\textsuperscript{44} Ross 2017, pers. comm.
\textsuperscript{45} Ross 2010: 71.
\textsuperscript{46} Genz 2004: 48.
Though not discussed in detail in the published and unpublished reports, LBA pottery continues to appear in EIA levels at Çadir. Some of it is likely to be cast up from pit-digging, demolition and fill deposition activities, but the issue of continuity is also worth considering – whether, as at Boğazköy, LBA pottery continued to made and used for a brief period. In the instance of modified sherds, reuse of pre-Iron Age pottery is clear, though whether this extended to complete vessels, such as those devoted to storage, is uncertain, and will be remarked upon in Chapter 9.

The MIA pottery at Çadir is wheelmade for the most part, with slipping and burnishing continuing to feature prominently. There is also an increase in the diversity in the ceramic repertoire and clays used. Recent analysis of MIA pottery by means of pXRF and petrographic sampling has yielded additional information about the character of pottery production in the period. The utilitarian pottery (e.g. jars, bowls and cooking pots) is made of local clays, though from a variety of sources. On the whole there is an increase in the use of non-local fabrics in the MIA, particularly exemplified in the painted finewares, indicating a rise in the increased economic integration of the landscape.

One marker that may be viewed as belonging to the EIA-MIA transition in the region is the change in character of the painted pottery, with a shift to dark paint and prominence of animals (cervids and birds), characterizing the Alişar IV style, which comes to characterize MIA pottery in the Kızılırmak region. Interestingly, it does not occur in large quantities at Çadir, which may be due to contextual factors. The increase in proliferation of Alişar IV ware in the region

48 Ross 2010: 73.
49 Kealhofer et al. 2010: 78, 84.
50 Kealhofer et al. 2010: 89.
also hints at developments in social display in the context of consumption and perhaps increased social differentiation.

Very limited quantities of western grey ware – a hallmark of the Sakarya region assemblages – are found. My examination of the pottery yielded one sherd from a fine, grey fired and slipped bowl, arguably an import to Çadır. Less attention has been paid to plain and coarsewares of this period, however, and the detailed study and publication of the Çadır assemblage will contribute toward addressing this lacuna. My discussion here offers a preliminary foray into this area.

A further interesting category of pottery found throughout the Iron Age sequence in USS 4 is that of modified sherds – broken pottery worked into round, rectangular and triangular shapes. Some examples appear to have been used as stoppers and weights, and others – taking into account the industrial activities of USS 4 – may have been used as scrapers or even knives, perhaps for working hides.

Further research on the pottery of Çadır Höyük is taking place through the use of pXRF, to distinguish the use of different fabrics, from the Late Chalcolithic to the Iron Age. Analysis of LBA material has shown that a considerable amount of it seems to have been imported, as it does not use local clays. The Iron Age marks a return to local clay exploitation, with the addition of a new source, perhaps in the vicinity of Alişar. Complementary work is being undertaken in analyzing the pigments of the painted Iron Age pottery, which are adding further detail on resource procurement, and Çadır’s changing socio-political and economic interaction with the wider landscape.

51 Ross 2010: 71.
52 Ross 2010: 71.
54 McIlfattick 2015: 29.
8.3. The Iron Age in the Kızılırmak Basin

Though my primary focal point for this discussion is Çadır Höyük, I shall also make reference to a number of other sites and their material in the Kızılırmak region as it will allow me to better contextualize my discussion, offer comparison, and clarify ideas on the workings of political authority on a more regional level.

8.3.1. Boğazköy-Hattuša

Best known for being the capital of the Hittite Empire in the LBA – with excavations taking place since 1906 –, work at Boğazköy in the last two decades has yielded important information on the Iron Age at the site, with implications for the wider region and also potential post-Bronze Age dynamics.

As discussed in Section 2.2.1, scholars generally accept that Boğazköy was gradually abandoned at the end of the 13th and into the early 12th century BCE.\(^{55}\) Excavations on the Büyükkaya during 1993-98 – a north-eastern, fortified area of the site (Fig.8.9) –, yielded an important long-lived occupation sequence (Early Chalcolithic to Byzantine, with breaks) with extensive Iron Age levels.\(^{56}\) Analysis of material from Büyükkaya confirms that occupation at Boğazköy did not cease at the end of the LBA, but continued on a diminished scale, and reconfigured itself in terms of its socio-political makeup.

Prior to the excavations at Büyükkaya, Iron Age remains were found elsewhere at Boğazköy, ranging from architectural contexts, to stray finds. On the Büyükkale, south of Büyükkaya, excavations and soundings by K. Bittel in 1952

---

\(^{55}\) Seeher 1998b: 71; Beckman 2007: 111.

unearthed remains belonging to the Iron Age, though systematic attention to the period did not come for several more decades. In the southern zone of the site, the Upper City, five megaron plan buildings dating to the MIA were excavated in the 1960s, denoting some western Anatolian influence not only on architecture, but arguably political authority. However, following Bittel’s excavations, scholars assumed that Boğazköy was abandoned at the end of the LBA, and resettled sometime in the 8th century BCE in the Büyükkale and Lower City areas, with the former area undergoing fortification in the 8th century.

In the LBA, Büyükkaya constituted a large-scale storage area, with silos placed close to the south-eastern fortification wall. Upon the large-scale abandonment of Boğazköy, the area underwent a change in function. The Büyükkaya EIA levels – which may be subdivided into three main phases – contain densely agglomerated architecture of single roomed buildings (partially dug into the underlying ground level), with several containing hearths, domed ovens, and some having been used for storage. The buildings were constructed from wood and mudbrick on stone foundations.

The EIA settlement at Boğazköy was most probably a small hamlet within the confines of the Büyükkaya, while during the MIA the site grew, shifting to other locations, such as the Upper City and Nişan Tepe, and perhaps reached the status of a regional centre. A programme of fortification was also undertaken, and some western Iron Age elements, such as megaron-plan buildings (noted above), are evident in the archaeological record.

---

57 Bittel et al. 1953: 31-36; Seeher 1998b: 71. See also Bossert 2000, for the publication of the Iron Age material excavated before the 1990s.
58 Neve 1970: Fig.7, 1974: 876ff.
60 Seeher 1999: 319.
Analysis of EIA pottery at Boğazköy has clarified some important issues regarding continuity of habitation after the site’s large-scale abandonment and destruction. In the initial phase of the EIA, LBA wheelmade traditions continue for some time, concurrently with newly introduced handmade wares.\(^{63}\) In the middle and late phases, wheelmade pottery is largely absent and made from local clays.\(^{64}\) The MIA ceramic repertoire sees an increase in painted wares – Alişar IV types common to the region (though not occurring in great quantity at Boğazköy) –, and a diversification in the repertoire of shapes.

H. Genz, who has made a detailed study of the EIA-MIA pottery from the Büyükkaya excavations,\(^{65}\) notes the similarities in some shape forms between EIA and EBA-MBA types,\(^{66}\) leading him to argue in favour of longue durée ceramic traditions being practiced in the wider landscape away from direct imperial control during the LBA. Indeed, J. Seeher, the director of the Boğazköy excavations during 1994-2005, remarked on the similarity of EIA wares with those belonging to the Chalcolithic period at the time of the Büyükkaya excavations.\(^{67}\)

Following the end of Hittite hegemony in the Kızılderî region, small scale population movements, i.e. people moving from the hinterlands to former large centres, may account for the visibility of this kind of pottery in the archaeological record of well-researched sites like Boğazköy. Genz has also observed this phenomenon in the ceramic repertoires of other sites close to Boğazköy, such as Alacahöyük and Eskiyapar.\(^ {68}\) A similar scenario is likely to

---

\(^{63}\) Genz 2004: 48.
\(^{64}\) Kealhofer et al. 2009: 292.
\(^{65}\) Genz 2004.
\(^{66}\) Genz 2004: 39, 42.
\(^{67}\) Seeher 1998b: 73.
\(^{68}\) Genz 2004: 48. Now also observed at Oymağaç-Nerik (Yılmaz 2012; Czichon et al. 2016).
account for the character of ceramic styles in the EIA at Çadır Höyük (see discussion in Section 7.3.3. and Chapter 8).

Petrographic analysis of the EIA ceramics at Boğazköy has added further nuance to possible socio-economic configuration in the Iron Age. EIA and MIA pottery is made from local clays, with a few examples of MIA vessels showing non-local characteristics, probably constituting imports,\(^69\) denoting increased connections with the wider landscape and location of procurement and manufacture of goods away from sites themselves. The excavations at Büyükkaya are of further importance in view of the fact that they have yielded a sequence of absolute dates for the EIA-MIA, making the site one of the few but important anchors for Iron Age chronology in central Anatolia.\(^70\)

8.3.2. Alişar Höyük-Ankuwa

One of the first important stratigraphic excavations in central Anatolia took place at Alişar Höyük, a large multi-period settlement 12km south-east of Çadır as the bird flies. The site was chosen for excavation by H. H. Von Der Osten from the Oriental Institute in Chicago, following an extensive landscape survey of central Anatolia, and was investigated intensively during 1927-32. The site is comprised of a citadel mound surrounded by a large, extended terrace dating to the MBA, altogether encompassing some 12.5ha in its maximum extent (Figs. 8.10, 8.12).

Like other sites in the immediate region, Alişar’s occupation spans several millennia, from the Chalcolithic period to Ottoman times, with interruptions. The site is likely to be ancient Ankuwa, a key centre in the region and focal

---


\(^{70}\) Genz 2004: Table 2.
point for the worship of the Hattic goddess Katahha mentioned in Assyrian Colony and Hittite period texts found at the site itself and elsewhere.\textsuperscript{71} Habitation at Alişar may have continued following the end of the LBA, though on a more diminished scale. However, it is not clear whether there was a complete hiatus in occupation at the site during the EIA. For example, Von Der Osten does not report the presence of any red painted wares such as those found in the EIA strata at Boğazköy and Çadir. Part of the issue connected to defining this is characterizing the LBA settlement on the main mound, much of which was destroyed at the end of the LBA and then further razed and levelled in the later Iron Age.\textsuperscript{72}

While the citadel seems to have been abandoned at the end of the LBA, occupation on the terrace may have continued.\textsuperscript{73} In the latter zone, to the west, fragmentary Iron Age remains were found, built on a substantial levelling layer of fill lacking artefacts.\textsuperscript{74} The area may have been devoted to workshops, judging from the remains of kilns and loom weights found,\textsuperscript{75} indicating the presence of some level of industry and perhaps a well-populated settlement. Accordingly, the LBA-EIA transition at Alişar remains an unresolved issue, though the discussion of the respective LBA and Iron Age material at the site suggests some degree of cultural change.

 Firmer evidence of habitation in the Iron Age comes from the citadel itself and the adjacent west zone, covering some 2.2ha (Fig.8.12).\textsuperscript{76} Both the citadel and the lower town (belonging to the middle and late phases associated with the

\textsuperscript{71} Gorny 1995; Barjamović 2011: 312-17, also for bibliography on identification of Alişar with Ankuwa.
\textsuperscript{72} Gorny 1995: 175, 177.
\textsuperscript{73} Von Der Osten 1937b: 347, Fig.513.
\textsuperscript{74} Von Der Osten 1937b: 347.
\textsuperscript{75} Von Der Osten 1937b: 345.
\textsuperscript{76} Schmidt 1932: 215-16; Von Der Osten 1937b: 287.
citadel, 4b-aM)\textsuperscript{77} were well-fortified, perhaps having developed into small regional centre that coalesced two to three centuries following the end of the Hittite Empire, and exploiting the local power vacuums. The terrace, originally fortified in the Bronze Age, was seemingly left undefended.\textsuperscript{78}

The discovery of painted pottery at the site, boasting geometric, linear and zoomorphic motifs has led to the appellation of ‘Alişar IV’ for the ware (Fig.8.11). This pottery occurs at many other sites in the Kızılırmak region and elsewhere (as far west as Gordion, where the style was adopted in the local dark-on-buff wares),\textsuperscript{79} and has been used as a key marker for the MIA, despite ongoing uncertainties of its overall chronological range. According to current research, drawing on evidence from a number of sites, the chronological span of Alişar IV pottery in central Anatolia seems to be ca. 900-700 BCE.

The citadel of Alişar (designated as ‘M’ in the publications), which was first fortified in the EBA, continued to be elaborated and maintained in the Bronze and Iron Ages.\textsuperscript{80} Certainly, on the citadel mound, this seems to have been the case – Von Der Osten argues that Iron Age fortification wall and southern gate were built on top of the LBA counterparts.\textsuperscript{81} The LBA-EIA transition at Alişar remains undefined, and no material paralleling that of Boğazköy and Çadır Höyük dating to this period, whether ceramic or architectural, has been remarked upon by past investigations.\textsuperscript{82}

Von Der Osten dated the Iron Age citadel to the 11th-6th centuries,\textsuperscript{83} and divided up its phases into three on the main mound (4c-aM, see Fig.8.13 for a

\textsuperscript{77} Von Der Osten 1937b: 337, 339.
\textsuperscript{78} Von Der Osten 1937b: 287.
\textsuperscript{79} Durbin 1971; Matsumura 2005: Fig.5.3-2.
\textsuperscript{80} Von Der Osten 1937b: Fig. 321.
\textsuperscript{81} Von Der Osten 1937b: 286-87.
\textsuperscript{82} Summers 2009: note 6.
\textsuperscript{83} Bittel 1937b: 339.
plan of 4aM), all of which are demarcated by respective destruction episodes.\textsuperscript{84} Ceramics from all phases of the citadel remain consistent in ware and decoration,\textsuperscript{85} though Von Der Osten notes more prominent presence of ‘coarse wares’ in phase 4cM.\textsuperscript{86} There was a seeming lack of handmade pottery at Iron Age Alişar,\textsuperscript{87} which would further argue for a lack of EIA activity, though information from the excavations on the southern terrace were inconclusive. No absolute dates have been recovered from Alişar owing to excavation prior to the invention of radiocarbon dating. Thus, dating of the remains relies primarily on relative chronology established by ceramics, and despite the site’s importance owing to its long stratigraphic sequence, much of the chronology continues to be floating.

Recent attempts at clarification have made some headway in stabilizing the Chalcolithic and Bronze Age sequences,\textsuperscript{88} though this is yet to be undertaken for the Iron Age. The presence of Alişar IV pottery at Gordion in the YHSS 6A destruction level, YHSS 5 contexts and tumuli gives a 9th-8th century BCE date range for the presence of this ware at the site. This has been further reinforced by analysis of pertinent material from Kaman-Kalehöyük, where Alişar IV pottery appears in Stratum IIc2-3, dating to the 8th century.\textsuperscript{89} At Boğazköy, the ware is present in the MIA sequence in the Büyükkale Stage II, dating ca. 850-700 BCE.\textsuperscript{90} On the basis of this evidence, dating the Alişar IV settlement to ca. 900-700 BCE takes into account the comparative evidence, until such time as radiocarbon dates are obtained from the site.

\textsuperscript{84} Von Der Osten 1937b: 288.
\textsuperscript{85} Bittel 1937b: 323.
\textsuperscript{86} Von Der Osten 1937b: 350.
\textsuperscript{87} Von Der Osten 1937b: 350.
\textsuperscript{88} Steadman 2011.
\textsuperscript{89} Matsumura 2005: Fig.5.2-2.
\textsuperscript{90} Genz 2004: 48, Table 1, 6.
Kaman-Kalehöyük (100km south-east of Ankara) is another important site that is contributing towards clarifying the picture of the Iron Age in the Kızılırmak region. Excavations began in 1986 and continue under the auspices of the Japanese Institute for Anatolian Archaeology, based at the University of Tokyo. Though also a multi-period mound spanning the Chalcolithic, Bronze, Iron and Ottoman periods, much of the research focus has been directed towards the Iron Age, which has been exposed over a substantial area on the mound. Stratum II comprises the Iron Age as a whole, with phases IIId-c approximating the EIA (11th-8th centuries), while phases Iib-a belong to the MIA (7th-mid 4th centuries). Attempting to compile a reliable suite of absolute dates at Kaman has proved somewhat problematic, owing to the short-lived samples having been subject to dating (and different labs conducting the analysis) and the complex stratigraphy of the site.

Architectural remains of the EIA phases consist of semi-subterranean structures, using a wooden post and stone foundation construction method. This type of construction continues into the MIA though it becomes more substantial. In addition, presumed megaron plan buildings have been excavated in Phase IIa, echoing parallels from Gordion and other sites in the Kızılırmak region. Semi-subterranean architecture continued to be a feature in the MIA phases, though most of these spaces were devoted to storage of grain, indicated by the presence of phytoliths in the plastered floors of the spaces, and a lack of associated domestic material culture.

---

92 Finer subdivisions of the periods are outlined in Omura 2011: 1099. See also Matsumura 2005; Matsumura 2010 & Omori 2010.
94 Omura 2011: 1101.
96 Omura 2011: 1101.
An intriguing characteristic of the EIA pottery from Kaman is the continued and consistent use of the wheel, which contrasts with other known EIA assemblages in the region.\textsuperscript{97} Handmade wares have also been recovered, and comparisons have been drawn with material from sites further south, such as Porsuk and Kilise Tepe.\textsuperscript{98} However, the chronology of the Iron Age at Kaman remains a topic of contention, as noted above,\textsuperscript{99} making it difficult at this stage to pinpoint precisely at which stage this EIA pottery lies, and how it can correlated with material from other sites. The excavators also note that Kaman was fortified in the IId period, with the several burning phases evident interpreted as destructions.\textsuperscript{100}

8.4. *The EIA-MIA in Kızılırmak Region and the Position of Çadir Höyük*

In general, EIA-MIA sites in the Kızılırmak region are relatively modest in scale and socio-political development compared to their Bronze Age predecessors, contemporary sites to the west (e.g. Gordion) and in the Syro-Anatolian region. The fragmentation of Hittite Empire arguably led to the redistribution and compartmentalization of political authority in the landscape, allowing sites to develop according to relatively individuated socio-political trajectories.

Ongoing occupation and activity at sites such as Çadir, Alişar, Kaman and Boğazköy itself denotes a level of respective socio-political independence through time, which I shall further discuss in Chapter 10, in considering Çadir’s relationship with the wider landscape and the implications this has for its resource management and political authority dynamics.

\textsuperscript{97} Matsumura 2000: 126-27.
\textsuperscript{98} Matsumura 2005: 510-12, 2008.
\textsuperscript{99} The problem is also discussed in Matsumura & Omori 2010.
\textsuperscript{100} Matsumura & Omori 2010: 444.
CHAPTER 9. STORAGE AT EIA-MIA ÇADIR HöYÜK

9.1. Introduction

In comparison to Gordion, Çadir Höyük presents several challenges in interpreting the character of storage practice and accompanying political authority characteristics during the EIA-MIA, owing to the restricted nature of the evidence and character of the taphonomy, discussed in the previous chapter. However, it is clear that Çadir was demonstrably different in character to Gordion during the EIA-MIA, making it an interesting comparative example for discussing socio-political developments not only at the site level but also in the wider Kızılırmak region.

Given the greater number sites in the region which have excavated and published Iron Age sequences, I shall bring a number into the discussion, specifically Boğazköy, Kaman-Kalehöyük and Alişar Höyük. Indeed, their relative proximity to, and potential relationships with, Çadir arguably contributed in different ways towards the latter’s cast in the initial stages of the first millennium BCE. Moreover, comparative material from these sites will further help to define the particular character of Çadir in terms of the themes addressed in this work, and also the chronological scope of its material.

9.2. Defining Storage Contexts

In terms of evidence for storage, the sole firm example for this at Iron Age Çadir is confined to ceramics, on which I shall focus my discussion. Due to nature of excavated contexts, other possible forms of storage, such as pits, bins, perishables and architectural spaces are absent, though they no doubt existed. These would have been present in domestic contexts, which have not been
hitherto excavated at the site. This may also account for the limited sample size of storage ceramics.

Consequently, the industrial character of USS 4 also predicates its own parameters concerning storage. The area’s function presupposes the importance of accumulation and storing of raw materials (and, indeed, finished goods) connected with the production of goods interpreted from the excavations. This may have taken the form of architectural storage to house products such as wool and ore. In addition, the storage of other raw materials connected with the production of wooden and metal goods would have also been implicated within the overall processes of storing. Accordingly, the presentation of the data here provides an initial, working categorization of storage ceramics based on the evidence from USS 4, to be built upon by future work.

Throughout the discussion, I refer to material and contexts following the recording conventions used by the excavators. Following this, a locus (L number) is a discrete designated deposit, further defined according to its degree of secureness (Priority 1-3, 1 being a secure context; 2 somewhat secure; and 3 considerably disturbed). Each collected artefact is given its own FCN (field control number). Features are given their own F number, and situated in relation to the respective loci.

9.3. EIA Storage Ceramics

For my discussion of storage vessels at Çadir, I shall employ four basic categories which cover the vessel types found in the Iron Age strata from USS 4: pithos, torpedo jar, open mouth jar and holemouth jar, whose characteristics will be defined in the respective sections. The EIA material from trench USS 4
for analysis was drawn from Loci 325-210 (Table 28),\textsuperscript{1} artefact numbers FCN17222-11422 (Fig.9.1, Tables 30-32).

\subsection*{9.3.1. Torpedo Jar}

This form, known as a ‘torpedo jar’, ‘cylindrical jar’, ‘long necked storage jar’, ‘large jug’ or (somewhat unhelpfully) simply ‘storage jar’ in the literature,\textsuperscript{2} characterized by a long, narrow body shape and pointed base and a single handle joining the neck and upper shoulder (Fig.9.2), was very common in the LBA across central Anatolia and part of the plain buff ware repertoire. This vessel type seems to be an innovation of the Hittite Empire, as no evidence has been found in earlier periods.\textsuperscript{3} I shall use the term ‘torpedo jar’ for the purpose of my discussion, as it is sufficiently idiosyncratic and avoids possible ambiguities the other terms used in the literature.

Examples of LBA torpedo jars come from a wide geographic area in central Anatolia.\textsuperscript{4} The function of these vessels is quite varied, being connected with consumption contexts as part of the plain buff ware repertoire,\textsuperscript{5} and also storing of liquids and grain.\textsuperscript{6} Torpedo jars have been particularly associated with household ceramic repertoires at Boğazköy, on account of their short-term storage capacity.\textsuperscript{7} Their shape and find contexts suggest they were often leaning against walls of buildings,\textsuperscript{8} though it is likely they were also used for the transportation of goods. The vessels are typically formed from three sections (neck/rim; main body; lower body/base), each of which are coil built with

\begin{footnotesize}
\begin{enumerate}
\item Note that not all of the loci contained storage ceramics, which accounts for the non-consecutive numbering in the tables.
\item Henrickson 1993: 107-08, 1995: 86; Schoop 2009: 152, 2011: Fig.4; Mielke 2017: 132-33.
\item Schoop 2006: 152.
\item Glatz 2007.
\item Schoop 2003.
\item Schoop 2011: 253.
\item Schoop 2011: 253.
\end{enumerate}
\end{footnotesize}
subsequent wheel forming, before the assembled vessel was wheel finished, making these vessels quite labour intensive.

In the EIA sequence of USS 4 at Çadır Höyük, 20 rim and rim/neck sherds have been identified this analysis. The early EIA examples first occur in L.304 (a layer of fill redeposited across much of USS 4), comprised of two rim/neck sherds (Table 29) and a sherd from the lower portion of the body, clearly denoting the coiled method of construction. In terms of morphology of the Çadır examples, the rim diameter ranges 10-15cm, with most examples being 10-11cm.

![Table 9.1. EIA torpedo jar rim diameter, USS 4](image)

The fabric is buff and hard-fired, and occurs in a narrow range of buff colours, indicating a controlled kiln firing environment. The composition is coarse to medium-coarse with quartz and white grit inclusions, with a smoothed vessel

---

9 Henrickson 1993: 108.
exterior. Though no fully intact examples have been found, comparanda from other central Anatolian sites would suggest a vessel height range 30-70cm.\textsuperscript{10}

Though belonging to the MIA, the reconstructed torpedo jar c1566 from Alişar 4aM provides a good Iron Age comparandum (see further discussion in Section 9.4.1.). This vessel is 89cm high, 36cm maximum diameter and a 14cm rim diameter, with a medium-fine fabric, buff fired and buff slipped.\textsuperscript{11} The EIA examples from Çadır were probably somewhat smaller, though sherd FCN12686, with a 15cm rim diameter, would have been comparable in size to the Alişar example. On the basis of comparison of vessels from LBA Boğazköy\textsuperscript{12} and Alişar IV, the Çadır examples would have been in the 60-70cm height range.

Vessels similar to torpedo jars appear in the middle EIA sequence at Boğazköy, though they belong to jug category, having short necks, globular bodies, flat bases and frequently spouted rims,\textsuperscript{13} denoting a more specific function of holding and serving liquids. Their fabric is fine to medium-fine with quartz and grit inclusions.\textsuperscript{14} However, no examples comparable to those from the LBA have been found in EIA levels.

9.3.2. Open-Mouth and Holemouth Jar

The two basic shapes of jars outlined in the introduction to the ceramics discussion are present in the EIA sequence. Open mouth jars have a straight, almost cylindrical upper part of body coming to a curved bottom (Fig.9.3).\textsuperscript{15} At Çadır, two rim shapes in the EIA assemblage were observed, a squared or

\begin{itemize}
\item \textsuperscript{10} Von Der Osten 1937b: 388.
\item \textsuperscript{11} Von Der Osten 1937b: 388.
\item \textsuperscript{12} Fischer 1963: 126.
\item \textsuperscript{13} Genz 2004: 20, 21, 57, Pl. 16.6-15.
\item \textsuperscript{14} Genz 2004: 52. Construction methods are not discussed by Genz.
\item \textsuperscript{15} Schoop 2011: Fig. 4.4.
\end{itemize}
rounded profile. Holemouth jars are further distinguished by a slightly notched rim on the exterior of the vessel with no neck and a rounded, globular body. Both of these shapes are well-attested in the LBA ceramic repertoires of the region, and their appearance in the Iron Age sequence seems to signify their continued use and manufacture.

Two holemouth jars and four wide mouth jars are evident from the diagnostic remains (Table 30). Open mouthed jars are distinguished by their substantial rim diameter, with three of the four examples being in the 40cm+ range. The two holemouth examples are comparable to the open mouth vessels in terms of rim diameter.

Table 9.2. EIA Open-mouth jar rim diameter, USS 4

Table 9.3. EIA holemouth jar rim diameter, USS 4
Both groups of jars are fired to a buff hue, with smoothed interior and exterior surfaces, lacking any decoration. The fabric is quite varied, which may indicate broader categories of functionally different vessels. Open mouth jars have predominantly quartz and/or grit inclusions, sometimes supplemented with mica, and are medium-fine to medium-coarse. Holemouth jars are more problematic on account of the small sample. FCN12146, the finer fabric example, has quartz and mica inclusions, while the coarser FCN13326 has large quartz and grit inclusions. Due to the small sample size of holemouth jars from this phase, it is impossible to say whether different fabric types were preferred for the respective vessel types, though future investigation may bear this out.

In terms of comparanda from other sites, open-mouthed jars are a feature of the middle and late EIA assemblage at Boğazköy.\textsuperscript{16} These vessels (called ‘pots’ in the publications) have an everted, often thickened rim, barely any neck, and quite a substantial rim diameter. The vessels are handmade, generally fired in a reduced atmosphere, with a mostly coarse fabric, though some fine and medium-fine examples have been recorded.\textsuperscript{17} In terms of function, taking into account their overall morphology and parallels from other sites, they were probably used for cooking and storage.

For further comparison, the open-mouthed jars from LBA levels at central Anatolian sites were quite varied in their function, having been used for storage, consumption, cooking, and even funerary.\textsuperscript{18} These vessels associated with consumption (i.e. alcohol) have also been pictorially depicted in the LBA, with an example from Boğazköy shows figures drinking.\textsuperscript{19} This diversity in function

\textsuperscript{16} Genz 2004: Table 4-5, Pl. 12.
\textsuperscript{17} Genz 2004: 55-56.
\textsuperscript{18} Glatz 2007: 135.
allows for thinking about the possible uses of these vessels in Iron Age contexts, which, however, may be only verified though contextual analysis.

Holemouth jars appear in the middle EIA phase (ca. 1100 BCE) at Boğazköy, and Genz distinguishes six different rim profiles. Vessels with a thickened exterior rim bear closest similarity to the Çadır examples. Holemouth jars also feature in the LBA ceramic assemblages, most prominently being used as cooking pots, with their coarse fabric and sooty, mottled surfaces further attest to this function.

9.3.3. Pithos

Pithoi are a prominent feature of LBA assemblages across central Anatolia, ranging in size and function according to the contexts in which they are found. The most dramatic examples are large in capacity and associated with formalized, large-scale, long-term storage. At Boğazköy, several different types have been excavated (Fig.9.4), with some approaching up to 2m in height and being set in floors of magazine spaces of buildings, prominently exemplified by the finds from Temple 1 in the Lower City (Fig.8.7).

Nevertheless, the general picture of storage pithoi (particularly large ones) as frequently associated with formalized, elite contexts and complex socio-political apparatus is quite clear. The use of these vessels in non-elite, domestic spheres during the LBA remains less well understood, though preliminary research by U.-D. Schoop suggests that, while the use of pithoi declined in
households, other types of vessels, such as torpedo jars, for storage purposes superseded them.\textsuperscript{24}

Even less is understood regarding manufacture and use of pithoi in the EIA, though their presence in the archaeological record the orientation of the discussion in this direction. The EIA levels at Çadir contained numerous examples of pithoi, whose fragmentary character is no doubt reflective of taphonomic processes that took place on the mound. Nevertheless, given the overall character of the ceramic assemblage, and some level of continuity from the LBA, questions regarding the continuity in the manufacture and consumption of these vessels in the EIA ought to be borne in mind.

The Çadir pithoi come in a variety of shapes, though most prominently with rounded, ovoid bodies, and flat or rounded bases. The most common rim shape is an everted type with a rounded or squared profile; with others including a holemouth type (Fig. 9.1). The examined EIA contexts yielded 16 diagnostic (rim) sherds identifiable as constituting discrete vessels (Table 31). The vessels range in size, having an average rim diameter of 30-50cm, with a total average of 45cm. Wall thickness is typically 1-1.7cm.

\textsuperscript{24} Schoop 2006: 152.
Table 9.4. EIA pithos rim diameter, USS 4

They are buff fired, with a restricted range of hues, denoting, as in the case of other storage vessels examined here, the use of kilns in the EIA. Most examples are coarse, with a few finer examples. The vessels are for the most part smoothed or wheel finished, with a few examples denoting a burnished exterior finish, either a full burnish or streaked. Examples of vessels which would have been set into floors also evident, denoted by the rounded base of FCN13745 (Fig.9.5). This vessel in particular is quite well made, with a medium-coarse fabric and uniform firing (brown) throughout.

The vessels are are mostly undecorated, with two examples out of the examined assemblage boasting rope style decoration (evinced by FCN15128, Fig.9.6), rendered from impressing actual ropes onto the vessel while the clay was pliable. Two examples (FCN14370 and FCN8433) bear traces of burnishing, with the latter example being streaked and decorative in nature. Rope decoration and burnishing follow LBA traditions, giving a further glimpse of the conventions that existed at Çadir before the Iron Age.
Our knowledge of pithoi from the Bronze Age at Çadır would arguably be increased through the discovery of the site’s cemeteries, which remain unknown. Pithos burial was a common practice across central and western Anatolia in the Bronze Age, and the discovery of such contexts at would give an insight not only into Bronze Age pithoi, but provide a point of comparison with Iron Age examples and the accompanying changes in socio-political dynamics.

In examining material from other sites, the manufacture of large storage vessels at Boğazköy are not frequent in the initial EIA, with an increase in the middle EIA phase (ca. 1100 BCE), though still limited in quantity compared to the MIA assemblage (see discussion below in Section 8.3.1.). Pithoi occurred in domestic contexts, with one or two placed in a household. Their overall size does not suggest long-term storage, but their emergence as a component of the household economy is of interest. The shapes resemble those of Çadır, particularly the flaring/everted rim examples.

In the case of Çadır, I would pose the same question as I did for Gordion in Chapter 6: whether pithoi from previous periods were reused in the Iron Age. Given the degree of post-LBA social continuity at Çadır, there is perhaps the case for a stronger argument for this having taken place at the site. The original excavators of Alişar Höyük noted the use of a Byzantine pithos in one house in Alişar village in the 1920s, making practices associated with reuse not inconceivable for other time periods.

---

25 Genz 2004: Tables 3-5.
27 Genz 2004: Pl.4.2; 12.5-8, 14; 14.4, 6, 7-9; 15.1-4; 17.4-5.
28 Schmidt 1932: 146, Fig. 208.
The overall paucity of discrete vessels has led me to group them into one category, despite differences in wares, which in themselves highlight the potential variety in large vessel repertoires. This has implications for the differences in the potting traditions present at the site in the EIA, concomitant with arguments surrounding population movements of different scales throughout the landscape following the end of Hittite hegemony in the region. A larger ceramic sample and more comprehensive analysis of non-diagnostic sherds in order to examine the way in which they correspond to the diagnostics in terms of ware, fabric and wall thickness in order to gain a better idea of the full extent of the repertoire of pithoi at Iron Age Çadır. Moreover, the variety of wares in the EIA may also hint at the recycling of vessels, which requires further investigation. Earlier pottery was certainly recycled throughout the Iron Age in the form of the modified sherds (see Chapter 8, Section 8.2.1.4.), but whether this extended to intact vessels remains unknown.

9.4. EIA/MIA Storage Ceramics

J. Ross accords several levels in USS 4 to the EIA-MIA, denoting the difficulty in distinguishing cultural processes and material culture assemblages in this series of stratified deposits. However, this perhaps accounts more accurately for gradual development in the cultural and social picture of the site at the time. Material examined here is from Loci 209-167, FCN9827-11437, excavated in 2012 (Fig.9.7, Table 32).

As in the EIA, the levels here are comprised of fragmentary plaster surfaces, fill layers (sometimes covering the whole excavated area), and the occasional possible intramural surface. Further research is needed in order to clarify these phases as to whether they are discrete transitional deposits or divisible into the EIA and MIA respectively. As discussed in the previous chapter, no
radiocarbon dates have been obtained for these levels, though they may belong to the 10th century BCE, following conventional chronology of the Iron Age in the Kızılirmak region, and the ‘bookend’ dates of the EIA at the site. Storage pottery at Çadır belonging to this period is continues to exhibit similar characteristics to the preceding phase, though the difficulty in assigning a date to this period, and the small size of the simple I have defined for my analysis ought to provide a cautionary element until such time as the EIA-MIA period is better defined.

9.4.1. Torpedo Jar

Torpedo jar vessels continue to feature in the assemblages of the EIA-MIA phases, following more or less the same style, morphology, fabric and firing as the EIA examples (Table 33), despite the small sample size of diagnostic sherds – six rims – from these phases. However, compared to those discussed in Section 9.2., there are only two vessels with a rim diameter of over 10cm. Nevertheless, in terms of overall size, the vessels would have been comparable to those in the EIA levels.

Table. 9.5. EIA-MIA torpedo jar rim diameter, USS 4
9.4.2. **Open-Mouth and Holemouth Jar**

Open-mouth and holemouth jars continue to appear in the EIA-MIA phases, showing the same characteristics in firing and varied degree of coarseness in fabric as in the EIA (Table 34). As in the case of the EIA, the small sample size of eight vessels hinders analysis. Six open mouth jar sherds are present, with one large one example, having a 44cm rim diameter, while the remainder are in the 30-38cm range. Rim sherd FCN14421 may be in the large category, but it is too broken to provide an accurate rim diameter measurement. Two holemouth jars complete the analytical sample, also following the general characteristics and rim diameter of the EIA examples discussed in Section 9.2.2.

![Bar chart](chart.png)

Table 9.6. EIA-MIA open-mouth jar rim diameter, USS 4

9.4.3. **Pithos**

Pithoi from the EIA-MIA levels show some differences from the preceding phase, particularly in rim forms (Table 35). In terms of rim diameter and wall thickness, the vessels are smaller on average than in the EIA, but this may be due to the skewing effect of the smaller sample number of eight vessels. Vessel rim diameter remains relatively consistent, in the 32-46cm range, with an
average of 40cm; while wall thickness ranges between 1.2-1.5cm, with two examples being 8mm.

Despite the smaller sample of diagnostic sherds compared to the EIA phases discussed above, rim diameter conforms on average with the earlier EIA, with no examples exceeding 50cm. Firing continues to be red to buff, mirroring EIA practice, though a few of the examined sherds tended more towards shades of brown (FCN9973, 10283 and 10637). The fabric is coarse to medium-coarse and the surfaces are for the most part untreated, though FCN10614 displays a burnished interior and exterior, and FCN9950 has a slipped exterior.

In terms of comparanda from other sites, sherd FCN9950 recalls somewhat examples from Boğazköy, with a straight, shelf-like top of the rim.29 However, this vessel had a neck, which most examples from Boğazköy lack, and it also has a cream slipped exterior. Sherd FCN10624 is quite distinctive for its burnished interior and exterior, and boasts a grog temper, which is not a common feature of storage pottery fabrics at Çadır, and not detected in examples from the preceding phases.

---

29 Genz 2011: Pl.70.1-5, 71.1-6.
9.5. *MIA Storage Ceramics*

The MIA material for analysis was drawn from L.165-124, FCN9813-8988 (Fig. 9.8), with a selection of material from other MIA deposits in USS 4 excavated in the early-mid 2000s where pertinent to the discussion.

I shall also discuss krater/open mouth amphora vessels in the context of MIA pottery. Though a paucity of remains of this vessel type have come from USS 4 (two rim sherds detected), their presence (and appearance in the assemblage) is nevertheless important in the context of Iron Age ceramic assemblages in central Anatolia. As I have discussed in Chapter 7, these vessels had a proliferated use at Gordion, and their appearance across central Anatolia in the MIA arguably signals changes in storage and consumption practices of communities which adopted them. In addition, it may also come to be viewed as a relative chronological indicator for the MIA at other sites.

9.5.1. *Torpedo Jar*

Torpedo Jars, following examples from the earlier phases, continue to appear in the MIA levels, though in lesser quantity, with rims from seven vessels represented in the analyzed sample. The sherds demonstrate with the same ware type, surface treatment, fabric, firing and average rim diameter as in the preceding phases (Table 36). The paucity of diagnostics may indicate indicates that this material is up-cast from digging into earlier strata rather than production and consumption of these vessels in the MIA.
Six reconstructable or largely intact examples of these vessels found in phase 4aM in the citadel complex at Alişar were published by Von Der Osten (Fig. 9.9), demonstrating that these vessels continued to be manufactured and used at some Kızılırmak sites in the Iron Age (see Section 9.2.1 for vessel c1566). Consequently, their presence in the Iron Age sequence at Çadır is not necessarily reflective of taphonomic processes and redeposition of material from earlier periods, but actual manufacture and use.

The full extent of the excavated corpus of these vessels at Alişar is unknown, however, the measurements of the published examples are instructive. The two best preserved torpedo jars from Alişar 4aM published by Von Der Osten are illustrative of the scale which these vessels approached, despite the fact that he gives only the vessel height and maximum diameter. Vessel c1566 from is 89cm high, while c2263 has a preserved height of 73cm. Similar to the Çadır examples, the Alişar vessels have a medium coarse fabric, smoothed exteriors and are buff fired, with an occasional buff or reddish slip.

---

30 Von Der Osten 1937b: 390.
31 Von Der Osten 1937b: 388.
9.5.2. Open Mouth and Holemouth Jar

Four holemouth and four open mouth jars were examined from the MIA phases (Table 37). The latter vessels continue to display characteristics of vessels from the preceding phases in terms of form, with several round rim profile vessels evident. FCN8083 in particular harks back to LBA forms, with a rounded rim and straight body that would have come to a rounded bottom, but boasting an Iron Age ware. The jar was buff fired with a dark grey core, which also approximates somewhat LBA firing techniques for vessels with a generally buff ware. This vessel is a good example of the way in which LBA and Iron Age traditions were amalgamated by potters. Vessels continue to be buff fired, though a few examples, show reduced firing conditions.

Holemouth jars continue to exhibit the form of those in earlier levels, however they are uniformly brown fired and, despite the small sample size, seem to be larger than in the preceding Iron Age periods, having a rim diameter range 38-51cm. Both jar types are generally coarse, with one example is chaff tempered (e.g. FCN9188), echoing a practice more prominent in the EIA handmade pottery.
9.5.3. *Pithos*

No intact or reconstructable pithoi have been excavated from MIA levels at Çadır. The following analysis will be confined to diagnostic rim pieces drawn from deposits excavated in 2006 and 2009 (Table 38). For comparison, I shall discuss examples from Boğazköy and Alişar, as both sites have yielded numerous intact and reconstructable examples, which bear some similarities to and differences from the examples of Çadır, allowing for a more comprehensive discussion of these vessels.

The rim diameter of the MIA pithoi at Çadır is quite varied (Table 39), ranging between 36-60cm in the analyzed sample, which puts the vessels in the very large category. In terms of form, the vessels have an everted or flaring rim with no neck; sometimes the top of the rim is flattened. Out of the 10 identified rim sherds used for this discussion, five vessels with a 60cm or greater rim diameter are estimated to be such, as they exceeded the rim-chart used in the analysis. Given the consistent occurrence of these vessels from two discrete series of
excavations in 2006 and 2009 respectively, this may represent a trend in pithos manufacture at Çadır, to be investigated further.

Table 9.11. MIA pithos rim diameter, USS 4

Firing ranges from red, yellowish red and brown tones; the large pithoi discussed above were consistently fired in an oxidizing atmosphere. One examined example is grey but with buff interior and exterior surfaces (FCN7869). The fabric is coarse with predominantly quartz inclusions, and occasional use of grog (FCN7335) and chaff (FCN7527). A few examples show evidence of surface treatment beyond smoothing, with evidence of slipping (FCN9582) and streaked burnishing (FCN9791).

The presence of several vessels with a very large rim diameter is indicative of higher capacity vessels being manufactured in this period, perhaps in tandem with other socio-political shifts taking place. As there are no radiocarbon dates for the MIA, placing these changes within a wider socio-historical framework is somewhat notional, but taking into account the relative chronology, that such changes should take place in the MIA is not unusual, particularly when considering the developments that took place at other sites in the region in the same time period.
The repertoire of pithoi at other sites in the region also undergoes a transformation in the MIA. Pithoi come into greater prominence in the ceramic repertoires at Boğazköy (Fig.9.10-11),\(^{32}\) with several reconstructable examples recovered. The pithoi may be broadly categorized into two groups on the basis of rim diameter, with one ranging 29-34cm and the other 14-18cm. Height and maximum diameter are accordingly more variable according to accommodate for the variation in vessel capacity. Measurements are, unfortunately, not provided by H. Genz in the final publication, but on the basis of the scale presented with the drawings, I have approximated the key dimensions in Table 9.12 below. They come from domestic contexts, with several (single roomed) houses, as noted, having typically one to two pithoi.

Table 9.12. MIA pithos dimensions, Boğazköy, Büyükkaya

<table>
<thead>
<tr>
<th>Vessel</th>
<th>Height</th>
<th>Rim Diameter</th>
<th>Max Diameter</th>
<th>Base Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>50</td>
<td>56</td>
<td>60</td>
<td>59</td>
</tr>
<tr>
<td>2</td>
<td>53</td>
<td>67</td>
<td>60</td>
<td>59</td>
</tr>
<tr>
<td>3</td>
<td>53</td>
<td>60</td>
<td>59</td>
<td>56</td>
</tr>
<tr>
<td>4</td>
<td>56</td>
<td>59</td>
<td>56</td>
<td>50</td>
</tr>
<tr>
<td>5</td>
<td>59</td>
<td>50</td>
<td>50</td>
<td>45</td>
</tr>
<tr>
<td>6</td>
<td>50</td>
<td>45</td>
<td>40</td>
<td>25</td>
</tr>
<tr>
<td>7</td>
<td>60</td>
<td>40</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>8</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>27</td>
</tr>
<tr>
<td>9</td>
<td>27</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>

Given the overall morphology of the Boğazköy vessels, it is not surprising that their basic measurements are relatively standardized for their type. The vessel height and maximum diameter exhibits the most variation, as these measures affect capacity the most, while rims and bases occur within a 10-12cm range.

\(^{32}\) Genz 2004: 29.
Also, importantly, the Iron Age pithoi differ from LBA examples in terms of form and volume. The LBA repertoire is much more varied and generally higher capacity, though the information is largely coming from formal, non-domestic contexts.

In comparing the Çadır material with that of Boğazköy, it is clear that there is less similarity in the forms of pithoi between the two sites (Figs.9.8, 9.10-11). Examples from Boğazköy tend to have prominently everted or flaring rims; bulging rounded bodies; lack of a neck; flat bases and no handles. The vessels are hard-fired to buff or red-brown, with a medium-fine and occasionally fine fabric.33 While the vessels from Çadır are likely to be larger, the use of rim diameter is not necessarily a reliable indicator of overall vessel size and volume. In comparing the rim profiles, the Çadır pithoi also differ in form, with more examples boasting forms which taper downwards towards the interior of the vessel, while the Boğazköy examples have flat-topped forms. In addition several of the Boğazköy examples also boast painted rims, with linear, lozenge, or semicircular designs.34

Another important sample of MIA pithoi from the region comes from Alişar Höyük.35 Excavations of level 4aM on the citadel mound uncovered a large megaron plan building (Building A), with stone foundations, a mudbrick superstructure and plastered interior.36 The pithoi in question, constituting four examples (Fig.9.12), three of which have been illustrated, were found in the southern space of the building. They have one or two moulded horizontal ribs running the circumference of the body, which are punctuated by horizontal handles. The vessels are also distinguished by their drawn-out neck, with a rim.

33 Genz 2004: 23, 77-78.
34 Genz 2004: Pl. 70.5-6, 9-10, 72.1
35 Schmidt 1932: 255-56.
36 Von Der Osten 1937a: 319.
diameter of over 50cm and an overall vessel height of over 1m. The vessels are coarse, reddish-buff fired, with smoothed interiors and exteriors, and buff slipped on the exterior. The analyzed examples from Çadır differ in form, however, having had more ovoid shaped bodies. Interestingly, the rim profile of pithos 976 from Alişar 4aM has a counterpart in a sherd from EIA Çadır (FCN14370).

9.5.4. Krater

As I have discussed in Chapter 7, krater (or open mouth amphora) vessels came in a variety of types with accompanying functions in the central Anatolian Iron Age. The marked presence of this vessel type across Iron Age assemblages at other sites facilitates more comprehensive discussion. Its appearance sometime in the EIA-MIA transition seems to have accompanied other socio-political transformations that took place across central Anatolia.

At Çadır, kraters have been found predominantly in the MIA-LIA levels in USS 4 excavated during 2005-08, one example in LSS 5, and also some in the regional survey. Apart from the four published examples, my analysis encountered three examples (Table 39). The seeming lack of significant amounts from the excavated areas on the south side of the mound may be indicative of the specific character of the contexts. The vessels published by J. Ross and examined by myself have a rim diameter of 45cm or more, with one example being 34cm. The unstratified sherds published by H. Genz are from smaller vessels, with a 31.5cm and 28.5cm rim diameter respectively. The vessels generally have a medium coarse fabric and are wheelmade, and sometimes boast dark or red painted linear and geometric decoration.

37 Genz 2001: Fig.3.6-7; Ross 2010: Fig.12a, e.
38 Genz 2001: Fig.3.
As discussed in Chapter 7, kraters/open mouthed amphorae are typically large with a ledged-rim, and neck or shoulder fastened handles. Wares range from coarse to fine, plain to painted. The material from Gordion is particularly illuminating as it shows that this vessel type had a variety of functions, from consumption to storage, and accordingly ranged in volume and form treatment. The vessels have their origin in the later EIA buff ware (see Chapter 6).

Evidence of kraters/open mouthed amphorae has been found at several sites in the Kızılırmak region. The kraters from Boğazköy are largely fineware, boasting elaborate Alişar IV designs. In considering the radiocarbon dates from the site, their emergence may be placed as sometime in the 10th century BCE. At Kaman-Kalehöyük, these vessels are present in phases IId1-3 (11th-9th centuries BCE). Examples from phase IId are plain, while those from the ensuing period IIc (8th century BCE) have painted decoration, though not in the Alişar IV style.

Various plain and painted kraters were excavated in the Iron Age citadel at Alişar Höyük (Fig.8.9), belonging mostly to phases 4b-aM. Indeed, the excavators remark on the quantity of painted examples from these levels, which is not surprising given the citadel context in which they were excavated. Unfortunately, due to the character of the old excavations, it is impossible to generate statistics relating to quantities, vessel size changes and shifts in artistic style through the different phases.

40 Matsumura 2005: 397.
41 Omura 2000: 32.
42 Von Der Osten 1937b: Figs.446-47.
43 Schmidt 1932: 244-48.
44 Schmidt 1932: 244.
Of the plainer kraters, Von Der Osten has published 16 discrete vessels from Alişar 4c-aM, ranging from reconstructed to fragmented examples. Dubbed ‘large jars with large orifices’, these vessels have a strong morphological affinity with the painted kraters, and have a wide range in size, as exemplified by vessels e1077 from phase 4aM and b2811 from 4bM (Fig. 9.13). The vessels in this group have a fine to medium fabric, buff firing and a buff slip. Unfortunately, discussion of these vessels in the publication is limited, though their form and lack of decoration suggests difference in function to their intricately painted, fineware counterparts.

In bringing the evidence from the different sites together, the preliminary conclusions are instructive. It seems that krater/open mouth amphora vessels spread across central Anatolia between ca. 1000-900 BCE, which coincides with other developments, such as an increase in the use and consumption of painted pottery and construction of monumental architecture. However, the Çadır examples from the mound come from undated contexts which are considerably later than the dated contexts at Çadır and the presumed period in which they appear in ceramic assemblages at other sites. However, this may be due to contextual factors, or choice of pottery types governed by social dynamics.

G. K. Sams speculates that the krater/open mouth amphora type came to Gordion from south-eastern Anatolia, which would add further weight to the importance of the Syro-Anatolian region in the cultural and political outlooks of regions in Anatolia further to the west in the EIA-MIA transition, as evident from Gordion in YHSS 6B. This seems to have been less impactful on the political arena in the Kızılırmak region, where sites continue to stay relatively small and do not exhibit the same degree of infrastructural elaboration until

---

45 Von Der Osten 1937b: 389.
approximately. Nevertheless, the increased prominence of kraters/open mouthed amphorae arguably hints at the increased prominence consumption events had in the context of socio-political relations. This, in turn, would have affected the procurement of resources for such events and, by extension, storage practices.

9.6. Storage at Çadır Höyük

While the restricted contexts and absence of evidence for storage besides ceramics at Çadır Höyük presents challenges to interpreting and understanding the workings of storage and political authority, several points (some necessarily speculative, to be verified by future work) may be made in relation to storage practice and political authority.

Defining the presence of storage vessels in the initial EIA phases is somewhat uncertain, though my observations of the excavated material and comments from J. Ross on the phases comprising and immediately succeeding the post-Hittite LBA suggest a lack of use/manufacture of these vessels. Their steady appearance throughout the EIA arguably denotes an increased interest and significance in the manufacture and consumption of these vessels and their integration into the socio-economic spheres of the community, which continues into the subsequent periods. Most of this material was excavated in 2016, therefore still awaiting full processing and analysis. Due to the overall small sample size of the analyzed ceramics, my conclusions are necessarily tentative, yet may be used to inform subsequent research questions which would affirm or disprove what I have set out here. Therefore, I present this as a starting point for further discussions on Iron Age storage ceramics from Çadır Höyük.
In examining the material from trench USS 4, a few broad trends may be observed. Storage ceramics from the bottom-most EIA and transitional levels (L.325-285) seem to be largely absent, with examples beginning to appear (albeit in small quantities) in L.279-85, increasing by the MIA-LIA periods. As noted earlier, this seems to agree with preliminary observations of the newly excavated ‘post-Hittite LBA’ phase directly below the EIA levels, where storage vessels also seem to be absent.\(^{47}\) This may be merely indicative of different storing strategies in these phases, though the question arises concerning the importance of ceramic storage at the site and what its fluctuation in the archaeological record articulates about patterns associated with storage as a whole, and the way in which storage was organized.

Conventional narratives of storage associate large pithoi with complex political apparatus and statehood, noting that following the end of the LBA, they stop being used and manufactured for an extended period of time.\(^{48}\) Increased research shows that this is not entirely the case; pithoi continued to feature in EIA archaeological contexts of some sites in the Kızılırmak region, like Boğazköy and perhaps Çadır, though they are considerably smaller volume, catering for short-term, household storage.

Most prominently, pithoi seem to increase in size in the MIA phases, with several examples of large vessels that may have served a medium to perhaps even long-term storage function. A few such large vessels are present in the EIA, though not a number to be statistically significant to argue for their active manufacture and use. Indeed, the use of pithoi in the EIA at Çadır (whether through reuse of LBA examples or actual manufacture of EIA types) remains an open question. Comparative data from Boğazköy show that the manufacture

\(^{47}\) Ross 2016, pers. comm.

\(^{48}\) Schoop 2011: 256.
of these vessels did not have a significant degree of interruption in the period, though the Iron Age examples do not approach the scale of the LBA examples. Whether this was the case at Çadır remains at present unclear but worth exploring through more targeted research. Excavation of domestic contexts would assist in the verification; indeed it is possible that low volume pithoi were a feature of domestic contexts, which would account for the relative paucity of these vessels in the industrial contexts of USS 4.

The data sample reflects a diminution in quantity of diagnostic rim sherds of torpedo jars and an increase in the number of large pithoi, which, if borne out by further research, sets up interesting implications regarding storage activity at Çadır. If this implies a wider shift of a move away from lower volume storage in the EIA to an increase in bulk storage at the site, it may imply diversification in the overall chaîne-opératoire of storage and an alteration in the chains of supply to the site. The higher quantity of pithos and torpedo jar rims in the EIA may be due to taphonomic processes, though our understanding of the condition of the LBA remains in the EIA is poor. Definition and publication of LBA typologies would contribute towards clarifying these questions.

The fluctuation in the use and manufacture of pithoi between the LBA and MIA at sites such as Boğazköy, Alişar, and likely Çadır does indicate that the production and consumption of these vessels was entangled with changing patterns of the management of goods, and by extension, the workings of political authority. To that end, the fluctuating prominence of these vessels in the archaeological record may be used to define shifts in resource management (particularly in terms of scale) and therein the changes of political authority. For example, the increased prominence of pithoi in the MIA at Boğazköy and Alişar Höyük is arguably symptomatic of wider transformations at the respective sites. At Alişar, this is may be concomitant with the development of the fortified...
lower town, while at Boğazköy it also seems to coincide with the gradual expansion of the settlement.

The continued use and manufacture of the torpedo jar into the Iron Age is also of interest, as the form continues to retain the overall morphology of its LBA predecessor. Their presence throughout the EIA-MIA sequence at Çadır may be in part reflective of taphonomic processes rather than concerted manufacture and consumption, due to the relatively high number in the earlier EIA strata, and a significant decrease in later levels. At Boğazköy, torpedo jars are confined to the LBA, while evidence from Alişar shows their continued use and manufacture into the Iron Age. The issue of continuity here is of interest, in view of the fact that habitation and activity in the EIA at Alişar remains uncertain. Their portability and relatively low capacity makes them good candidates for belonging to household storage, not unlike their LBA counterparts. Low volume pithoi may have also been part of the household storage assemblages, though the discovery and excavation of domestic context would enable verification of this theory.

That torpedo jars continue to be manufactured in the region during the Iron Age requires further investigation, taking into account questions regarding cultural and social continuity with regards to maintenance of technological knowledge and the way in which social groups organized themselves. To that end, strategies involving the transportation and storage of liquids in the EIA were differentiated in a way that did not specifically require these vessels. Whether this reflects the comparatively devolved character of the economy when examined against the LBA is a matter of further debate. The same implications govern the continued manufacture and consumption of open mouth jars, which also continue to follow the morphology of their LBA predecessors.
No evidence of pottery kilns has yet been found at Iron Age Çadır, though arguably they were not far beyond the overall excavated area. Given the compartmentalization of industrial activity on the site, it is likely that pottery manufacturing facilities were located in a dedicated area. However, some storage with production may have existed in the MIA – one pit with deposits of sand and clay perhaps indicating the presence of raw materials for pottery manufacture.49

The extent to which the pottery industry was household based in the EIA cannot be easily answered. No domestic contexts have been encountered so far in excavations, which would enable potential comparisons between storage between domestic and industrial contexts. In general, domestic contexts are more apt to demonstrating varied strategies for storage compared to formalized contexts, such as those of storage in the context of formalized political authority apparatus.50 Given the industrial character of USS 4, questions arise concerning the precise function of storage vessels in these contexts, and the way in which this was connected to wider storage practices at the site. Indeed, it is interesting to consider whether the presence of pithoi in the industrial contexts of USS 4 denotes a secondary use of these vessels, and whether this accounts for their variability in form and ware, particularly among the EIA examples.51

In the EIA, when local procurement of clays was more prominent, pottery production on or close to the site may have been more prominent. Like other sites in the region, Çadır experienced a shift in ceramic production in the MIA, with greater emphasis on procurement of clays or finished vessels from the

49 Ross 2013.
50 Christakis 2008: 11.
51 I would like to thank Dr S. Newstead for this observation.
wider region.\textsuperscript{52} The site’s strategies differed from neighbouring sites, which leads to questions regarding the degree to which these activities were implicated within the workings of political authority. While there seems to have been a considerable degree of interaction throughout the landscape, political authority seems to have been more focused within specific locales, rather than being territorially expansive.

In terms of the goods stored in the vessels from USS 4, given its industrial context, would suggest that foodstuffs were stored elsewhere. Consequently, certain raw materials involved in the possible metalworking and textile production and dyeing were stored, such as ores, pigments, weaving equipment to be on hand and ready for processing. Some level of foodstuff storing may have taken place to cater for consumption.

\textsuperscript{52} McIlfattrick 2015; Kealhofer \textit{et al.} 2010.
CHAPTER 10 – POLITICAL AUTHORITY & STORAGE IN EIA-MIA CENTRAL ANATOLIA

10.1. Introduction

The point of interest in juxtaposing Gordion and Çadır Höyük is their very different socio-political cast during the EIA-MIA. This is reflective of wider regional trends and interactions in the Iron Age, and responses to past (LBA) political authority. Several of these issues, particularly responses to the past, are beyond the scope of this thesis, but present research questions that may be pursued in future work.

Gordion and Çadır Höyük represent broadly two distinct site types – a centre and a second (or even third) order settlement. While their status fluctuated through time, their level of material culture and architectural elaboration between the 12th and 9th centuries BCE allows for this categorization. Considering these two distinct kinds of sites, despite their location in different parts of central Anatolia, allows us to think about different sets of dynamics that took place at each, and the way in which this may be applied to thinking about not just political authority, but cultural and social change through time. To that end, Çadır is a significant site in the Iron Age in that it is an example of a settlement in which social stratification and accompanying material culture apparatus was not co-opted by social groups in formalized political authority making, making it a good example of a site that may have been an intermediary between the hinterland and more politically (and ideologically) developed locales. This would suggest that Çadır had a more egalitarian social structure.

10.2. Political Authority & Storage at EIA-MIA Gordion

Of the two case study sites, Gordion demonstrates the most dramatic evidence of socio-political transformation between the end of the LBA and the MIA, which has
been extensively commented on since the 1988-89 excavations. My discussion has focused invariably on intra-site dynamics, owing to the comprehensive level of excavation. The lack of excavated sites in the wider region prevents discussion of landscape dynamics, though I shall discuss other prominent sites within the 25km radius of Gordion which potentially had important relationships with it in the Iron Age, and the way they may be implicated within future, landscape focused research questions.

What is also clear from the evidence is a lack of context type continuity between YHSS 7 and 6. In the former period, the archaeological remains constitute domestic buildings, while in the latter, changes in spatial layout on the Citadel Mound resulted in contexts devoted to production, storage and elite activities predominate. At present, evidence for YHSS 6 domestic contexts are lacking from the excavations, though, if evidence from YHSS 5 in the Lower Town and the south-west trench on western area of the Citadel Mound is considered, some degree of continuity may be assumed.¹ These contexts and the material associated with them await full publication,² which will allow for further discussion on the character and change in domestic spaces at the site.

10.2.1. ELA

The evidence from YHSS 7B arguably demonstrates relatively independent units of storage and production distributed among discrete households. This picture may also offer a tantalizing insight onto non-elite and village communities in Anatolia in the Bronze Age, a period for which there is a significant lacuna in excavated data for this portion of the demographic. The economy in the EIA was agro-pastoral with

¹ YHSS 5 domestic contexts, like YHSS 7B, are comprised of single-roomed, semi-subterranean buildings, with pithoi set into the floors and single hearths (Voigt et al. 1997; Voigt & Cuyler Young Jr. 1999). Evidence of multi-roomed buildings is also present (Voigt et al. 1997: Fig.6).
² Material from the south-west trench on the Citadel Mound is currently being studied in preparation for publication by E. Dusinberre (Dusinberre 2015, pers. comm.).
some emphasis on wild game, and probably constituted a system of relatively immediate redistribution, given the absence of complex political apparatus. This pattern is echoed in other EIA communities in central Anatolia, such as those of Kaman-Kalehöyük and Boğazköy.

While levels of inequality no doubt existed in the EIA community at Gordion as an elementary basis for social organization (perhaps on the household level), they were not necessarily institutionalized or evident in the archaeological record. To that end, socio-political language was not necessarily enacted through durable forms of material culture, as any kind of political authority exertion would have been temporary, rather than sustained and requiring legitimization through increased modification and elaboration of people’s interactive environment.

On the whole, YHSS 7B, which boasted the more comprehensive range of discrete domestic contexts, demonstrates household level autonomy, and a degree of collectivism in allowing visibility of pit storage. Architecture in the period is also generally lacking in compartmentalization, which would entail delineated functions connected with specific activities. The two roomed SSH Structure may indicate some level of compartmentalization, though it is also likely that, given the semi-agglutinating character of YHSS 7B architecture, building made up two adjoining households.

The use of ceramics for storage in YHSS 7B is somewhat ambiguous. While my analysis yielded several examples of large vessels across all the excavated trenches, their open character, highly burnished interiors and exteriors and relatively high volume may have also been associated with consumption. It is likely that perishables

---

3 Zeder & Arter 1994; Miller et al. 2009: 919-20, Fig.4; Miller 2010: Fig.6.1.
also played a prominent role in storage within the buildings, in conjunction with bins, as evinced in the SSH and CKD buildings.

What kind of social system existed in the YHSS 7 may be debated. However, based on the evidence of household focused activities, and an absence of difference in access to resources and their storage would suggest a lack of formalized, overarching political apparatus among the social groups dwelling at the site. This would be borne out by relatively undifferentiated distribution of their remains across the respective household contexts excavated. An issue present in the discussion of the botanical remains by N. Miller from YHSS 7B is a lack of discussion of material from house floors and bins. Evidence of uneven distribution of resources across the respective contexts of YHSS 7B would hint at possible degrees of unequal control and access to them; however, the small sample size of the EIA contexts in this respect could be misleading. Political authority was likely discontinuous in YHSS 7B, perhaps only specifically evoked in the event of particular events and circumstances. Given the lack of material elaboration in the archaeological record of the discrete contexts, the initial EIA period exhibited a lack of formalized political authority apparatus.

The evidence from YHSS 7A has consistently been interpreted as indicating marked social, cultural, and political change at the site, despite the fact that only a single secure building context was evinced in this phase. Consequently, does YHSS 7A denote a shift to an increasingly stratified system of interaction? Is this connected with a possible trend of the diminution in the number of houses on the Citadel Mound beginning in this period? This is related to implications of whether the BRH Structure was a specialized building by virtue of its material culture assemblage (i.e. pottery) and the plastered installation along the north wall. This seems to be implied

---

6 I am not certain whether this is reflective of the sampling strategy (i.e. lack of sampling of the floors of the relatively secure contexts, such as the CKD and SSH Structure), or stemming from the lack of full publication of the results.


8 Voigt & Henrickson 2000a: 46.
by the absence of similar buildings and buff ware pottery in other excavations that have penetrated EIA levels, their restricted nature notwithstanding. However, no material culture such as metal objects, fine ware ceramics (e.g. rhytons), seals or figurines, which may be connected with ritualistic or political authority associated activities, has been found in the structure, which would facilitate its interpretation as a specialized building.

The re-emergence of dedicated ceramic storage vessels in YHSS 7A is indicative of the development of new social strategies regarding the management of goods. On the whole, the increased interest in YHSS 7A in producing a varied ceramic corpus suggests the emergence of narratives building on the developing social and economic conditions of the period, i.e. the need to materially differentiate activities related to consumption and storage. Indeed, the evidence of co-existence of handmade and wheelmade pottery in the later phases of YHSS 7A, with the gradual replacement of the former by YHSS 6B indicates that ceramic production took on an increasingly professional aspect.

R. Henrickson interprets YHSS 7A potting as the province of part or full-time specialists, suggestive of a semi-independent character of aspects of EIA economy. Arguments have been put forward that political authority stemmed from economic spheres in the EIA in the Near East and Mediterranean, and it would be interesting to see whether this was the case for Gordion itself. Indeed, the mixture of wheelmade and handmade pottery in the post-BRH phases may parallel situation at Troy VIIb, where handmade and finer wheelmade pottery co-existed and had differentiated functions, with the former used for cooking and low-volume storage, and the latter for dining. Consequently, a similar scenario may have existed in the

---

9 The question as to why demands further research, to be contextualized within a larger discussion of the significance of the rise of ceramic storage in the Near East.
10 Henrickson 1993: 123.
11 Sherratt 2016.
latter part of YHSS 7A as part of the diversification of the ceramic repertoire and accompanying shifts social practices which used pottery to mark such differences.

The extent to which changes in pottery production are reflective of implicit political authority involvement is unknown, though, in considering that in the MIA potting was decentralized, this suggests a possibility for interpreting YHSS 7A in a similar fashion. Recent research has shown that YHSS 6 pottery was produced in the wider the hinterland of Gordion,\textsuperscript{13} reflecting a degree of continuity in terms of the industry being outside of top-down political control mechanisms.

Indeed, specialization within groups constituting the overall community may not necessarily indicate increased social stratification, but cooperative mechanisms may have been instated to accommodate for the groups which maintained a specialism and therefore could not devote themselves to subsistence activities, which would necessitate other members of the overall community to act as guarantors for subsistence produce and access to it.\textsuperscript{14} This is also predicated upon the degree to which specialism such as pottery manufacture was a full time activity. Henrickson supposes that YHSS 7A potting was practiced on a part-time basis,\textsuperscript{15} which may be taken into account to support this view.

Therefore, it may be argued that the maintenance and reproduction of strategies relating to communal storage were deliberately practiced in order to mitigate potential endeavours surrounding surplus accumulation by specific groups and restriction of access. The smaller size of storage pits in YHSS 7A however might indicate a change in storing strategies, whereby pottery and other forms of storage took on a more prominent role. As our knowledge of floral and faunal management for YHSS 6B is quite poor, tracing the economic developments in the EIA-MIA

\textsuperscript{13} Grave \textit{et al.} 2009.
\textsuperscript{14} Frangipane 2007: 161.
\textsuperscript{15} Henrickson 1994: 102.
transitional period is hampered, which would also allow for further thinking about the way in which changes in storage practices mirrored this.

There is also a lack of funerary data associated with EIA Gordion, which would be one potential avenue through which to examine ideas on political authority and levels of social inequality, and the way in which domestic context and funerary data present consonant or divergent narratives on social organization reflective of daily lived life at the site. This is also the case for ideological apparatus – no specifically dedicated religious buildings or structures with cultic paraphernalia have been found in the EIA contexts.16

10.2.2. Initial MLA

A discussion of political authority in YHSS 6B is necessarily confined to the remnants of monumental architecture beneath and adapted in YHSS 6A constructions. The pottery from these levels, as has been mentioned, is highly fragmentary, often found as part of fill deposits and is difficult to distinguish from YHSS 6A material. No evidence of architectural storage has hitherto been found in YHSS 6B, but, given the developments visible in the archaeological record, shifts in storage practices and management of goods no doubt took place. For example, in practical terms, the feeding of a workforce would have resulted in mechanisms associated with the creation and maintenance of social ties and obligations. Fragments of pithoi in these levels attest to the presence of ceramic storage, though the scale and breadth of this form of storing remains unknown.

The conjunction of the elaborated open courts and megarons is indicative of marked social re-organization. It is likely that other buildings similar to those excavated may

---

16 This is also an issue for the MIA settlement, though it has been supposed that Megaron 2 may have been a temple (Mellink 1983; Sams 1997), in spite of a lack of corroborating evidence from the material found inside (Young 1957: 323).
have existed, which acted as focal points for social gatherings,\textsuperscript{17} thereby giving quite high visibility to different activities, particularly those involving socio-political negotiation. In this way, emergent elites rendered themselves accessible literally and figuratively to the wider community. Indeed, this may have been the aim in order to provide a stage for events that gave justification to specifically directed narratives of political authority.

It is also important to consider the use of seemingly empty space in which there was increased promotion of visibility of activities that would have taken place there. This may have been used as a bridging vehicle or stage upon which activities were enacted that promoted socio-political narratives connected with the rise of formalized space production and the political order, denoted by the construction and use of Megaron 10 and the PAP Structure.\textsuperscript{18}

The lack of significant amounts of artefacts associated with the excavated structures\textsuperscript{19} impedes analysis, but reinforces the idea of a change in function of the excavated areas of the Citadel Mound, whereby processing and manufacture activities were moved elsewhere on the site. Moreover, the sustained character of the construction projects indicate a degree of solidification of certain forms of social authority. Indeed the very actions involved in making them are indicative of attempts to instate specific narratives.

Whether the monumental building works were contested is an interesting question, and related to ideas about the extent to which social permeability and competition may have existed. Thus, the diachronic construction of the YHSS 6B courts, fortification wall, EPB, Polychrome House, and PAP Structure may be reflective of

\textsuperscript{17} Cf. Steadman 2011: 12.
\textsuperscript{18} The facing of the entrances of both structures onto the open courtyard is also of significance in this context.
\textsuperscript{19} Voigt & Henrickson 2000: 341.
a series of sustained events which are manifestations of the necessity to justify particular narratives of authority.\textsuperscript{20} The use of Syro-Anatolian imagery in the form of zoomorphic sculptures and reliefs may be viewed as denoting projections and claims of political authority rather than achieved political control.\textsuperscript{21} Such arguments have been made for the construction of LBA rock-cut landscape monuments in regions of contested control, whereby they are cast as signalling devices.\textsuperscript{22}

The importance of infrastructural projects is that they are ways of linking people to things.\textsuperscript{23} Their elaboration, such as sheer scale or adornment through zoomorphic sculpture may have sought to ensure a degree of captivation with specific narratives of political authority.\textsuperscript{24} However, it is also important to note that the zoomorphic sculptures were actively employed in the architectural programme of Gordion for a relatively brief period of time, which may be indicative of rapidly shifting political authority narrative in the late 10th-early 9th century BCE in which the use of imagery from other cultures was superseded.

In addition, Gordion demonstrates a patent lack of imagery of human ruler figures, as was common in other contemporary entities such as Assyria and Syro-Anatolian city-states, which the people of Gordion would have certainly been familiar with. One of the fragmentary orthostats from YHSS 6B is of a human figure, though whether it is of a human ruler or divinity cannot be ascertained. However, in YHSS 6A, no such equivalent imagery has been found, which may suggest that political authority in the context of Gordion was not centred on the ‘kingly body’\textsuperscript{25} in the same way as was practiced in neighbouring contemporary cultures. What this precisely signifies requires clarification through future research, though it is clear that

\textsuperscript{21} Cf. Glatz 2011: 891.
\textsuperscript{22} Glatz 2007, 2009, 2011; Glatz & Ploudre 2011; Harmanşah 2015. The lion sculptures may have functioned in a similar way.
\textsuperscript{23} Smith 2015: 14.
\textsuperscript{24} Smith 2015: 15.
\textsuperscript{25} Smith 2003: 92.
specific agenda was pursued at the site which eschewed this particular means for materializing the political authority narratives.

While changes in urban planning are part of a scheme of partitioning of points of contact with the material world, the same can be argued for shifts in storage practice, particularly in terms of formalization. This is connected with the notion that some goods were increasingly commodified, in the sense that they became more removed from the direct control of household economies. What is clear from the fragmentary remains of YHSS 6B is that political authority narratives were implemented with some degree of success which ensured the monumental building works on the Citadel Mound (and elsewhere at Gordion), which continued into YHSS 5. Thus, the infrastructural projects on the citadel show the processual quality of the development of the socio-political narrative via the architectural programme.

10.2.3. MLA Destruction Level

The seemingly open plan of the YHSS 6B citadel gave way to one that was more compartmentalized in YHSS 6A, evinced by the two ‘court’ system on the north-east portion of the mound; the ‘service area’ with the TB and CC buildings to the south-west; and an unidentified, largely unexcavated area comprising the northern sector. Evidence for storage is ceramic and architectural, the patterning of which has some interesting implications regarding the management of goods.

The first striking thing to note is the absence of explicit evidence on the citadel for long-term, bulk storage, which has implications for the organization of the economy and storage practices themselves. According to current research, numerous activities moved away from the citadel, presumably to the Lower Town, the western portion of the mound, or off-site in YHSS 6A. This is certainly the case for ceramic

26 Smith 2015: 15.
manufacture and probably metalworking also. The way in which storage of staple goods was managed may also have been subject to similar processes.

That the inhabitants of Gordion were able to commence the reconstruction of the destroyed YHSS 6A citadel almost immediately is suggestive of the availability of surplus resources to supply and manage a workforce required for the scale and relative speed with which the laying down of the clay fill and the raising of new buildings took place. The existence of bulk storage facilities at the site are therefore implied, though it is up to future archaeological work to find them. In the context of these works, perhaps a system of rationing existed in exchange for the degree of labour contributed by members of the community. This predicated the existence of control over nutrition exercised by groups.27 This, in turn, could have been employed at the service of specific narratives of political authority to promote justification of infrastructural works.

The impact upon hinterland in terms of demand on people and resources, particularly following the reconstruction after the 800 BCE fire, would have been considerable. It is clear that the wider hinterland of Gordion played an important role during the period leading up to and beyond the 9th century destruction event, and if the generation of surplus took place in this setting, it may have been a means by which the wider hinterland was integrated within Gordion’s sphere of political influence. On the whole, the infrastructural works have further implications regarding redistributive strategies being implemented at the time, and the shifting in the relations with the wider landscape.

Consequently, the changing patterns of subsistence evident during YHSS 5 are of significance, as farming became more important, and indicative of changes in the

27 Christakis 2008: 132. The question of whether and the degree to which slaves constituted the workforce ought to be borne in mind.
demands made on a landscape that needed to support more people. It may be inferred from this that storage practices, accordingly underwent a change. The variability in precipitation in the Gordion region made it less amenable to cultivation, thus the increase in emphasis on cultivation in YHSS 5, aided by a degree of climatic amelioration, may coincide with political initiatives governing the reconstruction of the citadel and the numerous tumuli which date to the 8th century. Accordingly, it has been argued that irrigation was practiced at Gordion in this period in order to maximize yields.

In considering N. Miller’s discussion of the productive capacity of the landscape around Gordion during the Iron Age, it is difficult to discern agricultural overproduction in the overall context of the site, though the increase in cultivation in YHSS 5 may be an indirect indicator of this. The resources needed to feed workforces for the projects on citadel and tumulus construction would have been considerable. Such factors would have affected storage techniques and practices not only at Gordion itself, but in the wider landscape. Consequently, the scale of resource accumulation must have been quite substantial, though the form in which this took (e.g. storage or relatively immediate redistribution) is still unknown. It may be inferred however, that Gordion took on an increasingly prominent role as a collector and redistributor of surplus foodstuffs in the light of its increased population and infrastructural projects requiting a large workforce.

Relationships with the wider landscape raise the question of whether control of different communities was more important than the landscape itself in terms of territorial extent, which also touches on the issue of the discursive paradigms which

30 Miller 2010: 66.
31 Liebhart et al. 2015: Table 1.
33 Christakis 2008: 132.
continue to maintain the existence of a cohesive Phrygian kingdom or empire. In turn, this questions the way in which power has been discussed in the central Anatolian Iron Age, particularly with regard to territorial extent, which has been treated as a given.

One way in which this may be explored in the future is through excavation of other nearby sites. As well as taking Gordion out of a discursive vacuum, it would add further depth to discussions about cultural and political developments stemming from interactions between different sites. The significant sites in the immediate region boasting Iron Age occupation are Şabanözü Höyük and Hacituğrul, whose relationship with Gordion remains undefined, though important in the context of economic and political workings in the wider landscape.

Şabanözü Höyük is a multi-period mound 8km north of Gordion near the village of Şabanözü (Fig.10.1). Some 10m high, it is 250m x 250m, encompassing an area of approximately 4.5ha. According to the surveys conducted in 2000 by the Gordion Regional Survey, a substantial Iron Age lower town was situated on the northern side of the mound. Hacituğrul (Fig.10.2-4) is perhaps more significant. It is one of the largest known höyüks in Turkey, being approximately 500m x 450m in diameter and 30m high, with five tumuli in the vicinity. Cursory excavations in the 1970s and surveys in 2007-10 have revealed the potential of the site, which still remains unrealized. It is possible that, like Gordion, the mound was significantly enlarged in the MIA, resulting in its current form. Future work at this site could answer

---

34 Also sometimes called Killik Tepe or simply Büyük ('big') Höyük in the literature.
35 Other sites to the south-east towards Tuz Gölü and the Kızılırmak, such as Gavurkalesi (Von Der Osten 1933; Lumsden 1995, 1996, 1999) and Çevre Kale (Summers 1992; Özgüner 2006).
37 Sams 2002: 221. K. Strobel interprets Şabanözü as the Bronze Age centre in the region (Strobel 2008: 200); cf. Voigt 2013: 178, who views Gordion as such.
questions regarding possible functional differentiation from and general status in the MIA.

To that end, I would argue that Gordion in the 10th-9th century was less interested in exercising political authority over a wider landscape, but rather in developing economic specialization and a level of ideological focus in the context of wider Iron Age interactions. The site had relatively restricted territorial hegemony, with selective far-flung relationships, particularly with the Syro-Anatolian sphere in the 10th-9th century, the Tabalian sphere in the 8th century, and a gradual shift towards relationships with western Anatolia and the Aegean world in the 8th to the mid-6th centuries. This serves as a departure point for study of dynamics in these respective periods, which have the capacity to further demonstrate the diffuse and discontinuous character of political authority through time and across a wider landscape.

Therefore, it is interesting to speculate that Iron Age polities up to the end of the 9th century BCE may not have been interested in cultivating territorial hegemony. In focusing their control on their immediate hinterlands, they built their power on the basis of wealth economies and ideological apparatus, fostered by the cultivation of relationships with groups of equivalent status at other sites. M. Voigt argues that Gordion may still have been a territorial state in the 9th century BCE, but the seemingly specialized function of the site, lack of materialization strategies associated with kingship, lack of administrative technology, well developed craft industries, and a putative small population would suggest a different way in which political authority was organized and exerted.

---

39 Voigt 2013: 197.
The role of other large sites close to Gordion, such as Şabanözü and Hacıtuğrul, is also of significance in the context of this, as they may have played host to particular functions which contributed to a broader picture of decentralization, with different kinds of authority vested in different locations within the landscape. Also, the fact that Iron Age religious sanctuaries in central Anatolia are for the most part extramural further reinforces this point, denoting some division of ideological and political spheres within the landscape, rather than their concentration a single locale.

A territorial state would suggest Gordion being the core, with large ancillary towns or cities administering authority to a wider hinterland. During the 10th-9th centuries, it is difficult to see this in the archaeological record, though in the 8th century, different sets of processes come into play, which denote a shift in socio-political strategies. While the discussion shows that the question of characterizing socio-political organization in western central Anatolia is far from answered, focusing on notions of political authority as a process which invested social practices and material culture with meaning and power allows for a more nuanced discussion of the progression of authority, and its change and response to internal and external dynamics through time. Consequently, it is important to distinguish between the different phases at Gordion as reflective of different political authority initiatives and outcomes, rather than reflecting a stable, homogenous entity through time.

10.3. Political Authority & Storage at Çadır Höyük

The character of political authority in the Kızılirmak region during the Iron Age was no doubt influenced by the disintegration of Hittite hegemony in the early 11th century BCE. Discussions on the form which this took across the empire’s former domains and the ability to detect it in the archaeological record is ongoing, though

---

it is clear that the strategies undertaken by the Hittites were context dependent, and this no doubt influenced socio-political trajectories in the post-Empire periods. During the end of the LBA itself, contests in political authority among different centres and Boğazköy’s gradual loss of influence brought on by internal problems and external threats\textsuperscript{43} no doubt contributed to the way in which seemingly centralized power dissipated and was reconfigured and distributed throughout the landscape and the changes undertaken by respective groups in the Iron Age.

Thus, the Kızılırmak region’s diminution in political prominence during the EIA-MIA, and its less intensified socio-political development compared to regions in the west and south-east argues for a concentrated character of political authority in the LBA, which was not distributed throughout the landscape in the EIA in ways which made consistent use of the LBA narratives and technologies connected with political authority, such as monumental architecture, writing and ideological apparatus.

That said, a site such as Çadır, which may have had a less intricately tiered socio-political system and accompanying apparatus in the LBA, may have adapted better to the shift in circumstances following the end of the LBA. Certain aspects of the economy at EIA Çadır, such as textile manufacture and metalworking, show a lack of disruption of particular industries (if, indeed they were present at the site in LBA), and a level of interconnection with communities in the wider landscape. This, in turn, may have implicated a redistribution of political authority among social groups which perhaps centred on professional capacities.\textsuperscript{44} Consequently, EIA-MIA economies in the region perhaps focused on smaller-scale trade/economic systems led by entrepreneurial types who arguably became part of the new leading social groups in respective communities.\textsuperscript{45}

\textsuperscript{43} Bryce 2005: 340ff; Yakar 2011: 80.
\textsuperscript{45} Sherratt 2016.
Storage practice in the EIA would have likely been household based for the most part, but the evidence of craft industries argues in favour of some degree of distribution and perhaps accumulation of resources to accommodate this, though the ceramic evidence is not entirely reflective of this. How this was connected with the perception of the wider landscape and its degree of integration with the socio-political motivations of sites remains to be determined by future study.

The movement of specialists away from LBA centres like Boğazköy into the wider landscape would have played a role in the varied distribution of technological knowledge throughout the landscape, and therefore the varied developmental character of different locales through time. Places like Çadır would have potentially benefited politically and economically from this, leading to the gradual development of several, relatively small, politically independent settlements throughout the landscape. This seems to have certainly been the case for Alişar Höyük, which underwent resettlement and renewed fortification sometime in the EIA-MIA transition and the development of a fortified lower town later on in the MIA.

Indeed, the repeated reconstruction episodes following each destruction of the citadel separating the main phases also has (as evident from the discussion on Gordion), implications for the ability to collect and allocate resources to maintain a workforce for such substantial infrastructural projects. If this process began at the site ca. 900 BCE, it may be connected with some degree of intensification in the development of certain locales. In addition, the emergence of painted pottery and krater vessels is reflective of increased importance in consumption oriented activities and events, which may have implicated within their discourse ideas surrounding political authority itself.

The emerging information from ceramic petrography sampling at Çadır also has the capacity to add further detail about interactions in the wider landscape and the way
in which this may have affected socio-political relations. As noted in Chapter 9, in
the Iron Age, clay was obtained for the most part locally, with a possible source in
the Alişar region having been exploited. This may indicate the proliferation of
production in the landscape in a manner not necessarily connected with top-down
political mechanisms. The overall less intensified development in the Kızılırmak
region in the Iron Age would support this argumentation.

The presumed monumental architectural programme at Çadır in the MIA in the
form of construction of a stone gate building and fortification walls in the southern
area of the mound arguably also had implications for storage practices and
management of goods at the site. Çadır may have been partially fortified in the EIA,
taking into account the maintenance of the LBA walls and gate on the north side of
the mound, though it is not clear whether the area of USS 4 was incorporated within
these fortifications in the EIA.

In the MIA, however, the mound was probably encircled by fortifications, though
the area would have been quite small (about 0.5ha), larger than Alişar 4c-aM citadel,
which was approximately 0.25ha. The presence of megaron-like buildings and
development of the fortified lower town at Alişar is indicative of more formalized
levels of political authority being enacted at the site. Whether such buildings were
constructed at Çadır remains unknown, though likely if the fortification of the
mound, and, therefore, the formalization of space, is taken into account. Moreover,
understanding of the Iron Age settlement at Çadır beyond the mound itself is
limited. However, such works need not have necessarily been the products of
centralized authority.

Developments in the later MIA in the region (8th-7th centuries BCE) in the form
of elaboration of monumental architecture, painted pottery and industrial activity are
arguably concomitant with political shifts in the region. The excavators of Alişar
note the increased presence of coarseware in phase 4cM, while 4a-bM boasted more fineware, in particular painted types. This arguably articulates functional change in the citadel area between the early phase, and the middle-late phases, associated with socio-political shifts. Examples of very large storage vessels coming from the MIA levels at Çadır are arguably part of these developments, paralleled at Alişar 4aM. The possible storage function of the basement of Building A at Alişar 4aM may reflect similar practices taking place at Çadır, though this is unverifiable in view of current knowledge from the excavations. Epigraphic evidence is also present, with several inscriptions and graffiti in Luwian,\textsuperscript{46} which have led to views that the Kızılirmak region is associated with the sphere of Tabal.\textsuperscript{47} Future investigation will no doubt clarify these points.

In the late 7th century BCE, the foundation of the large city of Kerkenes Dağ (10km north of Çadır) would have had a significant impact on the socio-political landscape of the region.\textsuperscript{48} Whether Çadır became a surplus or goods producer for Kerkenes Dağ is of interest to future investigation. No evidence has come to light thus far of any kind of large scale surplus organization that may have supplied larger centres. However, our knowledge of the ‘tiering’ and particular functionality of sites in the Iron Age, due to a general lack of focus on the wider landscape beyond the höyüks themselves, is incomplete though important to consider, particularly in the light of recent studies on ceramic production. While it is clear that, in the Bronze Age, certain sites in the Kızılirmak region had specific functions (e.g. religious,\textsuperscript{49} dedicated to bulk surplus accumulation\textsuperscript{50}), whether a similar scenario existed in the Iron Age remains unknown. Identification of rural Iron Age sites has not been a focal point

\textsuperscript{46} One of the most significant recent finds has been a lead strip at Yassihöyük-Kı́rşehir (Akdoğan & Hawkins 2010), with a 9th or 7th century BCE date. Other important Hieroglyphic Luwian inscriptions which have been known about for a long time include those found at Çalapverdi (Hawks 2000: 497-98; Taş & Weeden 2010) and Karaburun (Anderson 1901).

\textsuperscript{47} Simon 2017.


\textsuperscript{50} Singer 1985.
for research, and their likely ephemeral character would make their detection difficult.

The patterns of coalescing, destruction and dissolution in the Kızılırmak region, evinced by evidence from the phases of Alişar IV and the short lifespan of Kerkenes Dağ are further evidence of compartmentalization of the political and economic spheres within the landscape, in which there was a lack of interdependence which would have caused a dynamic shift across a wide geography, as in the instance of the end of the Hittite Empire.

While much work remains to be done on clarifying the socio-political dynamics in the Kızılırmak region during the Iron Age, it is clear that the gradual emergence of a number of small centres took place in the MIA. The growing prominence of painted Alişar IV pottery also demonstrates the role of conspicuous consumption activities in which social relations would have been negotiated and perhaps also identity marking.51

The fragmentary evidence of larger storage vessels from the MIA levels at Çadır (and certainly the intact examples from Alişar) may hint at the increased importance of accumulation resources to facilitate such events, and also with regards to the monumental architectural programmes, which would have necessitated sustained catering to a large workforce. While this remains a hypothesis, it presents a starting point for further analysis of the material to verify the degree to which such processes took place in the MIA at the site, and what this suggests about the EIA-MIA dynamics in the region.

10.4. Future Research Directions

51 Steadman & Ross (eds.) 2010; Glatz (ed.) 2015.
Systematic studies of storage practices and the connections between storage and political authority in the context of Anatolia are very much incipient. As noted in Chapter 4, plentiful evidence of storage practice has been excavated across Anatolia, especially from the Bronze Age, but less attention has been paid to the socio-political implications of the changing forms of storage practice in different contexts. An examination of storage practices has the ability to add detail to narratives of political authority in the context of key processes in Anatolia. This includes research on the emergence of stratified communities across central and western Anatolia during Early Bronze III (ca. 2300-2000 BCE); the changes in Anatolian communities resulting from the coalescing of trade routes with Mesopotamia during the Assyrian Colony period (ca. 1900-1700 BCE); and the role of storage in the context of authority-making in the Hittite Empire. Of course, the same research agendas may be applied to other Iron Age contexts, particularly Lydia and Urartu, with the latter in particular having yielded impressive evidence of large-scale storage at several centres across its territory. The Syro-Anatolian sphere is also another area of interest, particularly in view of the fact that several city-states were often quite restricted territorially and in close proximity to one another (particularly in the Khabur River basin, and the Harran and Amuq plains), which would have affected the way in which authority functioned in the wider landscape.

Investigations of political authority and storage are also connected to studies of land use and the qualitative relationships political entities had with the wider landscape. In terms of production of staple goods, the landscape itself is the primary unit of analysis, and therefore the beginning point of the chain in production and ending in distribution and consumption. Paleobotanical studies (e.g. via coring) have the capacity to articulate qualitative information regarding the types of goods being produced, the way emphasis changed through time, and how this may be related to wider socio-political change. The question of the degree to which these processes

---

52 E.g. Palmisano 2017.
were centralized is also significant, particularly in the light examining the extent to which political systems were interest in centrally controlling this aspect of society and economics.

The combination of paleobotanical evidence and surface survey in the wider landscape would yield the necessary data to furnish discussions relating to land use. Extensive work at Gordion has been conducted on both fronts, though, as noted, the surface surveys are yet to be published in detail. A further issue regarding Iron Age settlement patterns is one of chronological distinction, i.e. marking the difference between YHSS 6 and 5 patterns owing to the continuity in ceramics. Correlating this with the botanical data has not yet been conducted. In the context of Çadir Höyük, paleobotanical analysis of the wider landscape is yet to be undertaken. Similarly, landscape surveys, which were initially conducted by Von Der Osten in the 1920s-30s and the Alişar Regional Survey in the early 1990s, would benefit from being conducted anew and incorporating new methodological and theoretical approaches. Connecting individual sites with their landscapes, as well as defining the extent to which the landscape was implicated within the staple good production of respective sites are some possible research avenues that may be pursued.

Certain time periods have yielded textual evidence which gives detail concerning the manner of land distribution and the links between land owners, production, and higher authorities. In the context of the Hittite Empire for example, there is textual information regarding land use and allotment, requisites for taxation, types of produce generated, and the administrative entities involved in the management of goods. Hittite authorities also issued royal grants, denoting the way in which the

---

53 Evidence from Mesopotamia is some of the most comprehensive in the Near East. E.g. Widell 2012.
54 Miller 2013.
55 Hoffner 1997.
56 Riemschneider 1958.
central authority apportioned the landscape. Such information, in combination with the archaeological data, can give further detail to the character of Hittite hegemony, particularly within the Kızılırmak region, and the connection between storage and political authority.\textsuperscript{57}

In the context of Lydia, though dating to the early Hellenistic period, there is epigraphic evidence concerning land allotment and organization of possible estates,\textsuperscript{58} which, as has been argued by C. Roosevelt,\textsuperscript{59} may mirror earlier systems. Such estates acted as an intermediary point of directing goods between the farmlands and Sardis. Excavations at Ahlatlı Tepecik on the shores of Lake Marmara (13km north of Sardis) give a unique insight into a possible Lydian estate farmstead dating to the Iron Age.\textsuperscript{60} This multi-period site revealed residential complex, comprised of agglomerate housing covering a 60m x 35m area. The plethora of pottery found in the excavations – including local wares and Greek imports – suggests a food production/consumption context.\textsuperscript{61}

Hellenistic systems of land tenure in Anatolia such as those evinced in the Mnesimachus Inscription may have also have drawn on those implemented by the Achaemenids. Regarding Achaemenid practices, some interesting evidence comes from Xenophon’s \textit{Hellenica}, written in the early 4th century BCE. He notes in passing the character of the landscape around Daskyleion, the seat of the Persian satrap of Hellespontine Phrygia (incorporating the north-western Anatolian regions of the Troad, Mysia and Bithynia), which was dotted with many large villages acting as surplus generation (and perhaps storage) locales.\textsuperscript{62} In its role as a regional

\textsuperscript{57} Highlighted by Glatz (2011: 882) as a fruitful research avenue.

\textsuperscript{58} Roosevelt 2009: 112-15. The document in question is the Mnesimachus Inscription (see Prentice 1912; Atkinson 1972).

\textsuperscript{59} Roosevelt 2009: 113.

\textsuperscript{60} Hanfmann 1968; Hanfmann \textit{et al}. 1970.

\textsuperscript{61} Hanfmann \textit{et al}, 1970: 18.

\textsuperscript{62} Xen.\textit{Hell}.4.1.15. …ἐνθα καὶ τά βασίλεια ἤν Φαρναβάζῳ, καί κώμαι περὶ αὐτᾶ πολλαὶ καὶ μεγάλαι καὶ ἀφθονα ἔχουσαι τά ἐπιτήδεια… ‘…and there the palace of Pharnabazus was situated, and around it were many large villages which had bountiful stores…’ (translation is my own).
administrative capital, Daskyleion would have had a further role in resource accumulation and management.

Given the current level of knowledge concerning the economy at Gordion, the site would be a good candidate for investigating the questions relating to landscape apportioning and usage, particularly in the 8th century BCE, a period in which evidence from coring suggests increased land use and possible irrigation; and surface surveys show an increased proliferation of newly-founded settlements. Though there is no textual evidence from the site which would give precise information relating to this, taking into account notions of land allotment has further capacity to articulate ways in which wider landscapes within spheres of political control.

Such research avenues put emphasis on research questions oriented towards investigating the hinterlands of larger sites. Not only will this give a clearer picture of the sorely lacking non-elite components of Iron (and Bronze) Age society, but in terms of research on storage and political authority, clarify the form which the relations between the two took on, and what this may contribute towards understanding the character and extent of political control when combined with other kinds of evidence.

While this thesis has dealt primarily with identifying the different forms storage took on at Gordion and Çadır Höyük, further research may pursue a more qualitative aspect in defining the kinds of resources that were being stored. Techniques that may yield this information include residue analysis and micromorphology of archaeological contexts. Connected with this, more abstract dimensions of storage practice may also be explored, that is, storage not necessarily geared towards foodstuffs and goods for trade. For example, concepts of ‘sacred storage’ have been

---

63 Indeed, comparisons between the Bronze and Iron Ages may yield further points of interest in the changes in the character of political authority between the two periods.
explored in the context of Urartu (see Section 4.4.3.4.), in which votive objects dedicated to the war god Haldi were placed into pithoi in the storerooms at Ayanis.

10.5.Synopsis

This thesis has presented a preliminary discussion on the relationship between political authority and storage in the EIA-MIA of central Anatolia, with a focus on Gordion and Çadir Höyük. Traditional views have presented central Anatolia as following a narrative of the development from a seeming obscurity in the EIA, in which the migrating Phrygians brought with them pre-packaged notions of political authority that allowed them to establish a state covering much of the region by the MIA. This assumes the conceptualization of the state as a static object which may be implemented or activated in a given time and place, resulting in the sudden appearance of ‘state-like’ cultural forms visible in the archaeological record.

Interpretation of the archaeological record beyond historically conditioned and evolutionary narratives, however, yields a more complex and arguably interesting view. As I have stressed, political authority is a process, indivisible from the time and context-dependent social practices. I have discussed these changing processes by examining the variation in material culture connected with storage practice, in order to discuss political authority and resource management as implicated within social and political change.

Accordingly, the research presented here argues against the existence of a Phrygian state in the MIA, particularly one involved in colonialist enterprises of territorial expansion and control. Instead, central Anatolia was comprised of several independent centres with political authority diffused throughout the wider landscape, loosely tied together through selective cultural affinities by means of
which they negotiated their relationships. Narratives of political authority had a local focus, but also served as a point of negotiation and interaction with selected neighbours in other regions.
### Tables

**Table 1.** Operation 3 YHSS 7B Phases (adapted from Voigt 2009b)

**Table 2.** Operation 4 YHSS 7 Phases (adapted from Voigt 2009b)

**Table 3.** Operation 5 YHSS 7 Phases (adapted from Voigt 2009b)
Table 4. Operation 6 YHSS 7 Phases (adapted from Voigt 2009b)

Table 5. Operation 10 YHSS 7 Phases (adapted from Voigt 2009b)
Table 6. Operation 11 YHSS 7 Phases (adapted from Voigt 2009b)

Table 7. Operation 14 YHSS 7 Phases (adapted from Voigt 2009b)
<table>
<thead>
<tr>
<th>Operation</th>
<th>Phase</th>
<th>Locus</th>
<th>Lot</th>
<th>Year</th>
<th>Number</th>
<th>Part/Type</th>
<th>Form</th>
<th>WT (cm)</th>
<th>RD (cm)</th>
<th>Colour</th>
<th>Consistency, Inclusions</th>
<th>Surface, Decoration</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>705</td>
<td>13</td>
<td>26</td>
<td>1989</td>
<td>YH20573.5</td>
<td>rim</td>
<td>ledged rim amphora</td>
<td>0.8</td>
<td>too broken</td>
<td>7.5YR 7/8 reddish yellow</td>
<td>small to large quartz; coarse</td>
<td>wheelmade</td>
</tr>
<tr>
<td>3</td>
<td>735</td>
<td>33</td>
<td>58</td>
<td>1988</td>
<td>YH21882.2</td>
<td>body</td>
<td>wide mouth pot</td>
<td>0.8</td>
<td>–</td>
<td>5YR 6/8 reddish yellow</td>
<td>small to large quartz, voids, coarse</td>
<td>wheel finished</td>
</tr>
<tr>
<td>3</td>
<td>735</td>
<td>33</td>
<td>58</td>
<td>1988</td>
<td>YH21882</td>
<td>rim</td>
<td>wide mouth pot</td>
<td>too broken</td>
<td>30 (est)</td>
<td>3 N3/ very dark grey</td>
<td>small quartz, coarse</td>
<td>burnished exterior/interior</td>
</tr>
<tr>
<td>3</td>
<td>735</td>
<td>43</td>
<td>75</td>
<td>1988</td>
<td>YH22467</td>
<td>rim</td>
<td>wide mouth pot</td>
<td>too broken</td>
<td>–</td>
<td>3 N3/ very dark grey</td>
<td>small quartz, coarse</td>
<td>burnished exterior/interior</td>
</tr>
</tbody>
</table>

Table 8. Operation 3 YHSS 7 large vessel inventory

<table>
<thead>
<tr>
<th>Operation</th>
<th>Phase</th>
<th>Locus</th>
<th>Lot</th>
<th>Year</th>
<th>Number</th>
<th>Part/Type</th>
<th>Form</th>
<th>WT (cm)</th>
<th>RD (cm)</th>
<th>Colour</th>
<th>Consistency, Inclusions</th>
<th>Surface, Decoration</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>705</td>
<td>15</td>
<td>27</td>
<td>1989</td>
<td>YH20382</td>
<td>body</td>
<td>storage jar</td>
<td>1.1-1.6</td>
<td>–</td>
<td>7.5YR 3/1 very dark grey</td>
<td>sparse medium grit, coarse</td>
<td>burnished exterior</td>
</tr>
<tr>
<td>4</td>
<td>770</td>
<td>24</td>
<td>42</td>
<td>1989</td>
<td>YH21040</td>
<td>base</td>
<td>storage jar</td>
<td>–</td>
<td>–</td>
<td>7.5YR 6/4 brown</td>
<td>small quartz/grog, medium coarse</td>
<td>smoothed exterior</td>
</tr>
<tr>
<td>4</td>
<td>770</td>
<td>24</td>
<td>42</td>
<td>1989</td>
<td>YH21042</td>
<td>body</td>
<td>storage jar</td>
<td>1.7</td>
<td>–</td>
<td>5YR 6/6 reddish yellow</td>
<td>small quartz/grog, coarse</td>
<td>smoothed exterior, finger impressed decoration</td>
</tr>
</tbody>
</table>

Table 9. Operation 4 YHSS 7 large vessel inventory
<table>
<thead>
<tr>
<th>Operation</th>
<th>Phase</th>
<th>Locus</th>
<th>Lot</th>
<th>Year</th>
<th>Number</th>
<th>Part/Type</th>
<th>Form</th>
<th>WT (cm)</th>
<th>RD (cm)</th>
<th>Colour</th>
<th>Consistency, Inclusions</th>
<th>Surface, Decoration</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>705</td>
<td>17</td>
<td>15</td>
<td>1988</td>
<td>YH20919.1</td>
<td>body</td>
<td>pithos</td>
<td>too abraded</td>
<td>–</td>
<td>5YR 6/6 reddish yellow</td>
<td>small grit, medium fine</td>
<td>moulded horizontal band, wheel finished</td>
</tr>
<tr>
<td>5</td>
<td>700</td>
<td>17</td>
<td>18</td>
<td>1988</td>
<td>YH20565.2</td>
<td>base</td>
<td>pithos</td>
<td>0.8</td>
<td>–</td>
<td>dark brown edges, reddish brown core</td>
<td>large quartz/gold mica flecks, coarse</td>
<td>burnished exterior/interior</td>
</tr>
<tr>
<td>5</td>
<td>700</td>
<td>17</td>
<td>19</td>
<td>1988</td>
<td>YH20569.9</td>
<td>rim/body</td>
<td>wide mouth pot</td>
<td>0.7-0.9</td>
<td>30</td>
<td>dark brown edges, reddish brown core</td>
<td>large quartz/gold mica flecks, coarse</td>
<td>burnished exterior/interior, raised ridge on mid/lower body, dimpled rim edge</td>
</tr>
<tr>
<td>5</td>
<td>730.03</td>
<td>27</td>
<td>34</td>
<td>1988</td>
<td>YH21507.3</td>
<td>rim</td>
<td>wide mouth pot</td>
<td>–</td>
<td>45 (est)</td>
<td>dark brown edges, reddish brown core</td>
<td>large quartz/gold mica flecks, coarse</td>
<td>dimpled rim edge</td>
</tr>
<tr>
<td>5</td>
<td>730.03</td>
<td>27</td>
<td>38</td>
<td>1988</td>
<td>YH21527.1</td>
<td>rim</td>
<td>jar</td>
<td>variable</td>
<td>38</td>
<td>dark brown edges, reddish brown core</td>
<td>large quartz/gold mica flecks, coarse</td>
<td>burnished exterior/interior</td>
</tr>
<tr>
<td>5</td>
<td>730.03</td>
<td>27</td>
<td>38</td>
<td>1988</td>
<td>YH22155</td>
<td>body</td>
<td>pithos</td>
<td>1.4-1.2</td>
<td>–</td>
<td>5YR 4/3 reddish brown</td>
<td>small/large quartz, gold mica flecks, coarse</td>
<td>burnished exterior</td>
</tr>
</tbody>
</table>

Table 10. Operation 5 YHSS 7 large vessel inventory
<table>
<thead>
<tr>
<th>Operation</th>
<th>Phase</th>
<th>Locus</th>
<th>Lot</th>
<th>Year</th>
<th>Number</th>
<th>Part/Type</th>
<th>Form</th>
<th>WT (cm)</th>
<th>RD(cm)</th>
<th>Colour</th>
<th>Consistency, Inclusions</th>
<th>Surface, Decoration</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>720</td>
<td>25</td>
<td>76</td>
<td>1989</td>
<td>YH38318.3</td>
<td>rim</td>
<td>jar</td>
<td>–</td>
<td>23</td>
<td>7.5YR 3/2 dark brown</td>
<td>small/medium quartz/grit; coarse</td>
<td>wheelmade</td>
</tr>
<tr>
<td>10</td>
<td>725</td>
<td>25</td>
<td>76</td>
<td>1989</td>
<td>YH33313.1</td>
<td>rim</td>
<td>jar</td>
<td>–</td>
<td>36</td>
<td>2.5YR 7/8 light red</td>
<td>medium quartz/grit; medium-coarse</td>
<td>wheelmade</td>
</tr>
<tr>
<td>10</td>
<td>725</td>
<td>25</td>
<td>87</td>
<td>1989</td>
<td>YH33384</td>
<td>rim</td>
<td>jar</td>
<td>1</td>
<td>48</td>
<td>ochre, grey-brown</td>
<td>medium quartz/grit, coarse</td>
<td>wheelmade</td>
</tr>
<tr>
<td>10</td>
<td>725</td>
<td>25</td>
<td>87</td>
<td>1989</td>
<td>YH33384.1</td>
<td>rim</td>
<td>jar</td>
<td>1</td>
<td>52</td>
<td>variable - 7.5YR 6/4 light brown (outer); 7.5YR 5/1 grey (core)</td>
<td>medium quartz/grit, coarse</td>
<td>wheelmade</td>
</tr>
<tr>
<td>10</td>
<td>725</td>
<td>25</td>
<td>92</td>
<td>1989</td>
<td>YH33392.2</td>
<td>rim</td>
<td>jar</td>
<td>0.7-0.9</td>
<td>14</td>
<td>5YR 6/8 reddish yellow</td>
<td>large quartz, micaceous, coarse</td>
<td>wheelmade, raised horizontal bands, diagonal notches</td>
</tr>
</tbody>
</table>

Table 11. Operation 10 YHSS 7 large vessel inventory

<table>
<thead>
<tr>
<th>Operation</th>
<th>Phase</th>
<th>Locus</th>
<th>Lot</th>
<th>Year</th>
<th>Number</th>
<th>Part/Type</th>
<th>Form</th>
<th>WT (cm)</th>
<th>RD(cm)</th>
<th>Colour</th>
<th>Consistency, Inclusions</th>
<th>Surface, Decoration</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>705</td>
<td>7</td>
<td>150</td>
<td>1989</td>
<td>YH31636</td>
<td>rim</td>
<td>ledge</td>
<td>1.4</td>
<td>44</td>
<td>5YR 6/6 reddish yellow</td>
<td>sparse medium grit, voids, medium fine</td>
<td>wheel finished</td>
</tr>
<tr>
<td>11</td>
<td>750.02</td>
<td>7</td>
<td>42</td>
<td>1989</td>
<td>body</td>
<td>jar</td>
<td>1.5</td>
<td>–</td>
<td>5YR 4/4 reddish brown; 5YR 6/8 reddish yellow</td>
<td>large quartz, gold mica, coarse</td>
<td>smoothed exterior</td>
<td></td>
</tr>
</tbody>
</table>

Table 12. Operation 11 YHSS 7 large vessel inventory
<table>
<thead>
<tr>
<th>Operation</th>
<th>Phase</th>
<th>Locus</th>
<th>Lot</th>
<th>Year</th>
<th>Number</th>
<th>Part/Type</th>
<th>Form</th>
<th>WT (cm)</th>
<th>RD (cm)</th>
<th>Colour</th>
<th>Consistency, Inclusions</th>
<th>Surface, Decoration</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>730.04</td>
<td>25</td>
<td>65</td>
<td>1989</td>
<td>YH29401</td>
<td>partially complete</td>
<td>wide mouth pot</td>
<td>0.8</td>
<td>33</td>
<td>dark</td>
<td>coarse</td>
<td>burnished exterior/interior, incised deer and branch motif</td>
</tr>
<tr>
<td>14</td>
<td>775</td>
<td>33</td>
<td>80</td>
<td>1989</td>
<td>YH29387</td>
<td>lower portion/ base</td>
<td>jar</td>
<td>1.3</td>
<td>-</td>
<td>dark grey brown</td>
<td>coarse</td>
<td>burnished exterior (partially), smoothed interior</td>
</tr>
</tbody>
</table>

Table 13. Operation 14 YHSS 7 large vessel inventory

<table>
<thead>
<tr>
<th>Type</th>
<th>Source</th>
<th>Inventory No.</th>
<th>Vessel Component</th>
<th>Ware</th>
<th>Fabric</th>
<th>WT (cm)</th>
<th>ERD (cm)</th>
<th>RD (cm)</th>
<th>GPD (cm)</th>
<th>Max D (cm)</th>
<th>GPH (cm)</th>
<th>H (cm)</th>
<th>Base D (cm)</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Jar</td>
<td>Sams 1994a: 299</td>
<td>P 1470</td>
<td>shoulder fragment</td>
<td>red</td>
<td>coarse</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>M2, main room</td>
</tr>
<tr>
<td>Storage Jar</td>
<td>Sams 1994a: 296</td>
<td>P 1661</td>
<td>reconstructed vessel</td>
<td>red/brown</td>
<td>coarse</td>
<td>28.5</td>
<td>62.5</td>
<td>69.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>M2, main room, S corner</td>
</tr>
</tbody>
</table>

Table 14. YHSS 6A Megaron 2 storage vessel inventory
<table>
<thead>
<tr>
<th>Type</th>
<th>Source</th>
<th>Inventory No.</th>
<th>Vessel Component</th>
<th>Ware</th>
<th>Fabric</th>
<th>WT (cm)</th>
<th>ERD (cm)</th>
<th>RD (cm)</th>
<th>GPD (cm)</th>
<th>Max D (cm)</th>
<th>GPH (cm)</th>
<th>H (cm)</th>
<th>Base D (cm)</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Narrow Necked Amphora</td>
<td>Sams 1994a: 284</td>
<td>P 2375</td>
<td>reconstructed vessel</td>
<td>red/yellow-grey</td>
<td>coarse</td>
<td>18.4</td>
<td>44.7</td>
<td>66.7</td>
<td>15.5</td>
<td>M3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Narrow Necked Amphora</td>
<td>Sams 1994a: 283</td>
<td>P 2420</td>
<td>reconstructed vessel</td>
<td>light brown/grey</td>
<td>coarse</td>
<td>17.3</td>
<td>38.6</td>
<td>50</td>
<td>17</td>
<td>M3 NW wall</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Jar</td>
<td>Sams 1994a: 296</td>
<td>P 1877</td>
<td>reconstructed vessel</td>
<td>red</td>
<td>coarse</td>
<td>20.3</td>
<td>50.5</td>
<td>65</td>
<td>20.5</td>
<td>M3, E corner</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 15. YHSS 6A Megaron 3 storage vessel inventory

<table>
<thead>
<tr>
<th>Type</th>
<th>Source</th>
<th>Inventory No.</th>
<th>Vessel Component</th>
<th>Ware</th>
<th>Fabric</th>
<th>WT (cm)</th>
<th>ERD (cm)</th>
<th>RD (cm)</th>
<th>GPD (cm)</th>
<th>Max D (cm)</th>
<th>GPH (cm)</th>
<th>H (cm)</th>
<th>Base D (cm)</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Jar</td>
<td>Sams 1994a: 297</td>
<td>I 260</td>
<td>sherd of shoulder and neck/rim</td>
<td>red</td>
<td>medium-coarse</td>
<td>52</td>
<td></td>
<td>13</td>
<td></td>
<td>M4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wide-Necked Amphora</td>
<td>Sams 1994a: 287</td>
<td>P 2848</td>
<td>shoulder/neck/rim/handle frag.</td>
<td>grey</td>
<td>coarse</td>
<td></td>
<td></td>
<td></td>
<td>M4 anteroom</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amphora/Storage Jar</td>
<td>Sams 1994a: 299</td>
<td>P 2873</td>
<td>complete neck, section shoulder, base of rim</td>
<td>dark grey</td>
<td>medium-coarse</td>
<td>1.3</td>
<td>18.7</td>
<td>14</td>
<td>M4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amphora/Storage Jar</td>
<td>Sams 1994a: 299</td>
<td>P 2901</td>
<td>upper shoulder/neck/rim frag.</td>
<td>medium-fine</td>
<td></td>
<td></td>
<td>16.5</td>
<td></td>
<td>M4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Jar</td>
<td>Sams 1994a: 296</td>
<td>P 2909</td>
<td>top half of vessel</td>
<td>red</td>
<td>coarse</td>
<td>52.5</td>
<td>98</td>
<td>88</td>
<td>M4, disturbance over top</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Narrow Necked Amphora</td>
<td>Sams 1994a: 284</td>
<td>P 2915</td>
<td>reconstructed vessel</td>
<td>pale brown</td>
<td>coarse</td>
<td>22.5</td>
<td>55.8</td>
<td>68</td>
<td>17</td>
<td>M4, E corner</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>Source</td>
<td>Inventor y No.</td>
<td>Vessel Component</td>
<td>Ware</td>
<td>Fabric</td>
<td>Wall Thickness (cm)</td>
<td>ER D (cm)</td>
<td>RD (cm)</td>
<td>GP D (cm)</td>
<td>Max D (cm)</td>
<td>GP H (cm)</td>
<td>H (cm)</td>
<td>Base D (cm)</td>
<td>Context</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-------------------------</td>
<td>----------------</td>
<td>---------------------------------------</td>
<td>-------------</td>
<td>--------</td>
<td>---------------------</td>
<td>-----------</td>
<td>---------</td>
<td>-----------</td>
<td>------------</td>
<td>-----------</td>
<td>--------</td>
<td>-------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Narrow Necked Amphora</td>
<td>Sams 1994a: 293</td>
<td>P 2916</td>
<td>reconstructed vessel</td>
<td>light red</td>
<td>coarse</td>
<td>49.5</td>
<td>53</td>
<td>17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>M4 E corner</td>
<td></td>
</tr>
<tr>
<td>Narrow Necked Amphora</td>
<td>Sams 1994a: 288</td>
<td>P 3028</td>
<td>shoulder/lower neck fragment</td>
<td>dark grey</td>
<td>coarse</td>
<td>19</td>
<td>19</td>
<td></td>
<td>M4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Jar</td>
<td>Sams 1994a: 198</td>
<td>P 3030a-b</td>
<td>two frags, most of upper shoulder/section lower neck</td>
<td>pink</td>
<td>medium-coarse</td>
<td>10</td>
<td></td>
<td>M4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Krater/Wide-Necked Amphora</td>
<td>Sams 1994a: 288</td>
<td>P 3031</td>
<td>shoulder/neck/rim/handles frags.</td>
<td>grey</td>
<td>coarse</td>
<td>90</td>
<td>47</td>
<td></td>
<td>M4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Jar</td>
<td>Sams 1994a: 288</td>
<td>P 3033</td>
<td>frag. upper body and whole neck/rim</td>
<td>grey</td>
<td>coarse</td>
<td>28</td>
<td>40.5</td>
<td></td>
<td>M4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Narrow Necked Amphora</td>
<td>Sams 1994a: 293</td>
<td>P 3034</td>
<td>frag.</td>
<td>grey</td>
<td>coarse</td>
<td>37.5</td>
<td></td>
<td></td>
<td>M4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Jar</td>
<td>Sams 1994a: 288</td>
<td>P 3035a-b, P 3145</td>
<td>frags, belly/lower shoulder/upper shoulder/neck</td>
<td>coarse</td>
<td></td>
<td>60</td>
<td>12.5</td>
<td></td>
<td>M4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amphora/Storage Jar</td>
<td>Sams 1994a: 299</td>
<td>P 3048</td>
<td>shoulder sherd</td>
<td>grey</td>
<td>coarse</td>
<td>1.5</td>
<td></td>
<td></td>
<td>M4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wide-Necked Amphora</td>
<td>Sams 1994a: 287</td>
<td>P 3103a-b</td>
<td>lower body/belly &amp; shoulder/neck/rim frags.</td>
<td>red</td>
<td>coarse</td>
<td>37</td>
<td>60</td>
<td>63</td>
<td>M4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Jar</td>
<td>Sams 1994a: 287-98</td>
<td>P 3127</td>
<td>reconstructed vessel</td>
<td>brown-grey</td>
<td>coarse</td>
<td>11.3</td>
<td>33.5</td>
<td>48.5</td>
<td>57</td>
<td>14</td>
<td></td>
<td></td>
<td>M4, E corner</td>
<td></td>
</tr>
<tr>
<td>Storage Jar</td>
<td>Sams 1994a: 297</td>
<td>P 3128</td>
<td>reconstructed vessel</td>
<td>brown-grey</td>
<td>coarse</td>
<td>35</td>
<td>49.7</td>
<td>54.5</td>
<td>M4, E corner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>Source</td>
<td>Inventor y No.</td>
<td>Vessel Component</td>
<td>Ware</td>
<td>Fabric</td>
<td>Wall Thickness (cm)</td>
<td>ER D (cm)</td>
<td>RD (cm)</td>
<td>GP D (cm)</td>
<td>Max D (cm)</td>
<td>GP H (cm)</td>
<td>H (cm)</td>
<td>Base D (cm)</td>
<td>Context</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------------------</td>
<td>----------------</td>
<td>-----------------------------------------</td>
<td>--------</td>
<td>---------------</td>
<td>---------------------</td>
<td>-----------</td>
<td>----------</td>
<td>------------</td>
<td>------------</td>
<td>-----------</td>
<td>--------</td>
<td>-------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Storage Jar</td>
<td>Sams 1994a: 235</td>
<td>P 3289</td>
<td>shoulder sherd</td>
<td>red</td>
<td>coarse</td>
<td>1.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>M4 Terrace</td>
</tr>
<tr>
<td>Amphora</td>
<td>Sams 1994a: 235</td>
<td>P 3290</td>
<td>shoulder sherd w/ upper handle attachment</td>
<td>grey</td>
<td>medium-coarse</td>
<td>1.4</td>
<td></td>
<td></td>
<td></td>
<td>16.5</td>
<td></td>
<td></td>
<td></td>
<td>M4 Terrace</td>
</tr>
<tr>
<td>Amphora/Storage Jar</td>
<td>Sams 1994a: 235</td>
<td>P 3298</td>
<td>shoulder sherd</td>
<td>grey</td>
<td>coarse</td>
<td>1.4</td>
<td></td>
<td></td>
<td></td>
<td>9.7</td>
<td></td>
<td></td>
<td></td>
<td>M4 Terrace</td>
</tr>
<tr>
<td>Storage Jar</td>
<td></td>
<td>P 2917</td>
<td>rim/neck/handle element</td>
<td>grey</td>
<td>fine</td>
<td>41.5</td>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>M4, storeroom at S</td>
</tr>
<tr>
<td>Narrow Neck Amphora</td>
<td>Sams 1994a: 283</td>
<td>P 2915</td>
<td>reconstructed vessel</td>
<td>pale brown</td>
<td>coarse</td>
<td>22.5</td>
<td>55.8</td>
<td>68</td>
<td>17</td>
<td>M4 E corner</td>
<td></td>
<td></td>
<td></td>
<td>M4 E corner</td>
</tr>
<tr>
<td>Narrow Neck Amphora</td>
<td>Sams 1994a: 283</td>
<td>P 2916</td>
<td>reconstructed vessel</td>
<td>light red</td>
<td>coarse</td>
<td>49.5</td>
<td>53</td>
<td>17</td>
<td>17</td>
<td>M4 E corner</td>
<td></td>
<td></td>
<td></td>
<td>M4 E corner</td>
</tr>
<tr>
<td>Storage Jar</td>
<td>Sams 1994a: 297-98</td>
<td>P 3127</td>
<td>reconstructed vessel</td>
<td>brown-grey</td>
<td>coarse</td>
<td>33.5</td>
<td>48.5</td>
<td>57</td>
<td>14</td>
<td>M4, E corner</td>
<td></td>
<td></td>
<td></td>
<td>M4, E corner</td>
</tr>
<tr>
<td>Storage Jar</td>
<td>Sams 1994a: 297</td>
<td>P 3128</td>
<td>reconstructed vessel</td>
<td>brown-grey</td>
<td>coarse</td>
<td>35</td>
<td>49.7</td>
<td>54.5</td>
<td>14</td>
<td>M4, E corner</td>
<td></td>
<td></td>
<td></td>
<td>M4, E corner</td>
</tr>
</tbody>
</table>

Table 16. YHSS 6A Megaron 4 storage vessel inventory
<table>
<thead>
<tr>
<th>Type</th>
<th>Source</th>
<th>Inventory No.</th>
<th>Vessel Component</th>
<th>Ware</th>
<th>Fabric</th>
<th>WT (cm)</th>
<th>ERD (cm)</th>
<th>RD (cm)</th>
<th>GPD (cm)</th>
<th>Max D (cm)</th>
<th>GPH (cm)</th>
<th>H (cm)</th>
<th>Base D (cm)</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amphora/Storage Jar</td>
<td>Sams 1994a: 299</td>
<td>P 2850-1</td>
<td>two shoulder frags.</td>
<td>red</td>
<td>coarse</td>
<td>1.6</td>
<td></td>
<td></td>
<td></td>
<td>16.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Jar/Pithos</td>
<td>Sams 1994a: 298</td>
<td>P 5724</td>
<td>shoulder sherd</td>
<td>red</td>
<td>coarse</td>
<td>2.8</td>
<td></td>
<td></td>
<td></td>
<td>20.5</td>
<td></td>
<td></td>
<td></td>
<td>CC1, NW of central hearth</td>
</tr>
<tr>
<td>Storage Jar/Pithos</td>
<td>Unpublished</td>
<td>P 2852</td>
<td>wall sherd</td>
<td>red</td>
<td>coarse</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>28</td>
<td></td>
<td></td>
<td></td>
<td>CC1</td>
</tr>
</tbody>
</table>

Table 17. YHSS 6A CC 1 storage vessel inventory

<table>
<thead>
<tr>
<th>Type</th>
<th>Source</th>
<th>Inventory No.</th>
<th>Vessel Component</th>
<th>Ware</th>
<th>Fabric</th>
<th>WT (cm)</th>
<th>ERD (cm)</th>
<th>RD (cm)</th>
<th>GPD (cm)</th>
<th>Max D (cm)</th>
<th>GPH (cm)</th>
<th>H (cm)</th>
<th>Base D (cm)</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wide-Necked Amphora</td>
<td>Sams 1994a: 289</td>
<td>P 1187</td>
<td>reconstructed vessel</td>
<td>red/yellow</td>
<td>medium-coarse</td>
<td>31</td>
<td>44.3</td>
<td></td>
<td>49.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>burned debris/fill above CC2</td>
</tr>
<tr>
<td>Krater</td>
<td>Sams 1994a: 288</td>
<td>P 3059</td>
<td>reconstructed vessel</td>
<td>light red</td>
<td>coarse</td>
<td>58</td>
<td>72</td>
<td></td>
<td>61.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CC2, NW half</td>
</tr>
<tr>
<td>Narrow Necked Amphora</td>
<td>Sams 1994a: 285</td>
<td>P 1468</td>
<td>reconstructed vessel</td>
<td>red/brown-red/yellow</td>
<td>medium-coarse</td>
<td>14</td>
<td>32.3</td>
<td></td>
<td>41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CC2, SE half</td>
</tr>
<tr>
<td>Narrow Necked Amphora</td>
<td>Sams 1994a: 285</td>
<td>P 1368</td>
<td>lower body &amp; area of one handle missing</td>
<td>red</td>
<td>coarse</td>
<td>15.5</td>
<td>37.5</td>
<td>42</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CC2, SE half</td>
</tr>
<tr>
<td>Krater</td>
<td>Sams 1994a: 286</td>
<td>P 1469</td>
<td>reconstructed vessel</td>
<td>red/yellow</td>
<td>medium-coarse</td>
<td>34.5</td>
<td>39.5</td>
<td>39</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CC2, SE half</td>
</tr>
</tbody>
</table>

Table 18. YHSS 6A CC 2 storage vessel inventory
<table>
<thead>
<tr>
<th>Type</th>
<th>Source</th>
<th>Inventory No.</th>
<th>Vessel Component</th>
<th>Ware</th>
<th>Fabric</th>
<th>WT (cm)</th>
<th>ER D (cm)</th>
<th>RD (cm)</th>
<th>GP D (cm)</th>
<th>Max D (cm)</th>
<th>GP H (cm)</th>
<th>H (cm)</th>
<th>Bas e D (cm)</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Krater</td>
<td>Sams 1994a:</td>
<td>P 4647a-b</td>
<td>handle frags.</td>
<td>red</td>
<td>medium-coarse</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CC3</td>
</tr>
<tr>
<td>Storage Jar/Pithos</td>
<td>Sams 1994a:</td>
<td>P 4681</td>
<td>body frag.</td>
<td>red/brown</td>
<td>coarse</td>
<td>1.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CC3</td>
</tr>
<tr>
<td>Narrow Neck Amphora</td>
<td>Sams 1994a:</td>
<td>P 4063</td>
<td>reconstructed vessel</td>
<td>red/yellow</td>
<td>medium-coarse</td>
<td>11.1</td>
<td>21.3</td>
<td>23.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CC3, beside door at NW</td>
</tr>
<tr>
<td>Wide-Necked Amphora</td>
<td>Sams 1994a:</td>
<td>P 4580</td>
<td>reconstructed vessel</td>
<td>red/brown</td>
<td>medium-fine</td>
<td>29</td>
<td>40</td>
<td>46</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CC3, central aisle at SW</td>
</tr>
<tr>
<td>Narrow Neck Amphora</td>
<td>Sams 1994a:</td>
<td>P 4608</td>
<td>reconstructed vessel</td>
<td>red</td>
<td>coarse</td>
<td>11.4</td>
<td>29</td>
<td>34.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CC3, NW aisle</td>
</tr>
<tr>
<td>Narrow Neck Amphora</td>
<td>Sams 1994a:</td>
<td>P 4061</td>
<td>reconstructed vessel</td>
<td>red</td>
<td>coarse</td>
<td>11</td>
<td>24.4</td>
<td>27.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CC3, NW aisle, NE of centre, beside large concentration of loom-weights</td>
</tr>
<tr>
<td>Storage Jar/Pithos</td>
<td>Sams 1994a:</td>
<td>P 4564a-c</td>
<td>two sherds, frag. (non joining) shoulder/neck</td>
<td>yellow</td>
<td>very coarse</td>
<td>2.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CC3, Sf: aisle</td>
</tr>
<tr>
<td>Storage Jar/Pithos</td>
<td>Unpublished</td>
<td>P 4513</td>
<td>reconstructed vessel</td>
<td>red</td>
<td>very coarse</td>
<td>48</td>
<td>81.5</td>
<td>100.2</td>
<td>14.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CC 3</td>
</tr>
<tr>
<td>Storage Jar/Pithos</td>
<td>Unpublished</td>
<td>P 4652</td>
<td>rim/shoulder frag.</td>
<td>buff</td>
<td>coarse</td>
<td>41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CC 3</td>
</tr>
<tr>
<td>Type</td>
<td>Source</td>
<td>Inventory No.</td>
<td>Vessel Component</td>
<td>Ware</td>
<td>Fabric</td>
<td>WT (cm)</td>
<td>ER D (cm)</td>
<td>RD (cm)</td>
<td>GP D (cm)</td>
<td>Max D (cm)</td>
<td>GP H (cm)</td>
<td>H (cm)</td>
<td>Base D (cm)</td>
<td>Context</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------------</td>
<td>---------------</td>
<td>------------------</td>
<td>---------------</td>
<td>----------------</td>
<td>---------</td>
<td>-----------</td>
<td>---------</td>
<td>-----------</td>
<td>------------</td>
<td>-----------</td>
<td>--------</td>
<td>-------------</td>
<td>---------</td>
</tr>
<tr>
<td>Wide-Necked Amphora</td>
<td>Unpublished</td>
<td>P 4661</td>
<td>mostly intact, rim missing</td>
<td>red/brown-coarse</td>
<td></td>
<td>36-37</td>
<td>37.5</td>
<td>14.5</td>
<td>CC 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Jar/Pithos</td>
<td>Unpublished</td>
<td>P 4663</td>
<td>rim/shoulder frag.</td>
<td>red/brown-coarse</td>
<td>coarse</td>
<td>40</td>
<td>22.5</td>
<td>CC 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Jar/Pithos</td>
<td>Unpublished</td>
<td>P 4680</td>
<td>body frag.</td>
<td>grey-coarse</td>
<td></td>
<td></td>
<td></td>
<td>CC 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Jar/Pithos</td>
<td>Unpublished</td>
<td>P 4387</td>
<td>body frag.</td>
<td>grey-very coarse</td>
<td></td>
<td></td>
<td></td>
<td>CC 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 19. YHSS 6A CC 3 storage vessel inventory

<table>
<thead>
<tr>
<th>Type</th>
<th>Source</th>
<th>Inventory No.</th>
<th>Vessel Component</th>
<th>Ware</th>
<th>Fabric</th>
<th>Wall Thickness (cm)</th>
<th>ER D (cm)</th>
<th>RD (cm)</th>
<th>GP D (cm)</th>
<th>Max D (cm)</th>
<th>GP H (cm)</th>
<th>H (cm)</th>
<th>Base D (cm)</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Krater/ Wide-Necked Amphora</td>
<td>Sams 1994a: 288</td>
<td>P 2902a-b</td>
<td>2 non joining frags., shoulder/lower neck &amp; upper neck/rim</td>
<td>red-coarse</td>
<td>37</td>
<td></td>
<td></td>
<td></td>
<td>TB 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Narrow Neck Amphora</td>
<td>Sams 1994a: 284</td>
<td>P 2906</td>
<td>reconstructed vessel</td>
<td>light brown / red-yellow</td>
<td>medium-coarse</td>
<td>11.8</td>
<td>20.8</td>
<td>22.1</td>
<td>TB 1 near N corner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 20. YHSS 6A TB 1 storage vessel inventory
<table>
<thead>
<tr>
<th>Type</th>
<th>Source</th>
<th>Inventory No.</th>
<th>Vessel Component</th>
<th>Ware</th>
<th>Fabric</th>
<th>WT (cm)</th>
<th>ERD (cm)</th>
<th>RD (cm)</th>
<th>GPD (cm)</th>
<th>Max D (cm)</th>
<th>GPH (cm)</th>
<th>H (cm)</th>
<th>Base D (cm)</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Mouthed Amphora</td>
<td>Sams 1994a: 288</td>
<td>P 2886a-c</td>
<td>non joining sherds - shoulder, handle stub, handle</td>
<td>red</td>
<td>coarse</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TB 2</td>
</tr>
<tr>
<td>Storage Jar</td>
<td>Sams 1994a: 296</td>
<td>P 2621</td>
<td>reconstructed vessel</td>
<td>grey</td>
<td>coarse</td>
<td></td>
<td>32.9</td>
<td>62.7</td>
<td>63</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TB 2, just NW of door</td>
</tr>
<tr>
<td>Open Mouthed Amphora/ Krater</td>
<td>Sams 1994a: 287</td>
<td>P 2903</td>
<td>shoulder/neck/rim/handle frag.</td>
<td>red</td>
<td>coarse</td>
<td></td>
<td>49</td>
<td>22</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TB 2, NW aisle, near N corner</td>
</tr>
<tr>
<td>Pithos</td>
<td>Unpublished</td>
<td>P 2460</td>
<td>rim/shoulder fragment</td>
<td>buff</td>
<td>coarse</td>
<td></td>
<td></td>
<td></td>
<td>36.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TB 2</td>
</tr>
</tbody>
</table>

Table 21. YHSS 6A TB 2 storage vessel inventory

<table>
<thead>
<tr>
<th>Type</th>
<th>Source</th>
<th>Inventory No.</th>
<th>Vessel Component</th>
<th>Ware</th>
<th>Fabric</th>
<th>WT (cm)</th>
<th>ERD (cm)</th>
<th>RD (cm)</th>
<th>GPD (cm)</th>
<th>Max D (cm)</th>
<th>GPH (cm)</th>
<th>H (cm)</th>
<th>Base D (cm)</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Mouthed Amphora (krateroid)</td>
<td>Sams 1994a: 287</td>
<td>P 1951</td>
<td>lower body missing</td>
<td>red/yellow</td>
<td>medium -fine</td>
<td>37.3</td>
<td>45</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TB 3</td>
</tr>
<tr>
<td>Open Mouthed Amphora</td>
<td>Sams 1994a: 287</td>
<td>P 1952</td>
<td>reconstructed vessel (mostly)</td>
<td>red/yellow</td>
<td>medium -fine</td>
<td>0.5</td>
<td>28</td>
<td>36.8</td>
<td>38.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TB 3, front of main grinding stand</td>
</tr>
<tr>
<td>Krater</td>
<td>Sams 1994a: 286</td>
<td>P 1872</td>
<td>reconstructed vessel</td>
<td>red</td>
<td>medium-coarse</td>
<td>61.7</td>
<td>72.3</td>
<td>70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TB 3</td>
</tr>
<tr>
<td>Krater</td>
<td>Sams 1994a: 288</td>
<td>P 1949</td>
<td>reconstructed vessel</td>
<td>light red</td>
<td>coarse</td>
<td>58</td>
<td>65</td>
<td>61</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TB 3</td>
</tr>
<tr>
<td>Amphora/Storage Jar</td>
<td>Sams 1994a: 299</td>
<td>P 1988</td>
<td>body sherd</td>
<td>grey</td>
<td>coarse</td>
<td>1.4</td>
<td>5.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TB 3</td>
</tr>
<tr>
<td>Krater</td>
<td>Sams 1994a: 286</td>
<td>P 1850</td>
<td>reconstructed vessel</td>
<td>red</td>
<td>coarse</td>
<td>59</td>
<td>66.3</td>
<td>58.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TB 3 NW aisle, SW of centre</td>
</tr>
<tr>
<td>Storage Jar</td>
<td>Sams 1994a: 297</td>
<td>P 1950</td>
<td>reconstructed vessel</td>
<td>red-grey</td>
<td>coarse</td>
<td>40</td>
<td>55</td>
<td>66.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TB 3, NW aisle, at SW</td>
</tr>
<tr>
<td>Open Mouthed Amphora</td>
<td>Sams 1994a: 285</td>
<td>P 2134</td>
<td>reconstructed vessel</td>
<td>light brown</td>
<td>medium-coarse</td>
<td>35</td>
<td>45</td>
<td>52</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TB 3, NW aisle, near N corner</td>
</tr>
</tbody>
</table>

Table 22. YHSS 6A TB 3 storage vessel inventory
<table>
<thead>
<tr>
<th>Type</th>
<th>Source</th>
<th>Inventory No.</th>
<th>Vessel Component</th>
<th>Ware</th>
<th>Fabric</th>
<th>WT (cm)</th>
<th>ERD (cm)</th>
<th>RD (cm)</th>
<th>GPD (cm)</th>
<th>Max D (cm)</th>
<th>GPH (cm)</th>
<th>H (cm)</th>
<th>Base D (cm)</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Krater</td>
<td>Sams 1994a: 290</td>
<td>P 2519</td>
<td>frag. base, body through upper neck, handle stub</td>
<td>pale brown-grey</td>
<td>coarse</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TB 4 anteroom</td>
</tr>
<tr>
<td>Narrow Necked Amphora (Shoulder Handle)</td>
<td>Sams 1994a: 285</td>
<td>P 5748a-b</td>
<td>2 fragments, with middle of vessel missing</td>
<td>red</td>
<td>coarse</td>
<td>1.3</td>
<td>39</td>
<td>0</td>
<td>71</td>
<td>75+</td>
<td></td>
<td></td>
<td></td>
<td>TB 4</td>
</tr>
<tr>
<td>Amphora/Storage Jar</td>
<td>Sams 1994a: 299</td>
<td>P 2473</td>
<td>body sherd</td>
<td>red/yellow</td>
<td>coarse</td>
<td>2.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TB 4</td>
</tr>
<tr>
<td>Amphora/Storage Jar</td>
<td>Sams 1994a: 299</td>
<td>P 2299</td>
<td>section of shoulder/lower neck sherd</td>
<td>light brown</td>
<td>medium-fine</td>
<td>0.7</td>
<td>27</td>
<td></td>
<td>7.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TB 4 anteroom</td>
</tr>
<tr>
<td>Open Mouthed Amphora</td>
<td>Sams 1994a: 288</td>
<td>P 2616</td>
<td>reconstructed vessel</td>
<td>grey</td>
<td>medium-coarse</td>
<td></td>
<td>0</td>
<td>26</td>
<td>0</td>
<td>26.8</td>
<td>0</td>
<td>31</td>
<td>TB 4 anteroom, SE side</td>
<td></td>
</tr>
<tr>
<td>Amphora/Storage Jar</td>
<td>Sams 1994a: 300</td>
<td>P 2210</td>
<td>shoulder frag.</td>
<td>coarse</td>
<td></td>
<td>1.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TB 4, N corner</td>
</tr>
<tr>
<td>Storage Jar/Pithos</td>
<td>Sams 1994a: 297</td>
<td>P 2281</td>
<td>reconstructed vessel</td>
<td>red</td>
<td>coarse</td>
<td>0</td>
<td>35.8</td>
<td>0</td>
<td>64</td>
<td>0</td>
<td>75</td>
<td></td>
<td></td>
<td>TB 4, NW aisle, NE of centre</td>
</tr>
<tr>
<td>Krater</td>
<td>Sams 1994a: 287</td>
<td>P 1846</td>
<td>reconstructed vessel</td>
<td>red</td>
<td>coarse</td>
<td>1.4</td>
<td>0</td>
<td>39</td>
<td>0</td>
<td>40.2</td>
<td>0</td>
<td>40-43</td>
<td>TB 4, SE aisle</td>
<td></td>
</tr>
</tbody>
</table>

Table 23. YHSS 6A TB 4 storage vessel inventory

<table>
<thead>
<tr>
<th>Type</th>
<th>Source</th>
<th>Inventory No.</th>
<th>Vessel Component</th>
<th>Ware</th>
<th>Fabric</th>
<th>WT (cm)</th>
<th>ERD (cm)</th>
<th>RD (cm)</th>
<th>GPD (cm)</th>
<th>Max D (cm)</th>
<th>GPH (cm)</th>
<th>H (cm)</th>
<th>Base D (cm)</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Mouthed Amphora</td>
<td>Sams 1994a: 285</td>
<td>P 4775</td>
<td>reconstructed vessel</td>
<td>tan</td>
<td>coarse</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
<td>46.5</td>
<td>48</td>
<td></td>
<td></td>
<td>TB5</td>
</tr>
<tr>
<td>Amphora/Storage Jar</td>
<td>Sams 1994a: 299</td>
<td>P 2331</td>
<td>shoulder/beginning of neck frag.</td>
<td>red</td>
<td>fine</td>
<td>0.7</td>
<td></td>
<td></td>
<td></td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td>TB5</td>
</tr>
<tr>
<td>Krater</td>
<td>Sams 1994a: 286</td>
<td>P 2558</td>
<td>reconstructed vessel</td>
<td>red</td>
<td>medium-fine</td>
<td>46.1</td>
<td></td>
<td></td>
<td></td>
<td>50.8</td>
<td>43-44</td>
<td></td>
<td></td>
<td>TB5 anteroom</td>
</tr>
</tbody>
</table>

Table 24. YHSS 6A TB 5 storage vessel inventory
<table>
<thead>
<tr>
<th>Type</th>
<th>Source</th>
<th>Inventor y No.</th>
<th>Vessel Component</th>
<th>Ware</th>
<th>Fabric</th>
<th>WT (cm)</th>
<th>ERD (cm)</th>
<th>RD (cm)</th>
<th>GPD (cm)</th>
<th>Max D (cm)</th>
<th>GPH (cm)</th>
<th>H (cm)</th>
<th>Base D (cm)</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Jar</td>
<td>Sams 1994a: 296</td>
<td>P 3102</td>
<td>lower body</td>
<td>red</td>
<td>coarse</td>
<td>19.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TB 6, NW aisle</td>
</tr>
<tr>
<td>Open Mouthed</td>
<td>(krateroid)</td>
<td>P 3121</td>
<td>reconstructed</td>
<td>red</td>
<td>medium-coarse</td>
<td>34.3</td>
<td>47.5</td>
<td>42.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TB6, along NW wall, near N corner</td>
</tr>
<tr>
<td>Krater</td>
<td>Sams 1994a: 286</td>
<td>P 4774</td>
<td>reconstructed</td>
<td>red-medium-yellow</td>
<td>coarse</td>
<td>39</td>
<td>47.3</td>
<td>48</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TB6, along SE wall, near E corner</td>
</tr>
</tbody>
</table>

Table 25. YHSS 6A TB 6 storage vessel inventory

<table>
<thead>
<tr>
<th>Type</th>
<th>Source</th>
<th>Inventor y No.</th>
<th>Vessel Component</th>
<th>Ware</th>
<th>Fabric</th>
<th>WT (cm)</th>
<th>ERD (cm)</th>
<th>RD (cm)</th>
<th>GPD (cm)</th>
<th>Max D (cm)</th>
<th>GPH (cm)</th>
<th>H (cm)</th>
<th>Base D (cm)</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Jar</td>
<td>Sams 1994a: 297</td>
<td>P 3277</td>
<td>sherd of shoulder and neck/rim</td>
<td>red</td>
<td>medium-coarse</td>
<td>46.5</td>
<td>17</td>
<td></td>
<td></td>
<td>TB 7, against SE wall, near S corner</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amphora/Storage Jar</td>
<td>Sams 1994a: 300</td>
<td>P 4669</td>
<td>shoulder sherd</td>
<td>red/brown</td>
<td>coarse</td>
<td>1.7</td>
<td>7.9</td>
<td></td>
<td></td>
<td>TB7 anteroom, against NE wall, adjacent to hearth in NE corner</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open Mouthed</td>
<td>Amphora</td>
<td>Sams 1994a: 288</td>
<td>reconstructed vessel</td>
<td>red</td>
<td>medium-fine</td>
<td>22</td>
<td>27.7</td>
<td>34.6</td>
<td></td>
<td>TB7, against NW wall</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Krater</td>
<td>Sams 1994a: 286</td>
<td>P 3321</td>
<td>upper body/neck/rim frag. w/ handle</td>
<td>red</td>
<td>medium-coarse</td>
<td>57.5</td>
<td>50</td>
<td></td>
<td></td>
<td>TB7, SE aisle</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Jar/Pithos</td>
<td>Unpublished</td>
<td>P 4206</td>
<td>fragments, rim sherd</td>
<td>buff</td>
<td>coarse</td>
<td>42</td>
<td></td>
<td></td>
<td></td>
<td>TB 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 26. YHSS 6A TB 7 storage vessel inventory
<table>
<thead>
<tr>
<th>Type</th>
<th>Source</th>
<th>Inventory No.</th>
<th>Vessel Component</th>
<th>Ware</th>
<th>Fabric</th>
<th>WT (cm)</th>
<th>ER D (cm)</th>
<th>RD (cm)</th>
<th>GP D (cm)</th>
<th>Max D (cm)</th>
<th>GP H (cm)</th>
<th>H (cm)</th>
<th>Base D (cm)</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Krater</td>
<td>Sams 1994a: 290</td>
<td>P 4001</td>
<td>frag. mid-body, shoulder, neck, one handle</td>
<td>mottled</td>
<td>coarse</td>
<td>43.3</td>
<td>33.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TB 8, steps in front</td>
</tr>
<tr>
<td>Krater</td>
<td>Sams 1994a: 290</td>
<td>P 4165, 4166</td>
<td>five frags. preserving section of shoulder, neck/rim</td>
<td>pink</td>
<td>coarse</td>
<td>30-33</td>
<td></td>
<td>9-12.5</td>
<td>31.5</td>
<td>38</td>
<td>13</td>
<td></td>
<td>TB 8, steps in front</td>
<td></td>
</tr>
<tr>
<td>Narrow Neck Amphora (Shoulder Handle)</td>
<td>Sams 1994a: 284</td>
<td>P 3782</td>
<td>reconstructed vessel</td>
<td>red</td>
<td>coarse</td>
<td>13.7</td>
<td>31.5</td>
<td>35</td>
<td>13.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TB8 anteroom, along NW wall</td>
</tr>
<tr>
<td>Krater</td>
<td>Sams 1994a: 290</td>
<td>P 3729</td>
<td>reconstructed vessel</td>
<td>buff</td>
<td>medium-fine</td>
<td>31.2</td>
<td>34.3</td>
<td>52</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TB8 anteroom, beside NE wall, NW of door</td>
<td></td>
</tr>
<tr>
<td>Narrow Neck Amphora (Neck Handle)</td>
<td>Sams 1994a: 283</td>
<td>P 3688</td>
<td>reconstructed vessel</td>
<td>red/yellow</td>
<td>coarse</td>
<td>19.5</td>
<td>42.7</td>
<td>64</td>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td>TB8 SE aisle</td>
<td></td>
</tr>
<tr>
<td>Narrow Neck Amphora (Neck Handle)</td>
<td>Sams 1994a: 284</td>
<td>P 3704</td>
<td>reconstructed vessel</td>
<td>red-dark red/yellow</td>
<td>coarse</td>
<td>10.5</td>
<td>42.5</td>
<td>61</td>
<td>14.5</td>
<td></td>
<td></td>
<td></td>
<td>TB8 W corner</td>
<td></td>
</tr>
<tr>
<td>Open Mouthed Amphora</td>
<td>Unpublished</td>
<td>P 4002</td>
<td>mostly intact</td>
<td>grey/buff</td>
<td>medium-fine</td>
<td>39.5</td>
<td>37.5</td>
<td>14.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TB 8 anteroom, E end of stair, outside</td>
<td></td>
</tr>
<tr>
<td>Storage Jar/pithos</td>
<td>Sams 1994a: 296</td>
<td>P 4099</td>
<td>reconstructed vessel</td>
<td>red</td>
<td>coarse</td>
<td>20.5</td>
<td>37</td>
<td>47.5</td>
<td>17.5</td>
<td></td>
<td></td>
<td>TB8, in corner b/w steps and front wall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open Mouthed Amphora</td>
<td>Sams 1994a: 285</td>
<td>P 4050</td>
<td>lower body missing</td>
<td>grey</td>
<td>coarse</td>
<td>36.3</td>
<td>57.2</td>
<td>52</td>
<td></td>
<td></td>
<td></td>
<td>TB8, steps in front, SE end</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 27. YHSS 6A TB 8 storage vessel inventory
Table 28. List of EIA locus descriptions at Çadır Höyük
<table>
<thead>
<tr>
<th>Year</th>
<th>Context</th>
<th>Priority</th>
<th>Number</th>
<th>Part</th>
<th>Form</th>
<th>WT (cm)</th>
<th>RD (cm)</th>
<th>Colour</th>
<th>Consistency, Inclusions</th>
<th>Surface, Decoration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>L.100</td>
<td>1</td>
<td>FCN8150</td>
<td>rim</td>
<td>amphora</td>
<td>0.8</td>
<td>10</td>
<td>5YR 6/8 reddish yellow</td>
<td>sparse medium quartz, dense small mica</td>
<td>smoothed interior</td>
</tr>
<tr>
<td>2006</td>
<td>L.101</td>
<td>1</td>
<td>FCN8412</td>
<td>neck/rim</td>
<td>amphora</td>
<td>0.8-1</td>
<td>12</td>
<td>5YR 5/8 yellowish red</td>
<td>small quartz, some mica, medium-fine</td>
<td>wheel finished</td>
</tr>
<tr>
<td>2006</td>
<td>L.101</td>
<td></td>
<td>FCN8412</td>
<td>neck/rim</td>
<td>amphora</td>
<td>0.8</td>
<td>11</td>
<td>5YR 6/8 reddish yellow</td>
<td>small quartz/grit/gold mica inclusions, coarse</td>
<td>smoothed exterior; wheel finished interior</td>
</tr>
<tr>
<td>2006</td>
<td>L.104</td>
<td>1</td>
<td>FCN8429</td>
<td>rim</td>
<td>torpedo jar</td>
<td>–</td>
<td>9</td>
<td>5YR 6/8 reddish yellow</td>
<td>small/large quartz/grit, large sparse mica</td>
<td>smoothed exterior, untreated interior</td>
</tr>
<tr>
<td>2013</td>
<td>L.223</td>
<td>1</td>
<td>FCN12134</td>
<td>rim</td>
<td>torpedo jar</td>
<td>1</td>
<td>10</td>
<td>5YR 5/8 yellowish red</td>
<td>large quartz/grit, medium-coarse</td>
<td>wheelmade</td>
</tr>
<tr>
<td>2013</td>
<td>L.226</td>
<td>1</td>
<td>FCN12425</td>
<td>rim</td>
<td>torpedo jar</td>
<td>0.9</td>
<td>11</td>
<td>5YR 5/8 yellowish red</td>
<td>small quartz/grit, some mica; medium-coarse</td>
<td>wheelmade</td>
</tr>
<tr>
<td>2013</td>
<td>L.226</td>
<td>1</td>
<td>FCN12437</td>
<td>rim</td>
<td>torpedo jar</td>
<td>1</td>
<td>11</td>
<td>5YR 5/6 yellowish red &gt; 5YR 5/1 grey (core)</td>
<td>small/medium quartz, some very small mica, medium coarse</td>
<td>wheel finished</td>
</tr>
<tr>
<td>2013</td>
<td>L.226</td>
<td>1</td>
<td>FCN12437</td>
<td>rim</td>
<td>torpedo jar</td>
<td>–</td>
<td>11</td>
<td>5YR 6/8 reddish yellow</td>
<td>small quartz/grit, medium mica; medium-fine</td>
<td>smoothed exterior; wheel finished interior</td>
</tr>
<tr>
<td>2013</td>
<td>L.227</td>
<td>1</td>
<td>FCN12434</td>
<td>rim</td>
<td>torpedo jar</td>
<td>0.8</td>
<td>9</td>
<td>7.5YR 6/6 reddish yellow (grey/brown core)</td>
<td>small quartz/grit, some mica; medium-coarse</td>
<td>burnished exterior, wheel finished interior</td>
</tr>
<tr>
<td>2013</td>
<td>L.227</td>
<td>1</td>
<td>FCN12434</td>
<td>rim</td>
<td>torpedo jar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>Context</td>
<td>Priority</td>
<td>Number</td>
<td>Part</td>
<td>Form</td>
<td>WT (cm)</td>
<td>RD (cm)</td>
<td>Colour</td>
<td>Consistency, Inclusions</td>
<td>Surface, Decoration</td>
</tr>
<tr>
<td>------</td>
<td>---------</td>
<td>----------</td>
<td>---------</td>
<td>-------------</td>
<td>--------------</td>
<td>---------</td>
<td>---------</td>
<td>-----------------</td>
<td>--------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>2013</td>
<td>L.227</td>
<td>1</td>
<td>FCN12434</td>
<td>rim</td>
<td>torpedo jar</td>
<td>0.7</td>
<td>6</td>
<td>7.5YR 6/4</td>
<td>small quartz/grit; medium-fine</td>
<td>too abraded on all sides to tell</td>
</tr>
<tr>
<td>2013</td>
<td>L.227</td>
<td>1</td>
<td>FCN12434</td>
<td>rim</td>
<td>torpedo jar</td>
<td>0.8</td>
<td>9 (est.)</td>
<td>7.5YR 6/4</td>
<td>small quartz/grit (less grit); medium-fine</td>
<td>too abraded on all sides to tell</td>
</tr>
<tr>
<td>2013</td>
<td>L.233</td>
<td>1</td>
<td>FCN12686</td>
<td>rim</td>
<td>torpedo jar</td>
<td>–</td>
<td>15</td>
<td>5YR 6/4 light reddish brown</td>
<td>medium quartz/grit, gold mica</td>
<td>?</td>
</tr>
<tr>
<td>2013</td>
<td>L.245</td>
<td>1</td>
<td>FCN13269</td>
<td>reconstructable</td>
<td>amphora/jar</td>
<td>varied</td>
<td></td>
<td>varied; e.g. 5YR 6/6 reddish yellow (neck sherd); 5YR 5/8 yellowish red (body middle sherd)</td>
<td>small quartz/grit/gold mica inclusions, medium fine</td>
<td>smoothed exterior, untreated interior</td>
</tr>
<tr>
<td>2013</td>
<td>L.253</td>
<td>1</td>
<td>FCN13326</td>
<td>rim</td>
<td>torpedo jar</td>
<td>1.1</td>
<td>11</td>
<td>2.5YR 6/8 red</td>
<td>small quartz/grit/mica inclusions, medium-coarse</td>
<td>smoothed exterior, untreated interior; burnished lip and some of neck</td>
</tr>
<tr>
<td>2013</td>
<td>L.268</td>
<td>1</td>
<td>FCN13398</td>
<td>rim</td>
<td>torpedo jar</td>
<td>0.6</td>
<td>11</td>
<td>orange &gt; grey</td>
<td>medium/large quartz, some grit, coarse</td>
<td>wheel finished</td>
</tr>
<tr>
<td>2014</td>
<td>L.271</td>
<td>2</td>
<td>FCN14356</td>
<td>rim</td>
<td>torpedo jar</td>
<td>1</td>
<td>11.5</td>
<td>5YR 6/6 reddish yellow</td>
<td>medium quartz/grit, some grog, medium coarse</td>
<td>wheel finished</td>
</tr>
<tr>
<td>2014</td>
<td>L.290</td>
<td></td>
<td>FCN15511</td>
<td>rim</td>
<td>torpedo jar</td>
<td>1</td>
<td>11</td>
<td>5YR 7/8 reddish yellow</td>
<td>medium quartz/grit, medium coarse</td>
<td>wheelmade</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Year</th>
<th>Context</th>
<th>Priority</th>
<th>Number</th>
<th>Part</th>
<th>Form</th>
<th>WT (cm)</th>
<th>RD (cm)</th>
<th>Colour</th>
<th>Consistency, Inclusions</th>
<th>Surface, Decoration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>L.304</td>
<td>1</td>
<td>FCN15741</td>
<td>rim/neck</td>
<td>torpedo jar</td>
<td>varied</td>
<td>9</td>
<td>5YR 6/8 reddish yellow</td>
<td>small quartz/grit, some mica; medium-coarse</td>
<td>wheel finished, burnished exterior</td>
</tr>
<tr>
<td>2015</td>
<td>L.304</td>
<td>1</td>
<td>FCN15741</td>
<td>rim</td>
<td>torpedo jar</td>
<td>9</td>
<td>110</td>
<td>5YR 6/8 reddish yellow</td>
<td>small quartz/grit, some mica flecks; medium-coarse</td>
<td></td>
</tr>
</tbody>
</table>

Table 29. Çadr Höyük EIA torpedo jar inventory, USS 4
<table>
<thead>
<tr>
<th>Year</th>
<th>Context</th>
<th>Priority</th>
<th>Number</th>
<th>Part</th>
<th>Form</th>
<th>WT (cm)</th>
<th>RD (cm)</th>
<th>Colour</th>
<th>Consistency, Inclusions</th>
<th>Surface, Decoration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>L.217</td>
<td>1</td>
<td>FCN1214 6</td>
<td>rim</td>
<td>holemouth jar</td>
<td>0.8</td>
<td>32</td>
<td>5YR 6/6 reddish yellow; 5YR 6/4 light reddish brown (core)</td>
<td>small quartz, scattered mica, medium fine</td>
<td>wheelmade</td>
</tr>
<tr>
<td>2013</td>
<td>L.217</td>
<td>1</td>
<td>FCN1214 6</td>
<td>rim</td>
<td>open mouth jar</td>
<td>1.1</td>
<td>36</td>
<td>5YR 6/8 reddish yellow</td>
<td>odd large quartz, medium fine</td>
<td>wheelmade</td>
</tr>
<tr>
<td>2013</td>
<td>L.227</td>
<td>1</td>
<td>FCN1243 4</td>
<td>rim</td>
<td>open mouth jar</td>
<td>0.8</td>
<td>50</td>
<td>5YR 6/6 reddish yellow</td>
<td>small/medium quartz/grit, some mica, medium coarse</td>
<td>wheel finished</td>
</tr>
<tr>
<td>2013</td>
<td>L.233</td>
<td>1</td>
<td>FCN1292 2</td>
<td>rim</td>
<td>open mouth jar</td>
<td>1.3</td>
<td>40</td>
<td>5YR 6/8 reddish yellow</td>
<td>medium quartz/grit, medium coarse</td>
<td>smoothed exterior/interior</td>
</tr>
<tr>
<td>2013</td>
<td>L.250</td>
<td>1</td>
<td>FCN1334 4</td>
<td>rim</td>
<td>open mouth jar</td>
<td>1.4-1.8</td>
<td>55</td>
<td>2.5YR 6/8 red</td>
<td>small/medium quartz inclusions; small gold mica (sparse), visible also on exterior - medium fine</td>
<td>burnished exterior, untreated interior</td>
</tr>
<tr>
<td>2013</td>
<td>L.253</td>
<td>1</td>
<td>FCN1332 6</td>
<td>rim</td>
<td>holemouth jar</td>
<td>0.9</td>
<td>33</td>
<td>5YR 5/6 yellowish red</td>
<td>large quartz/grit, coarse</td>
<td>smoothed exterior/interior</td>
</tr>
</tbody>
</table>

Table 30. Çadır Höyük EIA open mouth and holemouth jar inventory, USS 4
<table>
<thead>
<tr>
<th>Year</th>
<th>Context</th>
<th>Priority</th>
<th>Number</th>
<th>Part</th>
<th>WT (cm)</th>
<th>RD (cm)</th>
<th>Colour</th>
<th>Fabric</th>
<th>Surface, Decoration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>L.101</td>
<td>1</td>
<td>FCN8142</td>
<td>rim</td>
<td>1.6</td>
<td>52</td>
<td>varied - grey outer, red inner</td>
<td>medium/large quartz, large grit - coarse</td>
<td>smoothed interior/exterior</td>
</tr>
<tr>
<td>2006</td>
<td>L.105</td>
<td>1</td>
<td>FCN8433</td>
<td>rim</td>
<td>1.1</td>
<td>29</td>
<td>7.5YR 5/8 strong brown</td>
<td>large-sparse quartz, some mica, medium coarse</td>
<td>linear burnish streak decoration</td>
</tr>
<tr>
<td>2013</td>
<td>L.210</td>
<td>2</td>
<td>FCN11812</td>
<td>rim</td>
<td>too broken</td>
<td>60 (est.)</td>
<td>varied</td>
<td>small quartz/mica</td>
<td>slipped exterior</td>
</tr>
<tr>
<td>2013</td>
<td>L.214</td>
<td>?</td>
<td>FCN11839</td>
<td>rim</td>
<td>too broken</td>
<td>42</td>
<td>5YR 3/1 very dark grey</td>
<td>small/medium quartz, some mica, coarse</td>
<td>smoothed exterior/interior</td>
</tr>
<tr>
<td>2013</td>
<td>L.227</td>
<td>1</td>
<td>FCN12434</td>
<td>rim</td>
<td>1</td>
<td>33 (est.)</td>
<td>5YR 5/8 yellowish red</td>
<td>small quartz/grit/gold mica inclusions, coarse</td>
<td>smoothed exterior; interior ? 2 ribs running parallel with rim</td>
</tr>
<tr>
<td>2013</td>
<td>L.233</td>
<td>1</td>
<td>FCN12923</td>
<td>rim</td>
<td>too broken</td>
<td>52</td>
<td>5YR 7/8 reddish yellow</td>
<td>small/medium quartz inclusions, medium mica (sparse); medium-fine</td>
<td>wheelmade</td>
</tr>
<tr>
<td>2013</td>
<td>L.233</td>
<td>1</td>
<td>FCN12683</td>
<td>rim</td>
<td>too broken</td>
<td>50</td>
<td>7.5YR 6/4</td>
<td>medium quartz, sparse mica flecks; fine paste</td>
<td>wheelmade</td>
</tr>
<tr>
<td>2013</td>
<td>L.245</td>
<td>1</td>
<td>FCN13266</td>
<td>rim</td>
<td>1.1</td>
<td>34</td>
<td>5YR 5/8 yellowish red</td>
<td>small quartz/grit, medium coarse</td>
<td>wheelmade</td>
</tr>
<tr>
<td>2013</td>
<td>L.245</td>
<td>1</td>
<td>FCN13266</td>
<td>rim</td>
<td>1.1</td>
<td>44</td>
<td>5YR 5/8 yellowish red</td>
<td>small quartz/grit, medium coarse</td>
<td>wheelmade</td>
</tr>
<tr>
<td>2013</td>
<td>L.245</td>
<td>1</td>
<td>FCN13269</td>
<td>rim</td>
<td>too broken</td>
<td>40 (est.)</td>
<td>5YR 5/4</td>
<td>small/medium quartz/grit, fine paste; medium-coarse</td>
<td>wheelmade</td>
</tr>
<tr>
<td>2013</td>
<td>L.254</td>
<td>1</td>
<td>FCN13320</td>
<td>rim</td>
<td>1.3</td>
<td>40 (est.)</td>
<td>5YR 5/4 reddish brown</td>
<td>medium quartz, some mica, medium-coarse</td>
<td>wheelmade</td>
</tr>
<tr>
<td>2013</td>
<td>L.262</td>
<td>1</td>
<td>FCN13731</td>
<td>rim w/ handle stub</td>
<td>1.6</td>
<td>45</td>
<td>5YR 4/4 reddish brown</td>
<td>small/medium quartz inclusions; sparse gold mica - medium coarse</td>
<td>untreated interior/exterior</td>
</tr>
<tr>
<td>Year</td>
<td>Context</td>
<td>Priority</td>
<td>Number</td>
<td>Part</td>
<td>WT (cm)</td>
<td>RD (cm)</td>
<td>Colour</td>
<td>Fabric</td>
<td>Surface, Decoration</td>
</tr>
<tr>
<td>------</td>
<td>---------</td>
<td>----------</td>
<td>----------</td>
<td>------</td>
<td>---------</td>
<td>---------</td>
<td>-------------------------</td>
<td>-------------------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>2013</td>
<td>L.263</td>
<td>3</td>
<td>FCN13244</td>
<td>rim</td>
<td>1</td>
<td>42</td>
<td>orange &gt; grey</td>
<td>small quartz, medium coarse</td>
<td>burnished exterior, wheelmade</td>
</tr>
<tr>
<td>2014</td>
<td>L.272</td>
<td>2</td>
<td>FCN14211</td>
<td>rim</td>
<td>0.7</td>
<td>30</td>
<td>5YR 5/6 yellowish red</td>
<td>small quartz/grit, medium fine</td>
<td>burnished exterior</td>
</tr>
<tr>
<td>2014</td>
<td>L.278</td>
<td>2</td>
<td>FCN14370</td>
<td>rim</td>
<td>1.2</td>
<td>46</td>
<td>10YR 5/4 yellowish brown, other colours as well</td>
<td>small grit, odd quartz, coarse</td>
<td>traces of burnish on rim</td>
</tr>
<tr>
<td>2014</td>
<td>L.281</td>
<td>2</td>
<td>FCN14390</td>
<td>rim</td>
<td>1.7</td>
<td>54</td>
<td>5YR 5/8 yellowish red</td>
<td>medium quartz/grit, some mica, coarse</td>
<td>light burnish on exterior</td>
</tr>
</tbody>
</table>

Table 31. Çadır Höyük EIA pithos inventory, USS 4
Table 32. List of EIA-MIA locus descriptions at Çadır Höyük
<table>
<thead>
<tr>
<th>Year</th>
<th>Context</th>
<th>Priority</th>
<th>Number</th>
<th>Part, Type</th>
<th>WT (cm)</th>
<th>RD (cm)</th>
<th>Colour</th>
<th>Consistency, Inclusions</th>
<th>Surface, Decoration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>L.168</td>
<td>2</td>
<td>FCN9827</td>
<td>rim</td>
<td>1</td>
<td>8</td>
<td>5YR 5/8 yellowish red</td>
<td>small quartz, medium-coarse</td>
<td>smoothed exterior</td>
</tr>
<tr>
<td>2012</td>
<td>L.168</td>
<td>2</td>
<td>FCN9950</td>
<td>rim</td>
<td>0.8</td>
<td>11.5</td>
<td>5YR 5/8 yellowish red</td>
<td>medium (sparse) quartz/grit, coarse</td>
<td>smoothed exterior</td>
</tr>
<tr>
<td>2012</td>
<td>L.185</td>
<td>1</td>
<td>FCN10617</td>
<td>rim</td>
<td>0.9</td>
<td>60</td>
<td>5YR 6/8 reddish yellow</td>
<td>medium quartz/grit, medium-coarse</td>
<td>smoothed exterior</td>
</tr>
<tr>
<td>2012</td>
<td>L.188</td>
<td>1</td>
<td>FCN10624</td>
<td>rim</td>
<td>1.2</td>
<td>11</td>
<td>5YR 6/8 reddish yellow</td>
<td>sparse medium quartz, plentiful mica, medium-coarse</td>
<td>smoothed exterior</td>
</tr>
<tr>
<td>2012</td>
<td>L.188</td>
<td>1</td>
<td>FCN10624</td>
<td>rim</td>
<td>0.7</td>
<td>9</td>
<td>5YR 6/6 reddish yellow</td>
<td>sparse small quartz, some mica, medium-fine</td>
<td>smoothed exterior</td>
</tr>
<tr>
<td>2012</td>
<td>L.207</td>
<td>1</td>
<td>FCN11433</td>
<td>rim</td>
<td>0.8</td>
<td>9.5</td>
<td>7.5YR 6/6 reddish yellow</td>
<td>small quartz/grit, medium fine</td>
<td>smoothed exterior</td>
</tr>
</tbody>
</table>

Table 33. Çadır Höyük EIA-MIA torpedo jar inventory, USS 4
<table>
<thead>
<tr>
<th>Year</th>
<th>Context</th>
<th>Priority</th>
<th>Number</th>
<th>Part, Type</th>
<th>Form</th>
<th>WT (cm)</th>
<th>RD (cm)</th>
<th>Colour</th>
<th>Consistency, Inclusions</th>
<th>Surface, Decoration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>L.130</td>
<td>2</td>
<td>FCN11137</td>
<td>rim</td>
<td>open mouth jar</td>
<td>1.4</td>
<td>32?</td>
<td>5YR 6/6 reddish yellow</td>
<td>medium quartz/grit, some gold mica, medium-coarse</td>
<td>wheel made</td>
</tr>
<tr>
<td>2012</td>
<td>L.173</td>
<td>2</td>
<td>FCN9973</td>
<td>rim</td>
<td>holemouth jar</td>
<td>0.8</td>
<td>34</td>
<td>5YR 5/6 yellowish red</td>
<td>small quartz/grit, coarse</td>
<td>wheel finished</td>
</tr>
<tr>
<td>2012</td>
<td>L.183</td>
<td>1</td>
<td>FCN10602</td>
<td>rim</td>
<td>open mouth jar</td>
<td>–</td>
<td>30</td>
<td>2.5YR 6/8</td>
<td>small quartz, fine mica; fine</td>
<td>plain, wheelmade</td>
</tr>
<tr>
<td>2012</td>
<td>L.186</td>
<td>2</td>
<td>FCN10635</td>
<td>rim</td>
<td>holemouth jar</td>
<td>1</td>
<td>30</td>
<td>5YR 4/3 reddish brown</td>
<td>medium quartz/grit, coarse</td>
<td>wheelmade</td>
</tr>
<tr>
<td>2012</td>
<td>L.188</td>
<td>2</td>
<td>FCN10643</td>
<td>rim</td>
<td>open mouth jar</td>
<td>1.1</td>
<td>44</td>
<td>7.5YR 6/6 reddish yellow</td>
<td>medium quartz/grit, mica, medium-coarse</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>L.196</td>
<td>2</td>
<td>FCN11102</td>
<td>rim</td>
<td>open mouth jar</td>
<td>0.8-1</td>
<td>38</td>
<td>5YR 5/6 reddish yellow</td>
<td>small to large quartz, small sparse mica</td>
<td>smoothed exterior/interior</td>
</tr>
<tr>
<td>2012</td>
<td>L.200</td>
<td>1</td>
<td>FCN14221</td>
<td>rim</td>
<td>open mouth jar</td>
<td>too broken</td>
<td>too broken</td>
<td>5YR 5/6 yellowish red</td>
<td>small quartz, medium fine</td>
<td>wheelmade</td>
</tr>
</tbody>
</table>

Table 34. Çadır Höyük EIA-MIA open mouth and holemouth jar inventory, USS 4
<table>
<thead>
<tr>
<th>Year</th>
<th>Context</th>
<th>Priority</th>
<th>Number</th>
<th>Part</th>
<th>WT (cm)</th>
<th>RD (cm)</th>
<th>Colour</th>
<th>Fabric</th>
<th>Surface, Decoration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>L.245</td>
<td>1</td>
<td>FCN13269</td>
<td>rim</td>
<td>too broken</td>
<td>40 (est.)</td>
<td>5YR 5/4</td>
<td>small/medium quartz/grit, fine paste; medium-coarse</td>
<td>wheelmade</td>
</tr>
<tr>
<td>2013</td>
<td>L.254</td>
<td>1</td>
<td>FCN13320</td>
<td>rim</td>
<td>1.3</td>
<td>40 (est.)</td>
<td>5YR 5/4 reddish brown</td>
<td>medium quartz, some mica, medium-coarse</td>
<td>wheelmade</td>
</tr>
<tr>
<td>2013</td>
<td>L.262</td>
<td>1</td>
<td>FCN13731</td>
<td>rim w/ handle stub</td>
<td>1.6</td>
<td>45</td>
<td>5YR 4/4 reddish brown</td>
<td>small/medium quartz inclusions; sparse gold mica - medium coarse</td>
<td>untreated interior/exterior</td>
</tr>
<tr>
<td>2013</td>
<td>L.263</td>
<td>3</td>
<td>FCN13244</td>
<td>rim</td>
<td>1</td>
<td>42</td>
<td>orange &gt; grey</td>
<td>small quartz, medium coarse</td>
<td>burnished exterior, wheelmade</td>
</tr>
<tr>
<td>2014</td>
<td>L.272</td>
<td>2</td>
<td>FCN14211</td>
<td>rim</td>
<td>0.7</td>
<td>30</td>
<td>5YR 5/6 yellowish red</td>
<td>small quartz/grit, medium fine</td>
<td>burnished exterior</td>
</tr>
<tr>
<td>2014</td>
<td>L.278</td>
<td>2</td>
<td>FCN14370</td>
<td>rim</td>
<td>1.2</td>
<td>46</td>
<td>10YR 5/4 yellowish brown, other colours as well</td>
<td>small grit, odd quartz, coarse</td>
<td>traces of burnish on rim</td>
</tr>
<tr>
<td>2014</td>
<td>L.281</td>
<td>2</td>
<td>FCN14390</td>
<td>rim</td>
<td>1.7</td>
<td>54</td>
<td>5YR 5/8 yellowish red</td>
<td>medium quartz/grit, some mica, coarse</td>
<td>light burnish on exterior</td>
</tr>
</tbody>
</table>

Table 35. Çadır Höyük EIA-MIA pithos inventory, USS 4
<table>
<thead>
<tr>
<th>Year</th>
<th>Context</th>
<th>Priority</th>
<th>Number</th>
<th>Part, Type</th>
<th>WT (cm)</th>
<th>RD (cm)</th>
<th>Colour</th>
<th>Consistency, Inclusions</th>
<th>Surface, Decoration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>L.67</td>
<td>?</td>
<td>FCN8126</td>
<td>rim</td>
<td>0.8</td>
<td>11</td>
<td>10R 5/8 red</td>
<td>large quartz/grit, some mica, well sorted, coarse</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>wheel finished exterior/interior</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>L.78</td>
<td>2</td>
<td>FCN7869</td>
<td>rim</td>
<td>0.7</td>
<td>11</td>
<td>5YR 6/8 reddish yellow</td>
<td>small quartz, some grit, medium coarse</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>slipped exterior/interior</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>L.81</td>
<td>?</td>
<td>FCN8051</td>
<td>rim</td>
<td>0.9</td>
<td>11</td>
<td>5YR 6/6 reddish yellow</td>
<td>medium quartz/grit, small gold mica flecks, medium coarse</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>smoothed exterior/interior</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>L.141</td>
<td>1</td>
<td>FCN9328</td>
<td>rim</td>
<td>0.8</td>
<td>6.5</td>
<td>7.5YR 6/3 light brown</td>
<td>sparse medium quartz,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>smoothed exterior</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>L.147</td>
<td>1</td>
<td>FCN9604</td>
<td>rim</td>
<td>0.9</td>
<td>13</td>
<td>5YR 6/6 reddish yellow</td>
<td>medium quartz/grit, medium coarse</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>smoothed exterior/interior</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>L.151</td>
<td>1</td>
<td>FCN9644</td>
<td>rim</td>
<td>0.9</td>
<td>13</td>
<td>5YR 6/8 reddish yellow</td>
<td>medium/large quartz/grit, coarse</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>smoothed exterior</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>L.163</td>
<td>1</td>
<td>FCN9809</td>
<td>rim</td>
<td>1.3</td>
<td>11.5</td>
<td>5YR 6/8 reddish yellow</td>
<td>medium/large quartz/grit, coarse</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>wheel finished exterior/interior</td>
<td></td>
</tr>
</tbody>
</table>

Table 36. Çadır Höyük MIA torpedo jar inventory, USS 4
<table>
<thead>
<tr>
<th>Year</th>
<th>Context</th>
<th>Priority</th>
<th>Number</th>
<th>Part, Type</th>
<th>Form</th>
<th>WT (cm)</th>
<th>RD (cm)</th>
<th>Colour</th>
<th>Consistency, Inclusions</th>
<th>Surface, Decoration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>L.56</td>
<td>2</td>
<td>FCN7344</td>
<td>rim</td>
<td>open mouth jar</td>
<td>0.7</td>
<td>26</td>
<td>7.5YR 6/6 reddish yellow</td>
<td>sparse medium quartz, medium-coarse</td>
<td>wheel finished exterior/interior</td>
</tr>
<tr>
<td>2006</td>
<td>L.78</td>
<td>2</td>
<td>FCN7869</td>
<td>rim</td>
<td>open mouth jar</td>
<td>1.2</td>
<td>42</td>
<td>5YR 4/1 dark grey</td>
<td>medium grit, some quartz, coarse</td>
<td>smoothed exterior/interior</td>
</tr>
<tr>
<td>2006</td>
<td>L.87</td>
<td>1</td>
<td>FCN8083</td>
<td>rim</td>
<td>holemouth jar</td>
<td>36</td>
<td></td>
<td>5YR 5/6 yellowish red</td>
<td>large sparse quartz, coarse</td>
<td>wheel finished exterior/interior</td>
</tr>
<tr>
<td>2006</td>
<td>L.87</td>
<td>?</td>
<td>FCN8083</td>
<td>rim</td>
<td>open mouth jar</td>
<td>1.7</td>
<td>60+</td>
<td>variable - grey, yellow, orange</td>
<td>large sparse quartz, coarse</td>
<td>smoothed exterior/interior</td>
</tr>
<tr>
<td>2008</td>
<td>L.132</td>
<td>1</td>
<td>FCN9188</td>
<td>rim</td>
<td>holemouth jar</td>
<td>1.4</td>
<td>42</td>
<td>7.5YR 6/4 light brown</td>
<td>chaff, medium-large quartz/grit, dispersed flecks of gold mica, well sorted</td>
<td>smoothed exterior/interior</td>
</tr>
<tr>
<td>2009</td>
<td>L.139</td>
<td>1</td>
<td>FCN9315</td>
<td>rim</td>
<td>holemouth jar</td>
<td>–</td>
<td>51</td>
<td>7.5YR 5/8 strong brown</td>
<td>medium quartz/grit, some gold mica, well-sorted, coarse</td>
<td>smoothed exterior/interior</td>
</tr>
<tr>
<td>2009</td>
<td>L.147</td>
<td>1</td>
<td>FCN9604</td>
<td>rim</td>
<td>holemouth jar</td>
<td>0.8</td>
<td>38</td>
<td>5YR 4/4 reddish brown</td>
<td>small quartz/grit, grog, some mica, medium-coarse</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>L.164</td>
<td>1</td>
<td>FCN9806</td>
<td>rim</td>
<td>open mouth jar</td>
<td>1.5</td>
<td>38</td>
<td>5YR 6/3 light reddish brown</td>
<td>medium/large grit, coarse</td>
<td>smoothed exterior/interior</td>
</tr>
</tbody>
</table>

Table 37. Çadır Höyük MIA open mouth and holemouth jar inventory, USS 4
<table>
<thead>
<tr>
<th>Year</th>
<th>Context</th>
<th>Priority</th>
<th>Number</th>
<th>Part, Type</th>
<th>WT (cm)</th>
<th>RD (cm)</th>
<th>Colour</th>
<th>Consistency, Inclusions</th>
<th>Surface, Decoration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>L.56</td>
<td>?</td>
<td>FCN7335</td>
<td>rim</td>
<td>1.2</td>
<td>40</td>
<td>5YR 5/8 yellowish red</td>
<td>medium quartz/grit, some grog, coarse</td>
<td>smoothed exterior/interior</td>
</tr>
<tr>
<td>2005</td>
<td>L.70</td>
<td>1</td>
<td>FCN7527</td>
<td>rim</td>
<td>too broken</td>
<td>36</td>
<td>7.5YR 8/6 reddish yellow</td>
<td>large quartz, some chaff, coarse</td>
<td>smoothed exterior</td>
</tr>
<tr>
<td>2006</td>
<td>L.78</td>
<td>2</td>
<td>FCN7869</td>
<td>rim</td>
<td>1.2</td>
<td>42</td>
<td>5YR 4/1 dark grey</td>
<td>medium grit, some quartz, coarse</td>
<td>smoothed exterior/interior</td>
</tr>
<tr>
<td>2006</td>
<td>L.80</td>
<td>2</td>
<td>FCN8730</td>
<td>rim</td>
<td>2.9</td>
<td>60+</td>
<td>7.5YR 6/6 reddish yellow</td>
<td>medium/large quartz/grit, coarse</td>
<td>smoothed exterior, some degree of polish</td>
</tr>
<tr>
<td>2006</td>
<td>L.85</td>
<td>1</td>
<td>FCN8070</td>
<td>rim</td>
<td>–</td>
<td>51</td>
<td>5YR 5/8 yellowish red</td>
<td>large grit/grog, coarse</td>
<td>smoothed exterior/interior</td>
</tr>
<tr>
<td>2008</td>
<td>L.128</td>
<td>1</td>
<td>FCN11125</td>
<td>rim</td>
<td>0.9</td>
<td>30</td>
<td>5YR 5/8 yellowish red</td>
<td>medium/large quartz, some grit, coarse</td>
<td>wheel made</td>
</tr>
<tr>
<td>2009</td>
<td>L.144</td>
<td>1</td>
<td>FCN9342</td>
<td>rim</td>
<td>0.7</td>
<td>38</td>
<td>7.5YR 5/4 brown</td>
<td>large quartz/grit, coarse</td>
<td>smoothed exterior/interior</td>
</tr>
<tr>
<td>2009</td>
<td>L.144</td>
<td>1</td>
<td>FCN9342</td>
<td>rim</td>
<td>–</td>
<td>60+</td>
<td>5YR 5/6 yellowish red</td>
<td>medium quartz/grit, medium coarse</td>
<td>smoothed exterior/interior, some burnish streaks on inner lip</td>
</tr>
<tr>
<td>2009</td>
<td>L.151</td>
<td>?</td>
<td>FCN9582</td>
<td>rim</td>
<td>1.7</td>
<td>60+</td>
<td>7.5YR 6/4 light brown</td>
<td>odd large quartz/grit, medium fine</td>
<td>slipped exterior, top of rim</td>
</tr>
<tr>
<td>2009</td>
<td>L.162</td>
<td>3</td>
<td>FCN9778</td>
<td>rim</td>
<td>too broken</td>
<td>60+</td>
<td>2.5YR 6/8 red</td>
<td>medium quartz/grit, coarse</td>
<td>smoothed exterior</td>
</tr>
</tbody>
</table>

Table 38. Çadir Höyük MIA pithos inventory, USS 4
<table>
<thead>
<tr>
<th>Trench</th>
<th>Year</th>
<th>Context</th>
<th>Date</th>
<th>Priority</th>
<th>Number</th>
<th>Part, Type</th>
<th>WT (cm)</th>
<th>RD (cm)</th>
<th>Colour</th>
<th>Consistency, Inclusions</th>
<th>Surface, Decoration</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>1993</td>
<td>Survey</td>
<td>MIA</td>
<td>?</td>
<td>?</td>
<td>rim</td>
<td>31.5</td>
<td></td>
<td>brown/red</td>
<td>medium grit, mica, medium coarse</td>
<td>wheelmade, black/brown paint</td>
</tr>
<tr>
<td>LSS 5</td>
<td>1999</td>
<td></td>
<td>MIA</td>
<td>?</td>
<td>?</td>
<td>rim</td>
<td>28.5</td>
<td></td>
<td>brown/red, grey core</td>
<td>medium grit, medium coarse</td>
<td>wheelmade, red/brown to black/brown paint</td>
</tr>
<tr>
<td>USS 4</td>
<td>2005</td>
<td>L.45</td>
<td>MIA</td>
<td>?</td>
<td>?</td>
<td>rim</td>
<td>1.1</td>
<td>50</td>
<td>orange</td>
<td>small grit, medium coarse</td>
<td></td>
</tr>
<tr>
<td>USS 4</td>
<td>2006</td>
<td>L.62</td>
<td>MIA</td>
<td>2</td>
<td></td>
<td>rim</td>
<td>1.1</td>
<td>34</td>
<td>brown/red</td>
<td>medium-large grit, coarse</td>
<td>smoothed/burnished exterior</td>
</tr>
<tr>
<td>USS 4</td>
<td>2006</td>
<td>L.75</td>
<td>LIA</td>
<td>3</td>
<td>FCN7697</td>
<td>rim</td>
<td>0.9</td>
<td>46</td>
<td>7.5YR 6/6 reddish yellow</td>
<td>medium quartz/grit, some grog/mica, medium-coarse</td>
<td>smoothed exterior/interior</td>
</tr>
<tr>
<td>USS 4</td>
<td>2006</td>
<td>L.81</td>
<td>MIA</td>
<td>1</td>
<td>FCN7895</td>
<td>rim</td>
<td>1.3</td>
<td>46</td>
<td>7.5YR 6/4 light brown</td>
<td>medium quartz/grit, some grog, medium-coarse</td>
<td>wheel finished; red painted linear decoration</td>
</tr>
<tr>
<td>USS 4</td>
<td>2008</td>
<td>L.121</td>
<td>LIA</td>
<td>1</td>
<td>FCN1087</td>
<td>rim</td>
<td>1.1</td>
<td>48</td>
<td>7.5YR 6/4 light brown</td>
<td>odd large quartz, medium coarse</td>
<td>wheel finished</td>
</tr>
</tbody>
</table>

Table 39. Çadır Höyük MIA krater inventory, USS 4
## FIGURES

<table>
<thead>
<tr>
<th>Period</th>
<th>Chronology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ottoman</td>
<td>ca. 1400-1922 CE</td>
</tr>
<tr>
<td>Seljuk</td>
<td>ca. 1100-1400 CE</td>
</tr>
<tr>
<td>Late Byzantine</td>
<td>ca. 1100-1453 CE</td>
</tr>
<tr>
<td>Middle Byzantine</td>
<td>ca. 700-1100 CE</td>
</tr>
<tr>
<td>Early Byzantine</td>
<td>ca. 400-700 CE</td>
</tr>
<tr>
<td>Roman</td>
<td>ca. 30 BCE-400 CE</td>
</tr>
<tr>
<td>Hellenistic</td>
<td>ca. 330-30 BCE</td>
</tr>
<tr>
<td>Late Iron Age (LIA)</td>
<td>ca. 550-300 BCE</td>
</tr>
<tr>
<td>Middle Iron Age (MIA)</td>
<td>ca. 950-550 BCE</td>
</tr>
<tr>
<td>Early Iron Age (EIA)</td>
<td>ca. 1200/1180-950 BCE</td>
</tr>
<tr>
<td>Late Bronze Age (LBA)</td>
<td>ca. 1650-1200/1180 BCE</td>
</tr>
<tr>
<td>Middle Bronze Age (MBA)</td>
<td>ca. 2000-1650 BCE</td>
</tr>
<tr>
<td>Early Bronze Age (EBA) III</td>
<td>ca. 2300-2000 BCE</td>
</tr>
<tr>
<td>Early Bronze Age (EBA) II</td>
<td>ca. 2800-2300 BCE</td>
</tr>
<tr>
<td>Early Bronze Age (EBA) I</td>
<td>ca. 3100-2800 BCE</td>
</tr>
<tr>
<td>Late Chalcolithic</td>
<td>ca. 4500-3100 BCE</td>
</tr>
<tr>
<td>Middle Chalcolithic</td>
<td>ca. 5500-4500 BCE</td>
</tr>
</tbody>
</table>

Fig.1.1. Conventional periodization in Anatolia (adapted from Sagona & Zimansky 2009)
Fig. 1.2. Map of Anatolia with key cultural and political entities and sites ca. 1200-550 BCE. Italic small caps indicate cultural entities without seeming political cohesion (author’s drawing)
Fig. 1.3. Map of Anatolia with key geographical and hydrological features (author’s drawing)
Fig. 2.1. Anatolian geography in the LBA, ca. 13th century BCE (author's drawing)
<table>
<thead>
<tr>
<th>Ruler</th>
<th>Middle Chronology (BCE)</th>
<th>Low Chronology (BCE)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Old Hittite Period</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hattušili I</td>
<td>1650-1620</td>
<td>1570-1540</td>
</tr>
<tr>
<td>Muršili I</td>
<td>1620-1590</td>
<td>1540-1530</td>
</tr>
<tr>
<td>Hantili I</td>
<td>1590-1560</td>
<td>1530-1500</td>
</tr>
<tr>
<td>Zidanta I</td>
<td>1560-1550</td>
<td>1500-1490</td>
</tr>
<tr>
<td>Ammuna</td>
<td>1550-1530</td>
<td>1490-1470</td>
</tr>
<tr>
<td>Huzziya</td>
<td>1530-1525</td>
<td>1760-1465</td>
</tr>
<tr>
<td>Telipinu</td>
<td>1525-1500</td>
<td>1465-1440</td>
</tr>
<tr>
<td><strong>Middle Hittite Period</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tahurwaili</td>
<td>1500-?</td>
<td>1440-1430</td>
</tr>
<tr>
<td>Alluwamna</td>
<td>?</td>
<td>1440-1430</td>
</tr>
<tr>
<td>Hantili II</td>
<td>?</td>
<td>1430-1420</td>
</tr>
<tr>
<td>Zidanta II</td>
<td>?</td>
<td>1420-1410</td>
</tr>
<tr>
<td>Huzziya II</td>
<td>?</td>
<td>1410-1400</td>
</tr>
<tr>
<td>Muwatalli I</td>
<td>1450-?</td>
<td>1400-</td>
</tr>
<tr>
<td>Tudhaliya I/II</td>
<td>1450-1420</td>
<td>1400-1380</td>
</tr>
<tr>
<td>Arnuwanda I</td>
<td>1420-1400</td>
<td>1380-1360</td>
</tr>
<tr>
<td>Tudhaliya II/III</td>
<td>1400-1380</td>
<td>1360-1343</td>
</tr>
<tr>
<td>Tudhaliya III?</td>
<td>1380-?</td>
<td>1343-</td>
</tr>
<tr>
<td>Hattušili II?</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td><strong>Empire Period</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Šuppiluliuma I</td>
<td>1380-1340</td>
<td>1343-1321/18</td>
</tr>
<tr>
<td>Arnuwanda II</td>
<td>1340-1339</td>
<td>1322/18</td>
</tr>
<tr>
<td>Muršili II</td>
<td>1339-1306</td>
<td>1322/18-1296</td>
</tr>
<tr>
<td>Muwatalli II</td>
<td>1306-1282</td>
<td>1296-1273</td>
</tr>
<tr>
<td>Muršili III</td>
<td>1282-1275</td>
<td>1273-1266</td>
</tr>
<tr>
<td>Hattušili III</td>
<td>1275-1250</td>
<td>1266-1235</td>
</tr>
<tr>
<td>Tudhaliya IV</td>
<td>1250-1220</td>
<td>1235-1215</td>
</tr>
<tr>
<td>Kuruntha?</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>Arnuwanda III</td>
<td>1220-1215</td>
<td>1215-1210-</td>
</tr>
<tr>
<td>Šuppiluliuma II</td>
<td>1215-?</td>
<td>1210-</td>
</tr>
</tbody>
</table>

Fig. 2.2. Hittite king list and regnal years (adapted from Glatz & Ploudre 2011)
Fig. 2.3. Map of the Sakarya-Porsuk region with key sites bearing Iron Age material (author’s drawing)
Fig. 2.4. The Midas Monument façade (adapted from Gabriel 1965)
Fig. 2.5. Map of the Kızılırmak region with key sites bearing Iron Age material (author’s drawing)
<table>
<thead>
<tr>
<th></th>
<th>Boğazköy</th>
<th>Gordion</th>
<th>Çadır Höyük</th>
<th>Kaman-Kalehöyük</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Boğazköy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gordion</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Çadır Höyük</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Kaman-Kalehöyük</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Phase</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cal. BCE (95.4% certainty)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sample, Context</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cal. BCE (95.4% certainty)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Phase</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sample, Context</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cal. BCE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Phase</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sample, Context</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cal. BCE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Phase</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sample, Context</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cal. BCE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Phase</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sample, Context</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cal. BCE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fig.2.6. EIA-MIA radiocarbon determinations from Boğazköy, Gordion, Çadır Höyük and Kaman-Kalehöyük (adapted from Gorny et al. 2002; Genz 2004; Matsumura & Omori 2010; Manning & Kromer 2011; McMahon 2015)
Fig. 4.1. Storage silos by the Upper City fortification wall at Boğazköy (adapted from Seeher 2001)

Fig. 4.2. Storage magazines with pithoi in Temple 1 at Boğazköy (adapted from Neve 1969)
Fig. 5.1. Panoramic view of Gordion from the top of Küçük Höyük, looking north-west (author’s photo)
Fig. 5.2. Aerial view of Gordion with labelled sectors (Google Earth 2012)
Fig. 5.3. Excavations of the Citadel Mound, the YHSS 6A Destruction Level (adapted from Sams 1994b)
### YHSS (Yassihöyük Stratigraphic Sequence) Chronology of Gordion

<table>
<thead>
<tr>
<th>YHSS</th>
<th>Period Name</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Modern</td>
<td>1922–</td>
</tr>
<tr>
<td>1</td>
<td>Medieval</td>
<td>900-1400 CE</td>
</tr>
<tr>
<td>2</td>
<td>Roman</td>
<td>50 CE-300 CE</td>
</tr>
<tr>
<td>3A</td>
<td>Late Hellenistic</td>
<td>260-100 BCE</td>
</tr>
<tr>
<td>3B</td>
<td>Early Hellenistic</td>
<td>330-260 BCE</td>
</tr>
<tr>
<td>4</td>
<td>Late Phrygian</td>
<td>540-330 BCE</td>
</tr>
<tr>
<td>5</td>
<td>Middle Phrygian</td>
<td>800-540 BCE</td>
</tr>
<tr>
<td>6A</td>
<td>Early Phrygian</td>
<td>900-800 BCE</td>
</tr>
<tr>
<td>6B</td>
<td>Initial Early Phrygian</td>
<td>950-900 BCE</td>
</tr>
<tr>
<td>7A-B</td>
<td>Early Iron Age</td>
<td>1100?-950 BCE</td>
</tr>
<tr>
<td>8-9</td>
<td>Late Bronze Age</td>
<td>1200-1400 BCE</td>
</tr>
<tr>
<td>10</td>
<td>Middle Bronze Age</td>
<td>1600-1400 BCE</td>
</tr>
</tbody>
</table>

Fig. 5.4. The YHSS (Yassihöyük Stratigraphic Sequence) chronology of Gordion (adapted from Voigt 2013)
Fig. 5.5. Pre-YHSS 6A levels excavated beneath Megaron 5 (adapted from Gordion Excavation Notebook 56, 1965)
Fig. 5.6. Overall plan of the YHSS 7 excavations (adapted from Voigt & Henrickson 2000a)
Fig. 5.7. The Burnt Reed House (BRH) plan (adapted from Voigt & Henrickson 2000b)
Fig. 5.8. YHSS 7B ceramic assemblage (author’s drawing; adapted from Voigt & Henrickson 2000b)
Fig. 5.9. YHSS 7B ceramics (author’s photos)
Fig.5.10. YHSS 7A ceramic assemblage (adapted from Henrickson 1993, 1994, Voigt & Henrickson 2000a, 2000b)
Fig. 5.11. Plan of YHSS 6B (adapted from Voigt & Henrickson 2000a)
Fig. 5.12. The Post and Poros (PAP) Structure, YHSS 6B (adapted from Voigt & Henrickson 2000a)
Fig. 5.13. The pre-terrace phase of YHSS 6A (adapted from Sams 1994b)
Fig. 5.14. YHSS 6 ceramic assemblage (adapted from Henrickson 2001)
Fig. 6.1. YHSS 7B handmade wide mouth pots (author’s drawing; adapted from Voigt & Henrickson 2000a)
Fig. 6.2. Vessels from EPB I and NCT IVb strata (adapted from Sams 1994b)
Fig. 6.3. YHSS 7B pithos fragment (author’s photos)

Fig. 6.4. EBA pithos from Boğazköy (adapted from Orthmann 1963)
Fig. 6.5. MBA-LBA pithoi from the Gordion Common Cemetery (adapted from Mellink 1956)
Fig.6.6. YHSS 7B CKD Structure (adapted from Voigt & Henrickson 2000b)
Fig. 6.7. YHSS 7A storage vessels (adapted from Voigt & Henrickson 2000a, 2000b)
Fig. 7.1. Examples of YHSS 6B storage vessels, EPB sequence (adapted from Sams 1994b)
Fig. 7.2. Main storage vessel types, YHSS 6A Destruction Level (adapted from Henrickson 2001; author’s drawing)

Fig. 7.3. Narrow-necked amphorae, YHSS 6A destruction level (author’s drawing)
Fig. 7.4. Open-mouthed amphorae, YHSS 6A destruction level (adapted from Sams 1994b, Henrickson 2001)

Fig. 7.5. Storage jar/pithos, open mouth type, YHSS 6A destruction level (adapted from Henrickson 2001)
Fig. 7.6. Rim sherd of a giant pithos, P 257, Tumulus J (ca. 7th century BCE) (author’s photo)
Fig. 7.7. YHSS 6A Destruction Level with highlighted contexts exemplifying storage function (adapted from Sams 1994b)
Fig. 7.8. The Early Phrygian Gate, with pithos hollows indicated in the North Court (adapted from Young 1955, 1956, 1957)
Fig. 7.9. Plan of YHSS 5, with the PPB Building indicated (adapted from Sams 1994b)
Fig 7.10. Construction phasing on the Citadel Mound and the appearance of storage vessels (author's drawing).
Fig. 8.1. The location of Çadır Höyük in the context of the Kızılırmak region, with associated sites (author’s drawing)

Fig. 8.2. View of Çadır Höyük from the north (author’s photo)
Fig. 8.3. The southern exposure of Çadr Höyük, with an outline of the main stratigraphic levels (author’s photo).
Fig. 8.4. Trench plan of Çadır Höyük, with USS 4 highlighted (adapted from Gorny 2008)
Fig.8.5. View of USS 4 excavations, 2015 (author’s photos)
Fig. 8.6. Example of typical Iron Age deposits in USS 4 (2014, courtesy of J. Ross)
<table>
<thead>
<tr>
<th>Period</th>
<th>Chronology</th>
<th>Material Culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turkish</td>
<td>ca. 1100 CE onwards</td>
<td>Coins, pottery.</td>
</tr>
<tr>
<td>Middle Byzantine</td>
<td>ca. 700-1100 CE</td>
<td>Coins, pottery, architecture.</td>
</tr>
<tr>
<td>Early Byzantine</td>
<td>ca. 600-700 CE</td>
<td>Coins, pottery, architecture.</td>
</tr>
<tr>
<td>Late Antique</td>
<td>ca. 300-600 CE</td>
<td>Survey material.</td>
</tr>
<tr>
<td>Roman</td>
<td>ca. 0 CE-300 CE</td>
<td>Sigilatta pottery, architecture.</td>
</tr>
<tr>
<td>Hellenistic</td>
<td>ca. 300-100 BCE</td>
<td>Banded ware and western imported pottery.</td>
</tr>
<tr>
<td>Late Iron Age</td>
<td>ca. 600-300 BCE</td>
<td>‘Orientalizing’ and ‘Achaemenid pottery’, architecture.</td>
</tr>
<tr>
<td>Middle Iron Age</td>
<td>ca. 900-600 BCE</td>
<td>Alişar IV pottery, architecture.</td>
</tr>
<tr>
<td>Early Iron Age</td>
<td>ca. 1200/1180-900 BCE</td>
<td>Pottery, architecture.</td>
</tr>
<tr>
<td>Late Bronze Age (II)</td>
<td>ca. 1400-1200/1180 BCE</td>
<td>Hittite Empire period.</td>
</tr>
<tr>
<td>Late Bronze Age (I)</td>
<td>ca. 1600-1400 BCE</td>
<td>‘Old Hittite’ period.</td>
</tr>
<tr>
<td>Middle Bronze Age</td>
<td>ca. 1900-1600 BCE</td>
<td>Assyrian Colony period.</td>
</tr>
<tr>
<td>Early Bronze Age (III)</td>
<td>ca. 2300-2000 BCE</td>
<td>‘Cappadocian’ ceramics, architecture.</td>
</tr>
<tr>
<td>Early Bronze Age (II)</td>
<td>ca. 2800-2300 BCE</td>
<td>Chaff-tempered, red slipped pottery, architecture.</td>
</tr>
<tr>
<td>Early Bronze Age (I)</td>
<td>ca. 3000-2800 BCE</td>
<td>Pottery, architecture, infant burials.</td>
</tr>
<tr>
<td>Chalcolithic/Bronze Transition</td>
<td>ca. 3100-3000 BCE</td>
<td>Pottery, architecture.</td>
</tr>
<tr>
<td>Late Chalcolithic</td>
<td>ca. 4500-3100 BCE</td>
<td>Pottery, architecture, infant burials.</td>
</tr>
<tr>
<td>Middle Chalcolithic</td>
<td>ca. 5300-4500 BCE</td>
<td>Sounding only.</td>
</tr>
</tbody>
</table>

Fig. 8.7. Çadır Höyük chronological sequence (adapted from Gorny et al. 2002, Steadman et al. 2013)
Fig. 8.8. Çadir Höyük EIA chaff tempered pottery, USS 4 (author’s photos)
Fig. 8.9. Plan of Boğazköy (adapted from Neve 1994)
Fig. 8.10. Aerial view of Alişar Höyük, with the extent of the Iron Age settlement highlighted (Google Earth 2013)
Fig. 8.11. Alişar IV painted kraters (adapted from Von Der Osten 1937b)

Fig. 8.12. Plan of Alişar 4b-aM settlement (adapted from Von Der Osten 1937b)
Fig. 8.13. Plan of the Alişar 4aM citadel (adapted from Von Der Osten 1937b)
Fig. 9.1. Çadır Höyük EIA storage vessel typology (author’s drawing)
Fig.9.2. Torpedo jar, LBA example from Boğazköy (adapted from Schoop 2009)

Fig.9.3. Open mouth jar, LBA example from Boğazköy (adapted from Schoop 2009)
Fig. 9.4. LBA Pithoi from Temple 1 at Boğazköy (adapted from Bittel et al. 1969)

Fig. 9.5. Pithos base, FCN13745 (author’s photo)
Fig. 9.6. Pithos body sherd with rope decoration, FCN15128 (author’s photo)

Fig. 9.7. Çadır Höyük EIA-MIA storage vessel typology (author’s drawing)
Fig. 9.8. Çadır Höyük MIA storage vessel typology (author’s drawing)

Fig. 9.9. Alişar 4aM torpedo jar (adapted from Von Der Osten 1937b)
Fig. 9.10. MIA pithoi from the Büyükkaya, Boğazköy (adapted from Genz 2004)
Fig. 9.11. MIA pithoi from the Büyükkaya, Boğazköy (adapted from Genz 2004)
Fig. 9.12. Pithoi from Building A, Alişar 4aM (adapted from Von Der Osten 1937b)
Fig. 9.13. ‘Large jars with large orifices’, Alişar 4b-aM (adapted from Von Der Osten 1937b)
Fig. 10.1. Aerial view of Şabanözü-Killik Tepe (Google Earth 2012)
Fig. 10.2. Aerial view of Hacituğrul, with B. Tezcan’s excavation trenches visible (Google Earth 2012)
Fig. 10.3. View of the side of Hacıtuğrul, looking south-west (author’s photo)

Fig. 10.4. B. Tezcan’s excavations on the south side of Hacıtuğrul, showing monumental ashlar masonry foundations with a rubble core (author’s photo)


2014, “From manufactured goods to significant possessions: theorizing pottery consumption in late antique Anatolia”, in A. Bokern and C. Cowan


and P. Hnila 2015, “Migration and Integration at Troy from the end of the Late Bronze Age to the Iron Age”, in N. C. Stampolidis, Ç. Maner and K. Kopanias (eds.), Nostoi. Indigenous Culture, Migration and Integration in the Aegean Islands and Western Anatolia during the Late Bronze Age and Early Iron Age, Istanbul: Koç University Press, 185-209.


2006, “Traditions and Trends in the Production and Consumption of Storage Containers in Proto-Palatian and Neo-Palatial Crete”, in M. H.


Studies, Supplement 39, Leuven: Peeters.

University Press.

O'Connor and S. Quirke (eds.), Encounters with Ancient Egypt. Mysterious

Literature.

—, M. R. Bachvarova and I. C. Rutherford (eds.) 2008, Anatolian Interfaces:
Hittites, Greeks and their Neighbours, Proceedings of an International Conference on

Coulton, J. J. (ed.) 2012, The Balboura Survey and Settlement in Highland Southwest

Cox, C. W. M. and A. Cameron 1932, “A native inscription from the Myso-
Phrygian Borderland”, Klio 25: 34-49.

Crespin, A.-S. 1999, “Between Phrygia and Cilicia: The Porsuk Area and the

Crumley, C. L. 1995, “Heterarchy and the Analysis of Complex Societies”,
AP3A, Special Issue: Heterarchy and the Analysis of Complex Sciences, 28.1:
1-5

Czichon, R. M., J. Klinger, P. Hnila, D.-P. Mielke, H. Böhm, C. Forster, C.
Griggs, M. Kähler, G. K. Kunst, M. Lehmann, B. Lorentzen, S. Manning, K.
Marklein, H. Marquardt, S. Reichmuth, J. Richter, C. Rössner, B. Sadiklar, K.
Seufer, R. Sobott, I. Traub-Sobott, H. von der Ostern-Woldenburg, M. Weber,
H. Wolter and M. A. Yılmaz 2016, “Archäologische Forschungen am

BC”, in G. Lanfranchi, D. Morandi Bonacossi, C. Pappi and S. Ponchia (eds.),


2008, “The Age of Midas at Gordian and Beyond”, ANES 45: 30-64.


2013, Empire, Authority and Autonomy in Achaemenid Anatolia, Cambridge: Cambridge University Press.


Frangipane, M. 2007, “Different types of egalitarian societies and the
development of inequality in early Mesopotamia”, WA 39.2: 151-76.

Kadmos 36: 1-89.

Gabriel, A. 1952, Phrygie, Éxploration Archéologique II, La Cité de Midas,
Topographie, Le Site et les Fouilles, Paris: French Archaeological Institute in
Istanbul.

1965, Phrygie, Éxploration Archéologique IV, La Cité de Midas, Architecture,

Gander, M. 2010, Die geographischen Beziehungen der Lukka-Länder, Heidelberg:
Universitätsverlag Winter.

2012, „Ahhiyawa, – Hiyawa – Que: Gibt es Evidenz für die Anwesenheit
von Griechen in Kilikien am Übergang von der Bronze zur Eisenzeit”,
SMEA 54: 281-309.


Genz, H. 2000, “The Early Iron Age in central Anatolia in the light of recent
research”, NEA 63.2: 111.


2003a, „Früheisenzeitliche Keramik von Büyükkale in Boğazköy/Hattusa”,
IstMitt 53: 113-29.

2003b, “The Early Iron Age in central Anatolia” in B. Fischer, H. Genz, É.
Jean, and K. Köroğlu (eds.), Identifying Changes: the transition from Bronze to Iron
Ages in Anatolia and its Neighbouring Regions, Istanbul: Türk Eskiçağ Bilimleri
Enstitüsü.


2005, “Thoughts on the origin of the Iron Age pottery traditions in central
Anatolia”, in A. Çilingiroğlu, and G. Darbyshire (eds.), Anatolian Iron Ages

2006a, “Die eisenzeitliche Besiedlung im Bereich der Grabungen an den


Gérard, R. 2005, Phonétique et morphologie de la langue Lydienne, Peeters: Louvain.


Glatz, C. 2007, Contact, Interaction, Control. The Archaeology of Inter-Regional Relations in Late Bronze Age Anatolia, PhD Thesis, University College London.


2015b, “Plain Pots, Festivals and Feasting in Late Bronze Age Antaolia”, in C. Glatz (ed.), *Plain Pottery Traditions of the Eastern Mediterranean and Near East. Production, Use and Social Significance*, Walnut Creek: Left Coast Press, 183-214


Gordion Notebook 50, 1955, Gordion Archive.

Gordion Notebook 61, 1956, Gordion Archive.


—, L. Kealhofer, P. Hnila, B. Marsh, C. Aslan, D. Thumm-Doğrayan and W. Rigter 2013, “Cultural dynamics and ceramic resource use at Late Bronze Age/Early Iron Age Troy, northwestern Turkey”, JAS 40: 1760-77.


1995b, “Hittite Potters and Pottery: The View from Late Bronze Age Gordion”, *Biblical Archaeologist* 58.2: 82-90.


and A. M. Maeir 2014, “Yo-ho, yo-ho a sailor’s life for me!”, *WA* 46.4: 624-40.


Hoffmann, I. 1984, Der Erlass Telipinus, Heidelberg: C. Winter.


Keenan, D. J. 2004, “Radiocarbon Dates from Iron Age Gordion are Confounded”, *AWE* 3.1: 100-03.


and S. W. Manning 2016, “Crisis in Context: The End of the Late Bronze Age in the Eastern Mediterranean”, *AJA* 120.1: 99-149.


and A. Murray 1995, Beycesultan III, Pt. II. Late Bronze Age Pottery and Phrygian Pottery and Middle and Late Bronze Age Small Objects, London: British Institute of Archaeology at Ankara.


1979a, “Archaeology in Asia Minor”, AJA 84: 508-09


2016, “The archaeological discovery of the Kaška”, ICAANE 10, 27 April.


Pavúk, P. 2015, “Between the Aegeans and the Hittites: Western Anatolia in the 2nd Millennium BC”, in N. C. Stampolidis, Ç. Maner and K. Kopanias (eds.), *Nostoi. Indigenous Culture, Migration and Integration in the Aegean Islands and Western Anatolia during the Late Bronze Age and Early Iron Age*, Istanbul: Koç University Press, 81-114.


2010, “Lydia before the Lydians”, in N. D. Cahill (ed.), *The Lydians and Their World*, Istanbul: Turkish Ministry of Culture & Tourism, 37-60.


2009, “Indications of Structural Change in the Hittite Pottery Inventory at Boğazköy-Hattuša”, in F. Pecchioli Daddi, G. Torri and C. Corti (eds.),


2016, “From ‘institutional’ to ‘private’: traders, routes and commerce from the Late Bronze Age to the Iron Age”, in J. C. Moreno García (ed.), *Dynamics of Production in the Ancient Near East, 1300-500 BC*, Oxford: Oxbow, 389-301.


Stampolidis, N. C., Ç. Maner and K. Kopanias (eds.) 2015, *Nostoi: Indigenous Culture, Migration and Integration in the Aegean Islands and Western Anatolia during the Late Bronze Age and Early Iron Age*, Istanbul: Koç University Press.


2015, “The Ionian migration and ceramic developments in Ionia at the end of the 2nd millennium BC: some preliminary thoughts”, in N. C. Stampolidis, Ç. Maner and K. Kopanias (eds.), *Nostoi. Indigenous Culture, Migration and Integration in the Aegean Islands and Western Anatolia during the Late Bronze Age and Early Iron Age*, Istanbul: Koç University Press, 811-34.


Voskos, I. and A. B. Knapp 2008, “Cyprus at the end of the Late Bronze Age: Crisis and Colonization or Continuity and Hybridization?”, AJA 112.3: 659-84.


