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Anadolu Araştırmaları
Anatolian Research

Anadolu Araştırmaları
Anatolian Research,
ANAR 2025, (32): 1–18

https://doi.org/10.26650/anar.32.1701248
Submitted 17.05.2025
Revision Requested 27.05.2025
Last Revision Received 27.05.2025
Accepted 30.05.2025

Research Article

Open Access

Balıklı: On the Edge of Time and Everything

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Abstract This paper examines the findings from recent excavations at Balıklı, a lesser-known Neolithic settlement located on the Central Anatolian Plateau, with the aim of questioning established models of Neolithization in the region. In contrast to long-term and architecturally stable settlements like Aşıklı Höyük, Balıklı represents a shorter-term and more flexible occupation. This contrast reflected in differences in architecture, duration of occupation, and modes of subsistence, suggests that Neolithization in Central Anatolia did not follow a singular, linear trajectory but instead involved multiple strategies, timings, and social organizations. The study contributes to a reassessment of the geographic and cultural diversity of the Neolithization process in Central Anatolia.

Keywords Central Anatolia · Neolithic · Epipaleolithic · Cultural Diversity · Interaction

Citation: Duru, G. (2025). Balıklı: On the edge of time and everything. *Anadolu Araştırmaları–Anatolian Research*, (32), 1-18. https://doi.org/10.26650/anar.32.1701248

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Introduction

Archaeological research at Balıklı, an Early Neolithic settlement located on the Central Anatolian Plateau, has uncovered a community that does not conform to established sedentary models. Unlike other well-documented Central Anatolian settlements such as Aşıklı, which exhibit slow and gradual architectural developments, craft specialization, and uninterrupted occupation over the long durée, evidence suggests that Balıklı was inhabited over a much shorter period. The data suggest that this was a more flexible community, one that practiced more Epipaleolithic-like lifeways than Aşıklı.

This paper aims to reassess the diversity of early Neolithic lifeways in Central Anatolia by considering Balıklı specifically. A comparative perspective with Aşıklı suggests that Neolithization in this region did not follow a homogeneous and linear trajectory toward an agricultural village in the classic sense. Instead, it involved multiple strategies, distinct chronologies, and varied forms of social organization. The findings not only challenge the widely accepted concept of the "sedentary village" commonly associated with the Neolithic but also raise new and critical questions about the scale, timing, and variability of early sedentism.

The long-standing "core-periphery" narrative of Neolithization in Southwest Asia often depicts Central Anatolian hunter-gatherer communities as passive recipients of Neolithic lifeways that emerged in Southeastern Anatolia and then spread westward (Kozlowski & Aurenche, 2020; Lev-Yadun et al., 2000; Özdoğan, 2023). While many scholars acknowledge considerable variability in the pace at which Neolithic communities emerged, recent studies (Baird et al., 2018; During, 2006; Özdoğan, 2022, 2023; Peters et al., 2017) continue to emphasize a model of diffusion from Southeastern Anatolia. Nevertheless, the findings from Aşıklı support a multi-centered model of Neolithization beyond the proposed "core zone" (Özbaşaran et al., 2018; Stiner, et al., 2022; Stiner, et al., 2022).

What exactly constitutes the Neolithic (Bar-Yosef & Belfer-Cohen, 1992; Belfer-Cohen & Goring-Morris, 2011; Goring-Morris & Belfer-Cohen, 2011; Cauvin, 2000; Zeder, 2011) and where and how Neolithic communities emerged and spread, are ongoing and likely never-ending debates. Rather than striving to deeply understand these communities, grand narratives emphasizing similarities, "packages," conceptual typologies, and homogenous material culture at the settlement or culture-scale are often prioritized (Perles, 2001; Çilingiroğlu, 2005). These frameworks overlook the variable and localized developments of the Early Neolithic, and the possibility that human groups made diverse choices related to behavioural, ideological, or linguistic differences. This is true, despite the wealth of anthropological and ethnographic research showing that no period of the past was ever as homogeneous as we may wish or believe it to be. The transition from semi-nomadic hunter-gatherer groups to sedentary communities and food production remains one of the most transformative processes in human history (Asouti, 2006; Belfer-Cohen & Goring-Morris, 2020; Duru, 2018a, Duru et al., 2021; Kuijt & Goring-Morris, 2002; Watkins, 2023).

While questions remain unanswered about the local processes that shaped the transition of mobile hunter-gatherer communities to sedentary life and agricultural economies in Central Anatolia, the connection of these processes to other human communities and events across Southwest Asia also remains unclear. Importantly, research at Aşıklı has offered new scenarios for the emergence of Neolithic lifeways and clearly demonstrated the need to test these scenarios across different settlements (Duru, 2018b; Özbaşaran & Duru, 2020; Stiner et al., 2022; Duru & Özbaşaran, 2024). In this context, Balıklı, which is distinct from Aşıklı in several significant ways, offers a novel opportunity to define the unique social and cultural fabric of Central Anatolia. The unexpectedly high diversity and relative isolation of Neolithization in this region make this modest settlement critical not only for understanding the area but also for characterizing this period and its variability more broadly.

Research History and Background

Over the past five decades, archaeological research on Neolithic Central Anatolia has undergone significant transformations. In the early phases of Neolithic studies, the region was largely interpreted within a diffusionist paradigm that emphasized unidirectional cultural movement from the Levant and Southeastern Anatolia. Çatalhöyük, excavated by James Mellaart in the early 1960s, was presented not only as an advanced Neolithic village in terms of settlement and lifeways, but in terms of its iconographic wealth (Mellaart, 1962, 1964). However, the fact that Çatalhöyük was settled several millennia after the "core area", reinforced the perception that the Central Anatolian Neolithic was a delayed echo of earlier developments to the southeast.

This narrative began to erode with the initiation of excavations at Aşıklı Höyük in the early 1990s (Esin & Harmankaya, 2007). The results of the second phase of excavation under the direction of Mihriban Özbaşaran not only pushed the earliest dates of the settlement back to around 8400 BCE, but also revealed a self-constructed Neolithic community with local roots and innovative strategies—especially in terms of architecture, lifeways, and subsistence economy (Özbaşaran, 2011; Duru et al., 2021; Özbaşaran & Duru, 2020).

Although Aşıklı predates Çatalhöyük by approximately one thousand years, it still dates 1,000–1,500 years later than the emergence of the first Neolithic villages in Levant. Thus, the notion that Central Anatolia was a secondary Neolithization zone or a recipient of Neolithic practices from the east, retained its appeal. Importantly, the early layers at Aşıklı revealed not only gradual architectural development and continuity but also a unique, local and gradual process of plant and animal domestication. For instance, it is now clear that the domestication of sheep and goats did not arrive as a pre-defined "package" from elsewhere, but rather developed *in situ*, and then likely spread from there to other regions (Daly et al., 2025). Later discoveries such as at Boncuklu Höyük, Kaletepe, and Pınarbaşı have further clarified the process of Neolithization in Central Anatolia. Boncuklu provided local data on early sedentism (Baird et al., 2022), while Kaletepe demonstrated that obsidian procurement and lithic production connected to long-distance exchange networks predate Aşıklı by several centuries (Binder, 2002). Moreover, analyses from Yabroud II in Syria have shown that obsidian from Kömürcü reached the Middle Euphrates as early as 40,000 years ago (Frahm et al., 2017). The Pınarbaşı rock shelter, dated to around 14,000 years ago, has demonstrated high mobility and inter-group contact during the Epipaleolithic period (Baird et al., 2013).

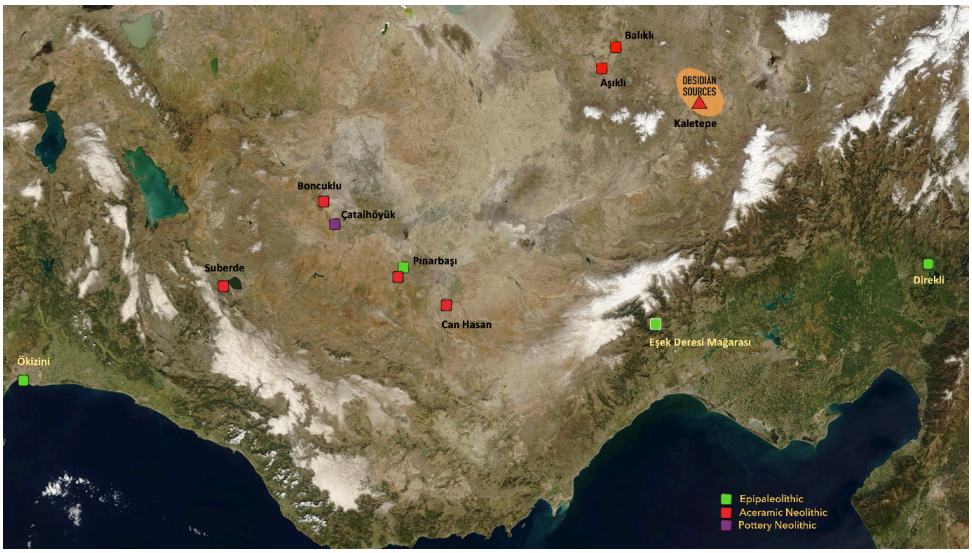
Genomic studies of individuals from the site of Kissonerga-Mylouthkia in Cyprus (c. 7600–6800 BCE) revealed that approximately 80% of their genetic makeup derived from Pre-Pottery Neolithic populations originating in Central Anatolia, especially around the Konya Plain. The remaining 20% was traced to a basal population from the Levant. This admixture is estimated to have occurred between 14,000 and 10,000 BCE, corresponding to the juncture between the Late Epipaleolithic and Pre-Pottery Neolithic A in Cyprus. The findings suggest that the island's first settlers may have been maritime groups originating from Central Anatolia who had previously interacted with Levantine communities (Heraclides et al., 2024). These results emphasize the region's long-standing and complex dynamics.

Our survey work in volcanic Cappadocia, which led to the discovery of Balıklı, has shown that Epipaleolithic communities frequently established their camps on the terraced volcanic slopes of natural rock shelters close to water sources (Goring-Morris et al., 2024). The lithic assemblage from Balıklı is not unique to Cappadocia, but resembles assemblages from sites like Pınarbaşı near Karaman (Figure 1). In this context, high volcanic zones overlooking wide valleys appear to have been preferred settlement areas for both ecological and strategic reasons. The preference for volcanic slopes with panoramic views of valleys mirrors the choices of early Christian communities in Cappadocia (Duru, 2018b). This parallel suggests that the region's natural topography was interpreted similarly in different periods. Unfortunately, the destruction

of early Christian structures and severe erosion in this area over time, have made it difficult to trace the material remains of mobile Epipaleolithic lifeways.

Figure 1

Epipaleolithic and Neolithic settlements of Central Anatolia and its surrounding regions.



Nevertheless, after the late 9th millennium BCE, communities appear to have turned toward more permanent modes of settlement, especially in ecologically favorable locations such as wetlands, lake shores, and riverbanks. Along with Sofular Höyük, (Başoğlu et al., 2018), which is contemporary with the early phases of Aşıklı, many communities chose to locate their sites in similar ecological and topographical conditions along the tributaries of the Melendiz River where Aşıklı is located. These include Acıyer, Bunuş, Damsa, Dededağ, Hantepesi, İnönü, Selime, Yellibelen, Sırçantepe, Taşkesti, Güllüce, İlbiz, and Toparınpınar (Duru & Kayacan, 2018).

Evidence from the lithic production site of Kaletepe located on Göllüdağ (8700 BCE) shows that lithic specialists from the Levant likely travelled to the region to procure and knap obsidian. This indicates that at the beginning of the Neolithic, Central Anatolia was already integrated into a wide interaction network which may have included seasonally mobile populations, resource exchange, and as yet invisible, small sites. Data from around the volcanic zones of Cappadocia further reinforce the presence of a vast geographical network. Sites in the Anatolian part of the network include Direkli Cave, located north of Kahramanmaraş (12,500–8,900 BCE) 350 km away, and Pınarbaşı B near Hotamış in Karaman (13,400–12,900 BCE) which is only 150 km from Cappadocia. Farther south, Karain B (20,000–16,000 BCE) and Öküzini Caves (17,800–7,900 BCE) are located about 350 km distant on the Mediterranean coast, while Eşek Deresi Cave is located in a valley connecting Mersin and Kayseri (11,000 BCE) around 250–300 km away (Taşkıran 2007, Özçelik 2011; Kartal 2002; Carter et al., 2011; Baird et al., 2013; Erek, 2012; Otte et al., 2003, Altınbilek et al., 2023)

Although flint was the dominant lithic material at Öküzini and Karain, small amounts of obsidian originating from Nenezi Dağ and Göllüdağ were also found there (Carter et al., 2011). This flow of obsidian reflects a long-term network of relations beginning in the early phases of the Epipaleolithic. At Pınarbaşı, obsidian constituted up to 27% of the lithics, and obsidian from Göllüdağ was also identified at Direkli Cave (Erek, 2012). In Eşek Deresi, Göllüdağ-sourced obsidian appeared alongside Final Natufian-like (Southern Levant) elements (Altınbilek et al., 2023). These chronological and spatial patterns clearly demonstrate the existence of an obsidian circulation network centered on Cappadocia, that stretched from the southern coastal regions of Turkey to the northeast *via* Karaman. Even if the material did not travel directly across the network but

through intermediaries, the fact that hunter-gatherer communities interacted over distances of 200–400 km, illustrates the high degree of connectivity in the region.

In conclusion, while the Fertile Crescent has long been seen as the core of Neolithic transformation in Southwest Asia, the accumulated archaeological evidence suggests that the Neolithization process covered a much wider and more complex geography. Within this expanded geographical frame, Central Anatolia stands out as a vital region. Once considered marginal in conventional Neolithic narratives, Central Anatolia has emerged as a landscape with considerable local complexity, cultural heterogeneity, and a long-term trajectory of experimentation. Early communities in the region were not passive recipients of Neolithic traits, but instead actively engaged in independent processes of domestication and the transition to sedentism.

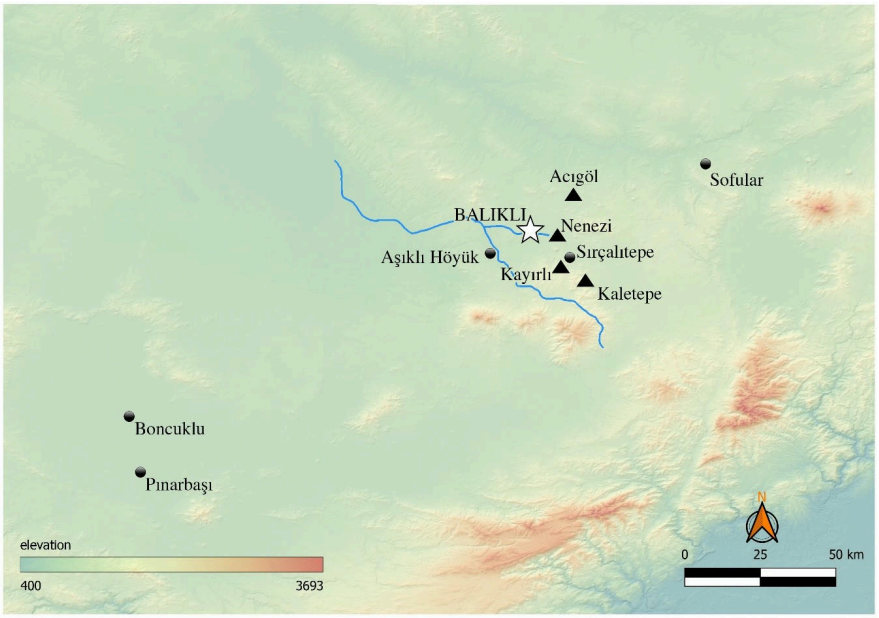
Life at Balıklı

Located approximately 15 kilometers from Aşıklı Höyük along the route to the Nenezi obsidian source, Balıklı was first identified during a surface survey conducted in 2015 (Duru & Kayacan, 2018). Measuring 150 by 150 meters and rising to a height of between 2 and 5 meters, the site appears as a small mound on the landscape. These features, along with the radiocarbon dates obtained so far, indicate that the site was inhabited relatively briefly, between 8300 and 7950 BCE (Figure 2). The settlement is situated in a geologically rich landscape. The surrounding environment was shaped by volcanic activities and characterized by mountains, valleys, and plains at varying elevations. The topography supported a diverse range of flora and fauna, providing a favorable ecological setting for hunting, gathering, and early farming. Additionally, the site's proximity to the Nenezi (6 km) and Göllüdağ (20 km) obsidian sources offered a significant advantage for the procurement of raw materials (Figure 3). While 2% of the chipped stone tools originate from the closer Nenezi source, 98% come from the more distant Göllüdağ—also favored by residents of contemporary sites in Central Anatolia such as Aşıklı and Boncuklu (Kayacan et al., 2022).

Figure 2

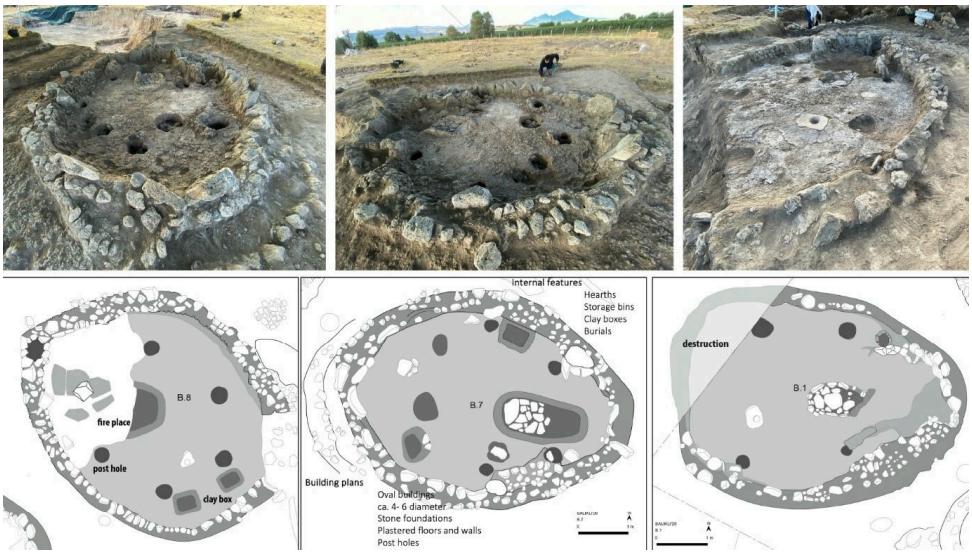
Balıklı and its surroundings.

Figure 3
Contemporary Central Anatolian settlements of Balıklı and Aşıklı and obsidian sources



The rich biotic resources and easy access to raw stone materials, provided by Balıklı's natural setting, offered an attractive ecological niche for Neolithic communities. The settlement made effective use of its environment and developed a distinctive order in terms of architecture, economy, and daily life. The settlement location was convenient for hunting-gathering and low-level agricultural subsistence strategies and for provisioning the construction materials for the community's distinct architecture. Dwellings were placed in an almost symmetrical pattern, with a more or less consistent orientation and spacing between buildings. The first inhabitants of Balıklı constructed semi-subterranean buildings using basalt stones and sometimes the natural bedrock. Over time, this evolved into a construction method that began with the excavation of a large pit, which was lined with smaller basalt stones and larger vertically positioned rectangular blocks. These oval or egg-shaped structures, measured between 5 and 7 meters in diameter, and were remarkably similar in shape, size, and internal features (Figure 4). Most of these houses include an apsidal projection on the eastern side. Although this part is often damaged, one well-preserved structure indicates that this feature served as the entrance, through which the building was accessed *via* a few steps. The consistent damage to these entrances may be related to the later removal of the steps for reuse, or destruction caused by the repurposing of this area as a cemetery by a nomadic group from the Caucasus (based on aDNA data; unpublished preliminary report) thousands of years later.

Figure 4
Houses and building features at Balıklı



Recurring architectural elements inside the structures include large, circular or oval hearths built from stone or moulded from plaster. These hearths were typically located close to the entrance. The floors and wall plaster of the houses were made from a natural white clay found near the edge of the settlement. When dried, the material became as hard as concrete. The people of Balıklı frequently repaired their floors using this same material. In contrast, at Aşıklı, floor and wall plastering involved a more sophisticated construction process and often employed clay mixtures of different types and textures reflecting social patterns and practices (Duru, 2018a). At Balıklı, floor renewal appears to have been a functional and repetitive activity. The floors were renewed at regular intervals; one structure preserves at least five successive occupation layers, while another appears to have been rebuilt at least three times in the same spot. Inside the structures, postholes measuring approximately 25 cm in diameter were symmetrically aligned parallel to the building walls. Other internal features in some buildings include mortars and clay boxes that were also often frequently renewed in the same location.

Death at Balıklı

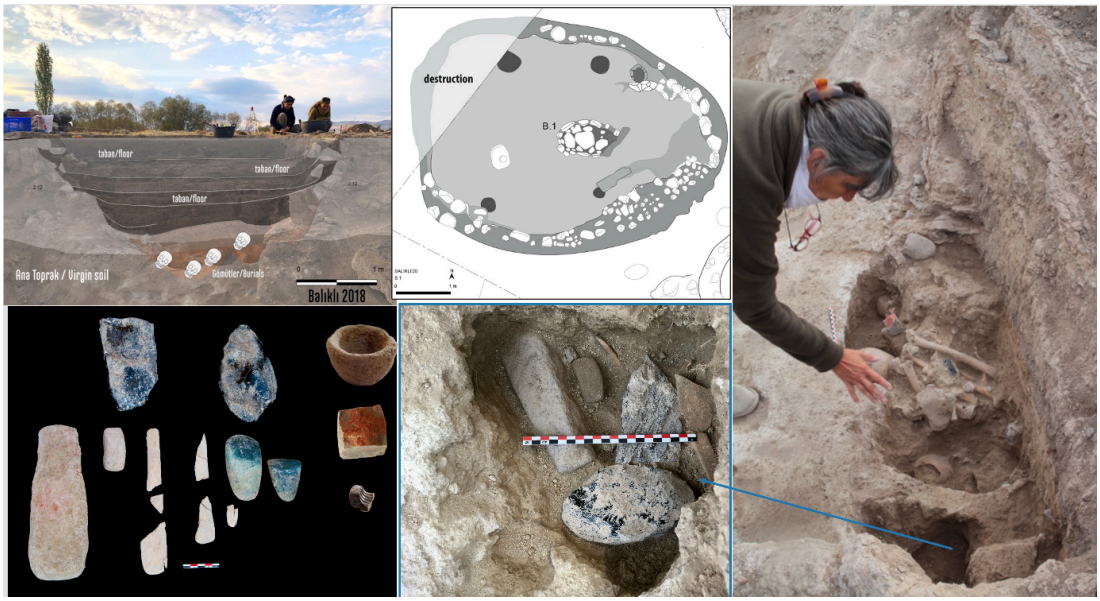
At this time, burials of more than 60 individuals have been exposed within or beneath the structures belonging to the main occupation phase at Balıklı. This number suggests strikingly different mortuary practices than at Aşıklı where only 12 individuals were discovered in contemporaneous deposits within a similarly sized excavation area.

Diverse burial practices are represented at Balıklı. Among the most striking is the interment of the dead within the walls of the buildings. We believe that this practice took place when the buildings were renovated. The deceased were likely temporarily placed elsewhere until it was time to rebuild the structures and then re-interred within the walls. This interpretation is supported by the fact that large numbers of bones were missing from several individuals. Notably, no grave goods have been found with the individuals buried in the walls. A multiple burial was also discovered during cleaning of the section of a large pit made in the site by a bulldozer. This same destruction pit led to the initial discovery of the site. Three individuals were buried in this grave within pits carved into the bedrock beneath the building floor. Grave goods were not placed with the bodies but were deposited in a separate cache in a small pit nearby. Ochre-stained blades, a broken bone spatula, axes, and various personal items were found in the cache. Similar ochre traces on the human bones further support the connection between the cache and the burials (Figure 5). The building

was originally constructed to conform to the bedrock topography. Over time, it was rebuilt at least five times in the same location using stone and mud. The internal features were also subjected to multiple renewals. Other individuals were also buried under floors in several buildings and are currently under investigation.

Figure 5

Finds from the bedrock-cut burial pit and adjacent cache pit in the lowest architectural phase of the building (B 1).



Another building exposed by the bulldozer was built directly on the bedrock and reconstructed several times by slightly shifting its position each time. Although only one quarter of the building survived, we discovered burial pits within the fill of the building in the section. One pit dug beneath the floor contained a neonate and two children. These burial pits differ significantly from those in the other structures. One neonate was buried in a hocker position inside an oval pit measuring 25 x 32 cm. The infant had been placed in a small basket before being interred in the pit. A red stone bead was found on the ribs, and an obsidian blade was placed on top of the bead (Yelözer, 2024).

Another child, aged 2–4 years (SK 11), was buried in a pit dug into the bedrock in the building's earliest phase. A group of shell beads (*Dentalium*) were found around the child's neck, arm, and wrist. A greenstone bead and small, disc-shaped stone beads were found around the child's arm and hand, a black stone bead near the infant's tibia, and an obsidian blade was placed directly above the body. A third child, aged 5–9 years (SK 47), was buried around the same time. This child was interred in a second pit cut into the bedrock immediately beside the previous burial (Figure 6, Figure 7). A necklace was found around the child's neck, and an obsidian blade had been placed in the palm of their hand. Ancient DNA analysis revealed that these two children were siblings. The shells and stone beads indicate interaction between the residents of Balıklı and people from the Middle Euphrates and the Levant. The beads are very worn, suggesting that they were second-hand items brought from distant regions (Figure 8; Yelözer, 2024).

Figure 6
Building phases (B 4 & B 14) largely damaged by bulldozer activity, and locations of some individuals buried beneath the floors.

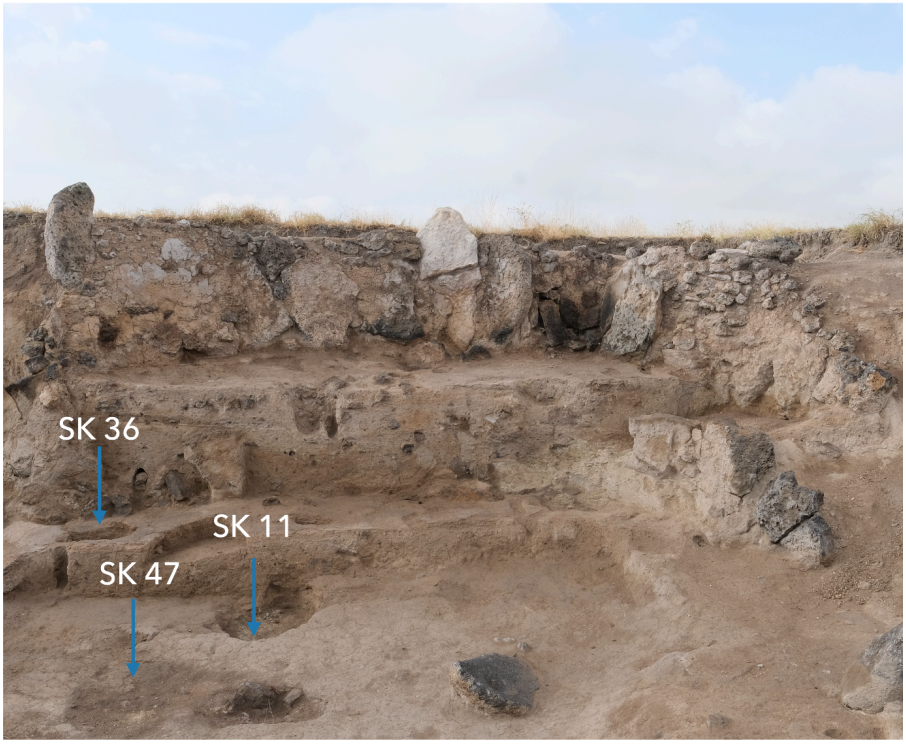
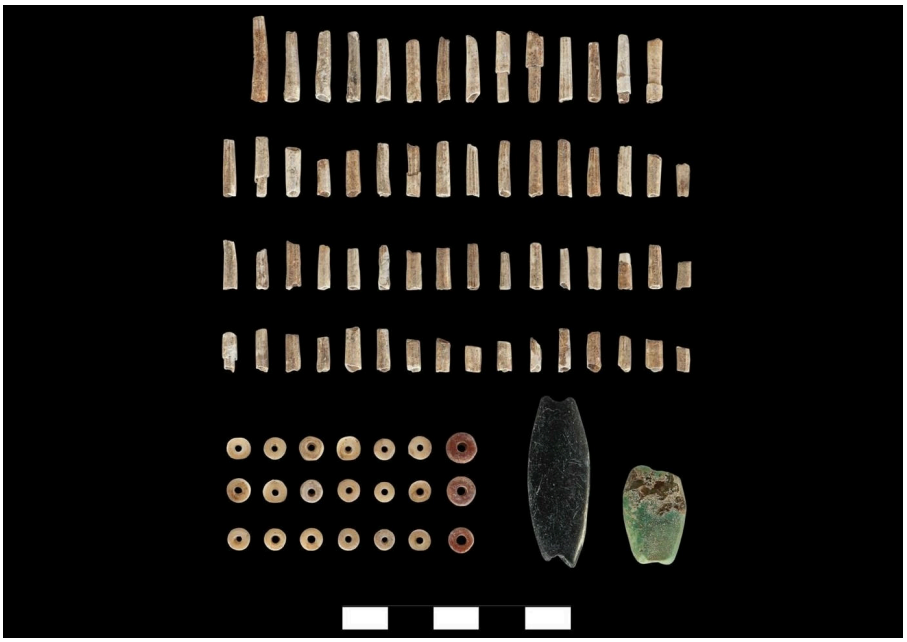


Figure 7
SK 47 and SK 11.

Figure 8
Grave goods found with SK 11.



Source: Yelözer, 2024

Finally, we are currently studying another interesting burial case: five individuals, including an infant, were found directly on the floor of a building, but not in burial pits. The individuals appeared to have been placed directly on the surface of the floor. In the same building, other individuals were buried in pits dug into the floor, suggesting that they were buried while the building was still in use. Whether the five individuals laid on the floor were placed there after the building was abandoned, or whether the building was later repurposed as a grave, is currently under investigation.

So far, we have encountered numerous burials in nearly every building—some are primary, and some are secondary. Except for the case mentioned above, kinship analysis of these burials revealed no evidence of first-degree familial relationships. For example, individuals buried under the same floor or within the same walls were not related (based on aDNA data; unpublished preliminary report). Although the varying burial practices and grave goods pointing to long-distance interactions suggest a culturally diverse community, all individuals excavated at Balıklı so far, like those at Aşıklı, are genetically native to Central Anatolia.

Like the mid-9th millennium burials at Aşıklı, the dead from Balıklı were similarly interred beneath house floors in *hocker* position and without grave goods. However, at Aşıklı, all burials from this period belong exclusively to women and children (Özbaşaran et al., 2018; Figure 9). At Balıklı, there is no such distinction by sex or age. Neonates, infants, adults—individuals of all ages and both sexes—were buried there. It is worth recalling that at Aşıklı, first-degree relationships have been confirmed between individuals buried under the floors of the same house, and also between individuals buried in neighbouring buildings (Yaka et al., 2021). However, more examples are needed to firm up these conclusions.

Figure 9
Houses and subfloor burials at Aşıklı, contemporary with Balıklı.

Subsistence and Social Organization

Subsistence at Balıklı reflects a mixed economy. High proportions of very large game like aurochs and wild ass indicate a continued reliance on hunting. Archaeobotanical remains show that cereals were present, but played a limited role, and currently, there is no strong evidence for intensive agriculture or long-term storage. Lithic analyses complement this picture. The chipped stone assemblage is based on practical production strategies and shows no formal standardization, suggesting flexibility alongside specialization.

The faunal remains recovered from Balıklı are highly diverse, and include large quantities of both small and large game. Hares are the most common small animal, but fish, birds, and turtles are also present. The large game include equal proportions of wild cattle and anatomically wild sheep and goat, and higher proportions of wild ass than are typical of Central Anatolian Neolithic sites (Goring-Morris et al., 2024). Wild boar and deer are present but in smaller numbers. The proportion of sheep and goat at Balıklı contrasts with Level 4 and 5 at Aşıklı, where sheep and goat are the more abundant. This suggests that hunting played a more prominent role at Balıklı than at Aşıklı. While hunting also occurred at Aşıklı, the focus from the outset was clearly on sheep and goats (Stiner et al., 2014). Although sheep and goat are still one of the most common taxa represented at Balıklı and their kill-off patterns shows that more than half the animals were slaughtered before they reached adulthood, more data is needed to determine whether they were hunted or managed.

The preliminary analysis of charred botanical material reflects a local dry-farming regime and a wetland-edge environment. Cereals and legumes are represented only in small quantities; the cereals are mostly represented by chaff bases from hulled wheats, indicating chaff-processing activities. Some of the hulled wheats have been identified as emmer, while others are classified as “tetraploid-type” hulled wheat. The legumes are poorly preserved—only a single seed has been tentatively identified as a possible lentil (Goring-Morris et al., 2024).

At Aşıklı, there is clear evidence that the community gradually intensified agricultural production, with features such as food storage pits and silos reflecting a planned approach to food management and surplus. The presence of designated communal work areas for activities such as obsidian knapping, grinding, basketry, hide processing, food sharing, and cooking pits, point to a collective effort to sustain the community. Such features are more limited at Balıklı. One of the key drivers of Aşıklı’s millennium-long continuous occupation may have been its focus on constructing a collective consciousness. Balıklı, on the other hand, reflects a more mobile, interaction-oriented lifestyle that aligns more closely with Epipaleolithic traditions.

Remoteness Despite Close Proximity

Although Aşıklı and Balıklı are located within the same ecological basin and share an overlapping chronology, the two sites exhibit markedly different social, architectural, and symbolic orientations. Aşıklı, throughout much of its occupation, reflects a relatively inward-looking social structure. In the early phases, material indicators of external interaction are limited; there is only modest evidence for the use of exotic raw materials, exchange networks, or symbolic objects of distant origin. Instead, a strong emphasis on collective production, shared living spaces, and ritually reinforced cohesion suggests an enclosed social organization. Architecturally, this insularity is mirrored in the consistent reproduction of house forms over generations, within which spatial norms and layout remain remarkably stable. This architectural continuity reflects a material commitment to the past and a resistance to structural change. The restricted use of grave goods and the uniformity of mortuary practices in the early and middle phases (Level 5, 4, 3) further reinforce this symbolic closure. Only in the later phases do signs of increased connectivity begin to emerge, such as the appearance of non-local beads, more diverse burial treatments, and the formation of distinct architectural groupings. Thus, Aşıklı's social order appears grounded in ritual normativity, internal continuity, and a materially self-referential worldview.

In contrast the findings from Balıklı reveal significant differences from contemporary levels at Aşıklı (Level 5 and 4). The most striking evidence for this is architectural. The construction materials, building plans, ventilation systems, interior spatial arrangements such as outward-opening doors, stepped entrances, plaster types, and wall thicknesses at Balıklı are all distinctly different from those observed at Aşıklı. Whereas at Aşıklı, the management of plant and animal resources was integrated into communal life from the beginning, these resources appear to have been used more sporadically and inconsistently at Balıklı. For instance, thus far, there is no evidence for the on-site animal pens or dung residues which are documented in the early levels of Aşıklı (Uzdurum et al., 2023).

As mentioned above, significant differences are also represented in the burial practices at Balıklı and Aşıklı. But perhaps the most important distinction between the settlements is that Balıklı appears to have been more engaged with the outside world than Aşıklı—or at least to have more openly incorporated external interaction into its social life. One of the most typical tool types at Balıklı, for example, is the obsidian projectile point. When these projectiles were first identified at Cafer Höyük in Malatya/Eastern Anatolia in the 1980s, Marie Claire Cauvin named them "Cafer points." Only two of these points have ever been published, and the total number found at Cafer Höyük remains unknown (Cauvin et al., 1986, 1991). However, almost 100 Cafer points have been recovered so far at Balıklı.

The presence of beads typical of the Middle Euphrates and dentalium deriving from the Eastern Mediterranean in graves in Central Anatolia undoubtedly carried social meaning transmitted through the interaction among genetically related groups. Interaction and long-distance exchange were more intense at Aşıklı prior to the beginning of the 8th millennium BCE (Özbaşaran et al., 2018). Early evidence of exchange includes shells from the Mediterranean (*Nassarius, Columbella fuscata*), emmer wheat, lentils, a flint blade, and examples of bipolar knapping techniques (Duru & Özbaşaran, 2024; Yelözer, 2018; Ergun et al., 2018). One of the strongest indicators of interaction between Aşıklı and Balıklı is the discovery of eight Balıklı-style projectiles found in situ on the floor of a subterranean building at Aşıklı (Figure 10), as well as a bone tool that closely resembles those found at Balıklı. Perhaps the inhabitants of Balıklı functioned as a kind of supplier for Aşıklı during the late 9th millennium BCE, in return for domestic livestock. Interestingly, Balıklı's abandonment coincides with a reduction in Aşıklı's contact with distant regions. How these observations may be correlated is the subject of future investigation.

Figure 10

*The "Cafer-type arrowheads" found at Balıklı were also discovered **in situ** on the floor of a shelter at Aşıklı.*

That Balıklı was more externally engaged than Aşıklı is supported by the presence of Middle Euphrates-style beads and projectile points, but this distinction should be further substantiated when more evidence becomes available. Comparative analysis of material culture and burial gifts suggests that Balıklı maintained stronger material and symbolic links to regions beyond Central Anatolia. In contrast, Aşıklı's emphasis on architectural permanence, shared communal spaces, and demographically restricted burials reaffirms its more inward-looking, self-reinforcing social order. This contrast between the two sites is not absolute, but the cumulative pattern suggests differentiated modes of regional connectivity.

These sharply contrasting spatial, architectural, and mortuary practices between two settlements only 15 kilometers apart underline the role of local symbolic systems in shaping social life. As Ian Hodder has emphasized, material culture is not merely a backdrop to action, but an active medium through which meaning, identity, and social order are constructed and maintained (Hodder, 1982). In this regard, the differing uses of space, burial customs, and architectural choices at Aşıklı and Balıklı may reflect distinct systems of symbolic communication rather than mere ecological or chronological variation.

Thresholds and Ambiguities

The ambiguity manifested in Balıklı's hybrid subsistence strategies, fluid architectural arrangements, and shifting mortuary practices, prompts reconsideration of the idea that cultural transition is a linear process. Instead of viewing the Neolithization process as a straightforward and developmental timeline in which one stage predictably follows another, Balıklı invites us to imagine a mesh composed of overlapping trajectories, entanglements, and in-between lifeways (Figure 11). Within this framework, ambiguity is not caused by a lack of definition or a sign of failure, but is a constitutive element of social life. What we define as "Neolithic" must thus be rethought not as a fixed outcome, but as a process of becoming shaped by uncertainty, contingency, and negotiation.

Figure 11
Semi-subterranean houses identified so far at Balıklı.

The Epipaleolithic period and its way of life seem to have persisted longer in Central Anatolia than in the so-called "core area" to the east. From Epipaleolithic Pınarbaşı to 9th millennium BCE Boncuklu, Aşıklı, and Balıklı, the people of Central Anatolia maintained a semi-mobile lifestyle and an openness to long-distance interaction. The artifacts interred with the Epipaleolithic individual buried at Pınarbaşı and the Cafer Höyük-type projectile points and heavily worn beads from the Middle Euphrates interred in graves at Balıklı demonstrate the complexity of this interaction which could not have been limited to material exchange alone.

Across Central Anatolia, the obsidian sources provide a primary shared axis of interaction. Chipped stone toolmakers at Boncuklu, Balıklı, and Aşıklı likely sourced their obsidian from visible and accessible outcrops on the slopes of Göllüdağ. Nevertheless, differences in the mortuary practices, architectural traditions, subsistence economies, and lifeways of these groups show that these communities did not engage in close techno-cultural interactions with one another. In this sense, Central Anatolian communities do not seem to have pursued either the kind of integration or competitive interaction that we observe in Southeastern Anatolia, where a more homogeneous and shared cultural emerged. The concept and collective memory of Neolithization—and its repeated re-definition—have often been treated as a linear and homogenizing process that progressed uninterrupted from the Epipaleolithic, especially in regions where the process is believed to have emerged and become institutionalized.

The comparison between Balıklı and Aşıklı compels us to rethink long-standing assumptions about the Neolithization process in Central Anatolia. Aşıklı represents a community that transitioned to sedentary life, distanced itself from external interactions, and focused on architectural permanence, food storage, and sustainability—and succeeded. In contrast, the community at Balıklı exhibited a more flexible and limited approach to sustainability, architectural investment, and the organization of daily life. Both settlements draw attention to the importance of local knowledge and regionally specific developmental trajectories. Thus, these two settlements challenge not only interpretations specific to Central Anatolia but the prevailing archaeological models about the Neolithic period more broadly. They underscore the need for an approach that goes beyond typological classifications and center-periphery dichotomies based on formal similarities, and instead embrace plurality and the local scale. Viewing the Neolithic as a period of experimentation shaped by diverse environmental, social, and technical strategies, seems to be a more accurate way to interpret the distinctiveness of these communities.

Balıklı is a powerful example that shows that Neolithization processes cannot be fully understood using singular, linear, or evolutionary narratives. The settlement either lacks or only marginally and ambiguously represents the indicators typically associated with the Neolithic—agricultural intensification, architectural stability, and social permanence. For this reason, Balıklı makes visible the threshold conditions, gray zones, hybridizations, and ambiguities that are often excluded from archaeological interpretation. This community does not fully align with either Epipaleolithic or sedentary Neolithic forms; rather, it reflects a lifeway shaped by mobility, external interaction, and experimental continuity.

In the text, I emphasize the term "flexibility" to describe the community at Balıklı. By flexibility, I mean a more fluid social pattern compared to the rigid, long-term structuring observed at Aşıklı. At Balıklı, architectural arrangements, building materials, the use of space, and subsistence strategies, are more variable and less formalized than at Aşıklı. The combination of large game hunting with limited cereal processing, the lack of infrastructure for the management of sheep and goats, storage, or intensive agriculture highlight this flexibility. Likewise, variability in burial practices including body placement, and associated grave goods, all point to significant differences in how the community related to and remembered the dead. These features should not be viewed as signs of disorder or uncertainty but rather as indications of a more adaptive and flexible approach to social and ecological conditions. In this sense, flexibility does not imply formlessness, but rather a mode of social response that resists rigid norms and embraces variability.

In this context, the phrase "On the Edge of Time and Everything" refers not only to a geographical and chronological position, but also to a process within which social formations had not yet crystallized. Marked by traces of transience, contemporaneity, and multiplicity, Balıklı is a settlement that compels us to rethink current conceptualisations of the Neolithic.

Peer Review Externally peer-reviewed.
Conflict of Interest The author has no conflict of interest to declare.
Grant Support The author declared that this study has received no financial support.
Acknowledgments I would like to express my sincere gratitude to Mihriban Özbaşaran for her unwavering support and long-standing collaboration. I am especially indebted to Natalie Munro and Nigel Goring-Morris, whose intellectual and foundational contributions have been central to the Balıklı Project from its inception. I also wish to thank the Aksaray Museum Directorate for their continued support throughout the course of our work. My heartfelt appreciation extends to the entire Balıklı Research Team and to all excavation workers whose dedication, labor, and solidarity made this research possible.

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