# The Archaeology of Anatolia, Volume IV

# The Archaeology of Anatolia, Volume IV:

Recent Discoveries (2018–2020)

Edited by

Sharon R. Steadman and Gregory McMahon

Cambridge Scholars Publishing



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This book first published 2021

Cambridge Scholars Publishing

Lady Stephenson Library, Newcastle upon Tyne, NE6 2PA, UK

British Library Cataloguing in Publication Data A catalogue record for this book is available from the British Library

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ISBN (10): 1-5275-7601-9 ISBN (13): 978-1-5275-7601-8

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#### CHAPTER ONE

#### INTRODUCTION TO THE ARCHAEOLOGY OF ANATOLIA: VOLUME IV

#### SHARON R. STEADMAN AND GREGORY MCMAHON

It is with tremendous pleasure that we offer the fourth volume in this series that features recent archaeological fieldwork in Anatolia. As has been noted in previous introductory chapters, the intention was to publish a volume in this series every two years, commencing with Volume I in 2015. Indeed, Volume II appeared in the fall of 2017, and Volume III in good order in the fall of 2019. Each volume features detailed and timely excavation and survey reports, and the new section, "The State of the Field," launched in 2019, offers overviews of current findings in various disciplines within the archaeological field. At the beginning of 2020 Steadman and McMahon began preparations for Volume IV. Then came Covid-19 and severely abbreviated, or more often, cancelled, 2020 field seasons. This created a quandary. Should the two-year sequence be suspended so that Volume IV could capture what would, we hoped, be a normal 2021 season? In the end the editors put out the call for submissions to the series as usual, deciding to gauge whether to move forward based on the response to the call. Astonishingly, over 30 directors and specialists answered the call with an intention to submit to the volume; of these an extraordinary 28 indeed contributed chapters. Steadman and McMahon view this as a testament to the devotion Anatolianists have to their work.

This volume follows in the footsteps of Volume III, which introduced the A4 format along with color figures. The larger format allows for increased detail in illustrations, and the use of color in critical images such as displays of ceramic types and field shots significantly enhances the reader's comprehension of the data presented.

The fourth volume features projects directed by archaeologists residing and working in Turkey, Europe, and North America. Initial submissions to the volume are first reviewed by the series editors, and then vetted by the series' editorial review board:

Levent Atıcı (University of Nevada, Las Vegas) Claudia Glatz (University of Glasgow) Lisa Kealhofer (Santa Clara University) Ömür Harmanşah (University of Illinois, Chicago) Timothy Matney (Akron University) Arkadiusz Marciniak (Adam Mickiewicz University) Christopher Roosevelt (Koç University) Paul Zimansky (Stony Brook University)

Submissions approved by the review board are then submitted to the editorial panel at Cambridge Scholars Publishing (CSP). Submissions accepted by the CSP editorial panel are once again reviewed by the series editors who make style and content recommendations to the authors. The chapters included here, therefore, are the result of a rigorous peer-review process.

The time periods covered in the research presented span the millennia from the Epi-Palaeolithic to the Byzantine and Medieval periods. The breadth of Anatolia is represented, with chapters on Urartian sites in the easternmost reaches of the country to sites resting on the shores of the Aegean Sea. Research along the Black Sea coast is geographically balanced by reports on excavations in southeastern Anatolia. While many of the chapters include reports on "traditional" field seasons in 2018 and 2019, readers will be impressed by the innovative ways researchers used their 2020 field seasons, conducting short and targeted, often problem-solving fieldwork projects, and engaging in deep and rich analysis of the compendia of data gathered in extensive pre-Covid seasons.

Chapters 2–20 feature information on excavations, and Chapters 21–25 offer the latest on survey work. These 24 excavation and survey chapters can be grouped into four general themes. First, not surprisingly, many chapters focus on insights that emerged as a result of the targeted work undertaken in the 2020 "Covid season." For instance, new and detailed analyses of the Chalcolithic marble workshop at Kulaksızlar (Ch. 5, by Takaoğlu), the Iron Age pottery from Oluz Höyük (Ch. 10, by Saba), the Middle Bronze Age at Tell Atchana (Ch. 7, by Akar et al.), and the creation of a digital inventory of artifacts and the magnetic survey at Porsuk-Zeyve Höyük (Ch. 11, by Barat et al.) significantly advanced research at these sites. The very exciting discoveries concerning Urartian worship at Ayanis, as well as brand new radiocarbon dates (Ch. 14, by Işıklı and Işık, and the Işıklı et al. Appendix), and the Sagalassos project's use of predictive modeling (Ch. 24, by Vandam et al.) illustrate the types of insights gained during these unprecedented times.

A second theme that emerged concerned "routes and relations." Many investigators used the last several years to refine their understanding of how particular regions and places were connected through travel and trade routes. Ökse's salvage excavations in the southeast (Ch. 2, "Ambar Dam Salvage Excavations") detail the relationships between these sites and the larger region; the work at Gökçeada Uğurlu (Ch. 3, by Erdoğu et al.) offers critical insights into

communities along the Aegean coast and the inland areas. A similar approach investigated the Sinop region's relations to the west and south (Ch. 13, by Doonan et al.). Three survey projects also took on the goal of understanding regional contacts. Doliche's relationship with settlements in Cilicia and North Syria were the subject of Blömer's work (Ch. 18). Kaymakçı (Ch. 21) conducted an extensive analysis of the connections between the mountainous Giresun region along the Black Sea coast with central Anatolia, and Harmanşah et al. (Ch. 22) offered a fascinating study of relations between mountain and valley, both in ancient times, and in ethnographic and archaeological understanding.

A third approach taken by authors was to concentrate on refining the phasing of multiple occupational levels at various sites, using the expanding archaeological toolkit available for such endeavors. Türkcan and Ertemin (Ch. 4) offered a final review of their work at Kanlıtaş, including the intricate phasing of the Early Chalcolithic architectural features. The detailed analyses of stratigraphy and ceramics at Usaklı Höyük (Ch. 6, by D'Agostino et al.) allowed for a better understanding of the Iron Age resting atop the Hittite remains, and Novák et al. (Ch. 9, "Sirkeli Höyük") offered an invaluable chronological analysis of how Sirkeli Höyük fits into the Bronze and Iron Ages of Plain Cilicia. Investigations at Tušpa (Ch. 15, by Genç et al.) laid out arguments for the chronological relationships of some of this site's main architectural features, and research at Komana (Ch. 17, by Erciyas et al.) employed stratigraphic and ceramic analysis to identify seven phases spanning the Chalcolithic to the Selçuk periods.

Perhaps not an actual "theme," the fourth category includes what we might call "traditional" reports on excavation and survey field seasons, especially welcome in these difficult times. Uysal and Çifçi (Ch. 8) profiled their work at two sites in the Elbistan Plain, and Branting et al. (Ch. 12) offered the latest findings at the grand site of Kerkenes Dağı. Recent work at Hierapolis (Ch. 16, by Semeraro) investigated the architectural strategies residents employed to manage the significant ancient seismic events in the region. Krüger and Kühn (Ch. 19) presented an in-depth report on the most recent work on Roman Boğazköy, and Polosa (Ch. 20) profiled the recent discovery of a basilica at Elaiussa Sebaste in Rough Cilicia. Maner's report on her latest Konya region survey data (Ch. 23) highlighted Bronze and Iron Age settlements, and Arslan and Bakan's survey in the Gargara region (Ch. 25) identified the location of cities missed by earlier investigators in the region.

The third and final section in the volume, "The State of the Field," includes three chapters that readers will find truly represent the intention of the section title. Marston and Castellano (Ch. 26) present a marvelous survey of the latest data on archaeobotanical research across Anatolia. The "From Bones to Genomes" entry (Ch. 27, by Kazancı et al.) is an incredible summary of the cutting-edge research on ancient DNA analysis. The final entry by Yıldırım and Steadman (Ch. 28) offers readers a survey of "Chalcolithic Religion and Ritual" across the Anatolian Plateau.

Many of us were prevented by the various effects of the Covid-19 pandemic from pursuing our research in Turkey last summer, and, in many cases, in the summer of 2021 as well. Losing so abruptly the opportunity to do our work, excavation or survey, on the ground, in country, brought home to us just what a privilege and pleasure it is to pursue fieldwork in Turkey. In addition to missing the chance to work in the field, we miss our time with colleagues and friends whom we look forward to seeing during the field season. It is always salutary to live and work in this place that has been home to such a rich variety of peoples and cultures, over an almost unfathomable span of time; even one season away from that opportunity is an experience we hope will not be repeated. We therefore look forward, if anything, even more eagerly to our future work in the field, armed by an ever-widening array of approaches and technologies, but always with the same goal: a greater understanding of the truly unique cultural legacy provided by Turkey's rich and amazingly varied archaeological resources.

We would prefer to express our thanks in person as well, but this volume also provides the opportunity to share our gratitude for the infrastructure provided by Turkey in support of our research. Everyone who enjoys the chance to do fieldwork is happy to thank the Kültür ve Turizm Bakanlığı and the Kültür Varlıkları ve Müzeler Genel Müdürlüğü for all they do to facilitate our work. Our thanks as well to all the government representatives, the *temsiciler*, for their willingness to work with a remarkably varied range of projects, in locations all over the country. This volume, like its predecessors, would not be possible without the Ministry of Culture and Tourism, the General Directorate of Cultural Monuments and Museums, the museum directors, government representatives, Turkish colleagues, and people of Turkey, and we therefore thank them for making fieldwork of all kinds in Turkey such a uniquely rewarding experience.

## PART I:

### **EXCAVATIONS**



(Photo courtesy of the Çadır Höyük Project)

#### CHAPTER TWO

# AMBAR DAM SALVAGE EXCAVATIONS 2018–2020: AMBAR HÖYÜK, GRE FILLA, AND KENDALE HECALA

#### A. Tuba Ökse

The archaeology of the Upper Tigris Region is marked by salvage excavations carried out in the flood zones of several dams built on the upper basin of the Tigris River—the Ilısu Dam— and a series of smaller irrigation dams which are being constructed on the tributaries. One of these dams is built on the upper valley of the Ambar Çay, ca. 49 km north of the Tigris basin. Two mounds—Kendale Hecala and Gre Fılla—will be submerged; the eastern skirts

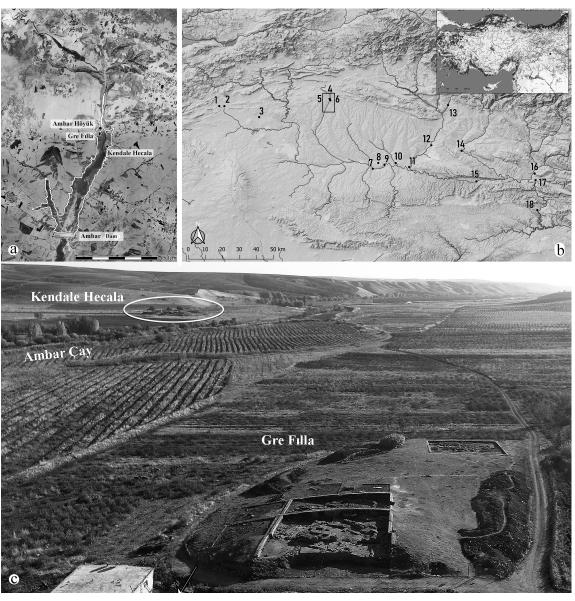


Figure 2-1. Location of Ambar Dam: a) The Ambar Dam and excavated sites; b) Neolithic settlements in the Upper Tigris region (prepared by Şakir Can): 1. Çayönü, 2. Til Huzur Yayvantepe, 3. Girikihaciyan, 4. Ambar Höyük, 5. Gre Fılla, 6. Kendale Hecala, 7. Hakemi Use, 8. Boztepe, 9. Karavelyan, 10. Salat Cami Yanı, 11. Körtik Tepe, 12. Demirköy, 13. Hallan Çemi, 14. Sumaki Höyük, 15. Hasankeyf Höyük, 16. Türbe Höyük, 17. Gusir Höyük, 18. Boncuklu Tarla; c) View of Gre Fılla in foreground and Kendale Hecala in background (Excavation Archive, 2019).

of Ambar Höyük will also be affected by the flood (Ökse et al. 2020). These mounds are located on the alluvial plain, which is suitable for dry farming, on the southern skirt of the Uzuncaseki mountain range. The Ambar Valley is on a natural route crossing the most navigable mountain passages in the Taurus range, leading to the obsidian resources of Solhan in Bingöl (Ökse 2020: 13–15, fig. 17). The mounds are located close to each other; Gre Fılla is ca. 200 m to the south of Ambar Höyük, and Kendale Hecala is ca. 1000 m south of Ambar Höyük (Fig. 2-1).

#### AMBAR HÖYÜK

Ambar Höyük covers an area of ca. 0.7 ha, with its skirts extending to ca. 9 ha. Since the mound will not be submerged, excavations were carried out in a sounding on the eastern slope. The slope wash includes pot sherds from the Early Pottery Neolithic period onwards (Ökse 2020: 7–11). An Ubaid sherd was recorded as a surface find (Peasnall 2004: 30, fig. 1/1, 7); however, in the sounding, no Ubaid sherds have been found. The handmade Iron Age pottery as well as the "festoon ware" found in the fill excavated at Ambar Höyük is associated with nomadic communities that emerged in the Upper Tigris region after the withdrawal of the Middle Assyrian Kingdom in the middle of the 11<sup>th</sup> century BCE. After the Neo-Assyrian conquest in the 9<sup>th</sup> century BCE, *Tušḥan* (Ziyarettepe) became the provincial centre. The Neo-Assyrian standard vessels found in the fill may indicate an occupation under Neo-Assyrian supremacy. The site was also inhabited from the Late Antique-Byzantine period (5<sup>th</sup>—7<sup>th</sup> centuries CE) onwards.

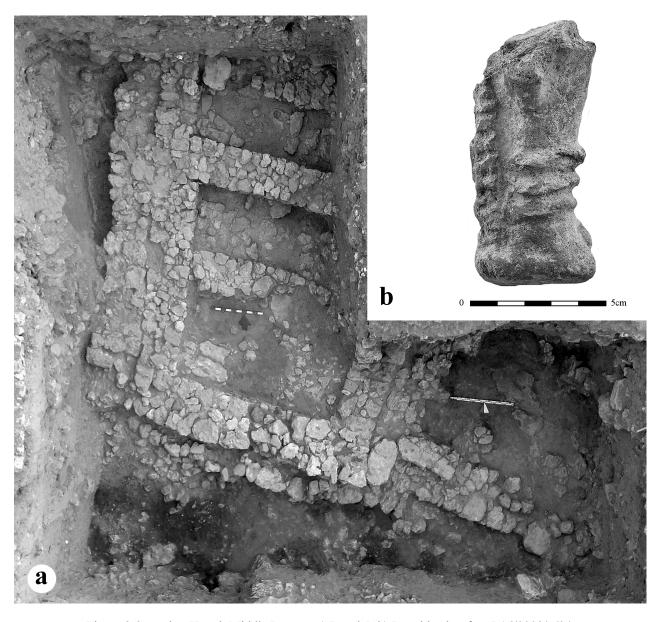


Figure 2-2. Ambar Höyük Middle Bronze: a) Level 5; b) Portable altar foot L16/0009/S/04 (Excavation Archive, 2020, 2019).

The sounding revealed six architectural levels (Ökse 2020: 8–9). The upper levels (1–4) date from the Late Antique period to the Middle Age, and the lower two (levels 5–6) to the Middle Bronze Age (1951–1771 cal. BC). Level 5 is represented by the entrance and three narrow rooms, probably storage areas within a building complex, and Level 6 by a quasi-similar building constructed on the bedrock (Fig. 2-2a). The material includes sherds of Red-Brown Wash Ware, Dark Rimmed Orange Bowls, Habur Painted pottery, and a few terra cotta feet belonging to portable altars (Fig. 2-2b), similar to those found in the *piazza* at Hirbemerdon (Laneri et al. 2016: 64–67), and in the burnt building room 2 at Müslümantepe (Ay et al. 2013: fig. 7). The monumental appearance of the buildings may indicate the existence of a local administrator managing the surrounding fields.

#### **GRE FILLA**

Gre Filla is ca. 7–8 m in height, covering an area of ca. 0.5 ha. The main settlement period is the Pre-Pottery Neolithic, presenting a sequence dating to 9300–7500 cal. BC. The Pottery Neolithic period is represented only by pot sherds; the architecture seems to have been destroyed by graves. After a hiatus of ca. five millennia, the site became a cemetery (Figs. 2-3 and 2-4).

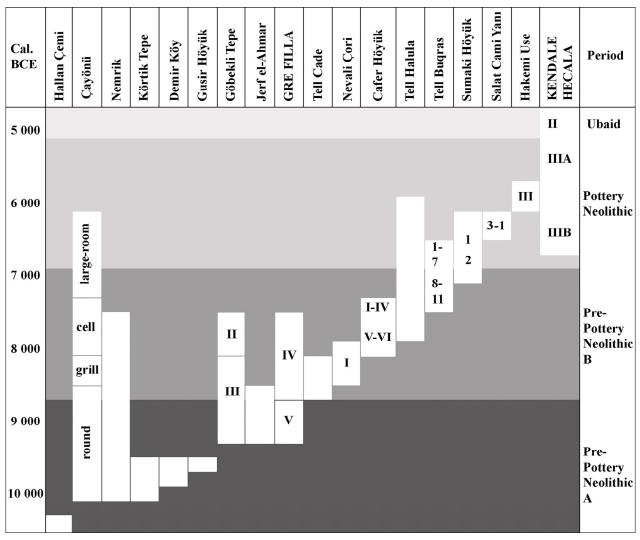


Figure 2-3. Chronological table of Neolithic sites based on calibrated dates (after Karul 2011: 6; Özkaya and Coşkun 2011: 103; Erim Özdoğan 2011a: 192–193, 2011b: 134; Cauvin et al. 2011: 4; Schmidt 2011: 52; Hauptmann 2011: 103; Rosenberg 2011: 80; Tekin 2011: 152, 2017: 183, 189, 230).

#### Gre Filla I: Late Antique Graveyard

Approximately two-thirds of the Late Antique graves are stone cists built mostly with coarsely shaped limestone slabs; however, some cists had been built with regularly cut rectangular limestones, probably stones used as spoil from previous levels. Most of the graves include single individuals, although some graves were re-used, and a small number of graves include two or more individuals. Most of the skeletons are laid in supine position, on their backs, with hands on the belly. Nearly all graves are east—west oriented with the head in the west. The graves are mostly simple earthen

burials surrounded with rough stones; however, a few include pithoi with skeletons in hocker position (Fig. 2-5a-b). One-fifth of the burials are oriented north—south, indicating that non-Christians are buried in the same cemetery. Three blocks covering one cist grave have reliefs on their surfaces (Fig. 2-5c), indicating that architectural blocks were converted to grave covers. Nearly one-third of the graves contain vessels and personal belongings. In two graves Late Hellenistic coins were found, and in several graves, glass vessels dating to the 3<sup>rd</sup>-4<sup>th</sup> centuries CE were recovered (Fig. 2-6).



Figure 2-4. Gre Filla, general drone photo (Excavation Archive, 2020).

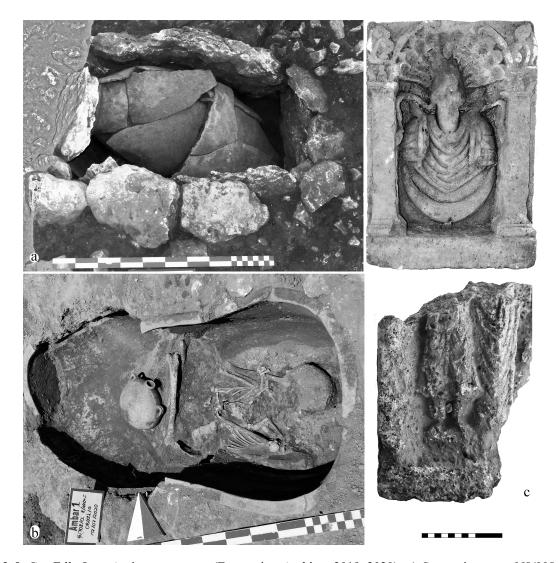


Figure 2-5. Gre Fılla Late Antique cemetery (Excavation Archive, 2019–2020): a) Stone cist grave N8/008/G with pithos burial; b) Larnax grave O8/132/G; c) Relief stones from grave O8/020/G.

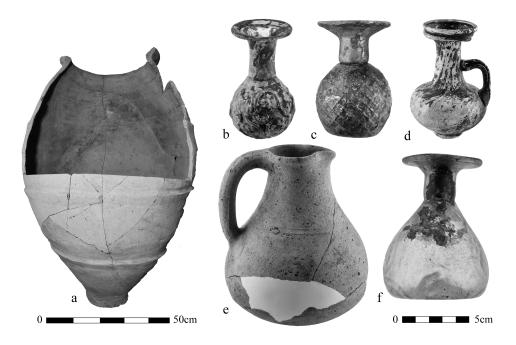


Figure 2-6. Gre Fılla Late Antique cemetery small finds (Excavation Archive, 2019–2020): a) pithos of grave N8/008/G; b) glass vessel I5/0028/U/01; c) glass vessel I6/0015/U/02; d) glass vessel O9/0118/U/01; e) trefoil jug O8/0023/S/04; f) glass vessel N9/0060/U/02.

#### Gre Filla II-III: Middle Age and Pottery Neolithic Period

The fill in and around the graves includes several sherds, chipped stone artefacts, and terra cotta figurines, indicating that the graves had been dug into the upper levels overlying the Pre-Pottery Neolithic settlement. The sherds are composed of coarse and medium-coarse vessels, a few incised (*sgraffito*) examples, moulded (barbotine) and glazed sherds dating from the Byzantine to the Early Ottoman periods, and Neolithic sherds dating to ca. 6900–5200 BCE. Based on the presence of a few "Hassunan" sherds and "Husking Trays," Gre Filla was the only Ambar Valley site inhabited between 6200 and 5700 BCE (Ökse 2020: 5–8, 2021: fig. 2-4).

#### Gre Filla IV: Pre-Pottery Neolithic B

The Pre-Pottery Neolithic B (PPNB) period is represented by a ca. 3.5 m thick archaeological fill. The radiocarbon dates reveal a total sequence of 9300 to 7550 cal. BC (Fig. 2-3). The structures are composed of 5–14 re-building levels, indicating the renewing of buildings, a common occurrence throughout the Neolithic Age (Özdoğan and Özdoğan 1998: 589–592).

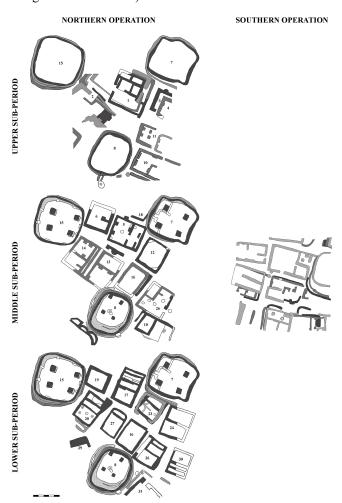


Figure 2-7. Gre Filla, schematic plan of Pre-Pottery Neolithic B buildings (drawn by author).

The settlement layout in the northern operation is marked by three oval subterranean structures, separated by ca. 9-10 m from each other. Each oval structure is surrounded by quadrangular buildings separated by narrow paths connecting them. The grouping of quadrangular structures around each oval structure left the impression of subgroups, each making use of the subterranean structure in the middle of their residential circle (Figs. 2-4, 2-7). Another oval structure and several quadrangular buildings were also uncovered in the southern operation. Judging by radiocarbon dates and the undisturbed stratigraphic position of the oval and quadrangular buildings, it seems clear that both building plan types had been used simultaneously. Thus, unlike the situation in Çayönü (Erim Özdoğan 2011a), no periodization of building schemes can be put forth.

#### Oval Buildings

The oval buildings are ca.  $7.5 \times 10$  m in dimension, each equipped with four pillars constructed of limestone and mud mortar. The walls, renewed multiple times, were not always fully placed one on top of another, causing an appearance of intertwined walls. The buildings have slightly accentuated corners, similar to those in the Round Building Phase r2–4 at Çayönü (Erim Özdoğan 2011a: fig. 6) and in Gusir Höyük Phase 1 (Karul 2011: 10, fig. 5).

Building 8 in the southern part of the operation comprises eight renewal levels (Fig. 2-8a). The inner fill contains an immense amount of stone debris and reddish soil belonging to different fill layers with specific finds, pointing to several "closing" steps.

The uppermost levels 1–2 consist of stone fill overlying the pillars. Level 2 is represented by a quadrangular unit of 2.92 × 2.23 m, attached to the inner face of the southeast oval wall. The considerable amount of chipped stone debitage indicates use as a lithics workshop. Level 3 has an earthen floor, and the pillars are visible. The fill contains broken pieces of a pig skeleton, deer antlers, considerable numbers of beads, malachite pieces, figurines, and ground stone artefacts. Level 4 is equipped with a stone platform and 11 stone bases for wooden posts. Between the southern pillars, an installation consisting of a stone-built pit, a large stone slab, and a stone-built platform indicate probable ritual facilities. In level 5, apart from four lower pillars, a stone-built "altar" and four stone bases have been uncovered. The fill contains a considerable amount of small clay lumps, indicating ritual behaviour during the "closing" ceremony. In level 6 four lower pillars, four stone bases, and two stone phallic figures of 47 and 55 cm in height were found erected near the oval wall, opposite one another. Level 7 contains three stone bases and the lowest pillars. The entire depth of the structure is ca. 3 m.

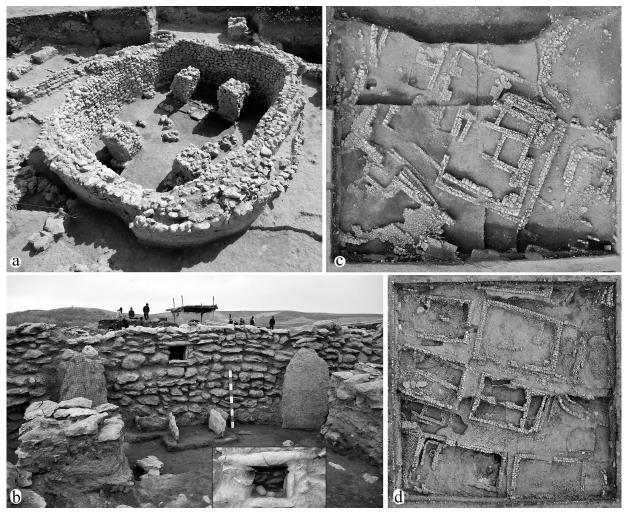


Figure 2-8. Gre Filla architecture (Excavation Archive 2019, 2020). Northern Sector: a) oval building 8 in trench N8; b) Oval Building 15 in trenches P7–8; c) upper PPNB levels in trenches O–P8–9; Southern Sector: d) middle PPNB Levels in trenches H–I5–6.

Building 7 in the northwestern area is also equipped with four stone-built pillars. The upper stone fill overlying the pillars contains immense amounts of chipped stone debitage and broken ground stone artefacts. The western half was uncovered up to the stone paved floor in level 2. In level 3, a quadrangular hearth was unearthed between two pillars. This level comprises interior partition walls, and pieces of terrazzo floors, as well as a burnt wooden superstructure of the building.

Building 15, in the northeastern area, is equipped with four pillars, ca. 1 × 1 m in size, built of limestones and plastered with mud. Eight undecorated stelae, attached to the inner face of the oval wall, are evenly spaced. These are formed of large stone slabs ca. 1.16–1.35 m high, 40–88 cm wide, and 18–23 cm thick. On the eastern inner face, a niche measuring 25 × 25 cm included 10 pestles deposited inside (Fig. 2-8b); two quadrangular hearths, ca. 75 cm below the niche, were built with upright stone slabs. The five layers of fill are characterized by stones, reddish brown soil, and a significant amount of burnt mudbrick debris. The fill contains animal bones, ground stone artefacts such as mortars, pestles (one of zoomorphic form), phalli, grinding stones, weights, and chipped stone artefacts including Mureybet and Nemrik points.

#### Quadrangular Buildings

The quadrangular structures surrounding each oval structure are mostly composed of cell-planned buildings and large-room buildings with internal and/or external buttresses, and a few grill-planned buildings, each with a large room (Fig. 2-8c). Several large rooms were equipped with 1–4 stone bases for wooden posts to support the roof. Pieces of plaster found in the debris of some buildings bear the negative imprint of the tree trunks used in roof construction. Some buildings have mud plaster on the walls. Most of the floors are composed of compacted clay; however, mud-plastered and stone-paved floors are also present. Dense mudbrick debris and mud plaster with reed traces, recovered in some buildings, provide evidence of the construction of their superstructure.

In the northern operation, a total of 28 quadrangular buildings have so far been uncovered. Nearly all these buildings are composed of 3–12 levels, built on top of each other, with minor shifts. Since very little material is found in these levels, the floors may have been swept clean before the new construction.

Cell-planned buildings are occasionally composed of 4–6 small rooms attached to a larger room, some having a doorway enabling access from the narrow paths. In the northern operation, nine cell-planned buildings have been uncovered (Buildings 1, 6, 9, 11, 18, 19, 24, 25, and 28) (Fig. 2-8c). Similar buildings are known from Çayönü (Erim Özdoğan 2011a: figs. 34–36, 53), and from the Pre-Pottery Neolithic B settlements in Sumaki Höyük (7000–6800 BCE) (Erim Özdoğan 2011b: 24, 37) and Boncuklu Tarla (7500–7000 BCE) (Ökse et al. 2014: 104–107; Kartal et al. 2014: 486–487) in the Upper Tigris region. Buildings 19 and 24 have hearths inside, and the floor of Building 11 is cobble-paved. In Building 19, Nemrik and Mureybet points were evident among the lithic assemblage (Ökse 2020: 29, fig. 6). Approximately 50 terra cotta bird figurines (Fig. 2-9.i–j) and Nevali Çori type points (Fig. 2-9.h) were collected from Building 11.

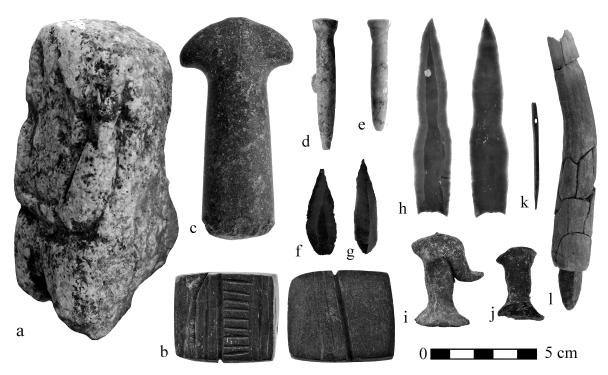


Figure 2-9. Gre Filla PPNB small finds (Excavation Archive, 2019–2020): a) stone human figure H6/0108/R/01; b) rubbing stone I5/0052/R/02; c) zoomorphic pestle N9/0529/R/01; d) stone plug O8/0434/R/03; e) stone plug H6/0439/R/01; f) obsidian microlith O8/0433/O/01, g) flint microlith P9/0663/N01; h) Nevali Çori point O9/0147/N/01; i. baked clay figurine N9/0245/P/01; j) baked clay figurine O9/0257/P/01; k) bone needle N8/0328/Q/01; l) malachite celt with horn handle O8/0434/VQ/06.

Buttressed buildings at Gre Filla were planned with one or two large rooms. Internal buttresses are spaced generally ca. 0.56–1.10 m apart from each other, probably built to support the roof or to provide stability. In the northern operation, seven buttressed buildings have been uncovered (Buildings 2, 4, 5, 10, 13, 14, and 16). Buttressed buildings are known from Cafer Höyük Level XIII–VI (Cauvin et al. 2011: 1–2, figs. 5–6). A wattle-and daub superstructure is attested for Building 13, though buildings with hearths inside are rarely attested (Building 16). The floors of Buildings 10 and 16 were cobble-paved, similar to the Cobble-Paved Building Phase cp1-3 at Çayönü (Erim Özdoğan 2011a: figs. 31–33). In Building 2-level 8, small malachite celts were found attached to a horn handle (Fig. 2-9.l); items produced from malachite indicate the progress of primitive experimentation with early metal processing, 7586–7502 cal. BC. Another malachite celt was found in Building 5, dating to 8296–8197 cal. BC. Similar raw and processed copper and malachite finds were found in Çayönü level 7, belonging to the intermediate level between the grill and cell-planned buildings, in the sub-phases of the Channelled and Cobble-Paved buildings dating to 9000–8600 cal. BC; they were also present at Hallan Çemi (Özdoğan and Özdoğan 1999: 14–18).

Other Gre Filla buildings, with a large room and a row of buildings with one large room and narrow long chambers, resemble grill-planned buildings with wide distances (ca. 50–120 cm) between the walls (Buildings 17, 20, 26, and 30). All buildings were equipped with hearths inside, and the floors are cobble-paved. In the northern operation, seven single-chamber buildings have been uncovered (Buildings 3, 9, 12, 21, 22, 23, 27, and 29), similar to those known from Çayönü (Erim Özdoğan 2011a: figs. 53–54, 57–58). The floors of buildings 22 and 23 were cobble-paved, and Building 22 is equipped with an interior hearth; several mortars were placed under its foundations, indicating a foundation ritual.

In the southern operation, a 1.2 m thick cultural deposit belonging to six architectural levels is attested. An oval structure (Building 8) and cell-planned structures occupying areas of ca. 22–38 m² have been uncovered. These structures, with two small and one large room, are sometimes built with rounded corners. Building 1-levels 4–6, 9-level 3, and Buildings 14 and 15 have hearths inside, as well as stone paved floors (Fig. 2-8d). The small finds comprise ground stone products such as mortars, pestles, flat axes, and weights. A Byblos point was found in Building 1-level 4.

#### Sub-Periods

In the upper sub-period of the northern operation, oval structures 7, 8, and 15 were intentionally filled, covering all pillars. The uppermost level of Building 8 is dated to 7845–7599 cal. BC. Six quadrangular structures surrounding each oval structure, comprising 2–10 building levels, were found in this sub-period. Cell-planned Building 1, and the large-chambered Building 2, occupy areas of ca. 48–50 m², and the buttressed Buildings 3, 4, 10, and 11 are ca. 25–27 m² in area; these strata are ca. 0.50–1.6 m thick. Building 2-level 8 is dated to 7586–7502 cal. BC, and level 9 to 8017–7788 cal. BC.

The middle sub-periods are represented by the upper levels of the pillared oval structures. Four pillars of Building 8-level 3, dated to 8349–8242 cal. BC, are preserved to heights of 1–1.5 m. The structure is surrounded by buttressed Buildings 13 and 26 and large chamber Buildings 10 and 16, all composed of 2–12 levels. Building 26 includes a total of five hearths consisting of several levels built on top of each other which were built on the floors of two large rooms. Building 7 is surrounded by the buttressed Building 5 and large-chamber Building 12; Building 15 is surrounded by the buttressed Building 14 and cell-planned Building 6. All quadrangular buildings occupying areas of ca. 22–27 m<sup>2</sup> are considerably smaller than the two buildings in the upper sub-period; the fill belonging to these levels is ca. 0.30–1.6 m thick. Building 5 is dated to 8296–8197 cal. BC, and there was an assemblage of artefacts on the path to the south of Building 7, to 8726–8531 cal. BC. In the southern operation, the uppermost level of Building 2 is dated to 8481–8293 cal. BC.

The lower sub-period includes the lower levels of the oval buildings in the northern operation. Buildings with one large room and narrow long chambers resembling grill-planned buildings appear in this sub-period (Buildings 17, 20, 26, and 30). Buildings 16, 19, 24, 27, and 31 are large-chamber structures. No cell-planned or buttressed buildings have so far been observed. Five buildings (Building 29, 27, 16, 26, and 31) surround Building 8, three (Building 17, 23, and 24) Building 7, and two (Building 19 and 20) Building 15. The lowermost level 8 of Building 6, overlying Building 19, is dated to 8750–8556 cal. BC, indicating an earlier date for the lower sub-period. All quadrangular buildings, occupying areas of ca. 14–32 m², are considerably smaller than those in both upper sub-periods; these strata are ca. 20–70 cm thick. In the southern operation, this period is represented by structures built on the virgin soil. These partially uncovered buildings are built with mud-plastered walls.

#### Small Finds

The small finds from these buildings comprise a considerable number of ground stone artefacts produced of basalt, limestone, and quartzite. These include flat axes, adzes, hammers, pestles, grinding stones, mortars, weight stones, and rubbing stones. One pestle has a zoomorphic stalk (Fig. 2-9.c), similar to those found at Gusir Höyük (Karul 2011: 16, fig. 17), Hallan Çemi (Rosenberg 2011: 78, fig. 13), and Körtik Tepe (Özkaya and Coşkun 2011: 122, figs. 24–25). Stone plugs, also found in these deposits, resemble those from Gusir Höyük (Karul 2011: 16, fig. 18).

The lithic assemblages, including cores and flakes, indicate a chipped stone tool production at the settlement. More than half of the material is flint; the rest is obsidian. The chipped stone tools comprise a rich assemblage including a large number of blades, scrapers, hacks, piercing tools, cutting blades, and sickle blades, as well as microliths (Fig. 2-9.f–g), Nemrik points, crested blades, and Byblos points. In Building 4 several horn fragments with grooves inside, resembling horn sickles with flint chips, have been found. Other finds consist of terra cotta spindle whorls and figurines, as well as bone awls.

#### Gre Filla V: Pre-Pottery Neolithic A

The latest phase of the PPNA period was uncovered in a sounding of 8 × 4 m at the northern edge of the mound, under destruction caused by earth transport. This period is represented by a ca. 1.5 m thick archaeological fill. The earliest settlement constructed on virgin soil (Shelmo Formation) appeared at 708.73 m above sea level. Quadrangular Building 32 and rounded Buildings 33 and 34 were built with stones resting in mud mortar, and the oval buildings were plastered with mud. Two earth burials accompanied by a few beads and microliths have been uncovered in Building 34. Similar architecture is also attested in the Round Building Phase r2-3 at Çayönü (Erim Özdoğan 2011a: fig. 6), Körtik Tepe (Özkaya and Coşkun 2011: 111–112, figs. 3–6), and Gusir Höyük Phase 2 (Karul 2011: 11–12, figs. 8–9),

Small finds include a bone awl and spatula, a decorated stone, pestles, beads, and flakes. The presence of Salibiya, El-Khiam, and Amuk points among the chipped stone assemblage date, these buildings to the later phase of the PPNA

and to the PPNA-PPNB transition. A radiocarbon sample obtained from a drilling core dates these levels to 9299-9177 cal. BC.

#### KENDALE HECALA

Kendale Hecala is ca. 3–4 m in height, covering an area of ca. 0.65 ha (Figs. 2-10a, 2-11). According to the data obtained from the drill cores taken from the mound slope in 2019, the settlement area seems to be much wider; the ca. 2–4 m thick alluvial fill carried by floods has covered the lower mound slopes, and the archaeological deposit is 4.5 m in height. Radiocarbon dates give a sequence of 6700–4550 cal. BC, including the Pottery Neolithic period (Period III) and the Early Ubaid period (Period II) (Fig. 2-3). After a hiatus of ca. 5300 years, the site was inhabited in the Middle Ages (Period I).

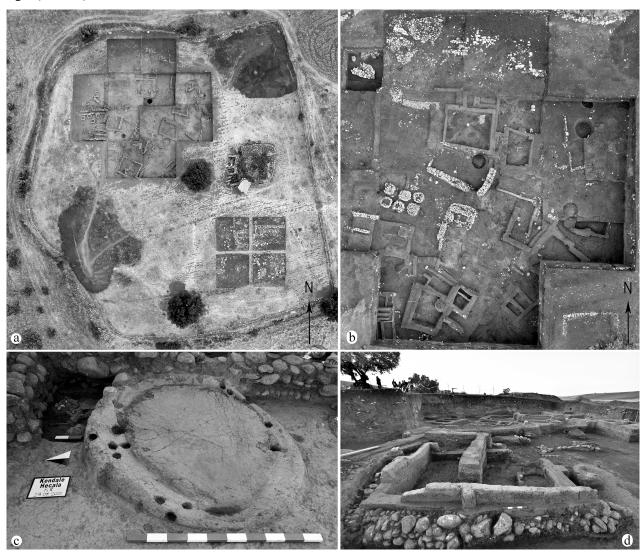
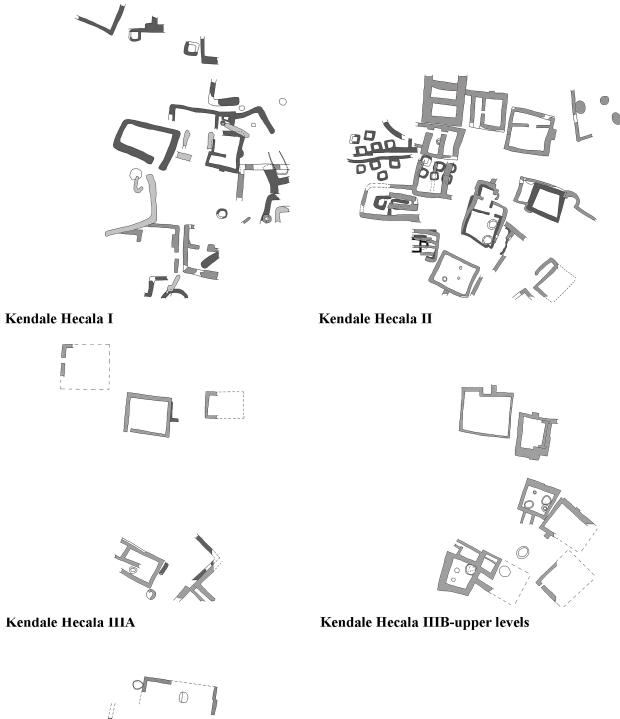
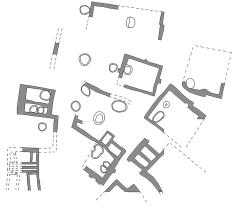


Figure 2-10. Kendale Hecala architecture (Excavation Archive, 2019–2020). Period I–II: a) 2019, Middle Age and Ubaid levels; Period II–III: b) 2020, Ubaid and Pottery Neolithic levels; c). Oven in an Ubaidian Building in trench K8; d) General view of Pottery Neolithic buildings from trench K8 towards trenches J7–8.

#### Kendale Hecala I: Middle Ages

Underneath the surface soil, three architectural levels represented by simple foundations built with rough stones have been recognized (Figs. 2-10a-b, 2-11). The upper levels were strongly affected by agricultural activities undertaken on the mound; only pieces of foundation walls, stone heaps, pieces of pebble stone-paved floors, hearths, and pits survived. The buildings are mostly rectangular, occasionally oriented in a northeast–southwest direction, and separated from each other by narrow streets. Several pits containing shells, fishing net weights, and crab claws, as well as bones of large and small cattle and tortoise shells, reflect the rich diet of the inhabitants. In a structure associated with clay plastered beehive-shaped storage units, a number of grinding stones were found, suggesting its function as a place for preparing and storing food. Burned mudbrick debris scattered in and around ashy soil contains animal bones and sherds of cooking pots, an assemblage associated with cooking activities.





Kendale Hecala IIIB-lower levels



Figure 2-11. Kendale Hecala, schematic plan of building levels (prepared by Şakir Can and Şeyma Çiftçi, drawn by author).

The material left behind, including broken heavy stone tools and a small number of pot sherds, suggests a seasonal settlement. Ground stone artefacts include grinding stones, pestles, mortars, a hand axe, a shaft-loch axe, a hammer, sling stones, weights, and beads. Terracotta finds consist of spindle whorls and animal figurines, bone objects of pins, and metal objects of coins, pins, and clothing accessories. The pottery assemblage is composed mainly of coarse and middle-coarse common ware appearing as pithoi, jars, cooking pots, and bowls (Fig. 2-12.a-f). A small number of sherds from moulded (barbotine) and glazed vessels belonging to a period from the Islamic period onwards were recovered. On the other hand, two hocker burials in medieval jars, an infant and an adult, present an extraordinary tradition within the burial customs of the Middle Ages.

Calibrated radiocarbon dates (771–902 cal. CE), obtained from three locations—a storage pit J8/025/Ç, an ash deposit around clay walled store units, and the fill from a jar in trench K9—coincide with the Abbasid period. However, the assemblage also contains vessels dating to the 11<sup>th</sup>–14<sup>th</sup> centuries CE.

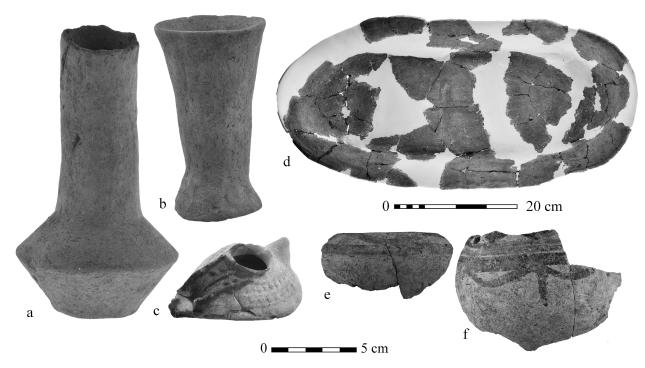


Figure 2-12. Kendale Hecala Small Finds (Excavation Archive, 2019–2020). Period I: a) vase K9/0114/S/04; b) cup K9/0114/S/04; c) oil lamp K8/0106/S/01; d) oval plate L8/0015/S/01; Period II; e–f) pot sherds from locus J8/0037/S.

#### Kendale Hecala II: Chalcolithic Period

Two architectural levels have been distinguished within this period. The upper level is represented by quadrangular mudbrick structures with limestone foundations and indoor hearths and ovens inclined to about 30 degrees (Figs. 2-10c, 2-11). These are mostly single-roomed mudbrick structures occupying areas of ca. 20–25 m², some including smaller inner divisions or extended by small annexes, probably used for storing. Several postholes, observed in some floors, as well as limestone post-bases, indicate wooden superstructures as temporary roofs. Calibrated dates (4704–4540 cal. BC) obtained from a hearth (J7/031/F) coincide with the Ubaid 4 period. In trench K8, one bowl with hand motives and a small number of sherds decorated by horizontal stripes and wavy lines, resembling the Northern Ubaid phases 3–4 (Davidson and McKerell 1980: 157; Campbell 2007: 104, 131), were found among coarse tempered clay trays (Fig. 2-12.e–f) (Ökse 2020: fig. 9:9). In the western part of the settlement, two stone structures with thin inner walls resembling a grill-plan were probably used as store houses.

A structure with external buttresses in trench L7–8 has pebble stone foundations and *pisé* walls. The ashy fill and debris of broken mudbricks overlie a three-phased compacted clay floor. On the burned floor (L8/028/M) dating to 4849–4706 cal. BC, plastered hearths have been uncovered. Another mudbrick structure (K9/064/D) is dated to 5011–4800 cal. BC, both representing Ubaid phase 3. The calibrated date (5226–5032 cal. BC) from a floor (L8/035/T) represents the Halaf-Ubaid Transition (5200 BCE). The only burial from this period is an infant in a jar placed under a stone pavement associated with hearths.

The lower level is represented by two quadrangular *pisé* structures with stone foundations, indoor hearths, and storage units. A multi-roomed structure with stone foundations and indoor ovens with floors, inclined to about 30 degrees in trenches J–K7–8, held Ubaid sherds beside dominant Neolithic sherds, as well as bone awls, terra cotta

spindle whorls, pestles, and shells, the latter probably obtained from the Ambar Valley. The fill between the *pisé* walls under this structure in trenches J–K7–8 is not thick.

The western part of the settlement seems to have been used for storage facilities. Rows of small quadrangular units uncovered in trenches J6–7 and K7 indicate a special function, probably as small storage units or basins for fodder. The grill-planned structures seem to have been renewed frequently. These installations, upraised above the ground, could also have been open-air bedsteads, as used in northern Mesopotamia until the last century (Coqueugniot 1999: 53, pl. 2; Tekin 2017: 284–285). Underneath one of the grill-planned structures in trench J7, a single-roomed structure with a semi-circular attachment at the eastern wall was recovered.

#### Kendale Hecala III: Pottery Neolithic Period

Five architectural levels have been distinguished within this period (Figs. 2-10d, 2-11). The architecture is characterized by rectangular *pisé* structures built by lining handmade mud blocks side by side, or each new layer is lined up, after the previous layer dries. The mud blocks are covered by white plaster, resembling the architecture at Sumaki Höyük 3 (Erim Özdoğan 2011b: 27–28, 52). The single or 2–3 roomed rectangular structures resemble those from Tell Sabi Abyad (Nieuwenhuyse et al. 2010: 74–75, 82), Hakemi Use (Tekin 2017: 247, fig. 78), Sumaki Höyük Phase 2–3 (Erim Özdoğan 2011b: 26–27, figs. 12a–b, 19–20) and Çayönü Phase IIA (Erim Özdoğan 2011a: 190–191, fig. 5).

These levels mostly produced Dark Faced Burnished Ware (DFBW) as well as pattern burnished vessels, consisting of deep bowls, hole-mouth jars, and short cylindrical or funnel-shaped jar necks with simple rims (Fig. 2-13.a–b, d–e) (Ökse 2021: fig. 2). The vessels include round-bottomed, spherical, and semi-spherical bowls, short funnel necked jars, and round-bottomed shallow plates. Similar forms are recorded in Çayönü horizon 1–2 (Özdoğan and Özdoğan 1993: 98, fig. 4; Erim Özdoğan and Yalman 2004: 89, fig. 8), Hakemi Use (Tekin 2011: 166, 172, fig. 6, 16, 2017: 244), Sumaki Höyük 1–2 (Erim Özdoğan 2011a: 55), Salat Cami Yanı 3–2 (Miyake 2011: 146–147, fig. 21) and Til Huzur Yayvantepe (Caneva 2011: 183, figs. 8–9) in the Upper Tigris region.

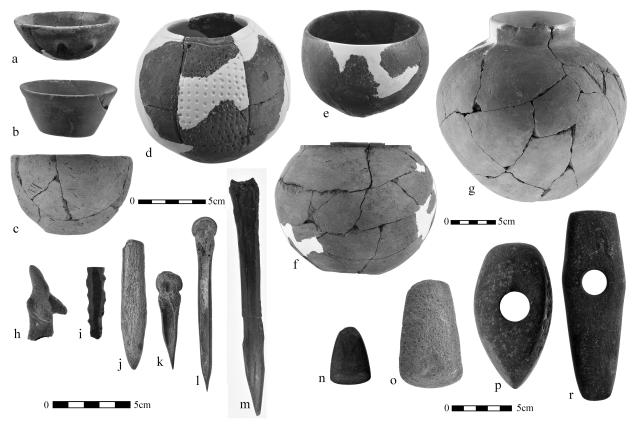


Figure 2-13. Kendale Hecala, Pottery Neolithic period small finds (Excavation Archive, 2019–2020). Pottery: a) DFBW bowl F11/0055/S/02; b) DFBW bowl J7/0037/R/01; c) SW bowl J8/00124/S/02; d) DFBW impressed jar L7/0024/S/01; e) DFBW bowl K8/0090/S/02; f) SW bowl J7/0016/S/01; g) SW jar K8/0273/S/01; Small Finds: h) baked clay figurine K9/0026/P/01; i) obsidian chopper K6/0039/O/01; Bone Objects: j) spatula J8/0106/Q/01; k) awl J8/0186/Q/01; l) awl K7/0087/Q/02; m) awl J7/0121/Q/01; Ground Stone Objects: n) celt J8/0190/R/01; o) pestle F11/0004/R/03; p) shaft hole axe J8/0212/R/01; r) shaft hole axe J7/0284/R/01.

Standard Ware (SW) (Dabaghiyah-Sotto or Proto-Hassuna) is also represented by a great number of vessels and sherds (Fig. 2-13.c, g) (Ökse 2020: 5, figs. 7:1–6, 8:1–2, 2021: fig. 3). These vessels appear in Çayönü horizon 1–2