



Örükaya: A Glimpse Into A Late Iron Age Rural Settlement in North Central Anatolia

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Abstract

This article presents the results of the 2017–2018 excavations at Örükaya, a Late Iron Age rural settlement in the Alaca district of Çorum, north-central Anatolia. Strategically situated on a ridge overlooking the Alaca Plain, Örükaya offers a glimpse into the adaptive strategies of small-scale communities navigating environmental and socio-political pressures during the Late Iron Age. The settlement's location combined defensive advantages with access to fertile land and water resources, reflecting a carefully balanced site selection strategy. Excavations revealed architectural remains, a diverse pottery assemblage, as well as archaeozoological and archaeobotanical material. The pottery parallels regional patterns known from sites such as Çadır Höyük and Boğazköy, while the botanical evidence points to mixed agro-pastoral practices relying on drought-resistant crops and animal husbandry. Notably, unlike larger fortified centers such as Hattuşa, Örükaya illustrates a more decentralized, environmentally adaptive settlement model. Though limited in duration, the site provides a valuable window into the resilience, resource use, and everyday life of non-elite rural populations, enriching our understanding of local responses to broader regional dynamics during a transformative historical period.

Keywords: Çorum, Örükaya, Late Iron Age, Rural Settlement.

Örükaya: Kuzey Orta Anadolu'da Geç Demir Çağı Kırsal Yerleşimine Bir Bakış

Özet

Bu makale, 2017–2018 yıllarında Çorum'un Alaca ilçesindeki Örükaya Geç Demir Çağı kırsal yerleşiminde gerçekleştirilen kazıların sonuçlarını sunmaktadır. Stratejik olarak Alaca Ovası'na bakan bir sırt üzerine kurulu olan Örükaya, Geç Demir Çağı boyunca küçük ölçekli toplulukların çevresel ve sosyo-politik baskılara nasıl uyum sağladığına dair önemli bir bakış sunar. Yerleşimin konumu, savunma avantajlarını verimli tarım arazilerine ve su kaynaklarına erişimle dengeleyen bilinçli bir yer seçim stratejisini yansıtır. Kazılarda açığa çıkarılan mimari kalıntılar, çeşitli seramik buluntuları, zooarkeolojik ve arkeobotanik materyaller, Örükaya'nın karma tarım ve hayvancılığa dayalı üretken bir kırsal topluluk olduğunu göstermektedir. Seramik verileri, Çadır Höyük ve Boğazköy gibi bölgesel merkezlerle güçlü paralellikler sergilerken, botanik buluntular kuraklığa dayanıklı ürünler ve hayvan yetiştiriciliğine dayanan karma bir ekonomik model ortaya koymaktadır. Hattuşa gibi daha büyük, tahkimatlı merkezlerin aksine Örükaya, merkezi olmayan, çevresel olarak uyarlanmış bir yerleşim modeliyle dikkat çekmekte ve dönemin kırsal nüfuslarının dirençli yapısına dair bir pencere aralamaktadır.

Anahtar Kelimeler: Çorum, Örükaya, Geç Demir Çağı, Kırsal Yerleşim

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Introduction

In 2017–2018, rescue excavations were carried out near the village of Örükaya, Alaca District, Çorum Province, as part of the Örükaya Research Project in collaboration with the Çorum Museum¹. Initiated in response to the increasing damage caused by illicit excavations, these investigations aimed to document the archaeological remains that could contribute to our understanding of the region's archaeology and history. The work focused on two separate areas, both severely affected by looting, each representing a distinct historical period. The first area encompasses a Roman dam², while the second, which forms the subject of this article, contains a Late Iron Age settlement. Preliminary observations suggest that the settlement extended across an area of approximately 120 × 85 meters, situated on a hill in the southeastern part of the village, where it is anchored against the bedrock. After documenting and clearing the debris caused by extensive destruction, the excavations focused on understanding the in situ architectural remains. This study evaluates the settlement of Örükaya within the environmental, economic, and socio-political processes shaping small-scale rural communities in north-central Anatolia during the Late Iron Age. While major urban centers like Hattuşa occupy a prominent place in the archaeological literature, the dynamics of rural settlements remain underexplored, creating a notable gap in broader archaeological and historical narratives. By approaching Örükaya as a detailed case study, this research aims to provide a glimpse into the lived experiences, subsistence strategies, material culture, and settlement logic of rural communities during this transformative period. To explore the internal dynamics of the settlement, it is appropriate to begin by situating it within its broader environmental and geographical context.

Geomorphological Setting and Site Selection of Örükaya

Örükaya is a Late Iron Age settlement in the Alaca district of Çorum (north-central Anatolia), strategically located on the edge of a ridge where the highlands meet a broad plain (Figure 1). This ridge-top setting overlooking the plain reflects a deliberate site selection strategy. In Anatolia's Iron Age context, such positioning balanced defensive security with access to fertile lands and water resources.

¹ The project was supported by Hitit University-Scientific Research Projects Coordination Unit, Project Number: FEF19001.17.003. I would like to express my gratitude to Dr. Önder İpek, the director of the Çorum Museum at the time of the research, for his invaluable support throughout the project.

² Publication on the Roman dam is currently ongoing. For initial observations, see Sökmen Adalı, E. 2021.



Figure 1: The map showing LIA centers and topography of nearby Örukaya

During the Iron Age, settlement patterns in central Anatolia shifted markedly from Bronze Age mounds located on valley floors to more defensible hilltops and ridges. The Büyükkale II and I phases at Hattuša, dated to the 8th–6th centuries BCE and associated with the Middle and Late Iron Age, exhibit notable similarities with other settlements established on high plateaus in Central Anatolia, rather than in lowland areas. Owing to their strategic locations and defensive systems, these sites—such as Kerkenes Dağ and Pazarlı—can be considered part of the same settlement pattern. The preference for upland plateaus within mountainous regions as settlement locations between approximately the 11th and 6th centuries BCE reflects a politically unstable period in which numerous small-scale, localized political entities were active across the region (Schachner, 2019: 259). This transformation indicates that concerns for security became paramount, often taking precedence over traditional advantages such as proximity to fertile agricultural land. Throughout the Iron Age, the widespread presence of hilltop settlements across central Anatolia further highlights the increasing emphasis on security and the preference for defensible locations, as exemplified by the case of Kerkenes Dağ (Allcock and Roberts, 2014: 50).

Örukaya clearly embodies this strategic logic. Situated on a ridge at the edge of the Alaca Plain, the site balances the advantages of defense with continued access to agricultural resources. Rather than occupying the vulnerable center of the plain—despite its agricultural richness—Iron Age communities often selected elevated spurs overlooking arable lands. Örukaya's location provided a commanding view of the surrounding landscape while maintaining proximity to fertile fields. This settlement strategy, widely observed across Anatolia, reflects a deliberate approach: by occupying defensible elevations, communities could benefit from agricultural resources without

sacrificing security. Such positioning allowed for daily activities—such as farming and water procurement—to continue uninterrupted, while ensuring that a secure refuge was available in times of threat.

Örükaya's ridge-top position afforded its inhabitants an expansive line of sight over the plain and valley approaches. This visual command enabled the early detection of potential threats, a hallmark of Iron Age defensive strategy. It is likely that, similar to other contemporary hilltop settlements, Örükaya maintained lookout points to monitor movement across the Alaca plain and adjacent valleys. Although positioned on elevated terrain, Örükaya maintained close access to water sources, with the Kavakaltı Stream flowing only a few hundred meters below the site. This proximity would have facilitated the daily supply of fresh water and highlights a broader settlement principle observed in the Iron Age, while prioritizing defensibility, communities deliberately maintained accessibility to vital resources such as water.

Climate and Vegetation around Örükaya

Örükaya is situated in a transitional zone between the arid interior of the Central Anatolian plateau and the more humid Black Sea fringe. The regional climate is broadly continental and semi-arid, characterized by cold, wet winters and hot, dry summers. Although the area receives an average annual precipitation of approximately 400–450 mm, monthly fluctuations can reach up to 50%, resulting in inconsistent water availability (Figure 2). This variability—along with seasonal stream discharge patterns that can vary more than tenfold between the driest and wettest months—creates considerable challenges for both agriculture and water management, especially during the critical summer growing season.

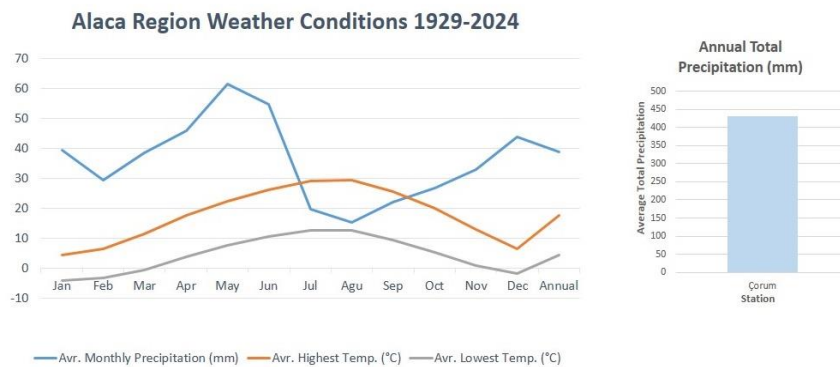


Figure 2: Average Annual Precipitation of the Alaca Region (www.mgm.gov.tr)

While the pollen data obtained from Lake Sülük primarily represent the Hellenistic through Early Roman periods, they still offer valuable contextual insight for the preceding Late Iron Age, including the environment in which Örükaya was established. These records indicate a landscape dominated by open pine (*Pinus*) woodlands with an

herbaceous understory (Asteraceae), reflecting cool and dry climatic conditions (Biltekin et al., 2025). The broader environmental setting comprised a forest-steppe mosaic, with pine and oak woodlands on upland slopes, *Artemisia* and *Poaceae* grasslands across the plains, and riparian vegetation such as poplar (*Populus*) and willow (*Salix*) confined to narrow stream valleys. This environmental configuration reflects a mixed forest-steppe ecosystem shaped by pronounced seasonality during the Late Iron Age. In addition, the Lake Sülük pollen data suggest anthropogenic landscape transformation: a high Pollen Disturbance Index (PDI) points to intense local grazing—likely by sheep, goats, and cattle—and increasing pollen from *Artemisia* and cereal-type grasses supports the existence of a mixed agro-pastoral economy (Biltekin et al., 2025).

Water availability remained a limiting factor in this semi-arid context. The landscape surrounding Örükaya consists of open grasslands dissected by shallow ravines, where surface water is both highly seasonal and unreliable. Archaeological evidence reveals long-term investment in water management infrastructure. For instance, dams constructed during the Hittite period at nearby Alacahöyük and Çakır district served irrigation and animal husbandry needs (Çınaroğlu & Genç, 2005; İpek & İbiş, 2013), while the Roman-period dam at Örükaya spanned a ravine to store seasonal runoff (Sökmen Adalı, 2021). These interventions highlight the importance of ensuring reliable water access in a landscape vulnerable to hydrological stress³.

Geological Setting of Örükaya and Its Implications for Settlement

Örükaya is located at the transitional boundary between two major geological formations: to the immediate north and west lies a Permo-Triassic formation consisting of mixed clastic and carbonate rocks (*k2*), while to the south and southeast, the terrain slopes down toward a basin of unconsolidated Quaternary sediments (*Q*)—likely representing former or current alluvial plains (Figure 3)⁴.

³ Regional climate changes also influenced broader historical trajectories. A period of aridity in the second half of the second millennium BCE may have contributed to the collapse of the Hittite Empire. Conversely, the Roman Climatic Optimum likely facilitated agricultural expansion and infrastructure development across Anatolia. Centuries later, the Little Ice Age, associated with climate cooling in the 16th and 17th centuries, brought harvest failures and rural unrest in Ottoman territories, leading to peasant uprisings and a temporary weakening of imperial control over the countryside (Harper, 2017: 39; White 2011).

⁴ 1/100.000 scale MTA geological map.

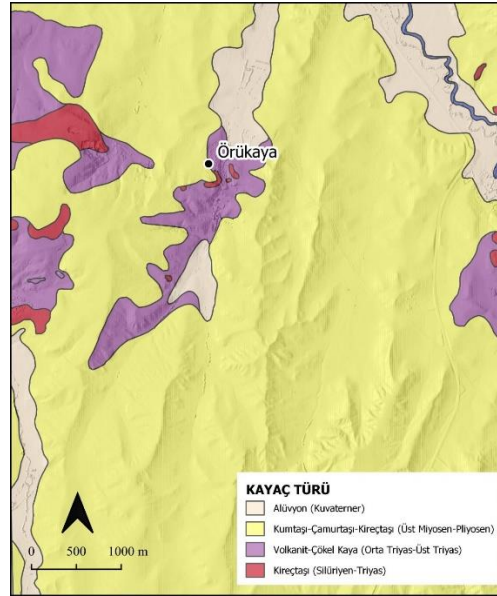


Figure 3: Geology map of the area

This geological positioning at the margin of a ridge and plain offers both strategic and practical benefits. The Permo-Triassic units, composed of consolidated clastics and carbonates, provided a stable and slightly elevated terrain ideal for construction and defensive purposes. Such bedrock would have offered natural anchoring points for architecture, as well as access to stone resources for building. The ridge's geology may also have helped in diverting or slowing surface runoff, reducing erosion at the settlement site.

In contrast, the adjacent Quaternary deposits mark more recent sedimentation zones—likely fertile, flat lowlands suitable for agriculture. The proximity of Örükaya to this arable zone would have ensured easy access to cultivable land while maintaining the safety of a ridge-top location. This is consistent with broader Late Iron Age settlement patterns in central Anatolia, where communities often selected rocky promontories overlooking arable floodplains, thereby optimizing both defensibility and agricultural productivity.

Additionally, the presence of alluvial Quaternary units in the surrounding valleys may have enhanced water retention during seasonal flows, increasing the likelihood of intermittent surface water or shallow groundwater tables.

Excavations and Settlement at Örükaya

The environmental conditions and land use at Örükaya are defined by the region's physical geography and its position at the edge of a small valley overlooking the Alaca plain. The narrow valley, which hosts the Kavakaltı Stream, forms part of the Budaközü River basin, a tributary of the Halys (Kızılırmak) River.

The settlement area at Örükaya, located east of the dam structure and anchored against the bedrock, spans approximately 120 × 85 meters (Figure 4). The site was first identified in 1990 during regional surveys conducted by Prof. Dr. Aygöl Süel (Süel, 1990:

343). Unfortunately, the settlement has suffered extensive disturbance due to illicit excavations and local soil extraction activities, as villagers have long valued the clay-rich soils in the area. Much of the architecture across the site has been severely damaged or overturned. Notably, a tunnel-like looting trench along the slope has completely disrupted the stratigraphy on the western side (İpek & Sökmen, 2019).

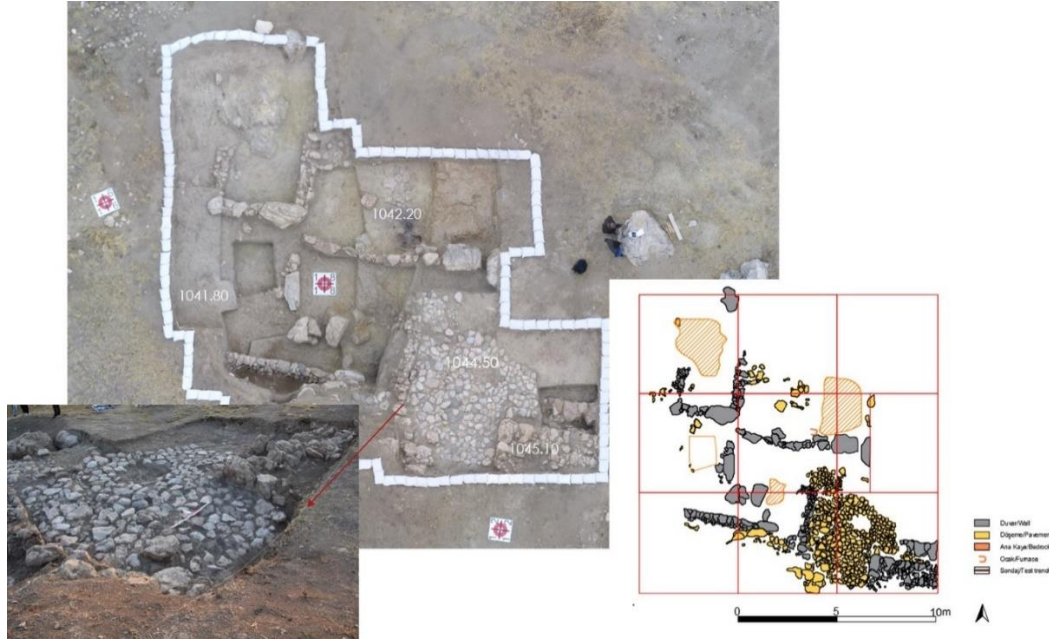


Figure 4: Excavated part of the settlement-detail form stone pavement floor.

Excavations in this area focused on cleaning the destruction caused by looting and recovering the remaining architectural features. In the section exposed by the vertical looter pit on the southern edge of the excavation zone, traces of a floor and an eroded mudbrick wall were observed. To the east, in situ architecture was documented, including a well-preserved (though partially damaged) floor surface located approximately 30–40 cm below the current surface. This floor was bounded to the south and west by wall alignments, with a discernible entrance gap on the southern side, suggesting that access to the floored space was provided from this direction. Numerous painted pottery sherds were recovered from both the floor and the surrounding areas.

Architectural elements at the site were adapted to the topography, with terracing applied across the slope; walls were frequently anchored directly into the bedrock, and the stones used in construction were often of large dimensions. On the terrace north of the floor (trench N13/FJ15), a 46×90 cm hearth was found, constructed against the bedrock. In this same area, fragments of two loaf-shaped grinding stones were identified in a broken, scattered condition (Figure 5). All of the identified fragments were loaf-shaped and featured a unifacial working surface. These stones were primarily operated in a back-and-forth motion, held with either one or two hands during use.

In addition to grinding stones, excavations also revealed biconical and button-type spindle whorls. These artifacts are typically associated with household textile production and reflect the material traces of everyday practices characteristic of rural village life.

When considered together, the grinding stones and spindle whorls suggest that the settlement belonged to a small-scale but productive rural community.⁵ At Örükaya, unlike other settlements in the region, no defensive wall has been identified; however, the site is situated on a hilltop in a commanding position over the surrounding landscape, consistent with the general settlement pattern of the area⁶. Based on the pottery evidence, the occupation at Örükaya appears to be single-phased and, in light of findings from Late Iron Age layers across the region, is dated to the Late Iron Age.

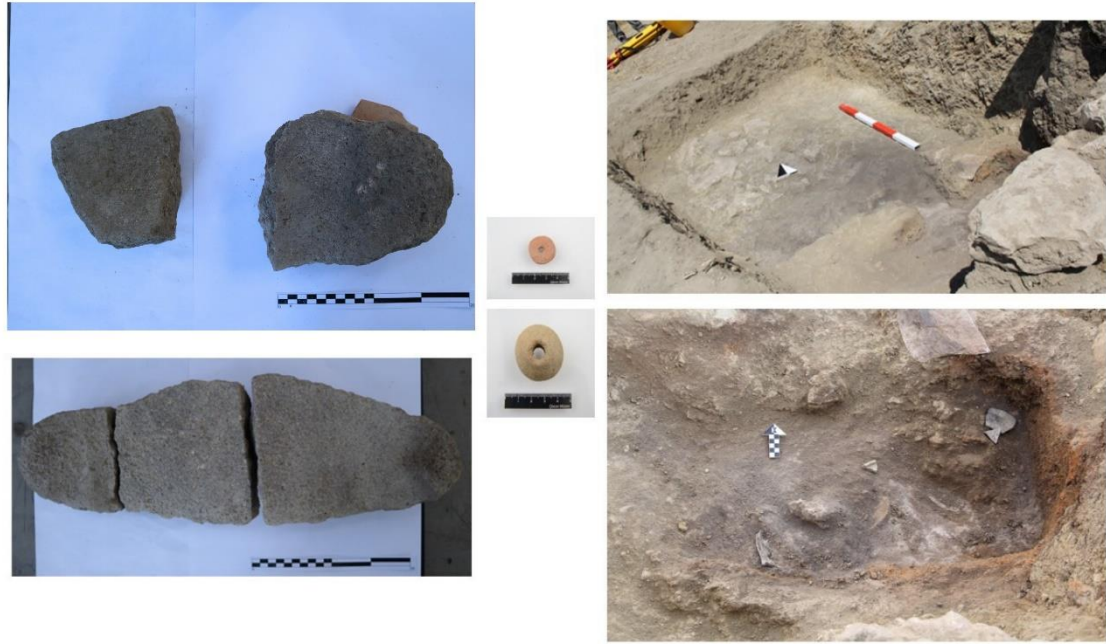


Figure 5: Hearth found a lower terrace and its surroundings- loaf-shaped grinding stones and biconical and button-type spindle whorls.

When examining the settlement patterns in the region during the period contemporary with Örükaya, it becomes evident that Hattuşa underwent a significant transformation in the Late Iron Age, shifting toward a more contracted and defense-oriented organization compared to earlier periods. Habitation became concentrated in the eastern sector of the Upper City, particularly around the Southern Fortress and Nişantepe. The complete fortification of Büyükkale and the construction of large, multi-room structures indicate a continued emphasis on centralized authority and defensive concerns. However, the presence of irregularly distributed fortification walls throughout the site suggests that defensive measures were implemented in a fragmented and localized manner (Genz, 2011: 343). This spatial reorganization reflects a departure from the coherent urban identity of earlier phases, resulting in a more dispersed settlement structure shaped by regional dynamics. In contrast, Örükaya, was established in a

⁵ This pattern can also be observed in the Iron Age settlement at Boğazköy (see Schachner, 2019: 253).

⁶ At Boğazköy Büyükkale, more protected and defensible areas were deliberately chosen (see Schachner, 2019: 254). The fortification structures at Southern Fortress similarly point to a period of unrest.

strategic location that provided both access to extensive agricultural lands and the defensive benefits of elevated terrain. Unlike the increasingly defensive and fragmented model seen at Hattuša (Schachner, 2019), Örükaya appears to have followed a more rural, internally coherent, and environmentally adaptive settlement strategy.

Çadır Höyük located southeast of Örükaya illustrates the broader chronological and spatial complexities of the Iron Age in central Anatolia. As highlighted in the study by Kealhofer et al., establishing an absolute chronology for this period remains problematic. Nevertheless, archaeological evidence indicates that Çadır Höyük maintained its significance as a regional center at least through the Middle Iron Age, with possible continuity into later phases. The fortified hilltop site of Tilkigedigi, located in the same region, exemplifies the characteristic Late Iron Age tendency toward elevated, defensible settlements. This spatial preference corresponds with the regional instability observed at the end of the Middle Iron Age, notably exemplified by the destruction of Kerkenes (Kealhofer et al., 2010: 90).

In addition to centers such as Hattuša and Çadır Höyük, where settlement continuity is evident, Örükaya emerged as a new site during the Late Iron Age, characterized by a single occupational phase and a short duration. The brief and limited nature of its occupation not only points to broader regional instability or reorganization processes, but also provides valuable insights into the subsistence strategies and spatial choices of small-scale, local communities during this period. While larger centers like Hattuša reflect certain degrees of structural persistence, the establishment of smaller, rural settlements such as Örükaya underscores the resilience and adaptive capacity of non-elite populations (Ross et al, 2019: 301) in the face of shifting social and economic landscapes. These types of settlements offer critical perspectives on how communities sustained themselves in temporary, pragmatic, and environmentally advantageous settings during times of weakened central authority. In this regard, Örükaya exemplifies micro-scale adaptive strategies in a transforming socio-political environment.

This situation can also be evaluated in comparison with the findings from Ovaören-Yassihöyük, located south of the Kızılırmak River. During the Late Iron Age, the settlement acquired a distinctly rural character, as its former fortification system was abandoned and replaced by modest structures indicative of a subsistence-oriented lifestyle reliant on local resources. In particular, the architectural features documented in the YH 2b level—such as stone-paved courtyards and narrow passageways—reveal a spatial configuration centered around workshops and simple building forms. These arrangements not only provided functional spaces for productive activities but also signify a clear departure from centralized, elite-driven planning practices. In this respect, Ovaören, together with short-lived and limited-occupation settlements like Örükaya, stands as a significant example of the flexible, self-sufficient, and locally structured lifeways that emerged in rural Anatolia during the Late Iron Age (Aklan & Akçay, 2023).

Potteries

The pottery assemblage⁷ recovered from Örükaya can be classified into six primary groups. The most prevalent among these is Orange Ware (OW), followed by Red Ware (RW), and Cream Slip Ware (CSW). Other identified types include Brown Ware (BW), Gray Ware (GW), and Red Slip Ware (RSW). With the exception of a few vessels fired in a reduced atmosphere, the majority were produced in an oxidizing environment. A common characteristic across all fabric groups is the presence of grit inclusions; however, it is possible that this grit was not intentionally added but rather occurred naturally in the clay, which may have been used without thorough sieving. Lime was used as an inclusion in most samples, while a few vessels contained mica, and only a single sample included straw as an additive. Overall, the pottery from Örükaya is generally of medium quality, with a smaller subset representing finer-quality production (Figure 6).

A detailed form analysis was carried out to classify the various shapes represented within the pottery assemblage. Among the open vessels, shallow and deep bowls predominate, while plates and cups appear less frequently. The closed vessels were categorized into necked and neckless types, and then further subdivided based on vessel size and neck shape. Within the necked category, narrow-necked, single-handled jugs, trefoil jugs, jars with necks, and small juglets are all represented, reflecting a range of functional forms used for pouring and storage. Wide-necked crater forms also appear among the assemblage. Among the neckless forms, pots are the most common, while large-sized jars (pithoi) are less frequently attested (Figure 7).

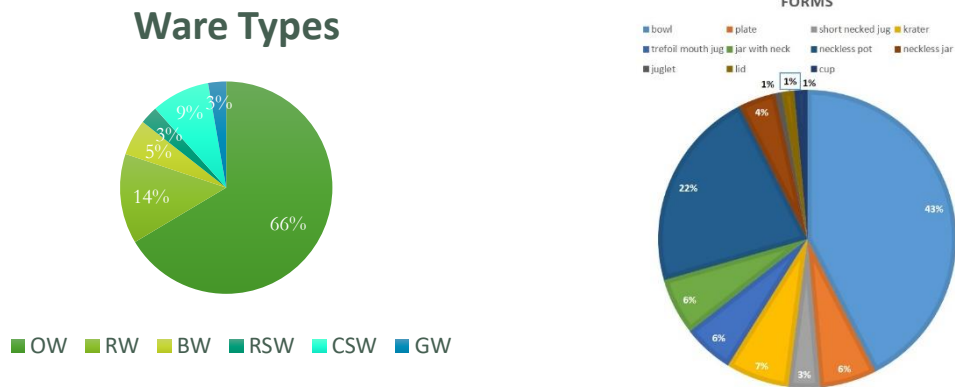


Figure 6: The distribution of ware types and forms of Örükaya pottery assemblage.

⁷ A detailed study of the pottery is being carried out and prepared for publication by Zeynep Akkuzu. I would like to express my gratitude to her for providing insights used in this assessment.

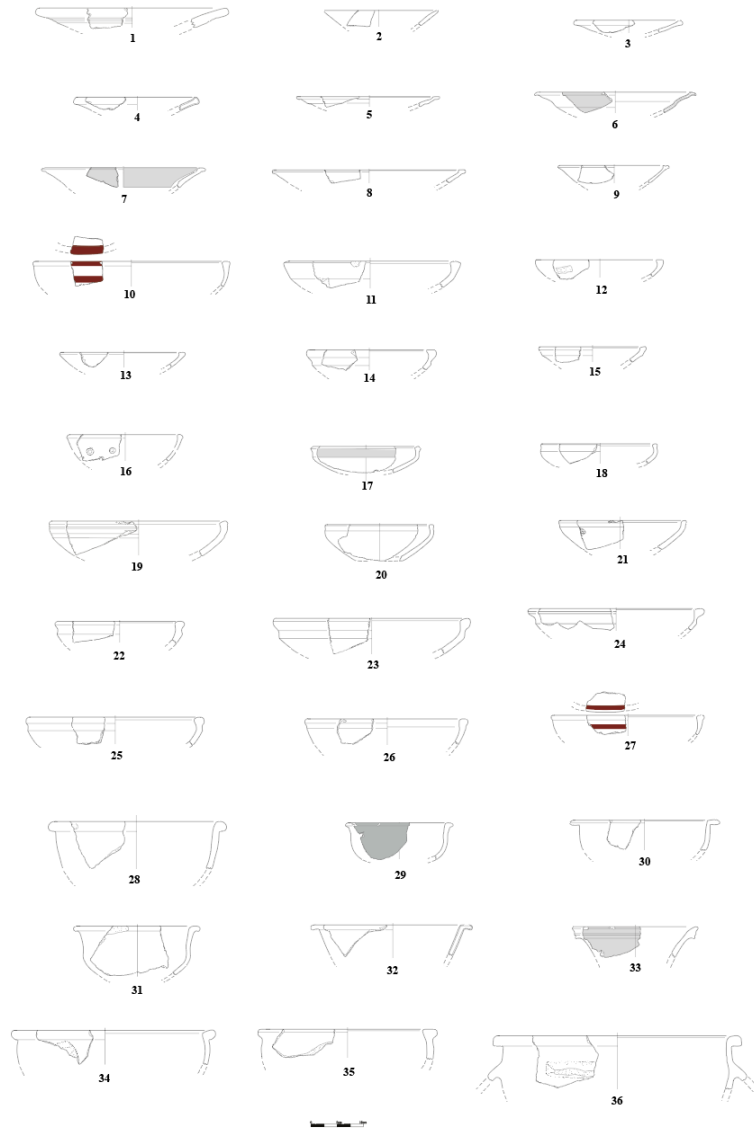


Figure 7: A sample of ware groups found in Örukaya

Additionally, a small number of lids were identified, grouped under miscellaneous categories. This diverse range of vessel forms points to a multifunctional pottery repertoire, supporting both domestic and storage needs within the settlement.

Painted body sherds were also significantly found. The first group consists of animal figures applied over a cream-colored slip (Figure 8). Among these motifs are representations of fish, various bird species, and large domesticated animals. Notably, these decorations are confined not to the entire vessel surface but specifically to the shoulder zone. A framing band was applied on the vessel's shoulder, filled with a cream-colored background, upon which the animal motifs were painted. The second group includes a range of other motifs, also applied over a cream-painted surface (Figure 9). This group features both figurative or vegetal designs and geometric patterns, again likely restricted to the framed panel on the shoulder rather than covering the entire vessel. Finally, there is a painted group characterized by directly applied geometric motifs without a slip background (Figure 10). In this case, the decorative elements are not limited

to the shoulder zone but also extend across the vessel's body, handles, and rim parts, indicating a broader decorative application.



Figure 8: Animal motifs on cream base.



Figure 9: Geometric motifs on cream base.



Figure 10: Geometric motifs on direct vessels' surface.

At known Late Iron Age settlements in the region, the pottery predominantly exhibits local forms. Schachner describes central Anatolia during this period as culturally isolated, emphasizing that these local forms—reflecting the region's Bronze Age traditions—are not of a nature that would characterize or define the dominance of Achaemenid culture, which historical records indicate held sway in the area (Schachner, 2019: 260). Genz observes that the Late Iron Age remains generally underexplored in Central Anatolia, with current knowledge of the region's Iron Age pottery sequence still unfortunately limited. Decorative practices during this period often feature red and dark lustrous paint, typically restricted to white-painted panels on the shoulders of closed vessels. While animal motifs continue to appear, they shift away from the earlier silhouette style, instead incorporating a variety of internal design elements (Genz, 2001: 160-161).

The Late Iron Age pottery assemblage at Çadır Höyük, though not sharply defined, is characterized by intricate panel decorations, featuring polychrome designs such as red and brown animal figures or geometric motifs painted onto white panels. These ceramics exhibit notable continuity with Middle Iron Age traditions, while also introducing decorative innovations like red or brown banding. The overall repertoire includes a diverse array of forms, such as bowls, jugs and juglets, jars and cooking pots (Kealhofer et al., 2010: 75). Strikingly, the pottery assemblage at Örükaya reveals strong parallels to

this pattern, both in terms of decorative styles and vessel types, reflecting shared regional traditions and technological practices during the Late Iron Age.⁸

A Dog Burial

Excavations in trench M13/AE15 at Örükaya revealed a nearly complete skeleton of a dog (Figure 11). Preliminary observations indicate that the dog was of medium size, with a shoulder height of approximately 45–50 cm. Its teeth are well-preserved, suggesting that the individual was a young adult at the time of death. Minor exostoses observed on some bones may indicate early signs of arthritis.⁹ Notably, the deposition of the skeleton does not appear accidental: the dog had been carefully placed, with two stones positioned near its head and two stones near its feet, suggesting a deliberate and possibly meaningful burial practice.

Dog burials¹⁰ during the Iron Age are relatively rare but offer important cultural insights. In Mesopotamia, dogs were closely associated with the goddess Gula, a deity of healing, with numerous dog figurines dedicated to her found in temple contexts. Recent excavations at Harran near the Sin Temple, in a burial dated to around 700 BCE, uncovered four dog graves arranged in a crescent-shaped pattern, possibly reflecting ritual practices linked to the healing cult of Gula (Önal, 2024). These findings suggest that aside from their value in daily life, dogs may have been perceived as sacred animals with therapeutic powers, and their burials likely held symbolic significance.

⁸ Comparable traits are also evident at Ovaören-Yassıhöyük, where Late Iron Age layers yielded a wide range of utilitarian and decorated wares, including polychrome geometric designs, incised motifs, and distinctive storage vessels. The presence of bowls and the dominance of simple kitchen wares in the pottery assemblage further underline the rural character of the settlement, while the material culture demonstrates continuity with sites such as Maşat Höyük, Kınık Höyük, and Gordion, affirming a broader pattern of pottery production and distribution across central Anatolia during this period (Aklan & Akçay, 2023).

⁹ I owe my sincere thanks to Prof. Dr. Evangelia Ioannidou Pişkin for sharing her initial impressions regarding the dog skeleton.

¹⁰ Dog remains found in cooking vessels within the Iron Age layers at Sardis have been interpreted as evidence of sacrificial meals. See: Greenewalt, C. H., & Payne, S. (1978). *Ritual dinners in early historic Sardis* (Vol. 17). Univ of California Press; A comprehensive database study conducted in the Southern Levant aimed to understand the patterns revealed by dog remains from the Iron Age. The findings indicate that dog remains were present in two-thirds of the settlements in the region (Sapir-Hen & Fulton, 2023). This suggests that dogs were common in settlements during this period and that their presence in faunal assemblages should be anticipated. The remains were generally found scattered among other animal bones, with no evidence of deliberate burial arrangements. In most cases, the presence of dogs was associated with settlements where sheep and goat herding was intensively practiced. It is suggested that these dogs were likely used as aids in herding or as guardians protecting livestock from predators and thieves.



Figure 11: A burial of *Canis lupus familiaris* ?

Comparative evidence from Eastern Anatolia, although sparse, further contextualizes the Örükaya find. More recently, Alaybeyi Höyük has yielded two nearly complete dog skeletons in Iron Age contexts. These remains were discovered within a workshop complex dated between 908–797 BCE, as well as around residential structures (Siddiq et al, 2021). Similar to the Örükaya burial, the Alaybeyi dog skeletons were not casually discarded but were carefully interred, perhaps reflecting the importance of dogs to the communities with which they lived.

Thus, the dog burial at Örükaya, though singular, fits within a broader pattern of selective and respectful canine deposition during the Iron Age. Whether the burial carried a ritual connotation, a practical commemoration of a valued animal, or a symbolic association with healing or other ritualistic traditions remains open to interpretation. Nevertheless, it provides important evidence for understanding human–animal relationships and the symbolic roles of dogs within small-scale rural communities in central Anatolia during the Late Iron Age.

Botanical Remains

The majority of archaeobotanical material at Örükaya was recovered from hearth-related contexts within trench N13/FJ15, particularly from an ash-rich burnt layer surrounding the hearth structure. This hearth, measuring 46 × 90 cm and constructed against the bedrock in the eastern section of the trench, was surrounded by an area of approximately 150 × 200 cm likely formed through the accumulation of debris from repeated use and subsequent cleaning of the hearth. Two samples yielded significant quantities of seeds: Sample 1 was collected from the burnt area adjacent to the hearth,

while Sample 6 was taken directly from within the hearth structure. Other samples were collected from ashy contexts across the trench, as shown in Table 1¹¹.

Örükaya Botanical Remains	sample 1	sample 2	sample 3	sample 4	sample 5	sample 6	sample 7	sample 8		
Taxon									Number of Finds	Species
Triticum monococcum		10		1		7	2		20	Einkorn
T. monococcum, Spelt		3			1	7			11	Einkorn/Spelt
Triticum dicoccum	24	37	2	22	7	57	17	4	170	Emmer
T. dicoccum, Spelt	14	1				213	4	3	235	Emmer/Spelt
Triticum aestivum/durum	12	8	2	8		8	3	3	44	Bread Wheat
Triticum aestivum, rachis	16					4		1	21	Bread Wheat / rachis fragment
Hordeum vulgare	21	71	2	27		14	7	3	145	Hulled Barley
Hordeum, rachis	12					3		1	16	Hulled Barley, Rachis fragment
Cerealia indeterminata	61	79	4	43		76	26	23	312	Unidentified cereals
Panicum miliaceum		18							18	Millet
Vicia ervilia	1			13	2	3			19	Bitter Vetch
Leguminosae sativae indeterminatae			1	2			3	2	8	Unidentified pulses
Corylus avellana						2			2	Hazel
Celtis	1								1	Hackberry
Galium, macrospermum	3	3	2	1	1	11	8		29	Bedstraw, large-seeded
Galium, microspermum	2	6		1	1	9	10		29	Bedstraw, small-seeded
Chenopodium						4		3	7	Fat-hen
Rumex spec.(crispus-T.)	1					1			2	Dock species
Rumex acetosella	3								3	Sheep's sorrel
Quercus		1			1				2	Oak
Bupleurum		2							2	Hare's ear
Neslia	1			1	1		1		4	Ball mustard
Thymelaea passerina	2								2	Spurge flax
Rubus							1		1	Berry
Onopordum							1		1	Thistle
Ranunculus arvensis	1								1	Corn buttercup
Medicago	2								2	Medick
Lolium	2	1				2			5	Ryegrass
Bromus	4								4	Bromes
Boraginaceae	8				6				14	Borage family
Fabaceae	1					1		2	4	Bean family
Polygonaceae	5	1	1			13	1		21	Knotweed family
Poaceae	26	6	1			22	1		56	Cereal family
Cyperaceae	13					12	1	6	32	Sedge family
Brassicaceae				3		1			4	Mustard family
Apiaceae			1				2		3	Umbellifer family
Lamiaceae	3					1		1	5	Mint family
Caryophyllaceae						1				
Asteraceae	2	1	1					1	5	Daisy family
Finds per sample	241	248	17	122	20	472	88	53		
									1,260	Total number of finds

Table 1: Quantity of archaeobotanical remains found in Örükaya excavations

The charred plant remains point to at least three different categories of human activity. The presence of domesticated cereals, such as emmer/spelt (*Triticum dicoccum*/spelta) and einkorn/emmer (*Triticum monococcum*/dicoccum), clearly indicates agricultural production and dietary practices. Among these, hulled barley (*Hordeum vulgare*) appears as the primary cereal crop. In addition to cultivated species, arable weeds such as bedstraw (*Galium* sp.) and ruderal plants were identified. Ruderals, known to thrive in disturbed soils, are often indicators of human-associated activity zones and reflect micro-landscape transformations caused by settlement and land-use intensity. Their presence at Örükaya may suggest threshing activities in the vicinity. Wetland species such as Cyperaceae likely represent plants collected for fodder or utilitarian purposes. The samples from the hearth area and its surroundings at the site revealed a high diversity of wild seeds. This pattern raises the possibility that dung was used as a fuel source, introducing seeds from animal fodder into the hearth deposits. Such an interpretation aligns with Miller's (1984) ethnographic and archaeological study, which

¹¹ I would like to thank Rainer Pasternak for his valuable contributions in sorting and clarifying the botanical remains from Örükaya.

demonstrates how dung burning can leave behind diverse botanical signatures in archaeological contexts.

A noteworthy find is the identification of 19 seeds of bitter vetch (*Vicia ervilia*)—a legume valued for its high protein content (20–27%) and commonly used as fodder for livestock, including sheep, cattle, and camels. Bitter vetch played a prominent role in early agricultural systems and spread from the Near East to regions such as Greece and Bulgaria, where it remained a significant fodder crop (Miller, 2014: 263).

In addition, 18 seeds of millet (*Panicum miliaceum*) were recovered from the area surrounding the hearth. Although comparable Iron Age data from the immediate region are lacking, the study by Nesbitt and Summers (1998) demonstrates that millet was an important cereal in various periods across the Near East. Notably, a large concentration of millet was found in a burned layer at Tille Höyük, dated to ca. 600 BCE—the earliest known instance of millet as a systematically cultivated crop in the region. Millet’s short growing season (~40 days), drought resistance, and minimal soil requirements made it particularly well-suited for farming under semi-arid and climatically variable conditions. Its presence at Örükaya thus not only reflects agricultural diversification but may also signal local strategies of environmental adaptation in response to water scarcity or seasonal unpredictability.

A comparative analysis with Kuşaklı Höyük, based on archaeobotanical data published by Pasternak (1998), helps contextualize the Örükaya findings. Of the total taxa identified, 17 taxa were common to both sites, while 23 taxa found at Örükaya were absent from Kuşaklı, and 21 Kuşaklı taxa were not found at Örükaya. The higher diversity of cereals and pulses at Kuşaklı may reflect more intensive agricultural production and storage, potentially tied to centralized administrative or taxation structures. In contrast, Örükaya exhibited greater diversity of ruderal and pasture-adapted species, possibly indicating a greater reliance on animal husbandry. The botanical variation ratio (74.58%) between the sites suggests significantly different economic strategies.

Evidence from Çadır Höyük further underscores the regional pattern of economic plant usage during the Iron Age. Cereals such as *Triticum durum/aestivum* (durum and bread wheat), *T. dicoccum*, *T. monococcum*, and *Hordeum* sp. are well-attested in Iron Age layers at the site (Smith, 2007: 181), indicating shared cultivation practices across central Anatolia.

Overall, the archaeobotanical assemblage from Örükaya reflects a small-scale yet productive rural community based on mixed agriculture and animal husbandry. The presence of drought-resistant crops and ruderals suggests active land use and cultivation. The minor presence of taxa such as oak and hazelnut points to a woodland-adjacent or mosaic landscape, implying access to diverse ecological zones.

Conclusion

The archaeological investigations at Örükaya provide critical insights into the dynamics of small-scale rural communities in central Anatolia during the Late Iron Age.

Positioned strategically on a ridge overlooking the Alaca Plain, Örükaya exemplifies the settlement logic characteristic of the period: balancing defense, resource accessibility, and environmental adaptability. The geomorphological, geological, and environmental contexts demonstrate that site selection was a deliberate response to both security concerns and agricultural needs in a semi-arid, seasonally variable landscape.

The material culture unearthed at Örükaya—including a diverse pottery assemblage, carefully interred dog burial, and archaeobotanical remains—reveals a community engaged in mixed agro-pastoral strategies, deeply intertwined with the local environment. The pottery finds align with broader Late Iron Age traditions observed at sites like Çadır Höyük and Boğazköy, reflecting both continuity with Middle Iron Age practices and local adaptations. Notably, while larger regional centers such as Hattuša show increasing fortification and centralization, Örükaya represents a more decentralized, rural response to the same socio-political pressures.

The botanical data further highlight Örükaya’s reliance on drought-tolerant crops, animal husbandry, and local resource management, underscoring its resilience within a shifting landscape of environmental and political challenges. Although the occupation was brief and limited to a single phase, Örükaya offers a valuable window into the everyday life, subsistence strategies, and adaptive choices of non-elite populations navigating the uncertainties of the Late Iron Age. Taken together, the findings from Örükaya enrich our understanding of how small communities in Anatolia engaged with their environment, sustained themselves, and contributed to the region’s broader historical tapestry during a transformative era.

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Çatışma beyanı: Makalenin yazarı, bu çalışma ile ilgili taraf olabilecek herhangi bir kişi ya da finansal ilişkileri bulunmadığını dolayısıyla herhangi bir çıkar çatışmasının olmadığını beyan ederler.