

ARKEOLOJİ BİLİMLERİ DERGİSİ

2023

ISSN 2822-2164

TURKISH JOURNAL OF
ARCHAEOLOGICAL SCIENCES





ISSN 2822-2164

Editörler / Editors

Güneş Duru Mimar Sinan Fine Arts University, Turkey

Mihriban Özbaşaran Istanbul University, Turkey

Yardımcı Editörler / Associate Editors

Brenna Hassett University College London, United Kingdom

Melis Uzdurum Ondokuz Mayıs University, Turkey

Sera Yelözer Université de Bordeaux (PACEA-UMR 5199), France

Fatma Kalkan Koç University, Turkey

Yazı İşleri Müdürü / Managing Editor

Varlık İndere

Yapım / Production

Zero Prodüksiyon Kitap-Yayın-Dağıtım San. Ltd. Şti.
Abdullah Sokak, No: 17, Taksim / Beyoğlu 34433 İstanbul - Türkiye

Tel: +90 (212) 244 7521 Fax: +90 (212) 244 3209

E.mail: info@zerobooksonline.com

www.zerobooksonline.com

Tasarım / Design
Adnan Elmasoğlu

Uygulama / Layout Design
Hülya Tokmak

Kapak Fotoğrafi / Cover Photo
Aşıklı Höyük Research Project Archive, Aşıklı Höyük



Danışma Kurulu / Advisory Board

Eşref Abay Ege University, Turkey

Murat Akar Hatay Mustafa Kemal University, Turkey

Benjamin S. Arbuckle University of North Carolina, USA

Levent Atıcı University of Nevada, USA

Meriç Bakiler Mimar Sinan Fine Arts University, Turkey

Marion Benz Free University of Berlin, Germany

Rozalia Christidou CNRS, France

Çiler Çilingiroğlu Ege University, Turkey

Nüzhet Dalfes Istanbul Technical University (emeritus), Turkey

Caroline Douché University of Oxford, UK

Yılmaz Selim Erdal Hacettepe University, Turkey

Burçin Erdoğan Akdeniz University, Turkey

Müge Ergun University of Oxford, UK

Metin Kartal Ankara University, Turkey

Nurcan Kayacan Istanbul University, Turkey

Moritz Kinzel German Archaeological Institute, Turkey

Elif Koparal Mimar Sinan Fine Arts University, Turkey

Ian Kuijt Notre Dame University, USA

Susan M. Mentzer University of Tübingen, Germany

Natalie Munro University of Connecticut, USA

Gökhan Mustafaoğlu Ankara Hacı Bayram Veli University, Turkey

Rana Özbal Koç University, Turkey

Mehmet Somel Middle East Technical University, Turkey

Mary Stiner University of Arizona, USA

Georgia Tsartsidou Ephorate of Palaeoanthropology - Speleology, Greece



İçindekiler / Contents

- 1** **Aysel Arslan**
Studying Fingerprints in Archaeology: Potentials and Limitations of Paleodermatoglyphics as an Archaeometric Method
- 17** **Başak Boz**
Yeraltından Yaşam Öyküleri: Biyoarkeolojide Yaşam Döngüsü ve Osteobiyografik Yaklaşım
- 29** **Müge Ergun**
Makroskobik Bitkisel Malzemenin Arkeolojik Dolgularda Birikim Süreci ve Ona Ulaşma Yöntemleri: Aşıklı Höyük Örneği Üzerinden Bir Değerlendirme
- 64** **Orkun Hamza Kayci**
A New Neolithic Settlement in the Eastern Mediterranean: Adana - Velican Höyük
- 80** **Sidar Gündüzalp**
The Techniques of Proto-Hassuna Pottery Production at Sumaki Höyük
- 107** **Christoph Schwall, Ursula Thanheiser, Mario Börner, Barbara Horejs**
The Crop is on Fire: Evidence of Subsistence Strategies from Late Chalcolithic Çukuriçi Höyük
- 136** **Amaç ve Kapsam**
- 137** **Aims and Scope**
- 138** **Makale Gönderimi ve Yazım Kılavuzu**
- 143** **Submission and Style Guideline**

A New Neolithic Settlement in the Eastern Mediterranean: Adana - Velican Höyük

Orkun Hamza Kayci^a

Abstract

Located in the northeastern part of the eastern Mediterranean, to the south of Anatolia, and in the center of Çukurova, Adana is the second largest delta plain in the Mediterranean Basin. The Taurus Mountain foothills connect the plain and the city center, but there is limited evidence for Early Neolithic occupations in the region (with exceptions, e.g., Tepebağ Höyük). Although earlier archaeological research has yielded some evidence of Neolithic occupations at Tepebağ Höyük, our knowledge of the Early Neolithic in Adana and its surroundings, as well as in Cilicia as a whole, is very limited. Yumuktepe is the only settlement in the wider region where Neolithic levels (dating to the early 7th millennium BCE) were investigated through detailed excavation and research projects. On the other hand, the neighboring regions of Central Anatolia, Cyprus, and Northern Syria provide clear evidence of the early stages of the Epipaleolithic and Neolithic periods. Throughout these periods, there were intensive interactions between these regions, especially through obsidian exchange. It is also important to note that Mediterranean shells, indicative of the same interregional network, were found in Epipaleolithic and Neolithic sites in Central Anatolia. Despite the research gap, there are some sites in Cilicia with numerous obsidian finds. This paper introduces a new Pre-Pottery Neolithic site in Adana: Velican Höyük. The aim is to assess the location of the site, importance of its early date and its possible role in interregional obsidian exchange.

Keywords: Eastern Mediterranean, Cilicia, Pre-Pottery Neolithic, chipped stone artefacts, obsidian

^a Orkun Hamza Kayci, Dr., KütaHYa Dumlupınar University, Faculty of Arts and Science, Archaeology, KütaHYa

ohamza.kayci@dpu.edu.tr ; <https://orcid.org/0000-0002-2334-2316>

Received: 17.11.2022; Accepted: 10.12.2022

Özet

Adana, Doğu Akdeniz'in kuzeydoğu bölümünde, Anadolu'nun güneyinde ve Akdeniz havzasının ikinci büyük delta ovası olan Çukurova'nın merkezinde konumlanır. Toros dağ eşliğinin ovayla birleştiği yerde, günümüzde Tepebağ Höyük'ün de bulunduğu şehir merkezi yer alır. Tepebağ Höyük'te yapılan eski sondajlarda Neolitik Dönem belirtilmiş olsa da tüm Kilikya genelinde olduğu gibi Adana ve çevresinde erken Neolitik ile ilgili bilgilerimiz oldukça sınırlı kalmıştır. Bölge genelinde Neolitik tabakalarda kazısı gerçekleştirilen tek yerleşim yeri Yumuktepe'dir. Erken Neolitik tabakalarından elde edilen C¹⁴ sonuçlarına göre Yumuktepe MÖ 7000'li yılların başına tarihlenir. Diğer yandan, Orta Anadolu, Kıbrıs ve Kuzey Suriye gibi daha geniş komşu bölgeler, Epipaleolitik ve Neolitik dönemlerin erken evrelerine dair net kanıtlar sunmaktadır. Dahası, bu bölgeler arasında, özellikle obsidiyen değiş-tokuşu üzerinden, yoğun bir iletişimin varlığından söz edebilmek mümkündür. Benzer bölgelerarası iletişimin göstergesi olarak Akdeniz'e özgü deniz kabuklarının Orta Anadolu'daki Epipaleolitik ve Neolitik yerleşimlerde bulunması da önemlidir. Kilikya'da da obsidiyenin yoğun olarak bulunduğu bazı yerleşimler vardır. Bu makalede, Kilikya'da, Çanak Çömleksiz Neolitik Dönem'e özgü buluntular içeren ve bununla birlikte obsidiyenin yoğun olarak bulunduğu Velican Höyük tanıtılacaktır. Konumu, önemi ve obsidiyen değiş tokuş mekanizmasındaki rolü üzerine değerlendirilmelerde bulunulacaktır.

Anahtar Kelimeler: Doğu Akdeniz, Kilikya, Çanak Çömleksiz Neolitik Dönem, yontmataş buluntular, obsidiyen

Introduction

Research history of Neolithic Southwest Asia begins with the earliest excavation and research projects in Amuq and Cilicia, among other regions (Braidwood 1937, Garstang 1937). Garstang and Goldman's studies in particular focused on Neolithic sites in Cilicia, revealing Neolithic settlements such as Yumuktepe and Tarsus-Gözlükule (Garstang 1937, 1953; Goldman 1963). A long Pottery Neolithic (PN) sequence was excavated at Yumuktepe, making the site the only reference settlement for the Neolithic in the entire region. After the 1990s, the second (and ongoing) excavation project at Yumuktepe focused on the Neolithic occupation levels. The results of absolute (¹⁴C) chronology indicate a Neolithic occupation at the site between 7000-5800 cal. BCE (Caneva 2012). The closest obsidian sources to Cilicia are in the Volcanic Cappadocia Region, to the north. At Yumuktepe, especially in the Early Neolithic Period, obsidian constitutes the principal raw material of the chipped stone assemblage (Altunbilek-Algül 2011), provenanced to the volcanic Cappadocian sources (Calcagnile et al. 2010).

From the 1960s to the present day, a large body of research focusing on the neighboring regions of Cilicia defined the pre-Neolithic sequence and its relation to the emergence of the Neolithic way of life in Anatolia. Among these neighboring regions, the Central Anatolian plateau as a region was thought to be lacking Neolithic occupations up until the 1960s (Özbaşaran and

Cutting 2007). However, especially since the 1990s, Neolithic research projects in the Konya Plain, as well as the volcanic region of Cappadocia to the north have provided clear evidence on Epipaleolithic and Neolithic occupations and connections within and outside of Anatolia (Özbaşaran 2011; Baird 2012; Duru 2018). In particular, extensive surveys, excavations and material analysis of the obsidian outcrops and workshops in Göllüdağ (Cappadocia) (Balkan-Atlı and Binder 2017) evidenced an intensive communication of the source with the rest of Southwest Asia during the second half of the 9th millennium BCE. Traces of these connections are understood through provenance analyses of obsidian finds, and exchange networks are reconstructed based on this evidence. Current data—e.g., the presence of Cappadocian obsidian in the Yabroud II rock shelter in Syria, dating to ~40,000 cal. BCE (Frahm and Hauck 2017)—indicate that such networks existed as early as the Upper Paleolithic Period. During the Epipaleolithic Period, the presence of Göllüdağ obsidian at Öküzini and Karain in the Western Taurus Mountains (Kartal 2002; Taşkıran 2007; Özçelik 2011; Carter et al. 2011), as well as in Direkli Cave to the east of the Middle Taurus Mountains (Erek 2012) indicates the continuation of this connectivity.

Following the Epipaleolithic Period, obsidian from Cappadocian sources is found throughout Southwest Asia from the Early Neolithic up until the Chalcolithic periods (Özdoğan 2008; Khalaily and Valla 2013). Especially during the Middle and Late PPNB, obsidian reached as far as the southern Levant and was distributed most extensively during this period (Garfinkel 2011; Ibañez et al. 2016). Further afield, obsidian also traveled overseas during the same period, reaching Cyprus (Briois et al. 1997; Şevketoğlu 2017). It is also striking that, as an indication of connectivity between these regions, Mediterranean shells were found in inland regions, especially in Central Anatolia, as early as the Epipaleolithic (Baysal 2013; Bar-Yosef Mayer 2017). How and by what means this communication between communities, seen through the exchange of obsidian and marine shells, was carried out in such a vast geography is an important question that requires further in-depth research.

In Cilicia, within the course of an ongoing research focusing on the Middle Taurus Mountains, findspots yielding obsidian assemblages has been identified in valleys in the mountainous areas (Altınbilek-Algül et al. 2021). Recent excavations in the Eşek Deresi Cave have also yielded obsidian finds from Göllüdağ, indicating that raw materials from Cappadocian sources reached the Middle Taurus Mountains during the Epipaleolithic Period (Kayci 2019, 127 and 297; Altınbilek-Algül et al. 2022) (Figure 1). While obsidian was procured from long distances, flint raw material sources are known to be in close proximity, in the mountainous areas. Among these are particularly the marine limestone formations that are important for indicating routes in the region. Provenance analyses of obsidian finds from the two newly surveyed multi-period sites (Çakmak and Çakmaktepe) have also revealed that the raw material used for chipped stone

tool production came from the Göllüdağ East flow. The intensive use of obsidian in the region continued into the Pottery Neolithic Period.

According to recent excavations at Yumuktepe (Caneva 2012), the percentage of obsidian, contrasted to other raw materials present in the Early Neolithic (7000-6400 BCE) chipped stone assemblage, was 88.9% (Altınbilek-Algül 2011). Although flint sources are known in the region (Kayci 2019, 291-293), the high rate of obsidian use at Yumuktepe proves its prominence in the region. The presence of specific tool types (points, perforators and splintered pieces) made exclusively of obsidian at Yumuktepe is also striking (Altınbilek-Algül 2011, 23). Among these, specifically the perforators made from blade blanks can be found throughout Cilician sites, and are remarkably absent in the neighboring regions. This picture is further complemented by the recent research conducted in Cilicia, where obsidian finds were attested at more than 60 sites (Kayci 2019, 294). These latest investigations, once again raise questions about the routes of this intensive obsidian distribution. The sites with obsidian assemblages, detected during surveys conducted in the north of the Middle Taurus Mountains, and southeast of Niğde, are very important to further our knowledge in unraveling the possible trade routes to Cilicia from the Central Anatolian plateau (Yener 1986; Balci and Çakan 2017; Hacı 2019).

While these questions require further, in-depth studies, newly discovered Neolithic sites in Cilicia, as well as the reappraisal of material coming from sites previously discovered but not yet investigated thoroughly, can enrich current data and contribute to this picture. This article aims to present and analyze Velican Höyük, a new Neolithic site in the eastern Mediterranean, within a framework of interregional connectivity through the lens of obsidian procurement and exchange.

Velican Höyük: Location and Research History

Velican Höyük is located 9.1 km to the north of the Adana city center (Figure 1). Today, the mound is partially inundated by the Seyhan Dam Lake (Figure 2). Although since 1956 it has remained as an island in the dam lake, it is possible to reach the mound by foot only during October and November when dam water recedes. The mound had a conical shape, and its current dimensions are 155 x 150 m (Figure 3). Its height reaches 30 m, and it is 67 m above the sea level. It is located at the tip of a peninsula lying in north-south direction. The peninsula is 750 m long (including the area of the mounds to the south and north) (Figure 3).

Like other settlements in Cilicia, Velican Höyük is mainly composed of two settlement areas. Today, due to the Seyhan Dam Lake, it is difficult to understand the natural environment of the settlement. For this reason, military maps from 1940s and 1950s were used during the initial research at the site.

The main mound is at the confluence of the Seyhan and Çakıt flows. The Çakıt Stream is one of the main tributaries of the Seyhan River in the northwest. There is an upper terrace that lies to the south of the settlement (the Handere Formation conglomerate) dating to the Upper Miocene (Faranda et al. 2013). A small stream flows from this area to the west of the settlement. Here, Velican Höyük is located on a bedrock with a high elevation of up to 10 m (Seton-Williams 1954, 171). As a result of this very dense hydrography, in geologic periods, the tributaries formed a large conglomerate from Velican Höyük to the Adana city center, broken off from the Taurus Mountains into a dense, gravelly deposit. It was possible to identify a wide variety of stone raw materials in this conglomerate, such as chert, flint, radiolarite, and quartz. All have been an integral part of the prehistoric chipped stone industries. Thus, the area can be considered as a secondary raw material deposit.

Velican Höyük was first visited by the American Expedition led by H. Goldman. It was later studied by M.V. Seton-Williams. Seton Williams' (1954, 171-172) research concluded that the occupation at the site started during the Early Chalcolithic and continued into the Iron Age. Some scholars suggested that Velican Höyük may be the Hittite town of "Uru Adaniya" (Garstang and Gurney 1959, 61). As the mound is partially submerged by the dam lake for most of the year as described earlier, previous research was mostly focused on the top of the mound. However, the peninsula to the south of the mound is understudied. The first dam rescue excavation in Turkey was carried out in the ancient city of Augusta on the opposite bank of Velican Höyük (Özdoğan 2000, 72 and references therein). However, it has since been forgotten and is one of the many sites in the country that have been submerged by dams. When Seyhan Dam was built in the 1950s, more than ten villages in the Seyhan River valley were flooded. Currently, the water flow continues to destruct the surroundings.

During the PhD research of the author (Kayci 2019), Velican Höyük was revisited and surveyed and Pre-Pottery Neolithic, as well as Pottery Neolithic and Chalcolithic assemblages and some architectural remains, were detected. The settlement at Velican was composed of at least two mounds facing each other on the peninsula and divided by a large river. The recent surveys yielded Paleolithic finds, as well as numerous finds dating to later periods, suggesting a long-term, continuous occupation history in the area. The surveys focused on the southern, western and eastern zones of the mound. The slopes of the mound yielded obsidian fragments, and preliminary observations suggest that obsidian finds are more numerous in lower elevations. Furthermore, wall remains and pits were detected on the slopes of the mound, observed thanks to the tidal flow of the dam lake water. In the lower benches of the eastern slope, a large density of obsidian was recorded in an area of 10 x 10 m. This material generally consisted of large flakes.

The southern extension of the mound (Velican South) yielded earlier (PPN) material that is comparable to the nearby site (Buruk South), dating possibly to the Pre-Pottery Neolithic B (PPNB) (Kayci 2019, 146-150). Below, Velican South is introduced and discussed with a focus on the chipped stone assemblage.

Velican South

Velican South is located on the southern extension of the main mound, on the neck of the peninsula (Figure 4). The chipped stone assemblage collected in this area consists entirely of pre-historic materials. Owing to the tide of the dam water, a large extent of cultural deposits were revealed in this area. Among the archaeological remains are a destroyed mudbrick wall found along the eastern boundary of the peninsula. It is not possible to precisely determine the size and extent of the cultural deposits due to dam water destruction. However, based on the water level at the time of our visits, we can propose that there should be at least a 4 m thick cultural deposit in this zone. Pottery sherds that can be attributed to the Roman Period were found to the north of Velican South, in the zone where the peninsula narrows down.

Chipped stone assemblage

A high concentration of chipped stone material dating to the Neolithic Period was found in Velican South. A Middle Paleolithic point and a disk-shaped core were also found in the same area (Figure 5).

The chipped stone assemblage is dominated by obsidian. Flint artefacts are present to a lesser extent. Due to the almost year-round (10 months a year), intense water flow from the Seyhan reservoir onto the south bank of the mound, this area is covered with small gravels. The tributaries of Seyhan continue to bring gravels and pebbles into the existing conglomerate. Thus, the surface is sealed off with gravels, and consequently, the number of obsidian finds from this area makes it the largest collection from a single findspot during the course of eight years of research in Cilicia (Kayci 2019). The large, hand-sized obsidian tool found here is thus quite unique for the Cilicia region, mainly due to the preservation issues in other areas (Figure 6). The results of the obsidian provenance analysis made by D. Mouralis demonstrate that all of the sampled materials originate from the Göllüdağ East sources (Kayci 2019, 293-298) (Figure 7).

The presence of core renewal flakes and other elements that are indicative of on-site flaking suggest that obsidian was knapped at Velican Höyük. Flint cores were found as well (Figure 8). “Y” blades (Figure 9), bidirectional and pressure blades and bladelets (Figure 10) all adhere to the PPNB chipped stone technology, which is undoubtedly present at the site. There are also examples of pressure blades made on flint. Characteristic arrowheads made on bidirectional blade blanks are also present, and provide important data for chronological attribution to the

PPNB (Figure 11). Pressure retouched of oval points, known from the 8th millennium BCE in Central Anatolia (Kayacan 2018), were also found in this area. This technology has been used on flint as well. Apart from the tool typology related to bidirectional core reduction, scrapers and perforators constitute other tool types within the chipped stone assemblage. Miniature stone polished axes were also found. In addition to the Neolithic assemblages, flint tools that may belong to the Paleolithic Period are noteworthy and suggest that this location was important in different periods of prehistory.

Concluding Remarks

The Velican South settlement is located at the confluence of the tributaries of the Seyhan River, all of which constitute the natural routes reaching all the way to the Central Anatolian Plateau. The discovery of Göllüdağ obsidian at Çakmaktepe (Kayci 2019, 135-137), situated about 40 km to the north of Velican, could further suggest potential routes reaching Central Anatolia via valley ridges. Moreover, original deposits of flint raw material in this area corresponding to flint artefacts found at Velican could propose another regional prehistoric route. Old maps show that around the old bed of the Seyhan River are several plains suitable for agriculture, which were formed before the Holocene. All these aspects make the location of the Velican mound a perfect zone in terms of site location for agricultural practices and sedentism, as well as connectivity and exchange between regions.

Returning to the issue of connectivity and obsidian exchange, it has been proposed as early as the 1960s that the “down-the-line” model of distribution on a certain route, enduring in a gradual decrease of intensity, could explain the circulation of obsidian between regions (Renfrew et al. 1966). The significance of the distribution centers was later emphasized in a second model framed as “trade between centers” (Renfrew 1982). Based on these two models, Renfrew and colleagues suggest that the Cappadocian obsidian might have been distributed to the Cilicia region, down to the Mediterranean coasts as early as the Upper Paleolithic (Renfrew et al. 1966). In a recent study of obsidian exchange networks in Neolithic Southwest Asia, Ibañez and colleagues (2016) examined the obsidian assemblages from sites throughout the region using mathematical modeling of obsidian exchange networks and quantitative analysis of obsidian artifacts from sites dated to different phases of the Pre-Pottery Neolithic. They concluded that the quantity of obsidian in different sites increased during the PPNB, and the exchange networks extended over the greatest distances during this period (Ibañez et al. 2016). These network models reiterate earlier models that suggest the significance of “centers” in obsidian circulation and distribution mechanisms. Due to its location, it could be hypothesized that Velican Höyük too held a central role in obsidian circulation and distribution. However, this requires further research focusing on technological studies, as well as network analyses.

The chipped stone assemblage from Velican South focused on techno-typological analyses and provenance studies of obsidian artefacts. However, it was not possible to perform more detailed statistical analyses due to the methodological constraints of the survey project, which principally aimed at recording material from different periods. However, although the settlement yielded finds dating to the PN and Chalcolithic periods too, the majority of the finds can be associated to the PPNB. It should also be noted that, due to the location of the settlement on the possible main route of exchange, obsidian might have traveled to this area throughout these periods. While the main technological characteristics of the lithic assemblage allow us to date it to the PPNB, the presence of Central Anatolian pressure-retouched oval points hint at a prominent occupation at the site during the 8th millennium BCE. While we lack data on the PPNA of Cilicia, recent surveys in the region have yielded important results about the Epipaleolithic Period (Yükmen Edens 2018, 2019; Kayci and Girginer 2020; Altınbilek-Algül et al. 2021, 2022). The new excavations at the Eşek Deresi Cave further confirmed the presence of Epipaleolithic groups, especially in the Mersin area. Therefore, new data on earlier Late Epipaleolithic and PPNA occupations in the region can be expected in the future as systematic research continues. The region has a unique and highly active geography, with different ecological niches in the mountainous areas as well as river- and seascapes. It is, therefore, likely that through new fieldwork projects a regional character of prehistoric cultures can be defined for Cilicia, as is the case in the adjacent areas to the north, east and west.

Current data suggest that the cultural connections between Cilicia and Central Anatolia began as early as the Epipaleolithic Period. According to the new survey data and the case study of this paper, rich lithic and small find assemblages clearly suggest an intensive occupation of the Cilician part of the eastern Mediterranean during the PPNB. While giving important insights, current evidence clearly opens a range of new scientific questions that should be further explored. The intensive use of obsidian at Yumuktepe and the discovery of special architectural elements with red floors in the first half of the 7th millennium BCE (Caneva and Jean 2016), and the material culture of the Middle Chalcolithic, especially in the north of the Central Taurus Mountains (Hacar 2017), as well as the increasing number of sites with obsidian finds in both lowlands and mountainous areas (Yükmen Edens 2018; Kayci 2019; Altınbilek-Algül et al. 2021) (Figure 11) all indicate an intensive connectivity between different communities in Cilicia throughout different periods, and therefore provide a new impetus to define a more coherent picture for the prehistory of this particular region in the Eastern Mediterranean.

References

- Altınbilek-Algül, Ç. 2011. Chipped Stone Industry of Yumuktepe: Preliminary Results from “The Early Neolithic” Phase. *Anatolia/Antiqua* XIX, 13-25. <https://doi:10.3406/anata.2011.1086>
- Altınbilek-Algül, Ç., Kayci, O., Balcı, S, Tümer, H., Ünlü, Y., Ulaş, B., Şahin, F., Özbudak, O. 2021. The Preliminary Report on the 2019-2020 Seasons of the Central Taurus Prehistoric Research (OTTA). *Anatolia Antiqua* XXIX, 129-148.
- Altınbilek-Algül, Ç., Kayci, O., Balcı, S. 2022. A New Epipaleolithic Site in the Central Taurus Mountains: Eşek Deresi Cave (Mersin/Turkey). *ArchéOrient - Le Blog*, 18 février 2022. <https://archeorient.hypotheses.org/17313>
- Baird, D. 2012. The Late Epipaleolithic, Neolithic, and Chalcolithic of the Anatolian Plateau, 13,000-4,000 BC. D.T. Potts (Ed.), *A Companion to the Archaeology of the Ancient Near East*, Oxford, 431- 465. <https://doi.org/10.1002/9781444360790.ch23>
- Balcı, S., Çakan, Y. 2017. Volkanik Kapadokya Bölgesi’nde Tarihöncesine Ait Yeni Bulgular. *Arkeoloji ve Sanat Dergisi* 156, 13-26.
- Balkan-Atlı, N., Binder, D. 2007. Kömürcü-Kaletepe Obsidiyen İşliğı, Anadolu’da Uygarlığın Doğuşu ve Avrupa’ya Yayılımı. M. Özdoğan, N. Başgelen (Eds.), *Türkiye’de Neolitik Dönem, Yeni Kazılar, Yeni Bulgular*, İstanbul: Arkeoloji ve Sanat Yayınları, 216-222.
- Bar-Yosef Mayer, D. 2017. Shell Ornaments and Artifacts in Neolithic Cyprus and Correlations with Other Mediterranean Region. *Quaternary International* XXX, 1-10. <https://doi.org/10.1016/j.quaint.2017.06.034>
- Baysal, E. 2013. Epipalaeolithic Marine Shell Beads at Pınarbaşı. Central Anatolia in a Wider Context. *Anatolica* 39, 261-276.
- Braidwood, R.J. 1937. *Mounds in the Plain of Antioch, An Archaeological Survey*. The University of Chicago, Oriental Institute Publications XLVIII, Chicago: The University of Chicago Press.
- Brios, F., Gratuze, B., Guilane, J. 1997. Obsidiennes du site néolithique précéramique de Shillourokambos (Chypre). *Paléorient* 23/11, 95-112. <https://doi.org/10.3406/paleo.1997.464>
- Calcagnile, L., Quarta, G. and D’Elia, M. 2010. Mersin Yumuktepe Yerleşmesi Örnekleri Üzerinde Yüksek Teknik Aracılığıyla Gerçekleştirilen Teşhis ve Tanı Araştırması. I. Caneva, G. Köroğlu (Eds.), *Yumuktepe. 9000 Yıllık Yolculuk*, İstanbul: Ege Yayınları, 123-128.
- Caneva, I. 2012. Mersin-Yumuktepe, In the Seventh Millenium BC: An Updated View. M. Özdoğan, N. Başgelen, P. Kuniholm (Eds.), *The Neolithic in Turkey, New Excavations & New Research (Central Turkey)*, İstanbul: Archaeology & Art Publications, 1-29.
- Caneva, I., Jean, E. 2016. Mersin-Yumuktepe: une mise au point sur les derniers travaux. *Anatolia Antiqua* XXIV, 13-34.
- Carter, T., Le Bourdonnec, F.-X., Kartal, M., Poupeau, G., Calligaro, T., Moretto, P. 2011. Marginal Perspectives: Sourcing Epi-Palaeolithic to Chalcolithic Obsidian from the Öküzini Cave (SW Turkey). *Paléorient* 37/2, 123-149. <https://doi.org/10.3406/paleo.2011.5427>
- Duru, G. 2018. Değişen Zaman, Dönüşen Geçmiş: Volkanik Kapadokya. *Anadolu/Anatolia* 44, 157-179. https://doi.org/10.1501/andl_0000000454
- Erek, M.C. 2012. Güneybatı Asya Ekolojik Nişi İçinde Direkli Mağarası Epipaleolitik Buluntularının Değerlendirilmesi. *Anadolu/Anatolia* 38, 53-66. https://doi.org/10.1501/andl_0000000393

- Faranda, C., Gliozzi, E., Cipollari, P., Grossi, F., Darbaş, G., Gürbüz, K., Nazik, A., Gennari, R., Cosentino, D. 2013. Messinian Paleoenvironmental Changes in the Easternmost Mediterranean Basin: Adana Basin, Southern Turkey. *Turkish Journal Earth Sciences* 22, 839-863. <https://doi.org/10.3906/yer-1205-11>
- Frahm, E., Hauk, C.T. 2017. Origin of an Obsidian Scraper at Yabroud Rockshelter II (Syria): Implications for Near Eastern Social Networks in the Early Upper Palaeolithic. *Journal of Archaeological Science: Reports* 13, 415-427. <https://doi.org/10.1016/j.jasrep.2017.04.021>
- Garfinkel, Y. 2011. Obsidian Distribution and Cultural Contacts in the Southern Levant during the 7th Millennium cal. BC. E. Healey, S. Campbell, O. Maeda (Eds.), *The State of the Stone. Terminologies, Continuities and Contexts in Near Eastern Lithics*, Berlin: ex oriente, 411- 416.
- Garstang, J. 1937. Explorations in Cilicia: The Neilson Expedition: Preliminary Report. *LAAA* XXIV, 52-68.
- Garstang, J. 1953. *Prehistoric Mersin, Yümük Tepe in Southern Turkey*. The Neilson Expedition in Cilicia, Oxford.
- Garstang, J., Gurney, O.R. 1959. *The Geography of Hittite Empire*. Ankara: Occasional Publications of the British Institute of Archaeology, No. 5, London.
- Goldman, H. 1963. *Excavations at Gözlükule, Tarsus II. From the Neolithic through the Bronze Age*. Princeton, New Jersey: Princeton University Press.
- Hacar, A. 2017. Possible Links Between the Highland Regions North of the Central Taurus and West Cappadocia in the Middle Chalcolithic Period (6th and 5th Millennium BC). *TÜBA-AR* 21, 11-23.
- Hacar, A. 2019. Niğde İli Dağlık Alan Arkeolojik Yüzey Araştırması: 2018 Yılı. *37. Araştırma Sonuçları Toplantısı* 1, Ankara, 1-20.
- Ibañez, J.J., Ortega, D., Campos, D., Khalidi, L., Méndez, V., Teira, L. 2016. Developing a Complex Network Model of Obsidian Exchange in the Neolithic Near East: Linear Regressions, Ethnographic Models and Archaeological Data. *Paléorient* 42.2, 9-32. <https://doi.org/10.3406/paleo.2016.5718>
- Kartal, M. 2002. The Microliths of Öküzini Cave. I. Yalçınkaya, M. Otte, J. Kozłowski, O. Bar-Yosef (Eds.), *La Grotte D'Öküzini: Evolution Du Paléolithique Final Du Sud-Ouest De L'Anatolie/ Öküzini: Final Paleolithic Evolution in Southwest Anatolia*, Liège: ERAUL 96, 235-252.
- Kayacan, N. 2018. Oval Points and Cattle-Hunting Practices in Central Anatolia during the 8th Millennium BC. *Adalya* 21, 45-61.
- Kayci, O. 2019. *Neolitik Dönemde Çukurova ve Orta Toroslar: Yeni Araştırmalar ve Çevre Bölgelerle İlişkiler*. Yayınlanmamış Doktora Tezi, İstanbul: İstanbul Üniversitesi.
- Kayci, O.H., Girginer, K.S. 2020. Tatarlı Höyük'te Neolitik Dönem: Ön Değerlendirme. K.S. Girginer, G. Dardeniz, A. Gerçek, F. Erhan, E. Genç, İ. Tuğcu, O. Oyman-Girginer, M.C. Fırat, H. Gerçek, M.F. Tufan (Eds.), *MORS IMMATURA Amanosların Gölgesinde, Hayriye Akıl Anı Kitabı*, İstanbul: Ege Yayınları, 295-330.
- Khalailiy, H., Valla, F.R. 2013. Obsidian in Natufian Context: The Case of Eynan (Ain Mallaha), Israel, Natufian Foragers in the Levant. O. Bar-Yosef, F.R. Valla (Eds.), *Terminal Pleistocene Social Changes in Western Asia*, Ann Arbor, Michigan: International Monographs in Prehistory, 193-202.
- Özbaşaran, M. 2011. The Neolithic on the Plateau. S.R. Steadman, G. McMahon (Eds.), *The Oxford Handbook of Ancient Anatolia 10.000–323 B.C.E*, Oxford: Oxford University Press, 99-124.

- Özbaşaran, M., Cutting, M. 2007. Orta Anadolu'da Neolitiğin Ortaya Çıkışı ve Gelişimi. Neziha Başgelen (Ed.), *12000 Yıl Önce Neolitik Dönem*, İstanbul: Yapı Kredi Yayınları, 55-62.
- Özçelik, K. 2011. Karain Mağarası B Gözü Epi-paleolitik Dönem Yontmataş Endüstrisi. H. Taşkiran, M. Kartal, B. Kösem, G. Kartal (Eds.), *Işın Yalçınkaya'ya Armağan*, Ankara, 213-225.
- Özdoğan, M. 2000. Türkiye'de Yok Olan Kültürler ve Baraj Gölleri Sorunlar ve Öneriler. *Gap Bölgesinde Kültür Varlıklarının Korunması, Yaşatılması ve Tanıtılması Sempozyumu*, Ankara: Gap Bölge Kalkınma Dairesi Başkanlığı, Gap Yayınları Kültür Dizisi No. 3, 71-83.
- Özdoğan, M. 2008. Obsidian in the Context of Near Eastern Prehistory, A Conspectus on the Status of Research, Problems and Prospects. *Anatolian Metal IV*, Bochum, 191-201.
- Renfrew, C., Dixon, J.E, Cann, J.R. 1966. Obsidian and Early Cultural Contact in the Near East. *Proceedings of the Prehistoric Society XXXII*, 30-72.
- Renfrew, C. 1982. Alternative Models for Exchange and Spatial Distribution. T.K. Earle, J.E. Ericson (Eds.), *Exchange System in Prehistory*, New York: Academic Press, 71-89.
- Seton-Williams, M.V. 1954. Cilician Survey. *Anatolian Studies IX*, 121-174.
- Şevketoğlu, M.Ç. 2017. Tatlısu-Çiftlikdüzü (Akanthou-Arkosykos): Maritime Connections of Early Neolithic Society in Cyprus. *TINA: Maritime Archaeology Periodical 7*, 10-28.
- Taşkıran, H. 2007. The Supply Areas of Karain Cave in Southwest Anatolia. M.H. Moncel, A.M. Moigne, M. Arzarello, C. Peretto (Eds.), *Raw Material Supply Areas and Food Supply Areas. Integrated Approach of the Behaviours*, Proceedings of the XV UISPP World Congress (Lisbon, 4-9 September 2006), BAR International Series 1725, 2007, 207- 211.
- Yener, K.A. 1986. Bolkar Dağ, Aladağ ve Keban Madenlerinde 1984 yılı İncelemeleri. *I. Arkeometri Sonuçları Toplantısı*, 93-106.
- Yükmen Edens, B. 2018. Basalt Landforms and the Prehistory of Eastern Smooth Cilicia and Northern Hatay. *Anatolica XLIV*, 43-74.
- Yükmen Edens, B. 2019. Erken Prehistorya ve Kilikya Bazalt Alanları Projesi. Aşama II: 2018 Yılı Çalışmaları. *37. Araştırma Sonuçları Toplantısı I*, 297-313.

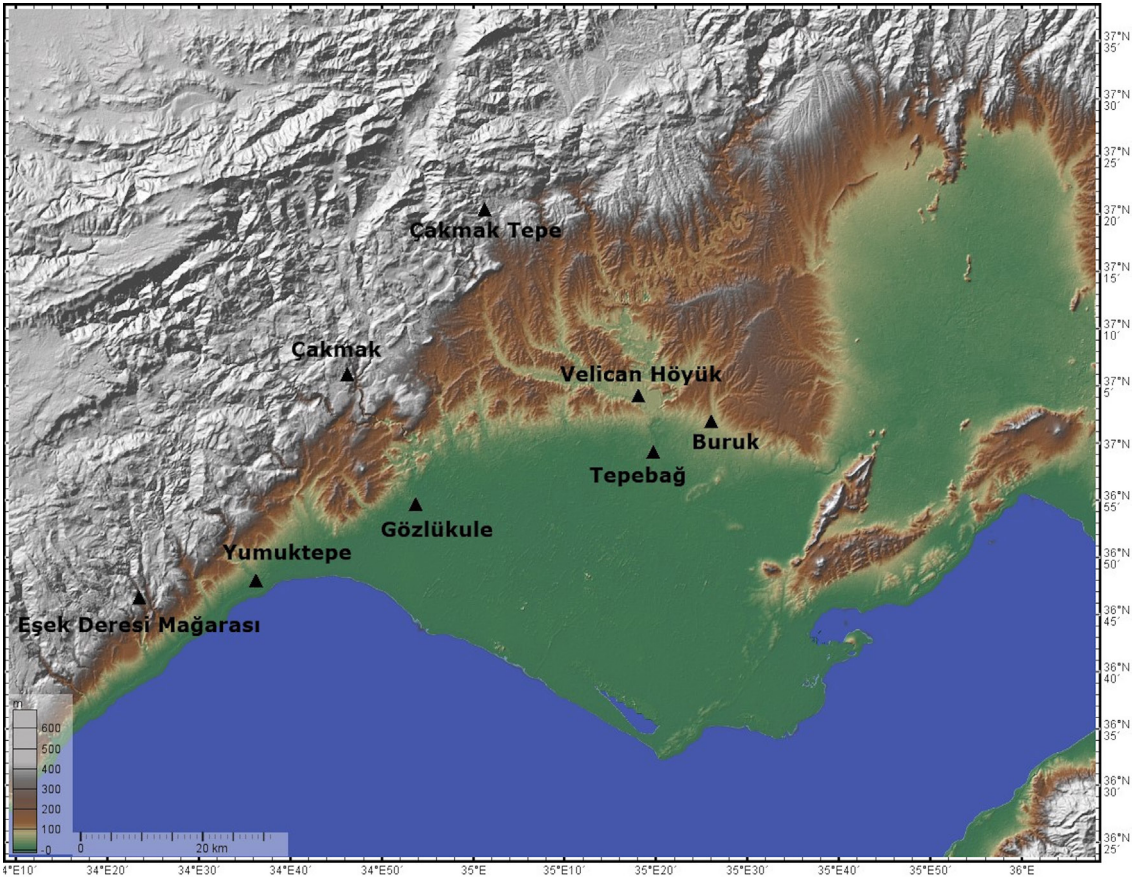


Figure 1. Map showing the sites mentioned in the text.



Figure 2. Velican Höyük in Lake of Seyhan Dam.



Figure 3. Velican South.

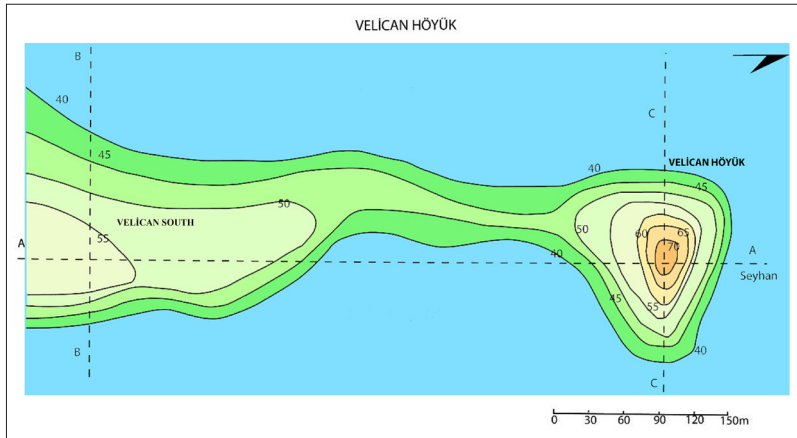


Figure 4. Topographic plan of Velican.



Figure 5. Big obsidian tool.



Figure 6. Paleolithic chipped stone finds.

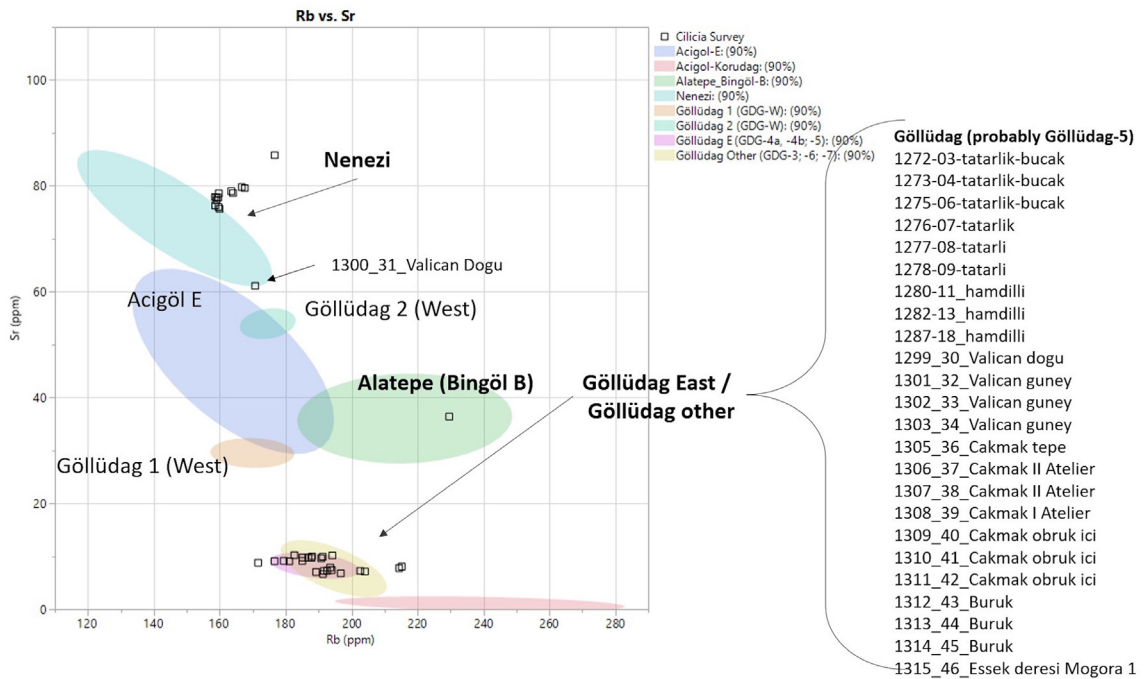


Figure 7. Obsidian analysis results.



Figure 8. Flint core.



Figure 9. Upsilon blades.

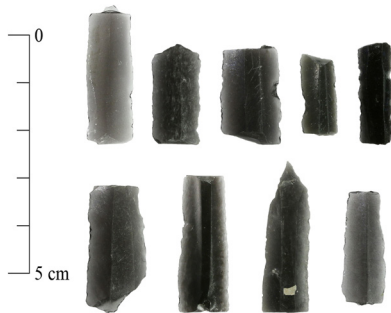


Figure 10. Bi-directional and pressure blades.



Figure 11. Obsidian points.



Amaç ve Kapsam

Arkeoloji bir süredir geçmişin yorumlanmasında teknoloji ve doğa bilimleri, mühendislik ve bilgisayar teknolojileri ile yoğun iş birliği içinde yeni bir anlayışa evrilmektedir. Üniversiteler, ilgili kurum ya da enstitülerde yeni açılmakta olan “Arkeoloji Bilimleri” bölümleri ve programları, geleneksel anlayışı terk ederek değişen yeni bilim iklimine adapte olmaya çalışmaktadır. Bilimsel analizlerden elde edilen sonuçların arkeolojik bağlam ile birlikte ele alınması, arkeolojik materyallerin, yerleşmelerin ve çevrenin yorumlanmasında yeni bakış açıları doğurmaktadır.

Türkiye’de de doğa bilimleri ile iş birliği içindeki çalışmaların olduğu kazı ve araştırma projelerinin sayısı her geçen gün artmakta, yeni uzmanlar yetişmektedir. Bu nedenle Arkeoloji Bilimleri Dergisi, Türkiye’de arkeolojinin bu yeni ivmenin bir parçası olmasına ve arkeoloji içindeki arkeobotanik, arkeozooloji, alet teknolojileri, tarihlendirme, mikromorfoloji, biyoarkeoloji, jeokimyasal ve spektroskopik analizler, Coğrafi Bilgi Sistemleri, iklim ve çevre modellemeleri gibi uzmanlık alanlarının çeşitlenerek yaygınlaşmasına katkı sağlamayı amaçlamaktadır. Derginin ana çizgisi arkeolojik yorumlamaya katkı sağlayan yeni anlayışlara, disiplinlerarası yaklaşımlara, yeni metod ve kuram önerilerine, analiz sonuçlarına öncelik vermek olarak planlanmıştır.

Arkeoloji Bilimleri Dergisi uluslararası hakemli bir dergidir. Dergi, Ege Yayınları tarafından çevrimiçi olarak yayınlanmaktadır. Kazı raporlarına, tasnif ve tanıma dayalı çalışmalara, buluntu katalogları ve özgün olmayan derleme yazılarına öncelik verilmeyecektir.



Aims and Scope

Archaeology is being transformed by the integration of innovative methodologies and scientific analyses into archaeological research. With the establishment of new departments, institutes, and programs focusing on “Archaeological Sciences”, archaeology has moved beyond the traditional approaches of the discipline. When placed within their archaeological context, studies can provide novel insights and new interpretive perspectives to the study of archaeological materials, settlements and landscapes.

In Turkey, the number of interdisciplinary excavation and research projects incorporating scientific techniques is on the rise. A growing number of researchers are being trained in a broad range of scientific fields including but not limited to archaeobotany, archaeozoology, tool technologies, dating methods, micromorphology, bioarchaeology, geochemical and spectroscopic analysis, Geographical Information Systems, and climate and environmental modeling. The Turkish Journal of Archaeological Sciences aims to situate Turkish archaeology within this new paradigm and to diversify and disseminate scientific research in archaeology. New methods, analytical techniques and interdisciplinary initiatives that contribute to archaeological interpretations and theoretical perspectives fall within the scope of the journal. The Turkish Journal of Archaeological Sciences is an international peer-reviewed journal. The journal is published online by Ege Yayınları in Turkey. Excavation reports and manuscripts focusing on the description, classification, and cataloging of finds do not fall within the scope of the journal.



Makale Gönderimi ve Yazım Kılavuzu

* *Please see below for English*

Makale Kabul Kriterleri

Makalelerin konu aldığı çalışmalar, Arkeoloji Bilimleri Dergisi'nin amaçları ve kapsamı ile uyumlu olmalıdır (bkz.: Amaç ve Kapsam).

Makaleler Türkçe veya İngilizce olarak yazılmalıdır. Makalelerin yayın diline çevirisi yazar(lar)ın sorumluluğundadır. Eğer yazar(lar) makale dilinde akıcı değilse, metin gönderilmeden önce anadili Türkçe ya da İngilizce olan kişilerce kontrol edilmelidir.

Her makaleye 200 kelimeyi aşmayacak uzunlukta Türkçe ve İngilizce yazılmış özet ve beş anahtar kelime eklenmelidir. Özete referans eklenmemelidir.

Yazarın Türkçesi veya İngilizcesi akıcı değilse, özet ve anahtar kelimelerin Türkçe veya İngilizce çevirisi editör kurulu tarafından üstlenilebilir.

Metin, figürler ve diğer dosyalar wetransfer veya e-posta yoluyla **archaeologicalsciences@gmail.com** adresine gönderilmelidir.

Makale Kontrol Listesi

Lütfen makalenizin aşağıdaki bilgileri içerdiğinden emin olun:

- Yazarlar (yazarların adı-soyadı ve iletişim bilgileri buradaki sırayla makale başlığının hemen altında paylaşılmalıdır)
- Çalışılan kurum (varsa)
- E.mail adresi
- ORCID ID

Makalenin içermesi gerekenler:

- Başlık
- Özet (Türkçe ve İngilizce)
- Anahtar kelimeler
- Metin
- Kaynakça
- Figürler
- Tablolar

Bilimsel Standartlar ve Etik

- Gönderilen yazılar başka bir yerde yayınlanmamış veya yayınlanmak üzere farklı bir yere gönderilmemiş olmalıdır.
- Makaleler özgün ve bilimsel standartlara uygun olmalıdır.

- Makalelerde cinsiyetçi, ırkçı veya kültürel ayırım yapmayan, kapsayıcı bir dil kullanılmalıdır (“insanoğlu” yerine “insan”; “bilim adamı” yerine “bilim insanı” gibi).

Yazım Kuralları

Metin ve Başlıkların Yazımı

- Times New Roman karakterinde yazılan metin 12 punto büyüklüğünde, iki yana yaslı ve tek satır aralıklı yazılmalıdır. Makale word formatında gönderilmelidir.
- Yabancı ve eski dillerdeki kelimeler *italik* olmalıdır.
- Başlık ve alt başlıklar **bold** yazılmalıdır.
- Başlıklar numaralandırılmamalı, italik yapılmamalı, altları çizilmemelidir.
- Başlık ve alt başlıklarda yalnızca her kelimenin ilk harfi büyük olmalıdır.

Referans Yazımı

Ayrıca bkz.: Metin İçi Atıflar ve Kaynakça Yazımı

- Referanslar metin içinde (Yazar yıl, sayfa numarası) şeklinde verilmelidir.
- Referanslar için dipnot ve son not kullanımından kaçınılmalıdır. Bir konuda not düşme amacıyla gerektiği takdirde dipnot tercih edilmelidir.
- Dipnotlar Times New Roman karakterinde, 10 punto büyüklüğünde, iki yana yaslı, tek satır aralıklı yazılmalı ve her sayfa sonuna süreklilik izleyecek şekilde eklenmelidir.

Şekiller ve Tablolar

- Makalenin altına şekiller ve tablolar için bir başlık listesi eklenmelidir. Görsellerde gerektiği takdirde kaynak belirtilmelidir. Her şekil ve tabloya metin içerisinde gönderme yapılmalıdır (Şekil 1 veya Tablo 1).
- Görseller Word dokümanının içerisine yerleştirilmemeli, jpg veya tiff formatında, ayrı olarak gönderilmelidir.
- Görüntü çözünürlüğü basılması istenen boyutta ve 300 dpi'nin üzerinde olmalıdır.
- Görseller Photoshop ve benzeri programlar ile müdahale edilmeden olabildiğince ham haliyle gönderilmelidir.
- Excel'de hazırlanmış tablolar ve grafikler var ise mutlaka bunların PDF ve Excel dokümanları gönderilmelidir.

Tarihlerin ve Sayıların Yazımı

- MÖ ve MS kısaltmalarını harflerin arasına nokta koymadan kullanınız (örn.: M.Ö. yerine MÖ).
- “Bin yıl” ya da “bin yıl” yerine “... binyıl” kullanınız (örn.: MÖ 9. binyıl).
- “Yüzyıl”, “yüz yıl” ya da “yy” yerine “yüzyıl” kullanınız (örn.: MÖ 7. yüzyıl).
- Beş veya daha fazla basamaklı tarihler için sondan sayarak üçlü gruplara ayırmak suretiyle sayı gruplarının arasına nokta koyunuz (örn.: MÖ 10.500)
- Dört veya daha az basamaklı tarihlerde nokta kullanmayınız (örn.: MÖ 8700).
- 0-10 arasındaki sayıları rakamla değil yazıyla yazınız (örn.: “8 kez yenilenmiş taban” yerine “sekiz kez yenilenmiş taban”).

Noktalama ve İşaret Kullanımı

- Ara cümleleri lütfen iki çizgi ile ayırınız (—). Çizgi öncesi ve sonrasında boşluk bırakmayınız.
- Sayfa numaraları, tarih ve yer aralıklarını lütfen tek çizgi (-) ile ayırınız: 1989-2006; İstanbul-Kütahya.

Kısaltmaların Yazımı

- Sık kullanılan bazı kısaltmalar için bkz.:

Yaklaşık:	yak.	Circa:	ca.
Bakınız:	bkz.	Kalibre:	kal.
Örneğin:	örn.	ve diğerleri:	vd.

Özel Fontlar

- Makalede özel bir font kullanıldıysa (Yunanca, Arapça, hiyeroglif vb.) bu font ve orijinal metnin PDF versiyonu da gönderilen dosyalar içerisine eklenmelidir.

Metin İçi Atıflar ve Kaynakça Yazımı

- Her makale, metin içerisinde atıf yapılmış çalışmalardan oluşan ve “Kaynakça” olarak başlıklandırılan bir referans listesi içermelidir. Lütfen metin içerisinde bulunan her referansın kaynakçaya da eklendiğinden emin olun.
- Metin içerisindeki alıntılar doğrudan yapılabilir: ‘...Esin (1995)’in belirtmiş olduğu gibi’ ya da parantez içerisinde verilebilir: ‘analiz sonuçları gösteriyor ki ... (Esin 1995).’
- Aynı parantez içerisindeki referanslar yayın yılına göre sıralanmalı ve “;” ile ayrılmalıdır: ‘... (Dinçol ve Kantman 1969; Esin 1995; Özbal vd. 2004).’
- Aynı yazarın farklı yıllara ait eserlerine yapılan atıflarda yazarın soyadı bir kere kullanılmalı ve eser yılları “,” ile ayrılmalıdır: ‘... (Peterson 2002, 2010).’
- Aynı yazar(lar)ın aynı yıl içerisindeki birden fazla yayınına referans verileceği durumlarda yayın yılının yanına harfler ‘a’, ‘b’, ‘c’ gibi alfabetik olarak koyulmalıdır.
- Tek yazarlı kaynakları, aynı yazar adıyla başlayan çok yazarlı kaynaklardan önce yazınız.
- Aynı yazar adıyla başlayan fakat farklı eş yazarlara sahip kaynakları ikinci yazarın soyadına göre alfabetik sıralayınız.
- Aynı yazara ait birden fazla tek yazarlı kaynak olması durumunda kaynakları yıllara göre sıralayınız.
- Dergi makaleleri için doi bilgisi varsa kaynakçada mutlaka belirtiniz.

Aşağıda, farklı kaynakların metin içerisinde ve kaynakçada nasıl yazılacağına dair örnekler bulabilirsiniz.

Tek yazarlı dergi makaleleri, kitap içi bölümler ve kitaplar

Metin içerisinde:

Yazarın soyadı ve yayın yılı (Esin 1995).

Sayfa sayısı bilgisi verilecekse:

Yazarın soyadı ve yayın yılı, sayfa sayısı (Esin 1995, 140).

Dergi makalesi:

Bickle, P. 2020. Thinking Gender Differently: New Approaches to Identity Difference in the Central European Neolithic. *Cambridge Archaeological Journal* 30(2), 201-218. <https://doi.org/10.1017/S0959774319000453>

Kitap içi bölüm:

Esin, U. 1995. Aşıklı Höyük ve Radyo-Aktif Karbon Ölçümleri. A. Erkanal, H. Erkanal, H. Hüryılmaz, A. T. Ökse (Eds.), *İ. Metin Akyurt - Bahattin Devam Anı Kitabı. Eski Yakın Doğu Kültürleri Üzerine İncelemeler*, İstanbul: Arkeoloji ve Sanat Yayınları, 135-146.

Kitap:

Peterson, J. 2002. *Sexual Revolutions: Gender and Labor at the Dawn of Agriculture*. Walnut Creek, CA: AltaMira Press.

İki yazarlı dergi makaleleri, kitap içi bölümler ve kitaplar

Metin içerisinde:

Her iki yazarın soyadı ve yayın yılı (Dinçol ve Kantman 1969, 56).

Dergi makalesi:

Pearson, J., Meskell, L. 2015. Isotopes and Images: Fleshing out Bodies at Çatalhöyük. *Journal of Archaeological Method and Theory* 22, 461-482. <https://doi.org/10.1007/s10816-013-9184-5>

Kitap içi bölüm:

Özkaya, V., San, O. 2007. Körtik Tepe: Bulgular Işığında Kültürel Doku Üzerine İlk Gözlemler. M. Özdoğan, N. Başgelen (Eds.), *Türkiye'de Neolitik Dönem. Yeni Kazılar, Yeni Bulgular*, İstanbul: Arkeoloji ve Sanat Yayınları, 21-36.

Kitap:

Dinçol, A. M., Kantman, S. 1969. *Analitik Arkeoloji, Denemeler*. Anadolu Araştırmaları III, Özel sayı, İstanbul: Edebiyat Fakültesi Basımevi.

Üç ve daha çok yazarlı dergi makaleleri ve kitap içi bölümler

Metin içerisinde:

İlk yazarın soyadı, "vd." ve yayın yılı (Özbal vd. 2004).

Dergi makalesi:

Özbal, R., Gerritsen, F., Diebold, B., Healey, E., Aydın, N., Loyet, M., Nardulli, F., Reese, D., Ekstrom, H., Sholts, S., Mekel-Bobrov, N., Lahn, B. 2004. Tell Kurdu Excavations 2001. *Anatolica* 30, 37-107.

Kitap içi bölüm:

Pearson, J., Meskell, L., Nakamura, C., Larsen, C. S. 2015. Reconciling the Body: Signifying Flesh, Maturity, and Age at Çatalhöyük. I. Hodder, A. Marciniak (Eds.), *Assembling Çatalhöyük*, Leeds: Maney Publishing, 75-86.

Editörlü kitaplar

Metin içerisinde:

Yazar(lar)ın soyadı ve yayın yılı (Akkermans ve Schwartz 2003).

Akkermans, P. M. M. G., Schwartz, G. M. 2003. (Eds.) *The Archaeology of Syria. From Complex Hunter-Gatherers to Early Urban Societies (c. 16.000-300 BC)*. Cambridge: Cambridge University Press.

Web kaynağı:

Soyad, Ad. Web Sayfasının Başlığı. Web Sitesinin Adı. Yayınlayan kurum (varsa), yayın tarihi. Erişim tarihi. URL.



Submission and Style Guideline

Submission Criteria for Articles

The content of the manuscripts should meet the aims and scope of the Turkish Journal of Archaeological Sciences (cf. Aims and Scope).

Manuscripts may be written in Turkish or English. The translation of articles into English is the responsibility of the author(s). If the author(s) are not fluent in the language in which the article is written, they must ensure that the text is reviewed, ideally by a native speaker, prior to submission.

Each manuscript should include a Turkish and an English abstract of up to 200 words and five keywords in both Turkish and English. Citations should not be included in the abstract.

If the author(s) are not fluent in the language of the manuscript, a translation of the abstract and the keywords may be provided by the editorial board.

Manuscripts, figures, and other files should be sent via wetransfer or e-mail to archaeologicalsciences@gmail.com

Submission Checklist

Each article must contain the following:

- Authors (please provide the name-last name and contact details of each author under the main title of the manuscript)
- Affiliation (where applicable)
- E-mail address
- ORCID ID

The manuscript should contain:

- Title
- Abstract (in English and Turkish)
- Keywords
- Text
- References
- Figures (when applicable)
- Tables (when applicable)

Scientific Standards and Ethics

- Submitted manuscripts should include original research that has not been previously published or submitted for publication elsewhere.
- The manuscripts should meet scientific standards.
- Manuscripts should use inclusive language that is free from bias based on sex, race or ethnicity, etc. (e.g., “he or she” or “his/her/their” instead of “he” or “his”) and avoid terms that imply stereotypes (e.g., “humankind” instead of “mankind”).

Style Guide

Manuscript Formatting

- Manuscripts should be written in Times New Roman 12-point font, justified and single-spaced. Please submit the manuscript as a word document.
- Words in foreign and ancient languages should be *italicized*.
- Titles and subtitles should appear in **bold**.
- Titles and subtitles should not be numbered, italicized, or underlined.
- Only the first letter of each word in titles and subtitles should be capitalized.

References

Cf.: In-Text Citations and References

- In-text citations should appear inside parenthesis (Author year, page number).
- Footnotes and endnotes should not be used for references. Comments should be included in footnotes rather than endnotes.
- The footnotes should be written in Times New Roman 10-point font, justified and single-spaced, and should be continuous at the bottom of each page.

Figures and Tables

- Please provide a caption list for figures and tables following the references. Provide credits where applicable. Each figure and table should be referenced in the text (Figure 1, or Table 1), but please do not include figures in the text document.
- Each figure should be submitted separately as a jpg or tiff file.
- Images should be submitted in the dimensions in which they should appear in the published text and their resolution must be over 300 dpi.
- Please avoid editing the figures in Photoshop or similar programs but send the raw version of the figures if possible.
- Tables and graphs prepared in Excel should be sent as both PDF and Excel documents.

Dates and Numbers

- Please use BCE/CE and please avoid using dots without dots (i.e., BCE instead of BC or B.C.).
- Please use a dot for numbers and dates with 5 or more digits (i.e., 10.500 BCE).
- Please avoid using dots for numbers and dates with 4 or less digits (i.e., 8700 BCE).
- Please spell out whole numbers from 0 to 10 (e.g., “the floor was renewed eight times” instead of “the floor was renewed 8 times”).

Punctuation

- Please prefer em dashes (—) for parenthetical sentences: “Children were buried with various items, the adolescents—individuals between the ages of 12-19—had the most variety in terms of grave goods.”
- Please prefer an en dash (-) between page numbers, years, and places: 1989-2006; İstanbul-Kütahya.

Abbreviations

- Commonly used abbreviations:

Approximately:	approx.	Figure:	Fig.
Confer:	cf.	<i>Id est:</i>	i.e.,
Circa:	ca.	<i>Exempli gratia:</i>	e.g.,
Calibrated:	cal.		

Special Fonts

- If a special font must be used in the text (e.g., Greek or Arabic alphabet or hieroglyphs), the text in the special font and the original manuscript should be sent in separate PDF files.

In-Text Citations and References

- Each article should contain a list of references in a section titled “References” at the end of the text. Please ensure that all papers cited in the text are listed in the bibliography.
- Citations in the text may be made directly, e.g., ‘as shown by Esin (1995) ...’ or in parenthesis, e.g., ‘research suggests ... (Esin 1995)’.
- References within the same parenthesis should be arranged chronologically and separated with a “;”, e.g., ‘... (Dinçol and Kantman 1969; Esin 1995; Özbal et al. 2004).’
- In references to the studies by the same author from different years, please use the last name of the author once, followed by the years of the cited studies, each separated by a “;”, e.g., ‘... (Peterson 2002, 2010).
- More than one reference from the same author(s) in the same year must be identified by the letters ‘a’, ‘b’, ‘c’ placed after the year of publication.
- When dealing with multiple papers from the same author, single authored ones should be written before the studies with multiple authors.
- When dealing with papers where the first author is the same, followed by different second (or third, and so on) authors, the papers should be listed alphabetically based on the last name of the second author.
- When dealing with multiple single-authored papers of the same author, the papers should be listed chronologically.
- Please provide the doi numbers of journal articles.

Below, you may find examples for in-text citations and references.

Single-authored journal articles, book chapters, and books

In-text:

Last name and publication year (Esin 1995).

If the page number is indicated:

Last name and publication year, page number (Esin 1995, 140).

Journal article:

Bickle, P. 2020. Thinking Gender Differently: New Approaches to Identity Difference in the Central European Neolithic. *Cambridge Archaeological Journal* 30(2), 201-218. <https://doi.org/10.1017/S0959774319000453>

Book chapter:

Esin, U. 1995. Aşıklı Höyük ve Radyo-Aktif Karbon Ölçümleri. A. Erkanal, H. Erkanal, H. Hüryılmaz, A. T. Ökse (Eds.), *İ. Metin Akyurt - Bahattin Devam Anı Kitabı. Eski Yakın Doğu Kültürleri Üzerine İncelemeler*, İstanbul: Arkeoloji ve Sanat Yayınları, 135-146.

Book:

Peterson, J. 2002. *Sexual Revolutions: Gender and Labor at the Dawn of Agriculture*. Walnut Creek, CA: AltaMira Press.

Journal articles, book chapters, and books with two authors

In-text:

Last names of both authors and publication year (Dinçol and Kantman 1969, 56).

Journal article:

Pearson, J., Meskell, L. 2015. Isotopes and Images: Fleshing out Bodies at Çatalhöyük. *Journal of Archaeological Method and Theory* 22, 461-482. <https://doi.org/10.1007/s10816-013-9184-5>

Book chapter:

Özkaya, V., San, O. 2007. Körtik Tepe: Bulgular Işığında Kültürel Doku Üzerine İlk Gözlemler. M. Özdoğan, N. Başgelen (Ed.), *Türkiyede Neolitik Dönem. Yeni Kazılar, Yeni Bulgular*, İstanbul: Arkeoloji ve Sanat Yayınları, 21-36.

Book:

Dinçol, A. M., Kantman, S. 1969. *Analitik Arkeoloji, Denemeler*. Anadolu Araştırmaları III, Özel sayı, İstanbul: Edebiyat Fakültesi Basımevi.

Journal articles and book chapters with three or more authors

In-text:

Last name of the first author followed by “et al.” and the publication year (Özbal et al. 2004).

Journal article:

Özbal, R., Gerritsen, F., Diebold, B., Healey, E., Aydın, N., Loyet, M., Nardulli, F., Reese, D., Ekstrom, H., Sholts, S., Mekel-Bobrov, N., Lahn, B. 2004. Tell Kurdu Excavations 2001. *Anatolica* 30, 37-107.

Book chapter:

Pearson, J., Meskell, L., Nakamura, C., Larsen, C. S. 2015. Reconciling the Body: Signifying Flesh, Maturity, and Age at Çatalhöyük. I. Hodder, A. Marciniak (Eds.), *Assembling Çatalhöyük*, Leeds: Maney Publishing, 75-86.

Edited books

In-text:

Last name(s) of the author(s) and publication year (Akkermans and Schwartz 2003).

Akkermans, P. M. M. G., Schwartz, G. M. 2003. (Eds.) *The Archaeology of Syria. From Complex Hunter-Gatherers to Early Urban Societies (c. 16.000-300 BC)*. Cambridge: Cambridge University Press.

Web source:

Last name, Initial of the first name. Title of the web page. Title of the website. Institution (where applicable), publication date. Access date. URL.