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# Doğu Roma'nın Doğusunda Yeni Bir Kaya Mezar: Güneydoğu Anadolu Siirt-Kurtalan Cemi-i Çeto İnsan ve Hayvan Kalıntıları

# A Newly Discovered Rock-Cut Tomb from the Eastern Roman Empire: Human and Animal Remains from Cemi-i Çeto, Siirt-Kurtalan, Southeastern Anatolia, Turkiye

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**ÖZ**

Siirt İli, Kurtalan İlçesi, Konakpınar Köyünün yaklaşık 2 km güneybatısında dağın yamacında yer alan Cem-i Çeto Mağaraları, kaya mezar alanında 2019 yılında yapılan 6 no'lu kaya mezardan elde edilen insan ve hayvan kemikleri üzerine ilk biyoarkeolojik analizleri sunmaktadır. Çalışmanın temel amacı, Cem-i Çeto toplumunun biyolojik uzaklığı, nüfus yapısı, boy uzunluğu ve yaşam biçimini değerlendirerek toplumsal yapının anlaşılması ve bununla beraber Anadolu'da yaşamış diğer çağdaş topluluklarla karşılaştırılmasıdır. İnsan kemikleri ile birlikte ortaya çıkarılan hayvan kemiklerinin temel zooarkeolojik değerlendirilmesi ise çalışmanın diğer amacıdır. Toplumda, 116 bireye ait insan kalıntıları ile birlikte farklı hayvanlara ait 61 adet hayvan kemiği tespit edilmiştir. Cemi-i Çeto insan popülasyonunda, 5 bebek, 45 çocuk, 26 kadın, 31 erkek ve 9 cinsiyeti tahmin edilemeyen birey bulunmaktadır. Bebek ve çocuk ölümleri toplumun %43,10'unu oluşturmaktadır. Toplumun boy ortalaması 164,01 cm'dir. Cemi-i Çeto hayvan kemikleri üzerinde yapılan analiz sonucunda köpek, tilki, koyun, keçi, sığır, at, tavşan ve kuş tespit edilmiştir. Bu kaya mezar içerisindeki çok sayıda insana ait kemiklerle birlikte karışık durumda tespit edilmiş çok az sayıda, fakat çeşitli türlere ait, hayvan kemiklerinin olması bölgedeki Geç Roma Dönemi ölü gömme gelenekleri hakkında yeni soru işaretleri ortaya koymaktadır.

**Anahtar Kelimeler:** Paleodemografi, Geç Roma Dönemi, Cem-i Çeto Mağaraları, İskelet Biyolojisi, Güneydoğu Anadolu, Zooarkeoloji

**ABSTRACT**

The 2019 archaeological excavations carried out at the Cem-i Çeto caves, situated approximately 2 km southwest of Konakpınar village in the Kurtalan district of Siirt province, revealed the presence of three Late Roman rock-cut tombs. This study presents the initial bioarchaeological analysis of human and animal bones unearthed from rock-cut tomb number 6. The primary goal of this investigation was to gain insights into the social structure of the Cem-i Çeto community by assessing population demographics, life expectancy, stature, lifestyle, and comparisons with other contemporary Anatolian communities. The secondary objective involves conducting fundamental zooarchaeological examinatiıns of animal remains recovered alongside human skeletal remains. A total of 116 human bones and a small collectiıon of animal bones (n = 61) were identified. The Cem-i Çeto human population comprises five infants, 45 children, 26 females, 31 males, and 9 individuals of unknown gender.

Infant and child mortalities accounted for 43.10% of the population. The average height of the Cem-i Çeto population stands at 164.01 cm. Zooarchaeological analysis has facilitated the identification of various animal species, including dogs, foxes, sheep, goats, cattle, horses, rabbits, and birds among the faunal remains. Interestingly, the presence of a limited number of animal bones, representing a variety of species, interspersed with a larger quantity of human bones within a rock-cut tomb raises novel inquiries regarding the Late Roman burial customs in the region.
**Keywords:** Paleodemography, Late Roman Period, Cem-i Çeto caves, Skeletal biology, Southeastern Anatolia, Zooarchaeology

## Extended Abstract

This study presents the first bioarchaeological examination of human remains, accompanied by a small collection of zooarchaeological remains that were discovered during the 2019 archaeological excavations at Burial 6 in the Late Roman Cemi-i Çeto cave in Siirt-Kurtalan, Southeastern Turkey. The primary objective of this study was to evaluate the population structure, biological distance, height, and way of life of the Late Roman community residing in Cemi-i Çeto. Furthermore, a comparative analysis was conducted between the Cemi-i Çeto and contemporary human populations from diverse Anatolian regions.

Human skeletal remains were analyzed in the Human Osteology Laboratory, while animal remains were examined at the Zooarchaeology Laboratory at Mardin Artuklu University in Turkey. Experts examined the skulls, mandibles, and hip bones to determine the sex of the human remains. To estimate the age of adult individuals, a complex aging method was employed, considering factors such as the eruption stages of deciduous and permanent teeth, epiphyseal fusion, and the length of long bones. For the age estimation of infants and children, the formulas proposed by Üner in 1972 were utilized for life table calculations. To estimate the height of the Cemi-i Çeto population, the formulas proposed by Pearson in 1899, Trotter and Gleser in 1952, and Sağır in 1994 were applied. The identification of animal bones was supported by modern reference collections available at the Zooarchaeology Laboratory of Mardin Artuklu University. To distinguish between goats and sheep, the criteria presented by Boessneck (1969) were used. The age of the cattle was estimated based on mandibular tooth wear, following the methods of Boessneck and von den Driesch in 1975 and Howell-Meurs in 2001 (p. 163). For age determination of sheep and goats, the criteria relied on epiphyseal fusion of postcranial elements, following Zeder in 2006. The age of horses and dogs was also determined based on epiphyseal fusion, following the criteria proposed by Silver in 1963 (p. 252).

A total of 116 individuals and a small assemblage (n = 62) of animal bones were identified. Within the Cemi-i Çeto human population, there were 4.31% infants, 38.79% children, 22.41% females, 26.72% males, and 7.75% individuals of unknown sex. Infant and child mortality together accounted for 43.10% of the population. The population comprised 30.17% young adults, 11.20% adults, and 4.31% elderly individuals. The average age of the adult individuals was 28.67 years. However, although there was a significant difference between the average ages of adult females (28.65 years) and adult males (30.37 years). The age groups ranging from 0 to 5 years and 5 to 10 years had the highest mortality rates within

the Cemi-i Çeto population. The average height of the Cemi-i Çeto population was 164.01 cm. Notably, both females and males in Cemi-i Çeto surpassed the average height of middle-aged populations in Anatolia. The Trotter-Glesser and Sagır's height formulas have yielded compatible results for the Cemi-i Çeto population. According to these two methods, the average height of Cemi-i Çeto females exceeded the average height of Late Roman females in Anatolia by more than 2 cm, while the average height of Cemi-i Çeto males surpassed the average height of Late Roman males in Anatolia by more than 1.2 cm. Therefore, the taller stature of individuals in the Cemi-i Çeto population can be considered as an indicator of good health within their society.

Various species were identified from the small assemblage of 61 animal bones discovered in burial no. 6 at Cemi-i Ceto. These bones were scattered among a large number of human bones. The identified animal species include fox (*Vulpes vulpes*), dog (*Canis familiaris*), sheep (*Ovis aries*), goat (*Capra hircus*), cattle (*Bos taurus*), horse (*Equus caballus*), hare (*Lepus europaeus*), and various birds (Aves spp.). Among these, fox bones comprised the highest ratio at 35.14%, with 13 identified bones, whereas horse bones had the lowest ratio at 2.70%, consisting of only a complete radial bone. Notably, all these animal bones belonged to sub-adult to adult individuals, and no cultural marks were observed on any of these bones.

The burial tradition observed at Cemi-i Ceto shares similarities with burial traditions found at other sites, such as Gercus in Batman, Dara Ancient City, and Midyat Aktas in Mardin. These sites also exhibited a significant proportion of infant and child deaths, which is a trend observed in many other contemporary populations in Anatolia. It is likely that famines, possibly caused by periodic wars, have had an impact on children, who are often more vulnerable in such circumstances. However, despite these challenges, the overall health and nutritional status of the Late Roman population at Cemi-i Ceto does not seem to be worse off compared to many other contemporary populations in Anatolia. Their diet appeared to consist of a combination of plant and animal sources, with a significant emphasis on meat and grains. In contrast, the presence of joint diseases in the Cemi-i Ceto population can be attributed to physical activities.

## Giriş

Paleodemografi, arkeolojik toplumların, ölüm oranı ve doğurganlığını incelemesinin yanında, nüfus dağılımı, nüfus yoğunluğu, yaş ve cinsiyet tahmini yaparak, toplumun yaşam düzeyini açıklar (Meindl, 1998, s. 376). Antropolojik ve arkeolojik çalışmalar sonucunda insan iskeletlerinin değerlendirilmesiyle yaşam tabloları oluşturulur. Yaşam tablolarında, toplumun nüfus büyüklüğü, doğum ve ölüm oranı, nüfusun yaş gruplarına göre dağılımı, büyüme hızını ve yaşam beklentileri hakkında bilgi sunulmaktadır (Meindl, 1998). Boy uzunluğunun hesaplanması, toplumun genel sağlık durumu ve morfolojik yapısını anlamamıza yardımcı olur. Aynı zamanda büyüme ve gelişmenin çevre koşullarından nasıl etkilendiğini anlamak için de uzun kemiklerin uzunluğunun ölçümü kullanılır (Cunningham vd., 2016, s. 5-18). Büyümeye etki eden beslenme, kalıtım ve çevre koşullarının değerlendirilmesiyle toplumun sosyoekonomik durumu ortaya çıkarılır (Cunningham vd., 2016).

Arkeolojik kazılar sonucunda ortaya çıkarılan iskelet kalıntıları ile geçmiş dönem insanlarının nüfus yapısı hakkında bilgi edinilebilir (Buikstra & Ubelaker, 1994; Meindl, 1998). Bu konuda, kültürel ve tarihi doku bakımından zengin Anadolu topraklarında yaşamış eski toplumların, paleodemografik bilgilerini ve sağlık durumlarını içeren birçok çalışma mevcuttur (Akbaş & Özer, 2020; Gözlük vd., 2005; Sarı & Sağır, 2020; Sevim vd., 2007; Yiğit vd., 2008). İnsan ve hayvan kemiklerinin analizi, antropoloji, arkeoloji, paleontoloji ve adli tıp gibi farklı alanda önemli rol oynar. Cemi-i Çeto kaya mağaralarında yapılan arkeolojik kazılarda insan kemikleri ile birlikte hayvan kemikleri de bulunmaktadır. Hayvan kemiklerinin hangi amaçlarla kullanıldığı merak edilen konular arasındadır. Hayvanlar, besin ve çeşitli yaşam kaynağı ya da manevi ve sembolik dünyada önemli bir araç olarak insan toplumlarında Paleolitik Çağ'dan bu yana kritik roller oynamaktadır (Siddiq, 2019, s. 31).

Güneydoğu Anadolu'da yerleşik hayat başladığından beri değişik ölü gömme gelenekleri görülmektedir (Lichter, 2016; Yılmaz, 2006). Erken Tunç Çağ'ından beri rastlanan kaya mezar gelenekleri ise Anadolu'da özellikle Roma Döneminde çok sık karşımıza çıkan bir ölü gömme gelenek sistemidir (Yılmaz, 2006). Güneydoğu Anadolu'da bu döneme ait farklı yerleşim alanlarında kaya mezar gömü geleneği olduğu bildirilmiştir (Acar, 2017, 2018; Alpagut & Erdoğan, 2015). Bu çalışmada, Güneydoğu Anadolu Bölgesi'nde yer alan Siirt Kurtalan Cemi-i Çeto mağarasında yeni keşfedilen Geç Roma dönemine ait 6 nolu kaya mezardan arkeolojik kazı çalışmaları sonucunda ele geçen insan ve hayvan kemikleri incelenmiştir.

Bu araştırma, Cemi-i Çeto 6 nolu kaya mezarından ele geçen insan kalıntılarının nüfus yapısı, boy uzunluğu ve yaşam biçimi gibi konuları inceleyerek, Cemi-i Çeto Geç Roma Dönemi insan popülasyonunun paleodemografik bir veri tabanını oluşturmaktadır. Ayrıca, insan iskelet kalıntıları ile birlikte bulunan farklı hayvan kemiklerini analiz ederek, Cemi-i Çeto'daki dönemin insan-hayvan ilişki ve etkileşimi hakkında sorular ortaya koymaktadır.

## Materyal Metot

Siirt Kurtalan, Güneydoğu Anadolu Bölgesi'nde, Siirt İli Kurtalan ilçesi, Konakpınar Köyü'nün 2 km güneybatısında dağın yamacında yer almaktadır. 2019 yılında yapılan kazı çalışmasının sonucunda 3 adet kaya mezar tespit edilmiştir. Alanda toplamda 6 adet kaya mezar odasının bulunması, söz konusu alanın bir nekropol olabileceği düşüncesini oluşturmuştur. Batman Müze müdürlüğü, 2017 yılında kurtarma kazı çalışmasına başlamış, 2018 yılında, kazı ve sondaj çalışmalarının başlaması için izin alınmıştır. 2019 yılında kaya mezarları tespit çalışmaları başlamıştır. Çalışma, Cemi-i Çeto mağarası olarak adlandırılan alanda 6 nolu kaya mezar içerisinde bulunan insan ve hayvana ait kalıntılardan oluşmaktadır. Alanda çok yoğun şekilde iki tabaka halinde insan kemikleri tespit edilmiştir (Figür 1-2). 2019 yılı ve önceki kazı sezonlarında açığa çıkarılmış olan mezar odaları ve buluntuların genel özellikleri göz önüne alındığında, Cemi-i Çeto Mağaraları Kaya Mezarlarının Geç Roma Dönemine ait olduğu tahmin edilmiştir. Kaya mezar içerisinde üst katmanda bulunan bireylerin anatomik bütünlük taşıdığı tespit edilmiştir. Daha alt katmana doğru inildikçe kemiklerin daha dağınık durumda olduğu saptanmıştır. İki ayrı kemik katmanın tespit edildiği 6 nolu kaya mezarın batı, doğu ve kuzey duvarında toplam 4 adet kline ortaya çıkarılmıştır. Klinelerin içerisinde çocuk kemikleri tespit edilmiştir. 4 nolu klinenin duvarında 5 nolu kaya mezara açılan bir açıklık bulunmuştur. Klinenin üzerindeki insan kemikleri dağınık durumda olduğu gözlenmiştir.

2019 yılı kazı sezonu sonrasında ortaya çıkarılan kemik malzemeler laboratuvar çalışması yapılması için Mardin Artuklu Üniversitesi İnsan Osteoloji laboratuvarına getirilmiştir. Kaya mezar içerisindeki minimum birey sayısı tahmini için, öncelikle kafatası, kafatası bütünlenmeye imkân sağlamadığı durumlarda, vücutta bir adet bulunan kemikler tercih edilmiştir (Buikstra & Ubelaker, 1994, s. 9). İnsan iskelet kemiklerinin cinsiyet tahmini yapılırken kafatası, mandibula ve kalça kemikleri kullanılmıştır (Bass, 1995, s. 85; Brothwell, 1981, s. 59; WEA, 1980; White & Folkens, 2005, s. 385). Yaş tahmini için, her yaş grubu için farklı yaş metotları kullanılmıştır. Erişkinlik dönemi öncesi bireylerde süt ve daimi dişlerin çıkma dönemi (Brothwell, 1981, s. 168; Ubelaker, 1978, s. 61), uzun kemiklerin epifiz kapanma dönemi ve uzunluğu kullanılmıştır (Scheuer & Black, 2000, s. 272). Erişkinlerde yaş tahmini çalışmasında güvenirliğin arttırılması için kompleks yaşlandırma yöntemi kullanılmıştır (WEA, 1980). Kullanılan metotlar şu şekildedir: kafatası suturlarının kapanma dönemi (Meindl & Lovejoy, 1985, s. 62; Perizonius, 1984, s. 201); diş aşınması (Brothwell, 1981, s. 71); *symphysis pubis*in morfolojik değişimi (Todd, 1921, s. 65); *auricular* yüzeyin yapısı (Lovejoy vd., 1985, s. 21); ve kaburgaların morfolojik değişimidir (İşcan & Loth, 1986, s. 127). Cemi-i Çeto Toplumu yaş gruplarına göre dağılımı Tablo 1'de gösterilmektedir.

Yaşam tablosu oluşturulurken kullanılan formüller Üner'in (1972) önerdiği formülle kullanılmış olup, yaş aralığı yetişkinler için 5'er yıl, bebek ve çocuklar için birer yıl olarak belirlenmiştir (Üner, 1972). Yaşam tablosundaki Dx, birey sayısını, dx, ölümlerin yüzdesi, lx, hayatta kalanların sayısı, qx, ölüm olasılıkları, Lx, yaşanan yılların sayısı, Tx, yaşanan yılların toplamı ve ex, yaşam beklentisi değerlerini belirtmektedir. Boy uzunluğu tahmini için, uzun

kemiklerin uzunluğu osteometri tahtası kullanılarak ölçülmüş ve (Pearson, (1899); (Trotter & Gleser, (1952) ve (Sağır, (1994)'ın yöntemleri kullanılarak ayrı ayrı hesaplama yapılmıştır.

**Tablo 1. Cemi-i Çeto Toplumu yaş gruplarına göre dağılımı.**

| Yaş grubu | Yaş |
|---|---|
| Bebek | 0-2,49 yaş |
| Çocuk | 2,5-17,9 yaş |
| Genç Erişkin | 18-29,99 yaş |
| Orta Erişkin | 30-44,99 yaş |
| İleri Erişkin | 45+ yaş |

**Tablo 2. Cemi-i Çeto toplumundaki cinsiyet ve yaş dağılımı.**

| Yaş Grubu | Kadın | | Erkek | | Belirsiz | | Genel Toplam | |
|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % |
| Bebek (0-2,49 yaş) | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 4,31 |
| Çocuk (2,5-17,9 yaş) | 0 | 0 | 0 | 0 | 0 | 0 | 45 | 38,79 |
| Genç Erişkin (18-29,9 yaş) | 16 | 61,53 | 17 | 54,83 | 2 | 22,22 | 35 | 30,17 |
| Erişkin (30-44,9 yaş) | 5 | 19,23 | 7 | 22,58 | 1 | 11,11 | 13 | 11,20 |
| Yaşlı (45+ yaş) | 2 | 7,69 | 3 | 9,67 | 0 | 0 | 5 | 4,31 |
| Yaş Bilinmeyen | 3 | 11,53 | 4 | 12,90 | 6 | 66,66 | 13 | 11,20 |
| **Genel Toplam** | **26** | **100** | **31** | **100** | **9** | **100** | **116** | **100** |

Cemi-i Çeto mağaraları arasında yalnızca 6'ncı kaya mezar kazılarından insan kemikleri ile aynı tabakada dağınık bir şekilde bulunan bir grup hayvan kemikleri tespit edilmiştir. Ortaya çıkan hayvan kemikleri, tür ve cinslerinin tanımlanması ve detay analizleri Mardin Artuklu Üniversitesi Zooarkeoloji Laboratuvarında gerçekleştirilmiştir. Mevcut referans iskeletlerin yanı sıra özellikle koyun-keçi ayrımı için (Boessneck, 1969)'ın sunduğu kriterler dikkate alınmıştır. Köpek-tilki ayrımı ve tavşan tanımı için laboratuvardaki mevcut Doğu ve Güneydoğu Anadolu'dan elde edilen köpek ve kızıl tilki iskeletlerinden yararlanılmıştır. Sığırların yaş tahmini için Boessneck & von den Driesch(1975) ve Howell-Meurs (2001) metotları kullanılarak mandibular diş aşınması izlenmiştir. Diğer hayvanlara ait kafatası ya da mandibular diş bulunmadığı için yaş tahmininde kemiklerin epifizyal füzyonu dikkate alınmıştır. Özellikle, koyun ve keçilerin yaş tahmini için Zeder (2006)'den yararlanılmış, at ve köpeklerin yaş tahmini ise Silver (1963)'ın belirttiği şekilde yapılmıştır.

## Bulgular

## Paleodemografik Yapı

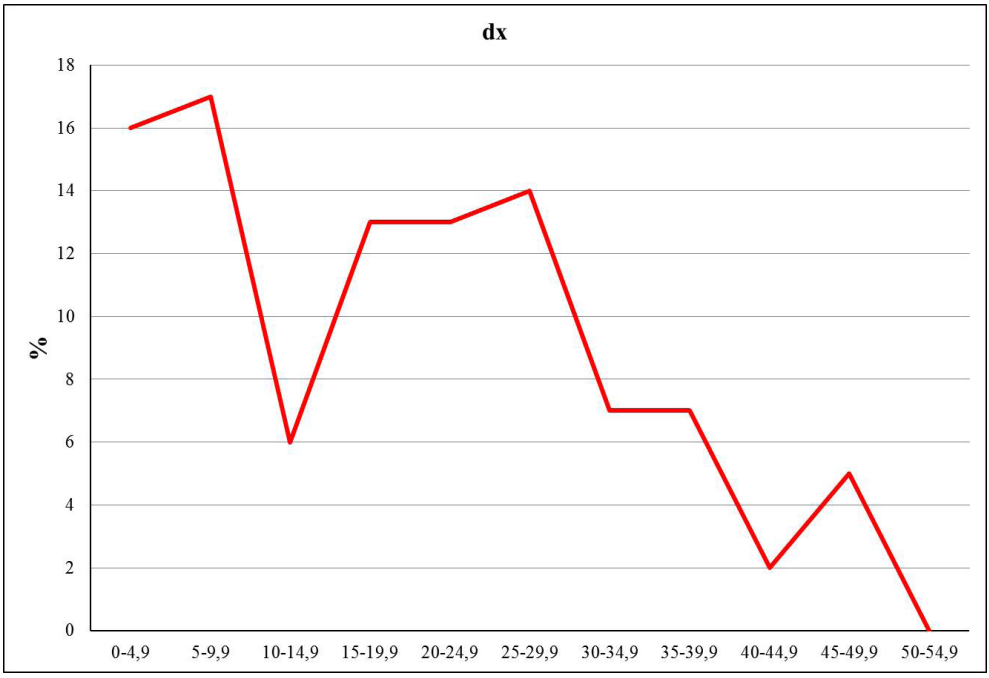
Cemi-i Çeto Mağaraları kaya mezar alanında 2019 yılında elde edilen insan kalıntılarından 116 birey tespit edilmiştir. Bireylerden %43,10'u, 18 yaşına ulaşamadan yaşamlarını kaybetmiş bebek ve çocuk birey, %22,41'i kadın, %26,72'si erkek, %7,75'i cinsiyeti tahmin

edilemeyen erişkinlerden oluşmaktadır (Tablo 2). Erişkin olmayan bireylerin içinde bebekler %4,31 iken, çocuklar %38,79 ile temsil edilir. Erkek ve kadın oranı (Erkek/Kadın=31/26) 1,19'dur. Toplumdaki erişkin bireyler normal bir dağılım göstermektedir. Erişkinlerde en fazla ölüm, genç erişkin yaş aralığı olan 18-29,99 yaş (%30,17) arasında tahmin edilmiştir. Kadınların (%61,53) ve erkeklerin (%54,83) yarısından fazlası bu yaş aralığında hayatını kaybetmiştir.

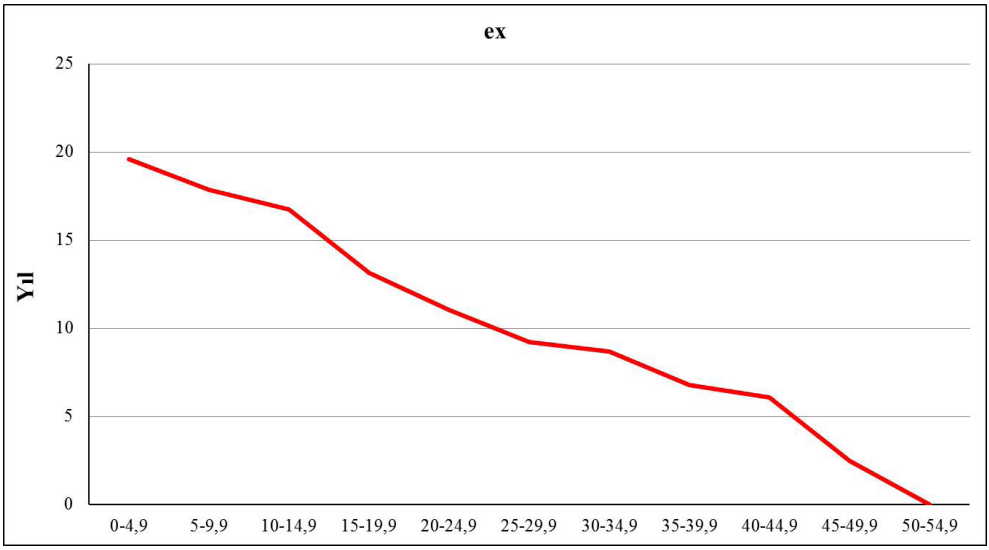
Sağlık durumunun en iyi analizi, yaşam uzunluklarının hesaplanması ile belirlenir. Cemi-i Çeto popülasyonu bebek, çocuk, kadın ve erkek bireylerinin genel yaşam uzunluğu ortalaması 19,58 yıldır (N:116). Bebek ve çocuk bireyler ortalama 8,22 yıl, kadın ve erkeklerin içinde bulunduğu erişkinler ortalama 28,67 yıl yaşamışlardır. Yaşam uzunlukları cinsiyetler arasında hesaplandığında kadın bireyler ortalama 29,65 yıl, erkek bireyler ortalama 30,98 yıldır. Erişkinlerin yaş gruplarına göre yaşam uzunlukları hesaplandığında genç erişkin yaş grubunda ortalama 24,10 yıl, orta erişkin yaş grubunda ortalama 34,37 yıl ve ileri erişkin yaş grubunda ortalama 45 yıl olduğu görülmüştür.

**Figür 1.** Cemi-i Çeto 6 nolu kaya mezar 1. kemik katmanı. (Kazı arşivi)

**Figür 2.** Cemi-i Çeto 6 nolu kaya mezar 2. kemik katmanı oda içi genel görünüm. (Kazı arşivi)




**Figür 3.** Cemi-i Çeto insan toplumun ölüm oranları.




**Figür 4.** Cemi-i Çeto insan toplumun yaşam beklentisi.

## Yaşam Tablosu

Cemi-i Çeto popülasyonunun yaşam tablosu oluşturulurken, yaşları tahmin edilebilen 100 birey kullanılmış, bireylerden 3'ünün cinsiyeti tahmin edilemediği için bu sayıya eklenmemiştir. Bu bireylerin 23'ü kadın, 27'si erkek ve 50'si bebek ve çocuklardan oluşmaktadır (Tablo 3). Yaşam tabloları, kadınlar, erkekler, bebek ve çocuklar için ayrı ayrı değerlendirilmiştir. Bu şekilde kendi aralarında karşılaştırma imkânı sağlanmıştır. Ölüm oranının en yüksek olduğu yaş aralıkları 0-5 yaş ve 5-10 yaş arasındadır. Genç erişkin yaş aralığında ölüm oranları hemen hemen aynı sayıda gözlemlenmiştir.

Toplum sağlığını değerlendirirken bebek ve çocuk ölüm oranları önemli bir göstergedir. Oranların değişimini olumlu ve olumsuz anlamda birçok faktör etkileyebilir. İlk on yıldan sonra bazı yaş gruplarında artış görülse de ilerleyen yıllarda bu artış azalma eğilimi göstermektedir (Figür 3). İleri erişkin yaş grubunda hayatta kalma şansı lx, %5, yaşam beklentisi 2,5 yıla düşmektedir.

Cemi-i Çeto popülasyonunda bebek ve çocuk oranları yüksek değerlerdedir (Figür 4). 0-5 yaş arasındaki yaşam beklentisi 19,60 yıldır. İlerleyen yıllarda bu oran giderek düşmüştür. Toplumun %50'si 18 yaşına gelmeden yaşamlarını kaybetmiştir. Bebek ve çocuklarda 0-10 yaş arasında en fazla ölüm 3-6 yaş arasında görülmüştür (Tablo 4). Altı yaştan sonraki dönemde ölüm oranında azalma gözlenmiştir. Adölesan dönemi içerisinde olan 11-11,99, 13-13,99 ve 15-15,99 yaşlarında ölüm oranlarında yeniden bir artış olduğu hesaplamalar sonucunda tespit edilmiştir.

**Tablo 3. Cemi-i Çeto insan toplumunun yaşam tablosu.**

| YAŞ GRUPLARI | Dx | dx | lx | qx | Lx | Tx | ex |
|---|---|---|---|---|---|---|---|
| 0-4,9 | 16 | 16 | 100 | 0,16 | 460 | 1960 | 19,60 |
| 5-9,9 | 17 | 17 | 84 | 0,20 | 377,5 | 1500 | 17,85 |
| 10-14,9 | 6 | 6 | 67 | 0,08 | 320 | 1122,5 | 16,75 |
| 15-19,9 | 13 | 13 | 61 | 0,21 | 272,5 | 802,5 | 13,15 |
| 20-24,9 | 13 | 13 | 48 | 0,27 | 207,5 | 530 | 11,04 |
| 25-29,9 | 14 | 14 | 35 | 0,40 | 140 | 322,5 | 9,21 |
| 30-34,9 | 7 | 7 | 21 | 0,33 | 87,5 | 182,5 | 8,69 |
| 35-39,9 | 7 | 7 | 14 | 0,50 | 52,5 | 95 | 6,78 |
| 40-44,9 | 2 | 2 | 7 | 0,28 | 30 | 42,5 | 6,07 |
| 45-49,9 | 5 | 5 | 5 | 1,00 | 12,5 | 12,5 | 2,50 |
| 50-54,9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**Tablo 4. Cemi-i Çeto insan toplumundaki bebek ve çocuk bireylerin yaşam tablosu.**

| YAŞ GRUPLARI | Dx | dx | lx | qx | Lx | Tx | ex |
|---|---|---|---|---|---|---|---|
| 0-0,99 | 2 | 4 | 100 | 0,04 | 490 | 965 | 9,65 |
| 1-1,99 | 1 | 2 | 96 | 0,02 | 475 | 935 | 9,73 |
| 2-2,99 | 2 | 4 | 94 | 0,04 | 460 | 880 | 9,36 |
| 3-3,99 | 6 | 12 | 90 | 0,13 | 420 | 785 | 8,72 |
| 4-4,99 | 5 | 10 | 78 | 0,12 | 365 | 610 | 7,82 |
| 5-5,99 | 9 | 18 | 68 | 0,26 | 245 | 475 | 6,98 |
| 6-6,99 | 4 | 8 | 50 | 0,16 | 230 | 430 | 8,6 |
| 7-7,99 | 2 | 4 | 42 | 0,09 | 200 | 385 | 9,16 |
| 8-8,99 | 1 | 2 | 38 | 0,05 | 185 | 350 | 9,21 |
| 9-9,99 | 1 | 2 | 36 | 0,05 | 175 | 335 | 9,3 |
| 10-10,99 | 0 | 0 | 34 | 0 | 160 | 315 | 9,26 |
| 11-11,99 | 3 | 6 | 34 | 0,17 | 155 | 295 | 8,67 |
| 12-12,99 | 0 | 0 | 28 | 0 | 140 | 265 | 9,46 |
| 13-13,99 | 3 | 6 | 28 | 0,21 | 125 | 235 | 8,39 |
| 14-14,99 | 0 | 0 | 22 | 0 | 110 | 185 | 8,4 |
| 15-15,99 | 7 | 14 | 22 | 0,63 | 75 | 105 | 4,63 |
| 16-16,99 | 2 | 4 | 8 | 0,5 | 30 | 40 | 5 |
| 17-17,99 | 2 | 4 | 4 | 1 | 10 | 10 | 2,5 |

## Boy Uzunlukları

Boy uzunluğu, bebek ve çocuk bireylerde büyüme ve gelişme, erişkin bireylerde fiziksel yapının göstergelerinden biridir. Boy uzunluğu tahminleri ile toplumun genel sağlık durumu hakkında bilgi edinilebilir. Cemi-i Çeto toplumunda uzun kemiklerden femur, boy uzunluk formüllerinde diğer uzun kemiklere göre bütün ve sağlamlık durumu iyi olduğu için tercih edilmiştir. Tablo 5'te Cemi-i Çeto toplumunun erişkin erkek ve kadın bireylerinin boy uzunluk ortalamaları görülmektedir. Kullanılan metotlardaki (Pearson, (1899); Trotter ve Gleser, (1952), Sağır, (1994)) hesaplamalar sonucu, kadınlarda boy uzunluğu sırasıyla 153,5 cm, 156,53 cm, 156,94 cm, erkeklerde 167,55 cm, 170,59 cm, 171,08 cm'dir. Cinsiyetler arasındaki boy uzunluğu farkı 14-15 cm arasındadır.

**Tablo 5. Farklı standarlarta göre Cemi-i Çeto erişkin bireylerinde boy uzunluk ortalamaları.**

| | | (Pearson, 1899) | | (Trotter & Gleser, 1952) | | (Sağır, 1994) | |
|---|---|---|---|---|---|---|---|
| **Cinsiyet** | **N** | **Ortalama** | **Standart Sapma** | **Ortalama** | **Standart Sapma** | **Ortalama** | **Standart Sapma** |
| Kadın | 12 | 153,5 | 2,60 | 156,53 | 2,39 | 156,94 | 1,82 |
| Erkek | 17 | 167,55 | 1,88 | 170,59 | 3,29 | 171,08 | 2,68 |

**Tablo 6. Cemi-i Çeto Geç Roma Dönemi tabakasından tanımlanmış hayvan türleri.**

| **Tür** | **NISP** | **%NISP** |
|---|---|---|
| Koyun (*Ovis aries*) | 4 | 10,81 |
| Keçi (*Capra hircus*) | 2 | 5,40 |
| Sığır (*Bos taurus*) | 3 | 8,11 |
| At (*Equus cabalus*) | 1 | 2,70 |
| Köpek (*Canis lupus familiaris*) | 4 | 10,81 |
| Kızıl tilki (*Vulpes vulpes*) | 13 | 35,14 |
| Yabani tavşan (*Lepus europaeus*) | 6 | 16,22 |
| Kuş (Aves spp.) | 4 | 10,81 |
| Toplam | 37 | 100 |
| Sığır/At uzun kemik parçası | 7 | |
| Tanımlanmamış kaburga | 9 | |
| Tanımlanmamış cervical vertebrae | 4 | |
| Tanımlanmamış thoracic vertebrae | 1 | |
| Tanımlanmamış | 3 | |
| Genel toplam | 61 | |

**Tablo 7. Tablo 5. Cemi-i Çeto Geç Roma Dönemi hayvan kemiklerin vücut parçalara göre dağılımı.**

| **Kemik** | ***Ovis aries*** | ***Capra hircus*** | ***Bos taurus*** | ***Equus cabalus*** | ***Canis familiaris*** | ***Vulpes vulpes*** | ***Lepus europaeus*** | **Aves spp.** |
|---|---|---|---|---|---|---|---|---|
| Maxillary M2 | | | 1 | | | | | |
| Mandibular M2 | | | 1 | | | | | |
| Humerus | | | 1 | | | 1 | 3 | 3 |
| Radius | 1 | | | 1 | | 2 | | |
| Ulna | | | | | 1 | 1 | | 1 |
| Pelvis | 1 | | | | | 2 | 1 | |
| Femur | | | | | | 2 | 1 | |
| Tibia | 1 | 1 | | | | 2 | | |
| Metacarpus | | 1 | | | | | | |
| Metatarsus | | | | | 3 | | | |
| Metapodial | | | | | | 3 | 1 | |
| Phalanx -I | 1 | | | | | | | |
| **Toplam** | **4** | **2** | **3** | **1** | **4** | **13** | **6** | **4** |

## Hayvan Kemiği Bulguları

Cemi-i Çeto kaya mezarlarında gerçekleştirilen kazı çalışmaları sonucunda toplam 61 adet hayvan kemik ve kemik parçaları elde edilmiştir. Kemiklerin tamamı 6 no'lu kaya mezarı Geç Roma Dönemine ait insan iskeletleri ile karışık bir şekilde tespit edilmiştir. Kemiklerin korunma durumu iyi, yüzey yapısı sağlamdır. Temiz su ile hafif temizlik yapıldıktan sonra kemiklerin üzerindeki kültürel ve doğal değişim izleri gözlenebilmiştir.

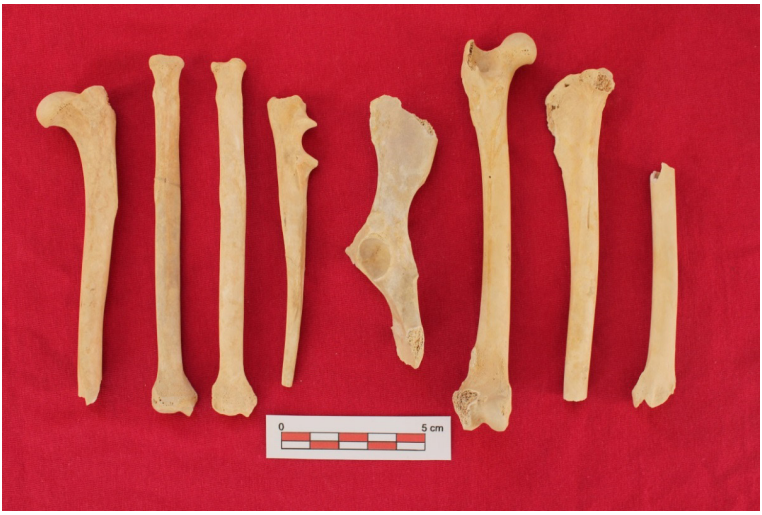
İncelenen hayvan kalıntıları arasında en fazla kızıl tilki (*Vulpes vulpes*) 35% oranında, en az at (*Equus cabalus*) 3% oranında gözlemlenmiştir. Tanımlanmış diğer hayvan türleri arasında koyun (*Ovis aries*), keçi (*Capra hircus*), sığır (*Bos taurus*), köpek (*Canis familiaris*), yabani tavşan (*Lepus europaeus*) ve kuşlar (Aves spp.) yer almaktadır (Tablo 6).

Koyuna ait bir radius proximal, bir pelvis parçası, bir distal tibia ve tam korunmuş bir phalanx-I olmak üzere toplam dört adet kemik tanımlanmıştır (Tablo 7). Koyun kemiklerinin vücut parçalarının dağılımı ve morfolojik özellikleri dikkate alınarak kemiklerin yalnızca tek bir bireye ait olduğu tahmin edilmiştir. Koyun kemiklerinden özellikle tibia distal ve phalanx-I proximal epifizyal füzyona bakılarak koyunun en az 18-30 aylık olduğu tespit edilmiştir. Keçiye ait bir distal tibia ve tam korunmuş bir metacarpus olmak üzere iki kemiğin de tek bir bireye ait olduğu tahmin edilmiştir. Keçiye ait hem tibia distal, hem de metacarpus distal epifizler birleşmiş durumda olduğu gözlenmiştir. Buna göre, keçinin de en az 18-30 aylık olduğu anlaşılmıştır. Hem koyun hem de keçi kemikleri üzerinde kesim izi ya da patolojik bulgu tespit edilmemiştir. Sığıra ait bir maxillar M2, bir mandibular M2 ve bir humerus distal diyafiz bulunmuştur (Tablo 7). Bunlardan mandibular M2'nin erken aşınma durumu dikkate alarak sığırın da 18-30 aylık olduğu tespit edilmiştir (Boessneck & von den Driesch, 1975; Howell-Meurs, 2001).

Yırtıcı hayvanlardan köpeğe ait biri tam ulna ve üçü tam metatatarsal olmak üzere toplam dört kemik bulunmuştur (Tablo 7). Bunlardan ulna'nın hem olecranon hem de distal epifizin kapanma durumunu dikkate alınarak köpeğin 11 aydan daha büyük olduğu anlaşılmaktadır. Tilkiye ait bir sol humerus, bir sağ ve bir sol radius, bir sağ ulna, bir sağ ve bir sol pelvis, bir sağ ve bir sol femur, bir sağ ve bir sol tibia, ve üç adet tam korunmuş metapodial olmak üzere toplam 13 adet kemik tespit edilmiştir (Tablo 7). Kemiklerin vücut parçalarının dağılım ve morfolojik boyutlarının benzerlikleri dikkate alınarak bütün kemiklerin tek bir kızıl tilkiye ait olduğu tahmin edilmiştir (Figür 5). Ayrıca, kemiklerin epifizlerinin kapanma durumuna göre, tilkinin yaşının 12 aydan daha büyük olduğu anlaşılmaktadır.

At'a ait tam korunmuş bir radius tespit edilmiştir. Kemiğin hem proximal hem de distal epifizlerinin tamamen kapanmış olmasından dolayı, atın yaşının, 42 aydan fazla olduğu tespit edilmiştir. Tavşana ait bir sol ve iki sağ humerus, bir sol pelvis, bir sol femur, bir metapodial kemik olmak üzere toplam altı kemik bulunmuştur. İki sağ humerus olması nedeniyle kemiklerin en az iki tavşana ait olduğu tahmin edilmiştir. Kemiklerden özellikle femurun hem proximal hem de distal epifizlerinin tamamen kapanmış olmasından dolayı,

kemiklerin yetişkin tavşanlara ait olduğu anlaşılmaktadır (Figür 6). Kuş kemikleri arasında üç adet humerus ve bir adet ulna bulunmuştur. Orta-küçük gövdeli kuşlara ait bu kemikler, oldukça kırık durumda olduğu için tür ya da cins tanımlanması mümkün olmamıştır. İncelenen kemikler üzerinde herhangi bir kesim ya da yanık izlerine rastlanmamıştır.




**Figür 5.** Cemi-i Çeto 6'nci kaya mezarından ele geçen kızıl tilki (*Vulpes vulpes*) kemikleri.


**Figür 6.** Cemi-i Çeto 6'nci kaya mezarından ele geçen yabani tavşan (*Lepus europaeus*) kemikleri.

**Tablo 8. Anadolu topluluklarında erişkinlerde ortalama yaşam süresi ve çocuk ölüm oranları.**

| Toplum | Dönem | Birey Sayısı | Ortalama Yaşam Süresi | Bebek ve Çocuk Ölüm Oranı | Kaynak |
|---|---|---|---|---|---|
| Cevizcioğlu Çiftliği | Helenistik/ Roma | 414 | 30,51 | 19,70 | (Erdal, 1999) |
| Kayalıpınar | Helenistik/ Erken Bizans | 211 | - | 18,48 | (Sarı & Sağır, 2020) |
| Midyat Aktaş Mevkii | Roma | 138 | 33,50 | 36,95 | (Acar, 2018) |
| Amasya | Roma | 56 | 39,55 | 23,21 | (Akbacak & Gözlük-Kırmızıoğlu, 2018) |
| Parion | Roma | 33 | 41,03 | 21,20 | (Çırak vd., 2019) |
| Börükçü | Geç Roma | 42 | 39,2 | | Sağır ve ark., 2004 |
| Dara | Geç Roma | 216 | - | 17,59 | (Alpagut & Erdoğan, 2015) |
| Akgüney | Geç Roma/ Bizans | 170 | 41,23 | 20,00 | (Çırak, 2017) |
| **Cemi-i Çeto** | **Geç Roma** | **116** | **28,67** | **43,10** | **Bu Çalışma** |
| Alanya Kalesi | Bizans | 21 | 34 | 22,20 | (Üstündağ & Demirel, 2008) |

**Tablo 9. Anadolu'da yaşamış çağdaş ve dönem toplumlarında ortalama boy uzunluğu ile Cemi-i Çeto toplumların karşılaştırması.**

| Toplum | Dönem | (Pearson, 1899) | | (Trotter & Gleser, 1952) | | (Sağır, 1994) | | Kaynak |
|---|---|---|---|---|---|---|---|---|
| | | **Kadın** | **Erkek** | **Kadın** | **Erkek** | **Kadın** | **Erkek** | |
| Midyat Aktaş Mevkii | Roma | - | - | - | - | 155,37 | 169,22 | (Acar, 2018) |
| Amasya | Roma | 155,76 | 167,41 | 159,17 | 164,97 | 164,78 | 170,93 | (Akbacak & Gözlük-Kırmızıoğlu, 2018) |
| Börükçü | Geç Roma | 155,05 | 165,66 | 158,85 | 169,63 | 157,69 | 170,01 | (Sağır vd., 2004) |
| **Cemi-i Çeto** | **Geç Roma** | **153,50** | **167,55** | **156,94** | **171,08** | **156,53** | **170,59** | **Bu Çalışma** |
| Alanya Kalesi | Bizans | 155,90 | 166,50 | - | - | - | - | (Üstündağ & Demirel, 2008) |
| Iasos | Bizans | 153,57 | 163,00 | - | - | 158,62 | 167,78 | (Okşan, 2010) |
| Symrna Agorası | Bizans | 147,65 | 162,57 | 155,02 | 167,46 | 153,83 | 167,17 | (Gözlük vd., 2005) |
| Panaztepe | Orta Çağ | 156,53 | 164,58 | - | - | 160,44 | 170,80 | (Güleç, 1989) |
| Karagündüz | Orta Çağ | 150,51 | 164,52 | 147,34 | 165,32 | 153,74 | 168,48 | (Özer vd., 1999) |
| Güllüdere | Orta Çağ | 154,65 | 165,97 | 159,59 | 170,71 | 159,47 | 170,90 | (Sevim vd., 2007) |
| Minnetpınarı | Orta Çağ | 155,43 | 166,74 | 161,01 | 166,44 | 159,24 | 171,67 | (Yiğit vd., 2008) |
| Müslümantepe | Orta Çağ | 155,53 | 164,44 | 160,77 | 169,37 | 161,07 | 170,07 | (Akbaş & Özer, 2020) |

## Tartışma

Güneydoğu Anadolu bölgesinin yerleşik hayatının geçmişi 12000 yıl öncesine dayanmaktadır (Benz vd., 2015; Karul, 2011; Miyake vd., 2012; Özkaya, 2009). Bölgeye, Samiler, Babil İmparatorluğu, Asur İmparatorluğu, Medler, Persler, Büyük İskender, Romalılar, Sasaniler, Selçuklu Devleti, Artuklular, İlhanlılar, Karakoyunlular, Akkoyunlular ve Safeviler egemen olmuştur. Çok çeşitli medeniyetlere ev sahipliği yapan Anadolu topraklarında Neolitik Dönem'den günümüze kadar yaşamış birçok toplumun paleodemografik analizleriyle, toplumlararası nüfus farklılıkları, doğum ölüm oranları, yaş ortalamaları ve yaşam beklentileri gibi konular karşılaştırılarak geçmiş dönem toplumları hakkında bilgi sahibi olunabilir. Yakın coğrafyadaki Gercüş[1], Mardin Dara Antik Kent ve Mardin-Midyat Aktaş Mevkii ile Cemi-i Çeto toplumunun gömü gelenekleri benzerlik taşımaktadır (Acar, 2017, ss. 101-103, 2018, s. 109).

Cemi-i Çeto toplumu, toplam 116 bireyle temsil edilmekte olup, bebek ve çocuk bireyler neredeyse toplumun yarısını oluşturmaktadır. Oranın, toplum içerisinde bu kadar yüksek olmasının sebebi olarak, toplumdaki olumsuz değişikliklerin etkisinin en fazla bebek ve çocuk bireyler üzerinde yansımasındandır (Özbek & Dilek-Erdal, 2006, s. 41). Anadolu'da yaşamış eski toplumlarda yaşamın ilk 5 yılı içerisinde gözlenen ölüm oranlarındaki yükseklik farklı araştırmalarda da belirtilmiştir (Acar, 2018, s. 118; Akbacak & Gözlük-Kırmızıoğlu, 2018, s. 1643; Akbaş & Özer, 2020, s. 4; Başoğlu vd., 2019, s. 430; Çırak, 2017, s. 261). Çalışmalarda bebeklik yıllarını atlattıktan sonraki dönem içerisinde oranın yüksek olması, savaşlar, yetersiz beslenme ve salgın hastalıklardan kaynaklı bağışıklık sisteminin bozulması ile olabileceği tahmin edilmiştir. Cemi-i Çeto toplumu paleopatolojik olarak gözlemlenmiş diğer Anadolu toplumları ile kıyaslandığında daha sağlıklı bir yapısı olduğu tespit edilmiştir. Genellikle günlük fiziksel aktivitelerin zorluğundan kaynaklanan eklem hastalıklarına rastlanmıştır. Bu bağlamda ileride tüm iskeletler üzerinde yapılacak paleopatolojik çalışmalarla verilerin ayrıntılı inceleme sonuçlarına ulaşılacaktır. Yine de ağız ve diş sağlığı (çürük, apse, aşınma durumu vb.) üzerinde yapılan ilk gözlemler, toplumdaki bireylerin diyetlerinin, hem bitkisel hem de hayvansal gıdaya yönelik olduğunu göstermektedir.

Türkiye'de 2019-2021 yılları arasında Türkiye İstatistik Kurumu'nun yapmış olduğu istatistiksel analiz sonucu kadınlarda beklenen yaşam süresi 80,5 yıl, erkeklerde 75 yıl olmuştur (TUİK, 2023). Geçmişten günümüze kadar bir artış gösterdiği Koca-Özer ve arkadaşlarının yaptığı çalışmada belirtilmiştir (Koca-Özer vd., 2011, s. 217). Örneğin, Helenistik-Roma'daki yaşam uzunluğu 39,12 yıldır. Fakat bu çalışmada, Cemi-i Çeto popülasyonunda yüksek bir düşüş oranı görülmüş ve ortalama 28,67 yıl olduğu hesaplanmıştır. Güneydoğu Anadolu'daki çağdaş toplumlarda olduğu gibi Cemi-i Çeto popülasyonunda da yaşam uzunluğunun düşük olması sebepleri arasında savaş, yetersiz beslenme ve salgın hastalıklar gösterilebilir (Acar, 2018).

1 Ayşe Acar bilimsel danışmanlığında 2022 yılında yapılan Gercüş Kurtarma Kazısı Antropolojik verileri 43. Uluslararası Kazı, Araştırma ve Arkeometri Sempozyumunda sunulmuştur.

Anadolu'da yaşamış toplumların yaşam uzunluk ortalamaları, Neolitik'ten günümüze kadar farklı oranlarda tespit edilmiştir (Koca-Özer vd., 2008). Neolitik'te yaşam uzunluk ortalaması 31,54 yıl, Kalkolitikte 32,5 yıl, Tunç Çağı'nda 36 yıl ve Demir Çağı'nda 37,45 yıl olarak bildirilmiştir. Helenistik-Roma Dönemi yaşam uzunluğu biraz daha artarak 39,12 yıl, Orta Çağ'da 37,19 yıla kadar azalmıştır. Geç Roma Dönemine tarihlendirilen Cemi-i Çeto toplumunun yaşam ortalaması Roma Dönemi yaşam uzunluk ortalamasının çok altında olup 28,67 yıldır. Bu ortalamanın düşük olma sebebi olarak, toplumun olumsuz koşullardan (göç, savaş, hastalık, vb.) daha fazla etkilenmesi sonucu olabileceği tahmin edilmiştir. Bu ortalamaya etki eden diğer bir faktör ise toplumdaki birey sayısının fazlalığı veya azlığıdır. Temsil oranı yüksek olan toplumlarda popülasyon daha iyi tanımlanır. Temsil oranı ve her yaş grubuna ait verilerin azlığı, sonuçları etkileyebilmektedir. Anadolu'daki çağdaş ve yakın dönem toplumları ile karşılaştırıldığında Cemi-i Çeto toplumu ile İzmir'in Cevizcioğlu Çiftliği Hellenistik-Roma Dönemi toplumu benzerlik taşımaktadır (Tablo 8). Aynı zamanda Güneydoğu Anadolu Bölgesinde bulunan Midyat Aktaş Mevkii Roma Dönemi toplumu ile de benzerlik gösterdiği söylenebilir (Acar, 2018). Midyat Aktaş Mevkii bebek ve çocuk ölüm oranı (%36,95), Cemi-i Çeto toplumunda (%43,10) olduğu gibi yüksek değerlerdedir. Aynı bölgede olması dönemsel sıkıntıların toplumlar üzerindeki etkilerinin de benzemesi sonucu olabilir. Fakat Güneydoğu Anadolu Bölgesinin diğer önemli bir Geç Roma yerleşim yeri olan Dara Antik Kentte ise çocuk ölüm oranı, Cemi-i Çeto toplumu ile benzerlik taşımamaktadır. Bunun sebebi olarak, Dara Antik Kent'inin yalnızca nekropol değil, farklı dönemlerde ibadet yeri, garnizon, ticaret merkezi ve konut alanı gibi farklı amaçlarla kullanılmış olmasıdır (Alpagut & Erdoğan, 2015, s. 292).

Boy uzunluğu, toplumun sağlık yapısı, beslenme ve sosyoekonomik yapısının değerlendirilmesi açısından önemli veri kaynağıdır. Anadolu insanlarının antropometrik boyutlarının incelendiği yayında güncel değerler erkeklerde 169,88 cm, kadınlarda 155,03 cm olarak hesaplanmıştır (Güleç vd., 2009, s. 192). Anadolu'da Neolitikten Orta Çağ'ın sonuna kadar yaşamış toplumlar üzerindeki çalışmada Neolitik Dönem kadın bireylerinde boy ortalaması 155,95 cm, erkek bireylerinde 170,85 cm, Kalkolitik Dönem kadın bireylerinde 153,25 cm, erkek bireylerinde 164,96 cm, Tunç Çağı kadın bireylerinde 157,18 cm, erkek bireylerinde 165,87 cm, Demir Çağı kadın bireylerinde 158,31 cm, erkek bireylerinde 169,39 cm, Helenistik-Roma dönemi kadın bireylerinde 155,64 cm, erkek bireylerinde 165,31 cm, Orta Çağ kadın bireylerinde 158,01 cm, erkek bireylerinde 169,35 cm olarak tespit edilmiştir (Koca-Özer vd., 2011, s. 214). Cemi-i Çeto toplumundaki uzun kemiklerin ölçümü Trotter ve Glesser'in (1952) ve Sağır'ın (1994) yöntemi ile hesaplanması birbirleri ile uyum göstermiştir. Bu iki yönteme göre Cemi-i Çeto toplumu değerlendirildiğinde, Anadolu'daki Orta Çağ Dönemi kadın bireylerinin ortalamasından yaklaşık 2 cm, erkek bireylerinin ortalamasından 1,2 cm daha uzun olduğu görünmektedir (Tablo 9).

Pearson (1899) boy uzunluğu formülü kullanılarak yapılan hesaplama sonucu Cemi-i Çeto kadın bireylerinin boy uzunluğu Symrna ve Karagündüz kadın bireylerinden daha uzundur (Gözlük vd., 2005; Özer vd., 1999). Cemi-i Çeto erkek bireylerinin boy uzunluğu ise, Amasya

toplumu ile benzerlik taşımakta, ve diğer tüm toplumlardan daha uzundur (Akbacak & Gözlük-Kirmizioğlu, 2018; Gözlük vd., 2005; Özer vd., 1999). Trotter ve Glesser (1952)'in geliştirdiği boy formülüne göre yapılan hesaplama sonucunda Cemi-i Çeto kadın bireyleri Midyat Aktaş Mevkii, Symrna Agorası ve Karagündüz kadın bireylerinden daha uzundur (Acar, 2018; Gözlük vd., 2005; Özer vd., 1999). Cemi-i Çeto erkek bireyleri ise Amasya, Börükçü, Panaztepe ve Müslümantepe erkek bireyleri ile aynı boydadır (Akbacak & Gözlük-Kirmizioğlu, 2018; Akbaş & Özer, 2020; Sağır vd., 2004; Sevim vd., 2007). Sağır (1994)'ın geliştirmiş olduğu formülde Cemi-i Çeto kadın bireyleri Symrna Agorası ve Karagündüz toplumlarındaki kadın bireylerden daha uzun, Cemi-i Çeto erkek bireyleri ise tüm toplumlardaki erkek bireylerden daha uzun olduğu gözlemlenmiştir (Acar, 2018; Akbacak & Gözlük-Kırmızıoğlu, 2018; Akbaş & Özer, 2020; Gözlük vd., 2005; Özer vd., 1999; Sağır vd., 2004; Sevim vd., 2007). Böylece, Cemi-i Çeto toplumu, çağdaş ve dönem popülasyonları ile karşılaştırıldığında görece daha iyi yaşam koşullarına sahip olduğu söylenebilir. Bununla birlikte yaşam ortalamasının diğer popülasyonlarla karşılaştırıldığında daha düşük olması, dönemsel koşullar sonucu oluşan göç ve savaşlar sebebiyle olabileceği tahmin edilmiştir.

Cemi-i Çeto 6 nolu kaya mezar içerisinde bulunan hayvan kemikleri insan kemikleri ile birlikte karışık bir durumda tespit edilmiştir. Fakat kemiklerin çok az sayıda olmasının yanında kemiklerin herhangi bir gömü ile doğrudan ilişkili olup olmadığını söylemek güçtür. Kemiklerin arasında Güneydoğu Anadolu'daki insanlar tarafından et kaynağı olarak tüketilen hayvanlardan sığır, koyun, keçi ve kuşlar yer almaktadır. At, tilki ve köpek olasılıkla et kaynağı olarak kullanılmamıştır. Kemiklerin üzerinde herhangi bir kesim izi rastlanmaması, ayrıca kemiklerin hemen hemen hepsinin bütün halde olması da bu iddiayı desteklemektedir. Sığır, koyun ve keçi genel olarak besin kaynağı olarak kullanılmış olsa da bu türlere ait oldukça az kemiğin olması, mezar içerisinde herhangi bir şölen veya ziyafet amaçlı tüketim yapılmadığını göstermektedir. Dolayısıyla hayvan kemiklerinin, kaya mezar yapımı aşamasında dağınık şekilde atılmış yemek atıkları olarak ya da yağmur suyu ile doğal olarak mezar içerisine taşınmış olabilir. Öte yandan, mezarda bulunan tilki kemikleri büyük olasılıkla sonradan alan içerisinde ölmüş bir tilkinindir. Tavşan kemiklerinin üzerinde kesim izlerine rastlanmaması da aynı durumu işaret etmektedir. Köpek ve at kemikleri ise ya yağmur suyu ile mezar içerisine taşınmış ya da başka hayvanlar tarafından mezar içerisine getirilmiştir.

Güneydoğu Anadolu Bölgesi'ndeki Geç Roma Dönemi'ne ait kaya mezar kazılarında ortaya çıkan insan kemikleri ile birlikte hayvan kemiklerinin varlığı bildirilmiştir (Acar, 2017). Fakat Geç Roma Dönemine ait kaya mezarlarda ortaya çıkan insan ve hayvan kemikleri arasındaki ilişkiyi ortaya koymak için henüz ayrıntılı bir çalışma bulunmamaktadır. Dolayısıyla, Cemi-i Çeto'daki kaya mezarda ortaya çıkan Geç Roma Dönemi insan ve hayvan kemikleri arasındaki ilişkilerin ipucunu bulmak oldukça zordur. Bununla birlikte bu çalışmada, hayvanların tür, yaş ve ayrıntılı kontekst hakkında sunulan veriler bölgedeki dönemin faunası hakkında bilgi vermesinin yanında ilerideki zooarkeolojik çalışmalar için veri kaynağı oluşturmaktadır. Bunun yanı sıra, Cemi-i Çeto Geç Roma Dönemi toplumunun

hayvansal besin kaynağı, hayvanların ekonomideki katkıları ve ölü gömme geleneklerinde hayvanların rolleri hakkındaki soruları cevaplamak için ilerideki kazı çalışmalarında ortaya çıkarılacak önemli sayıdaki hayvan kemikleri üzerinde yapılacak zooarkeolojik çalışmalar destek olacaktır.

## Sonuç

Cemi-i Çeto toplumunun yaşadığı bölgenin tarihsel geçmişi birçok medeniyete sahiplik etmiştir. Büyük imparatorluk ve beyliklerin egemen olduğu topraklarda savaşların ve göçlerin yaşanması sonucu bölgenin demografik yapısında değişiklikler olduğu bilinmektedir. Cemi-i Çeto toplumu, ortalama yaşam süresinin düşük olmasını, yüksek oranlardaki bebek ve çocuk ölümleri ile açıklanabilir. Bunun yanı sıra dönemin olumsuz yaşam koşullarının toplumu etkilediği de söz konusu olabilir. Ortalama yaşam uzunluğu, Anadolu'daki diğer Geç Roma Dönemi toplumlarla karşılaştırıldığında hem Cemi-i Çeto kadınları hem de Cemi-i Çeto erkekleri genel ortalamanın çok altında kalmıştır. Toplumda genç yaş ölümleri kadınlarda daha fazladır. Kadınların %61,53'ü, erkeklerin %54,83'ü genç yaş aralığı olan 18-29,99 yaş arasında hayatını kaybetmiştir. Bebek ve çocuk bireyler neredeyse toplumun yarısını oluşturmaktadır. Yaşam beklentisi, 45 yaşından sonra en düşük seviyelere inmiştir. Bununla birlikte, sağlıklı bir toplumun göstergesi olan boy uzunluğu, Cemi-i Çeto toplumunda hem kadın hem de erkek bireylerde Anadolu'daki dönem ortalamasının üzerindedir. Toplum üzerindeki paleopatolojik gözlemler de toplumun sağlıklı yapısını yansıtmaktadır. Yaşam ortalamasında bu durumdan farklı olarak düşük değerler gözlemlenmiştir. Ağız ve diş sağlığı üzerindeki ön gözlemler sonucu, bölgenin dağlık yapısına uygun bir beslenme diyeti tercih ettikleri söylenebilir.

Bununla birlikte, farklı türlere ait olmasına rağmen hayvan kemiklerinin sayısı çok az olduğu için Cemi-i Çeto insan ve hayvan arasındaki ilişkilerin ipucunu bulmak oldukça zordur. Fakat toplumunun hayvansal besin kaynağı, hayvanların ekonomideki katkıları ve ölü gömme geleneklerinde hayvanların rolleri hakkında detaylı bilgilere ulaşmak için ilerideki kazılarda ortaya çıkarılacak fazla sayıdaki hayvan kemikleri üzerinde zooarkeolojik çalışmalar yapılması gerekmektedir. Sonuç olarak; Cemi-i Çeto toplumu üzerine yapılan bu ön biyoarkeolojik çalışma, Anadolu'daki Geç Roma-Orta Çağ'ı daha iyi anlayabilmek için karşılaştırmalı veri kaynağı oluşturmaktadır. İleride yapılacak olan paleopatolojik çalışmalar, diş ve çene sağlığı hakkındaki çalışmalar, morfometrik çalışmalar gibi bilimsel yaklaşımların desteği ile Cemi-i Çeto toplumunun sağlık durumu, besin diyeti, gömü gelenekleri ve sosyoekonomik yapısı hakkında ayrıntılı bilgiler sunulacaktır.

## Teşekkür

Proje ekibindeki Araştırma Görevlisi Çağdaş Erdem'e desteklerinden dolayı teşekkür ederiz. İskelet temizlik aşamasında yardımcı olan değerli öğrencilerimize de teşekkür ederiz. Siirt Kurtalan, Cemi-i Çeto Mağaraları Kaya Mezarları kazı çalışmaları Batman Müze Müdürlüğü başkanlığında gerçekleştirilmiştir. İskeletleri çalışmak için gerekli izinleri veren

Batman Müze Müdürü Şehmus Genç'e, iskeletlerin çıkarılması ve ulaştırılması aşamasında yardımlarını esirgemeyen Zeynep İsen'e teşekkürü bir borç biliriz.

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# 19th–20th Century Greek Ossuary Architecture and Islets of the Dead in the Gulf of Edremit

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**ABSTRACT**

Interdisciplinary studies, which have become even more common in the present day, can pave the way for further research in different scientific disciplines, including anthropology. Correspondingly, this study—employing insights from architectural history, landscape archaeology, and historical topography perspectives—focuses on Greek ossuary structures and funerary islets in the Gulf of Edremit during the 19th and 20th centuries. First, the ossuary of Burhaniye, deemed a lost and forgotten monument that belonged to the former Greek community of the town, is introduced through Ottoman archival records and oral history. Then, the abandoned ossuary in the old Greek cemetery of Cunda Island (Ayvalık) is taken into account as an extant and nearby example. Later, a discussion is conducted to determine the precise location of a funerary islet among the Ayvalık Islands, which had remained rather obscure in recent literature. Apart from this islet, there was another funerary islet in the region, although they served contrasting purposes. Sazlı/Oker/Kalemli Island (formerly Kalamaki) was for the *vrykolakas*, who were believed to be undead revenants. On the other hand, Kumru Island (formerly Nisopoula) was the resting place of a modern-day saint. For this study, different sources were considered and compared with archival evidence, and they were further elaborated through field surveys. While the results have secured the position of Sazlı/Oker/Kalemli Island, the previous use of Kumru Island as a sacred burial site establishes a unique case study with its own story. Finally, it is hoped that the outcomes of this study may guide advanced anthropological studies in the region.

**Keywords:** Architectural history, ossuary, funerary islands, Burhaniye, Ayvalık

## Introduction

According to official data as of 2022, approximately 2,000 buildings are listed as civil architecture examples in Ayvalık, while the number is roughly 120 in Burhaniye. These are two major towns in the Gulf of Edremit in the provincial borders of Balıkesir. Moreover, five historical settlement centers within the district borders of Ayvalık are designated as urban protected sites. They include monumental structures like mosques and churches as well as residential buildings of any kind. However, those listings primarily cover the architectural heritage within the settlement centers, and monuments in peripheral parts of the towns, including rural areas, are mostly omitted (BKTVKK, 2022). Likewise, studies about the monuments that are no longer present in the region are quite limited. Nevertheless, in addition to the historical settlements, it can be argued that the surrounding lands hold a significant architectural as well as archaeological heritage (see Figure 1).

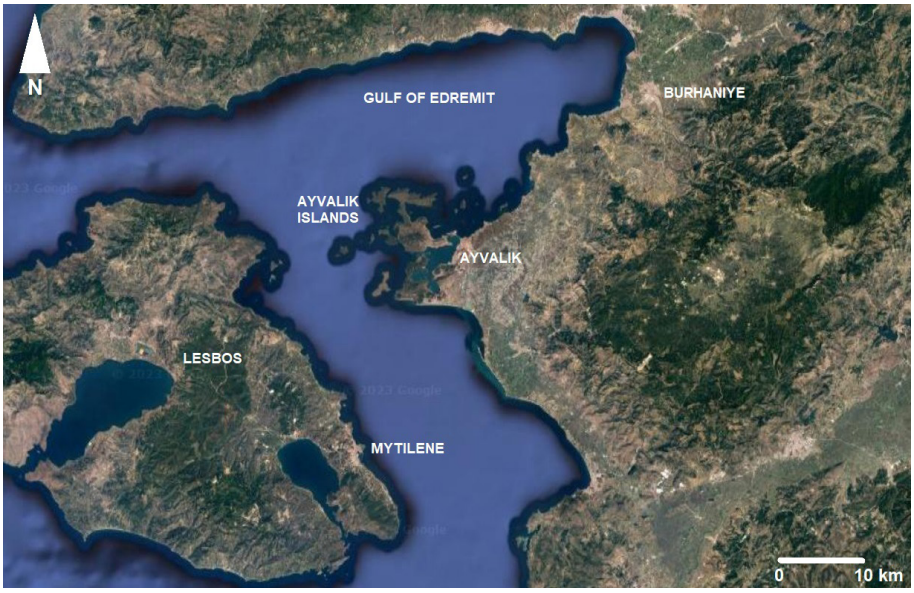


**Figure 1.** Gulf of Edremit's satellite image with the mentioned places in the research (Google Maps).

Previously, despite the compelling need, a comprehensive survey of the built heritage in the countryside of Ayvalık and Burhaniye had never been conducted. While recent archaeological field surveys for the whole Gulf of Edremit aim to enhance the rural heritage inventory of the two towns, it is obvious that certain connections are inevitable between the monuments and the historical topography, as well as their relationship with land use. Furthermore, in cooperation with those field surveys, the process of employing primary sources like archival records and cartographic studies as a complementary step allows us to encounter noteworthy information about lost monuments, especially from the late modern period, where available sources are relatively more abundant than previous centuries. Such

discoveries have not only scientific value but also the potential of being pragmatic tools for the preservation of the heritage under natural as well as anthropogenic threats, mainly vandalism. As an example of this threat, the *katholiko* (main chapel) of the Monastery of Profitis Ilias on Cunda Island can be mentioned as the most recent loss (Daily Sabah, January 4, 2021). The recent UNESCO World Heritage Tentative List designation of Ayvalık includes both the settlement center and the vast surrounding areas in the context of the 19th- and 20th-century industrial landscape (UNESCO, 2017, 15 April). Thus, it can be argued that further scientific findings of any kind will contribute to the preservation efforts for the neglected tangible heritage, which is an essential part of the multifaceted history of the wider region. Meanwhile, in contrast to studying buildings and monuments located in densely inhabited settlement centers, studying peripheral monuments of uninhabited areas, often with impassable topographical characteristics, will naturally require slightly different approaches. Once a research methodology is established and is proven feasible through preliminary discoveries, it may serve new archaeological and architectural studies in the future too. Nevertheless, like a relay race, research efforts might not be limited to those fields.

Interdisciplinary studies are becoming even more frequent nowadays and have the potential to trigger further studies in different areas, including anthropology and its scientific subbranches. With a research methodology centered around architectural history, landscape archaeology, and historical topography, this study is about two Greek Orthodox ossuary buildings and funerary islets each in the Gulf of Edremit, which were used during the late 19th and early 20th centuries. Speaking generally, the ossuary, also called a charnel house, is a place where the bones of the dead are deposited (Shipley, 1872, p. 340). The deposited bones are often obtained during the process of digging graves in densely occupied cemeteries. The ossuary can be either a portion of the crypt or a separate building in the churchyard, where chantry chapels were often attached to it (Ashpitel, 1867, p. 96).

Even though practices vary widely among different cultures, the work of the burials needs not only a physical space like the cemetery but also a symbolic space, of leave and memory. The bones alone, which are neither kin nor outsiders, are only the remnants and signs of missing human lives. Therefore, the ossuary is a spatial reflection of the treatment that their spiritual value deserves (Green and Murray, 2009, pp. 370–371). Besides its architectural context, the ossuary burial practice is a much older tradition in the Eastern Mediterranean, which dates back to classical antiquity, as Late Hellenistic and Herodian (2nd–1st century BC) ossuary tombs from Jerusalem demonstrate (Strange, 1975). During the Middle Ages, the ossuary was a necessity within the constrained spaces of urban cemeteries delimited by walls, and they rarely extended beyond those confined spaces. Because of the constant demand for burial spaces, particularly during pestilence, the same land was needed to accommodate new generations of the dead. Therefore, old graves were cleared, and the retrieved old bones were cleaned and preserved. Despite the Christian doctrine about the constitution of bodies at the end of time, regardless of disintegration and decomposition, medieval society paid attention to keeping bones on consecrated ground and close to an altar, where they were protected

until final judgment and could receive prayers. Since a vaulted space in which bones could be stacked and consolidated was provided, the ossuary was an efficient solution to meet this need (Boivin, 2020, pp. 79–80).

Concerning the Aegean Archipelago and the Greek Orthodox tradition, it has been reported by the mid-19th century that when bones from a previous interment were discovered while digging a grave, they were washed in wine and then placed in a common receptacle (Newton, 1865, p. 213). In the same community, the obligations that the living have to their dead kin continue even after funeral services. One of the major themes of those rituals is remembrance, which is embodied in naming practices and rites and within the distinctive features of the landscape, including family vaults and bone depositories. Moreover, such buildings and the associated human activities foster connections between families and the community as a whole. They can be interpreted as material expressions of memory and ritual obligations that constitute the remembrance phenomenon (Kenna, 2015, pp. 227–228). In fact, a similar attitude can be seen even in the Neolithic settlement of Çatalhöyük, where the dead were kept close to the living by placing burials within houses, primarily under platforms and floors but also in benches and foundation deposits. The practice also included various treatments of the remains, and later usages of the same burial places were fairly common. Thus, there had been a certain spatial relationship between families and the deceased on a daily basis (Boz and Hager, 2013).

Within the scope of this research, first of all, the ossuary of Burhaniye is introduced. Ottoman archival records and oral history helped to reveal the story of the demolished and hitherto unstudied landmark of the town. Meanwhile, as an extant and analogous building in the Gulf of Edremit, the abandoned ossuary in the former Greek cemetery of Cunda Island in Ayvalık is examined in its current condition. Subsequently, our objective is to accurately identify the location of a rocky islet in the vicinity of Cunda as the current literature presents significant disparities on such a fundamental issue. In this context, the research is in part also a methodological experiment concerning the late modern historical topography of the region. For that purpose, Turkish and Greek cartographic studies were taken into account and were compared with Ottoman archival registries. This was followed by field surveys for onsite documentation. It should be mentioned that Ayvalık Islands formerly had more than one funerary islet. The second islet, namely Kumru Island (formerly Nisopoula), is also included in the research as a nearby example. At the same time, a similar funerary islet located in Lesbos right across Ayvalık Islands is included in the brief. According to the outcomes, in terms of historical topography and land use, while Sazlı/Oker/Kalemli Island (formerly Kalamaki) was used for the disposal of the remains of the excommunicated members who belonged to the local Greek community, Kumru Island had the grave of a modern-day saint and was seemingly a sacred pilgrimage site. These findings should be considered not only for the preservation of the heritage but also for advanced anthropological studies in the Gulf of Edremit in the near future, which are strongly suggested in the face of numerous threats. Among these threats, vandalism is by far the most dangerous one, in addition to reckless new developments.

## Former Greek Orthodox Community of Burhaniye and Its Cemetery with Ossuary

Being a town of the Balıkesir Province, Burhaniye is located in the Gulf of Edremit by the Aegean Sea, at a distance of 4 km from the shoreline to the west. It is bordered by Edremit to the north, Havran to the northeast, and Gömeç and Ayvalık to the southwest. It was called Kemer as well as Kemer-i Edremid until the late 19th century and was renamed during the last years of Abdul Hamid II in honor of his son Şehzade Mehmed Burhaneddin Efendi. According to the Ottoman state registry books (*tahrir*) dated 1530 and 1573, Kemer, then a village of Edremit, did not have a non-Muslim population in six neighborhoods of the settlement center. Based on those registry books, the total Muslim community consisted of 283 households (*hane*) and 69 singles (*mücerred*) by 1530, then 272 households and 183 singles by 1573(Sevim, 1993, p. 187). The first Ottoman census carried out in 1831 stated that 3,772 people lived in Kemer at that time, with Muslims being 3,649 and non-Muslims 123. However, it should be noted that only male individuals were taken into account, and the numbers included not only the town of Kemer but also dependent villages around it (Karal, 1943, p. 202). Correspondingly, the census book of Kemer dated 1833 indicated that the town center had a Greek population of 103 inhabitants, who particularly resided in the neighborhood called Cami-i Kebir (presently known as Koca Cami) (Genç, 2016, p. 385).

The number of Greeks in Kemer had increased mainly after the devastating earthquake of Lesbos in 1867. The islanders had migrated to the opposite coast of Asia Minor in great numbers, and many of them arrived and settled in Kemer as well (Kontogianni, 1921, p. 273). In the Ottoman state yearbook (*salname*) dated 1870 of the Hüdâvendigâr Vilayet, the whole township (*kaza*) of Kemer had 2,094 households, which accommodated 5,653 Muslim and 505 non-Muslim (i.e., Greeks) male individuals, totaling to 6,158 individuals (HVS, 1870, p. 151). Within a decade, the aforementioned statistics had increased to 2,982 households, 6,133 Muslims, and 602 Greeks, resulting in a total of 6,735 male residents. It must also be noted that no Armenians lived in Kemer at that time (HVS, 1880, p. 174). The earliest account of a Greek Orthodox church in the Kemer centrum with six neighborhoods appeared in the 1888 yearbook of the Karesi Vilayet. At that time, the township had 2,979 households with 16,683 residents in total, consisting of both males (*zükûr*) and females (*inas*) (KVS, 1888, p. 118).

According to the Hüdâvendigâr Vilayet yearbook of 1892, the Kemer township had 18,689 inhabitants. Out of the total inhabitants, 2,131 were Greeks, with 1,126 males and 1,005 females. The community had one church and two schools in the town center. Even though five mosques and a church corresponded to the six neighborhoods of Kemer by 1892, official sources do not confirm a Greek neighborhood as an administrative subdivision. However, it can be assumed that the community had a parish centered around its church (HVS, 1892, p. 442). As of 1894, the Kemer settlement had 4,132 residents—3,800 Muslims and 332 Greeks—who lived in 853 houses. Within its six neighborhoods, which had five mosques with minarets and a church, the Greek community also had a secondary school (with 20

students) and a boarding school for girls (with 25 students). There were also separate primary schools for boys and girls (Cuinet, 1894, pp. 271–273). In the Hüdâvendigâr Vilayet yearbook of 1898, it is stated that the Kemer township had 14,079 inhabitants, out of which 479 were Greeks (274 males and 205 females). The town center had 1,002 households with 4,132 people. The number of the students of the two Greek schools was 280 in total, with 190 boys and 90 girls (HVS, 1898, pp. 424).

According to a Greek geographical study, the Greek Orthodox church of Kemer/Burhaniye was called Agios Charalambos. It is described as a magnificent shrine, which was completed and inaugurated in 1900 (Kontogianni, 1921, p. 273). However, as mentioned previously, since the Greek Orthodox church of Kemer was already present in 1888, the work of 1900 was seemingly a reconstruction. Afterward, the 1906 yearbook recorded 23,529 inhabitants within the township. Out of this, 2,127 males and 1,832 females formed a community of 3,959 Greeks, who continued to possess a church as well as two schools for boys and girls in the town center (HVS, 1906, pp. 558, 560). By 1921, the township experienced a dramatic population decrease to 10,000, consisting of 4,000 Greeks and 6,000 Turks. However, it should be noted that while the former remained more or less the same in number, the change was mainly noticed in the number of the latter. This was apparently a result of the Greek invasion of Burhaniye in the course of the Greco–Turkish War (1919–1922), which was a part of the Turkish War of Independence (Kontogianni, 1921, p. 272). Following the war as well as the liberation of the town, on September 8, 1922, Burhaniye lost its entire Greek community as a result of the 1923 population exchange between Greece and Turkey (*Nüfus mübadelesi*/ *Ανταλλαγή πληθυσμών*).

Nevertheless, all the brief statistics mentioned above are insufficient to demonstrate the constant change and transformation of the built heritage in Burhaniye, which belonged to the Greek community. For instance, according to an Ottoman State Archives registry dated December 23, 1896, the Greek girls' school of Burhaniye needed to be reconstructed because the former building was demolished and became unserviceable (see Figure 2) (BOA, ŞD, 1567-31, H. 18.07.1314).[1] It is known that the former church of the Greek community was on Gazhane Street. Next to the so-called Church Bath (*Kilise Hamamı*), named after the shrine itself, there was a small two-story building that had a distinctive alternating masonry technique of yellow sandstones, where vertical sets of rubbles were inserted between roughly shaped blocks with regular courses. The square-shaped structure has a dome-shaped, amorphous roof. Below the roof, two sets of iron bars, fixed from the outside, supported the bearing walls. It was later converted into a residence, and several openings were inserted on its façades. The building was originally a part of the former church, probably its bell tower, where the nave was to the west of it. The church was demolished in the 1920s, and its debris was gradually removed until the mid-20th century (see Figure 3) (Sağlam, 2012, p. 18, 21, 93; Aras, 2014,

1 The new single-story building had a 19 x 17 m rectangular layout that included four corner rooms with four windows each, which were divided by a central aisle. The height of the masonry building was 9 m, marked by neoclassical pediments of its gable roof.

p. 181). Archival sources provide further information about the church and its later additions (see Figure 4) (BOA, İ.AZN, 105-11, H. 03.02.1330; BOA, DH. İD, 114-38, H. 14.02.1330).[2] The reason behind those constant reconstructions after certain damages was probably due to the occurrence of devastating earthquakes because the region was known to be seismically very active during the late 19th century and had several such disasters (Satılmış, 2020).

The elongated rectangular plan and relatively lower height of the former church in Burhaniye evoke the image of a roofed basilica. Numerous examples of it can be seen in Ayvalık, such as Taxiarches (1844), now a museum; Hagia Triada (1846), now in ruins; Kato Panagia (1850), now Hayrettin Pasha Mosque; and Küçükköy Hagios Athanasios (1850), now Merkez Mosque (Psarros, 2017). Moreover, the layout of the priests' building indicates that it once formed the northern corner of the church's plot, which presently remains at the junction of Yıldız Street and Şar Street (see Figure 4).

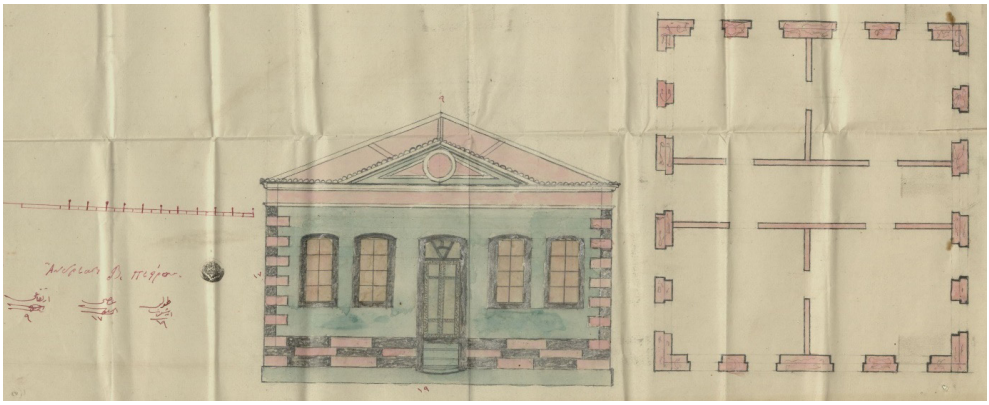

**Figure 2.** Floor plan and front façade view of the Greek girl's school to be reconstructed, drawn by master builder Andreas V. Petrou, dated 1896 (BOA, ŞD, 1567-31, H. 18.07.1314, fol. 1).

2 According to those two Ottoman State Archives records from January 23 and February 3, 1912, the Greek Orthodox church of Burhaniye was previously constructed without a valid building permit; it was recognized and a permit was issued only then. The work in question was seemingly the reconstruction of 1900. The church building in question had a width (*arz*) of 13 *arşın*, length (*tûl*) of 27 *arşın*, and height (*irtifa'*) of 9 *arşın* (1 *arşın* ≈ 0.75 m, so 9.75 × 20.25 × 6.75 m, respectively). In the meantime, a two-story masonry building for the priests as well as the janitor with five rooms each was permitted to be constructed in the courtyard of the church.

**Figure 3.** Survived part of the Church of Agios Charalambos in Burhaniye dated 1900, probably its belfry (Adramytteion Researches, 2023).

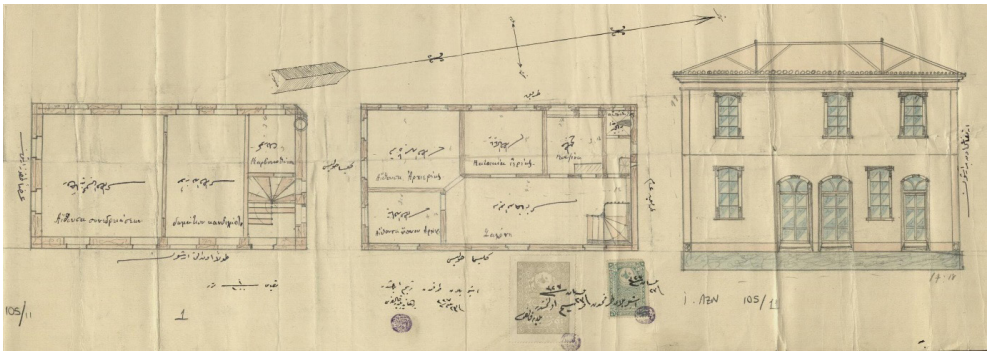

**Figure 4.** Floor plans and eastern façade view (dated 1912) of the building to be constructed in the courtyard of the church in Burhaniye. Width: 9 *arşın*; length: 16 *arşın*; height: 11 *arşın* (so 6,75 x 12 x 8,25 m, respectively). The ground floor (left) had a meeting hall, candles room, coal cellar, and staircase, while the first floor (right) had a living room, godfather archpriest's room, archpriest's room, priest's bedroom, kitchen, and lavatory. Its northern and western façades faced two public streets and the rest were in the courtyard (BOA, İ.AZN, 105-11, H. 03.02.1330, fol. 1)[3].

By the 19th century, the Greek community of Burhaniye had its own cemetery in the town center. Like the monuments discussed previously, the cemetery also had later additions. For

3 Width: 9 *arşın*; length: 16 *arşın*; height: 11 *arşın* (so 6.75 x 12 x 8.25 m, respectively). The ground floor (left) had a meeting hall, candles room, coal cellar, and staircase, while the first floor (right) had a living room, godfather archpriest's room, archpriest's room, priest's bedroom, kitchen, and lavatory. Its northern and western façades faced two public streets, and the rest were in the courtyard.

instance, a series of official documents from the Ottoman State Archives dated September 25, 1901, mention the addition of an ossuary to the Greek Orthodox cemetery in Burhaniye, along with the related building permit for it (BOA, ŞD, 1580-17, H. 11.06.1319). Archival correspondences with the registry date of October 29, 1901, include a detailed plan of that ossuary building. The plan shows that the Greek cemetery had an elongated rectangular layout, with a short side of 22 m and a long side of at least 27 m. Boundary walls had a thickness of roughly 0.60 m. The gate was on the short side, toward the frontal corner, and the rectangular ossuary was fitted to the rear corner. The inner dimensions of the masonry structure were 5.5 x 6.5 m. The bearing walls of the lateral and rear façades were approximately 0.75–0.80 m thick, while the entrance façade was around 0.50 m. The two-door entrance was oriented toward the burial ground as well as its main gate. A wooden portico of 2 x 5.5 m fronted the entrance. Accessed by four steps, the portico had a plain design with six rectangular pillars. These pillars were arranged with four in the front and two behind, separated by diagonal patterned railings. In addition, there were stylized capitals, a pseudo architrave, and plain eaves above each other. Each lateral façade had a window, and there were three internal niches on the rear façade, apparently for storage purposes. The ossuary had a hip roof covered in tiles, with its height reaching 6 m up to the eaves. The 1.5 m raised foundation of the plain structure may have been designed to accommodate a subterranean vault to provide additional storage space. Overall, it was a rather simple and pragmatic building in accordance with the bone depository function in question (see Figure 5) (BOA, İ.AZN, 44-11, H. 16.07.1319). A single document dated November 2, 1901, not only confirms the construction mentioned previously but also includes its procedure in the ministries of justice and interior (BOA, BEO, 1741-130559, H. 20.07.1319). Finally, a document dated December 8, 1901, states that there was no objection to the construction of a bone depository in the Greek cemetery in Burhaniye; however, it should be constructed in accordance with the building code. Its architectural details, as well as dimensions, were verified, confirming the presence of an entrance and two windows, with 6.5 *arşın* width, 10 *arşın* length, and 5 *arşın* height (so 5 x 7.5 x 3.75 m, respectively), which curiously do not correspond with precision to the plan (see Figure 5). Meanwhile, the total cost of construction was approximately 1,300 *kuruş* (BOA, DH.MKT, 2566-58, H. 26.08.1319). The Greek cemetery of Burhaniye, including the ossuary building, did not survive following the compulsory population exchange in 1923, and there have not been any studies about them to this date. Nevertheless, most recently, it has been reported that some elderly locals still recall the former cemetery and its ossuary with their approximate positions next to the old prison in the vast, longitudinal, and once-empty area along River Karınca. Formerly used for various public events, it formed the entire southwestern perimeter of the town and was called "Müsellâ" (Aras, 2014, p. 180).[4]

4 There used to be a walled open-air prayer place (*musalla*), which was the reason why the ground was called that way. The old prison, which no longer exists, was locally called "Dam" (gaol). Those public events included Friday prayers, rain prayers, circumcision feasts, firing the iftar cannon during Ramadan, football matches, camel wrestling gatherings, stunt performances, and military drills.

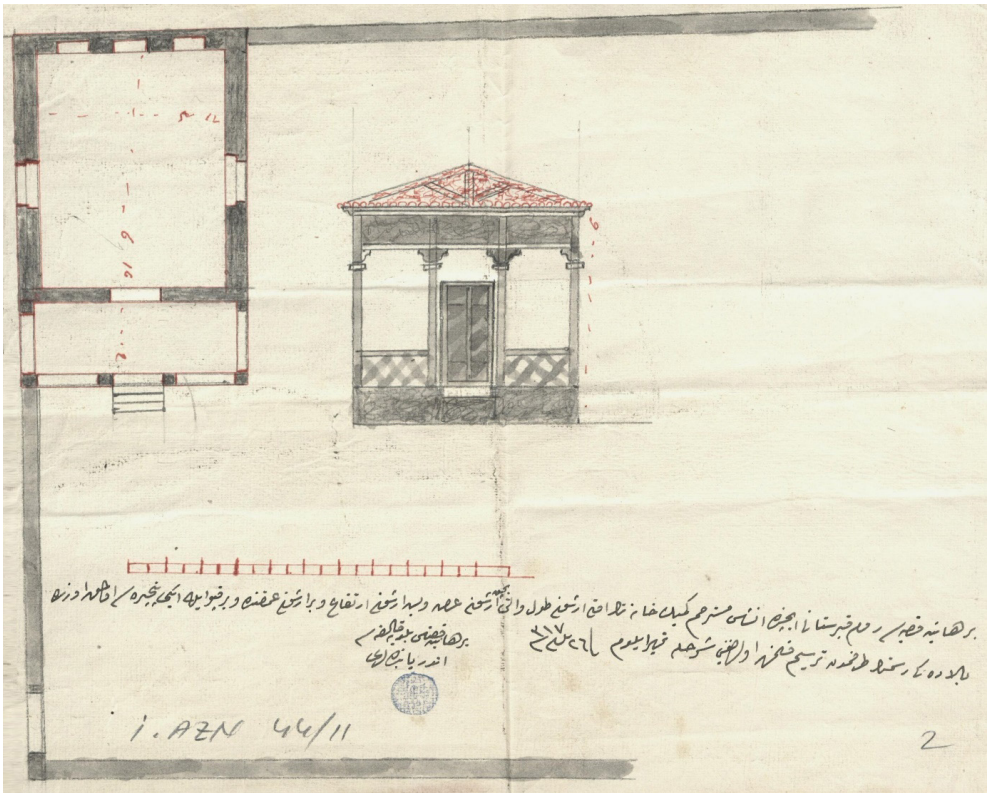


**Figure 5.** Floor plan and front façade view of the ossuary to be constructed in the Greek cemetery of Burhaniye, dated 1901 (BOA, İ.AZN, 44-11, H. 16.07.1319, fol. 2).

Considering the aforementioned collective testimony as a starting point, an oral history survey was conducted among the town's elderly residents and local researchers, with Architect M. Zeybek, who had served as a council member for two periods, leading the effort in identifying the precise position of the former Greek cemetery of Burhaniye. According to the testimonies obtained from multiple sources, there were two burial grounds. The first and smaller one was in the vicinity of the church, and the second, much larger one, was positioned along the southwestern fringe of the historical settlement center, which roughly corresponds to the modern Sevgi Park next to Uğur Mumcu Blvd, between Kadir Efe Street and Borazan Street. The area remained vacant and ignored despite surrounding urban development. Therefore, it was almost trapped in the middle of the town, before its designation as a park in 1999 (M. Zeybek, personal communication, July 25, 2023). The aerial images of Burhaniye dated 1956, 1958, and 1968 confirm that the area was empty and kept its initial limits to this date. All new building blocks, including large public buildings, were constructed further away to the southwest (HGM, 1956, 694/238; HGM, 1958, 918/364; HGM, 1968, 1955/100,196). However, it appears that a modern apartment occupies roughly one-fourth of the former area

in the present day. Curiously enough, despite its pivotal position in the town, the park still does not possess a building block as well as a plot register (*ada*/*parsel*). This increases the possibility of an ownership change in the context of it being a former public space that was transferred to the state treasury, following the population exchange.

During the field survey in the area, a masonry perimeter wall with a thickness of around 0.70 m and a total length of nearly 50 m was noticed along the section of the park adjacent to the boulevard. It appears that the wall had been standing for a long time since a 3 m gap toward the northwestern end and the final 20 m toward the southeast have quarried larger stones and unhewn small rubbles, respectively, both with cement mortar. However, the fundamental masonry technique used in the first 30 m from the northern end involves middle-sized mixed rubbles with roughly shaped surfaces. These rubbles were assembled using abundant lime mortar with few brick pieces that entirely fill the joints. Excess lime mortar was smoothed away and partially spread onto the stones. The whole upper level of the wall was slightly elevated with larger mixed rubbles and received a triangular section, which was later altered with cement mortar (see Figures 6–8). The fundamental section of the wall can be dated to the late 19$^{th}$ and early 20$^{th}$ centuries due to its similarity in masonry technique with nearby buildings with known construction dates. Considering the oral history testimonies, the structure in question was possibly the perimeter wall of the former Greek cemetery of Burhaniye (see Figure 9).

**Figures 6–8.** Perimeter wall that supposedly remained from the former Greek cemetery of Burhaniye, partially Sevgi Park today (Adramytteion Researches, 2023).

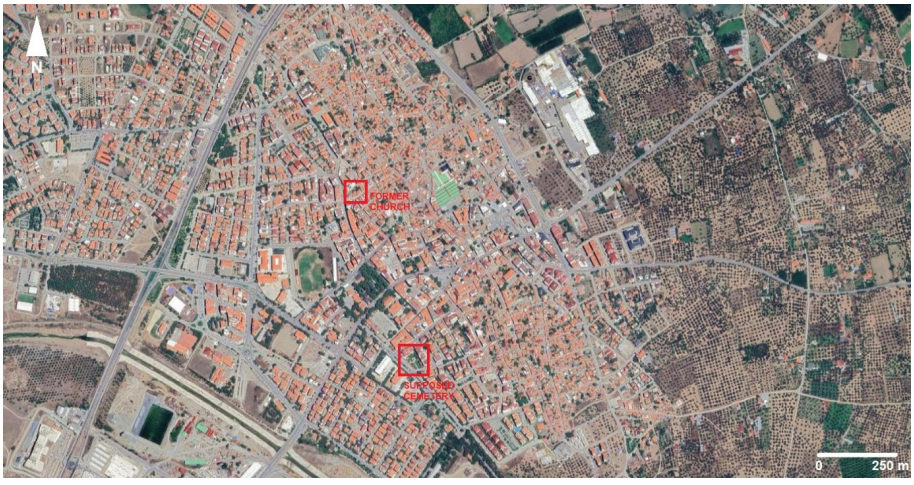


**Figure 9.** Aerial view of Burhaniye town centre with locations of the former Greek church and the supposed cemetery (Google Maps).

## Abandoned Cemetery with Ossuary in Cunda: A Neglected Heritage

Formerly known as Yunda and referred to as Moschonisi by the Greeks, Cunda/Alibey, along with roughly 20 dependent islands, once formed the namesake Ottoman township of Moschonisi/Yunda. It was part of the Lesvos Sanjak, which belonged to the Vilayet of the Archipelago. Today, Cunda/Alibey is the largest of the Ayvalık Islands. The main settlement on it also had the name Moschonisi/Moskonisi/Yunda previously, though now it forms a peripheral neighborhood of Ayvalık (Ünver, 2012, pp. 103–106). According to some anonymous sources, the main settlement of the insular township was founded around 1580 (Drakos, 1888, p. 16;

1895, p. 19). In this case, the testimony of Pîrî Reis provides *terminus post quem*. There was no settlement around the "Yund Islands" as of ca. 1525, and nothing more than some geographical features were mentioned by the Ottoman chief navigator (Pîrî Reis, 2013, p. 42). It has been argued that at the beginning of the 17th century, Moschonisi developed around the Church of Agia Triada. The building of this church, dated 1865, is in ruins today. Through the parish of Agios Dimitrios, the settlement expanded toward the east in the 18th century. The expansion of Moschonisi followed two primary directions. First, it extended to the north with the establishment of the parish of Panagia (Koimesis Theotokou) in 1750, and then it expanded to the south with the parish of Taxiarches in the third quarter of the same century. After 1821, the parish of Agios Panteleimon, established on the northern slope of the hill (upon which the Moschonisi settlement leans on), became the last neighborhood of the historical town center. Meanwhile, just outside the eastern part of Moschonisi, Hamidiye Mosque, the sole Muslim shrine on the island, was built at the end of the 19th century (Psarros, 2017, p. 304).

The former Greek cemetery of Moschonisi is located at the junction of Maden Street, just north of the historical settlement center. It had a well-kept garden behind high walls, decorated with white marble funerary monuments with crosses, busts, and bas-reliefs. Today, only the rectangular perimeter wall and the bone depository in the northwestern corner remain. The large pile of rubble in the center of the northern portion is the demolished cemetery shrine, whereas the burials were primarily in the southern portion (Psarros, 2017, pp. 347–349). The cemetery church of Agios Nikolaos was built in 1882 by Archbishop Paisios II. The shrine is described as an elegant church with a belfry (Drakos, 1888, p. 19; 1895, pp. 22–23).

Cunda's former Greek cemetery is located in the Namıkkemal neighborhood, block 1014, plot 22, in front of the current Turkish cemetery and is currently a listed monument (BKTVKK, 25.06.2021/2934). It was reported that the cemetery church was dynamited by Sergeant Laz Ali one night following its abandonment due to the 1923 population exchange (Yorulmaz, 1977). The church was approximately 7–8 x 10–12 m in floor dimensions and seemingly had a single nave with a barrel-vaulted ceiling, as revealed by the curvilinear structural pieces made of bricks that are visible on the debris. The bearing walls had mixed types of local stone materials and were put together with lime mortar (see Figures 10–12).

The ossuary is 5.5 x 7 m in floor area and has a height of nearly 4.5 m. It is a single-space building with a doorway and has no openings except for a tiny gable window with a railing on the rear pediment. Today, it is used as a depot and has structural damages. In terms of masonry technique, the ossuary is similar to the cemetery church. It has roughly shaped, mixed, and middle- to small-sized rubbles, though the locally sourced pinkish ignimbrite stones (*Sarımsak taşı*) are distinctive. The doorway is surrounded by finely hewn stone blocks of that kind. The cornerstones of the building are relatively large, and only the entrance façade is plastered. There is a molding made of two rows of bricks on the pediment. The roof underwent a simple renovation at a later date, which is lower than the pediment level today. The floor is entirely covered with dirt, so it is difficult to determine whether the ossuary

has any subterranean vaults or not, but it is highly probable. Like the former ossuary of Burhaniye, it is a simple and pragmatic building in accordance with its bone depository function (see Figures 13–15).

In the quest to obtain lime through burning for new constructions, the marble tombstones in the cemetery have been removed throughout the 20th century. Despite the extensive destruction, the walls and floor of the church have been preserved beneath a 2.5 m high debris. Even though the cemetery is a listed monument and has a fragile spatial memory, it is being utilized as a wasteyard. Moreover, in July 2023, the debris of the church suffered severe damage due to an illegal excavation with an earth mover. This resulted in the complete removal of structural elements from the ground, including the foundations (see Figures 16–17).

**Figures 10–12.** Former Greek cemetery of Cunda Island with its perimeter walls, ossuary, and demolished church of Agios Nikolaos as a rubble heap next to a singular tree in front of the ossuary (Adramytteion Researches, 2018).

**Figures 13–15.** Ossuary building in the former Greek cemetery of Cunda Island (Adramytteion Researches, 2018).

**Figures 16–17.** Demolished cemetery church of Agios Nikolaos as a rubble heap in the former Greek cemetery of Cunda Island, which faced with excessive vandalism afterwards (Adramytteion Researches, 2018; 2023).

## Funerary Islets: Isolated Resting Places for the Venerated and the Damned

According to Eustratios I. Drakos, a local researcher from Moschonisi who lived in the 19th century, Kalamaki (Καλαμάκι), a small and greenish island among Ayvalık Islands' northeastern group, was the place on which the islanders threw bones of the dead believed

to be turned into *vrykolakas* (βρυκόλακας), which is an undead, harmful creature in Greek folklore (Drakos, 1888, p. 5; 1895, p. 6). By the 19th century, the aforementioned phenomenon, which is loosely the equivalent of vampires, was not uncommon in the region. For instance, in Mytilene (Lesbos), which is right opposite to Ayvalık Islands to the west, the bones of those who supposedly would not lie in peace inside their graves were transported to an adjacent small island and were reinterred. This was done as it was believed that vampires could not cross salt water. Therefore, in accordance with the superstition, an effective solution was provided against any haunting visits, and the faithful ones were thought to be protected. There were many unpleasant stories in the Aegean Archipelago about vampire visits that disturbed the locals, such as in Rhodes, and local priests had to perform specific rites to get rid of them. In Mytilene, calling the vampire out loud terrified the people subjected to the macabre curse. They not only crossed themselves to thwart the curse but also tried to reverse the action that displeased the crier (Newton, 1865, pp. 212–213). Likewise, during recent archaeological excavations in Mytilene, it was observed that two separate burials from the 18th and 19th centuries were treated as potential revenants. They were interred with unusual burial practices in rather isolated places, with spikes driven into the corpses (Sulosky Weaver, 2015).

In one of the most comprehensive recent studies concerning Ayvalık and its surroundings, the funerary islet of Kalamaki is attributed to the tiny Mırmırca Rocks near Cape Karagöz, situated at the northeastern tip of Cunda (Psarros, 2017, pp. 448, 450). However, in the same study, a British nautical map dated 1958 shows Kalamaki as a reef with four rocks in the sea, roughly in the middle of Ayvalık Islands' northeastern group (Psarros, 2017, pp. 25–26). Therefore, the exact position of Kalamaki remains uncertain, which was unmistakably defined as a singular islet with a unique function as of the late 19th century by Drakos (1888, p. 5; 1895, p. 6). Likewise, Georgios Earinos, another contemporary scholar from the region, included Kalamaki as a singular geographical feature above the sea surface when listing the whole Ayvalık Islands, though underwater rocks were mentioned separately. Like Drakos, the scholar followed a very particular pattern in the text, listing all the islands from the southwest to the northeast, in accordance with the nearest adjacency. In this case, Kalamaki appeared as one of the three proper islands (or islets) that were exactly between Gkioumousli (Γκίουμουσλί, modern Çiçek/Gümüşlü Island) and Krommydonnisi (Κρομμυδοννήσι, modern Dolap/Soğan/Lale Island) (Earinos, 1876, p. 145).

Furthermore, when examining the geography of Ayvalık Islands in conjunction with the Hellenic Navy map of 1922 prepared by the hydrographic survey vessel Alpheios I and the Aegean Sea seafaring guidebook of naval officer Ahmet Rasim Barkınay dated 1925, it becomes evident that Kalamaki corresponds to the rocky islet called Sazlı/Oker/Kalemli in modern times (Hellenic Navy, 1925; Barkınay, 2005, p. 83). Sazlı Island belongs to the northeastern group of Ayvalık Islands and is located to the north of Dolap Island. It is the northwesternmost of the three islets that together form a triangular shape, with Taş Island to the northeast and Akoğlu Island to the south. Measuring roughly 35 x 20 m, it is a rocky islet covered with reeds and has a shoaly surrounding. No small findings were observed during

a preliminary field survey on the islet. However, along the upper surface of the islet, two ruins, in the form of a platform, were found. One resembled an open cistern and the other a collapsed building. The former was mostly filled with debris and can also be traced from a corner formed by the right-angled body walls. The latter was a mound-shaped ruin surrounded by mixed rubbles and tiles (see Figures 18–19). Thus, it can be argued that the islet was not just an open area for the disposal of the excommunicated members' remains, and it had some structures that highly likely served the funerary function. In this case, especially after the testimony of Newton (1865, pp. 212–213) about the *vrykolakas* myth in Mytilene, the open reservoir was seemingly a charnel house for the discarded bones, and the collapsed building was possibly a chapel.

**Figures 18–19.** Sazlı Island from the northwest, and the top, in the north-eastern group of Ayvalık Islands (Adramytteion Researches, 2020).

Furthermore, there was a second funerary islet in Ayvalık, but its purpose was totally the opposite when compared with Sazlı Island. George of Chios (1785–1807) lived in Ayvalık for a while and was reportedly a pious young man. He was beheaded by the Turkish authorities

of the town, and as a result of his dramatic execution, he was canonized soon afterward. His sainthood was officially recognized (Agios Georgios Chiopolitis) with a feast day on November 26, which commemorated his martyrdom. He was buried in an islet deep in the bays of Ayvalık. This islet, formerly called "Νησοπούλας" (Nisopoula), corresponds to Kumru Island today. It is on this islet that a small chapel was built on his tomb around the middle of the 19th century. According to the testimony of icon artist Photis Kontoglou (1895–1965), who lived very nearby and witnessed the period when the islet was in use as a sacred space, the chapel was a small and simple structure with a single space. It had a wooden roof with tiles, surmounted by a large cross. Fishermen and their families frequented it, especially during summers (Kontoglou, 2009, pp. 15–61, 117–125). According to popular belief, since the *vrykolakas* could not reach the inhabited mainland from a remote islet and vice versa, perhaps the saint was buried in another islet for spiritual protection, in addition to a venerated physical isolation. Thus, theoretically speaking, revenants would be unable to violate that sacred space due to the saltwater in between (see Figure 20).


**Figure 20.** Aerial view of Ayvalık and its surroundings with the discussed places in the research (Google Maps).

Kumru Island is a flat and rocky islet with an altitude of 2 m. Interestingly, it was marked as "Monastery Island" on the Ottoman map of 1910–1911, so it was probably a pilgrimage site. The Greek survey of 1922 marked the chapel with a tiny cross and as "Agios Georgios" obviously after the saint (Erkân-ı Harbiye-i Umûmiye, 1911; Hellenic Navy, 1925). Some ruins on Kumru Island in the Cennet Bay of Ayvalık have been identified during the field mission. They are unlisted, and no cadastral information is available for the islet as well (see Figures 21–22). The remains are a damaged cistern and the foundations of a rectangular building that had completely collapsed. The cistern measures 2.70 x 1.70 m and has a depth of approximately 2 m. It had a barrel vault made of brick, which is largely missing due to later damages. Lateral walls were made of medium-sized and roughly hewn local ignimbrites with a pinkish color, being the so-called *Sarımsak taşı*. Hydraulic plasters of the interior have

been almost entirely preserved. There was a small hole in the upper corner to supply water to the cistern. To resist internal water pressure, the vault bricks were placed vertically with their short sides facing inward, and the interior corners were beveled. It can be said that the cistern was quite robustly built despite its relatively small size (see Figures 23–24).

The east-west oriented foundation walls of the second ruin have a thickness of 0.50 m. The walls are part of the lateral façades of a building, which presumably is the aforementioned chapel dedicated to George of Chios. They can be traced on the surface at the ground level despite the dense vegetation. Medium- to small-sized, mixed type, and rough rubbles with a fairly weak lime mortar were used in the masonry technique, which does not follow any standard. More rubbles, broken tiles, and crumbled mortar fragments were noticed elsewhere on the islet, which seemingly spread around after the collapse of the assumed chapel. The ground level seemed mostly intact on the islet surface (see Figures 25–26).

**Figures 21–22.** Kumru Island from the north, and the top, in Cennet Bay between the Hakkıbey and Sarımsaklı peninsulas of Ayvalık (Adramytteion Researches, 2019).

**Figures 23–24.** Damaged cistern towards the west on Kumru Island (Adramytteion Researches, 2018).

**Figures 25–26.** Masonry foundations and mixed debris of a collapsed building on Kumru Island, supposedly the chapel dedicated to St. George of Chios (Adramytteion Researches, 2018).

## Conclusion

According to the findings of this research, the two Greek Orthodox ossuary examples from the late 19th and early 20th centuries in Ayvalık and Burhaniye can be described as rather pragmatic and small buildings with plain façades, few openings, and tiled roofs. However, given the fairly modest dimensions of their ground floors and the bone depository requirements, the possibility of whether they had any subterranean vaults or not still needs to be addressed. Therefore, the former Greek cemetery with an ossuary on Cunda Island and the supposed location of the one in Burhaniye should be considered in future research. In addition, the position of a funerary islet in the Ayvalık Islands, which had previously remained quite uncertain in recent literature, has been clarified. However, it was not the only islet in the region with such a purpose. Sazlı/Oker/Kalemli Island (formerly Kalamaki), which had a charnel house, was for the *vrykolakas*, who were believed to be undead revenants. On the other hand, Kumru Island (formerly Nisopoula) was the resting place of a modern-day saint. It was at Kumru Island that a cistern and the foundations of a chapel were documented. Since bad spirits were believed to be unable to cross salt water, it can be argued that the choice of islets was not a mere coincidence. Perhaps, this choice played a crucial role in maintaining the attributed characteristics of the cursed and sacred spaces; one could not escape and the other could not be reached. From a methodological point of view, the research displays cooperation between multiple disciplines, such as architectural history, heritage preservation, and historical topography. This multidisciplinary approach was further strengthened by oral history, as was the case for Sevgi Park with a historical masonry perimeter wall in Burhaniye, which was said to be the former Greek cemetery of the town. At the same time, primary sources, either archival or cartographic, played an important role in demonstrating a portion of the previously untold aspects of the former Greek communities in the region as well as their monuments, especially in Burhaniye. Once multiple sources were considered and compared with each other, they were elaborated through field surveys to identify sites, where material discoveries corresponded to the preliminary findings obtained from the aforementioned sources. Furthermore, the results point to a certain number of destinations that can be subjected to advanced anthropological studies in the near future. As the case studies of this study show, landscape archaeology had a significant role in narrowing down the topographical limits. Also, in close cooperation with onsite scientific works, this research might guide conservation efforts against natural as well as anthropogenic threats, namely vandalism, which constantly threaten the rural heritage in the Gulf of Edremit. More damages are imminent, as demonstrated by current illegal activities for treasure hunting. Significant archaeological potentials of these areas were hitherto not considered from an anthropological perspective, especially concerning the 19th and 20th centuries. In the long run, the sites can be new heritage destinations that will represent the multifaceted cultural legacies of Ayvalık and Burhaniye.

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HGM, 1958, 918/364, *Burhaniye Hava Fotoğrafı*.

HGM, 1968, 1955/100,196, *Burhaniye Hava Fotoğrafı*.

**HVS** = Hüdâvendigâr Vilayet Salnâme (Yearbook):

Hüdâvendigâr Vilayet (1870). *Salnâme-i Hüdâvendigâr* (H. 1287). Bursa: Matbaa-i Vilâyet.

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# Death and Burial: In the Light of the Graves Recovered from the Ancient City of Idyma - Akyaka Castle and its Surroundings (Muğla, Turkey)

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**ABSTRACT**

In this article, we delve into the intricate cultural perceptions of "death" through the lens of the ancient city of Idyma, nestled within the Ancient Caria Region and tracing its origins back to the 7th century BC. The diverse ways in which different societies have historically approached the concept of death find symbolic expression in their burial traditions, a poignant reflection of their reverence and devotion to the departed. Our study sets out to analyze the burial practices of the denizens of the ancient city of Idyma, shedding light on their unique perspectives on mortality in a comprehensive historical and cultural context. The focal point of our investigation comprises the unearthed Graves within and surrounding the Idyma-Akyaka Castle area, all dating from the Hellenistic Period to the Byzantine Period, excavated during the 2020-2021 season. Unveiling the burial traditions entails a comprehensive anthropological assessment encompassing grave typologies, chronological categorization, distinct burial methods, architectural nuances of the Graves, and the demographic distribution of these resting places. Simultaneously, gleaned insights from these burial sites concerning funeral customs offer glimpses into the social status and economic strata of the individuals interred within. We anticipate that this research will pave the way for renewed archaeological and anthropological endeavors centered on the captivating domain of the Idyma Ancient City. As these findings accrue, we aspire for them to enrich the existing corpus of knowledge concerning the historical and cultural tapestry of Idyma, thereby augmenting our understanding of the broader Carian Region.

**Keywords:** Idyma, Caria, death, burial traditions, intramural-extramural, inhumation-cremation, single-multiple burial practices, grave architecture, funerary offerings

## Introduction

Throughout the annals of history, death—a concept often perceived as the definitive culmination of life—has engendered a tapestry of diverse behaviors across cultures (Uhri, 2010, pp. 21-54). This enigmatic threshold has been interpreted not just as an end, but as a transition, a gateway to the elusive "afterlife". This belief in a continuum beyond death has been a wellspring for an array of burial rituals since ancient epochs (Civelek, 2007, p. 71). Ritualistic interments and the bestowal of offerings upon the departed have been intertwined with the belief in facilitating their journey into the realms beyond (Uhri, 2010, pp. 24-25). These rituals, as manifestations of esteem and affection, encapsulated a tangible connection with the deceased (Civelek, 2007, p. 71).

This article delves into the nuances of the "death" concept, elucidating it through the prism of burial traditions in the ancient city of Idyma. Nestled within the Ancient Caria Region in the southwestern cradle of Turkey, this discourse commences with an introduction to the historical tapestry of the Carian Region—a canvas that houses the traces of Idyma's legacy, and the variegated settlements embellishing this landscape. Pivotal epochs in Caria's chronicle and the sway of diverse dominions are narrated, paving the backdrop for the ensuing exploration. The evolution and topography of the ancient city of Idyma are scrutinized with precision, notably, its historical trajectory entwined with the ebb and flow of different powers, particularly its intricate dance with Rhodes. Recent archaeological revelations, stemming from the 2020-2021 excavations, have illuminated Idyma's lineage, tracing its lineage back to the 7th century BC (Baran, 2023; Tekkök Karaöz et al., 2022). Anticipations are set upon forthcoming studies that might uncover even earlier vestiges of the city's genesis.

Within this study's ambit, the sepulchers unveiled during the 2020-2021 excavations unfurl as windows into antiquity, offering glimpses into the burial traditions and rituals spanning epochs, from antiquity to the Byzantine era. Through anthropological scrutiny of the skeletal remnants contained within these Graves, demographic insights emerge, and pivotal cues concerning burial conventions come to light. Continuing on this trajectory, diverse facets—ranging from Grave typologies, and interment postures, to the preservation status of these hallowed grounds—are meticulously dissected. Architectural traits and configurations of these funereal enclaves are also parsed with precision.

In summation, the meticulous analysis of the sepulchers within Idyma's ancient precincts and the bastion of Akyaka Castle yields a trove of insights that enrich the annals chronicling the city and its cultural tapestry, as well as the broader regional milieu. Furthermore, it is envisaged that the corpus of extant data could catalyze fresh excavations, yielding deeper insights into the intricacies of burial traditions.

## Caria Region

The Caria Region, where the ancient city of Idyma is located, is situated in the southwest of Turkey. To the north are important city-states such as Miletus and Ephesus and the Ionia region. Inland is the Lydia Region, which was ruled from Sardis by an autonomous kingdom until the Persian conquest. Caria is also separated from Lycia by the mountain ranges in the east (Reger, 2020, pp. 2-3.). The Carians, who constituted the local people of the Caria region, continued their lives mostly in the villages in the interior regions (Sevin, 2001, p. 106).

The limited information about the region before the 7th century BC reveals the existence of some Carian kingdoms (Sevin, 2001, pp.106-107).[1] It is estimated that the Lydians were the first to bring the region completely under the protection of a single state, and they took it under their sovereignty in the early 6th century BC during the Croesus Period (Umar, 1999, p. 5). In 546 BC, the lands of Caria and Lydia came under Persian rule after the defeat of the Lydian King Croesus to the Persians. Later, they joined the Attica - Delos Union in 480 BC. In 397 BC, it again came under Persian rule (Aksan, 2007, pp. 6-7). In 395 BC, the Caria Region completely became a satrapy. After the death of Alexander the Great, Caria was left to Rhodes with the Apameia Peace Treaty between Rome, Rhodes, Pergamon, and Antiochus III in 190 BC. The region regained its autonomy with the Roman request in 167 BC (Sevin, 2001, pp. 107-108). With the beginning of the Tetrarchy Period in 293 AD in the Roman Empire, a new dominance was established in the Mediterranean. In this period, the province of Caria, whose capital was Aphrodisias, was formed by dividing the previous province into two, Caria and Phrygia, in 250 AD. Although the belief in paganism started to attract attention again during the quadruple government period, one year after Maximianus Daia's visit to Caria, the "Edict of Milan" was signed, and religious freedom was granted to everyone. Later, Constantine, who ruled the Roman Empire in 324 AD, favored Christianity more than paganism (Sitz, 2020, pp. 69-70).

These historical and cultural changes in the region also affected the burial traditions. It is stated that the funerary architecture in Caria had a rich variety in the Hellenistic Period, but in the Byzantine Period, boat-plate type burials were widely used instead of diversity. On the other hand, it has been reported that in the Byzantine Period, gifts for the dead such as gold diadems, fibula, coins (gold, bronze, silver), oil lamps, pendants, rings, etc. were very rare (Doğan, 2021).

## Ancient City of Idyma

The ancient city of Idyma is one of the cities established in the Caria Region, located south of the Büyük Menderes River (Serin, 2013). The city is located on the slopes of the hill

1 It is estimated that the region referred to as "Karkisa" or "Karkiya" in the written works of the Hittites in the 2nd millennium BC and as "Karka" in Persian written sources is "Caria" (Aksan, 2007, p. 3). It is known that the name "Karka" in the Luwian (Levi) dialect means tip, head, tip of the land projection, nose or mountain head (ibid.).

known as Küçük Asartepe (Baran, 2023; Iren & Gürbüzer, 2005; Tekkök Karaöz et al., 2022), north of the village of Kozlukuyu (today's Gökova), within the borders of the Ula district of the present-day Muğla province, and resembles the appearance of a mountain settlement like many other cities in the Caria Region (Iren & Gürbüzer, 2005:9).

It is known that the city was one of the member cities of the Delian League in Rhodian Peraea in antiquity and was ruled by Paktyes, who minted coins in its name (Bean, 2022, p. 178). It is stated that Idyma was one of only a few cities[2] that had a mint in the 5th century BC (Thompson, 1981, pp. 95-97). The city was annexed to Rhodes in 200 BC but then lost its sovereignty. Later, it was again taken under control by General Nikagoras of Rhodes (Bean, 2022, p. 178). In 167 BC, Rhodes started to lose territory. However, an inscription unearthed in Idyma shows that Rhodes still dominated the city until the 1st century BC (Iren & Gürbüzer, 2005, p. 10). Studies show that the local population of the ancient city of Idyma left the city in the Late Hellenistic Period and migrated to flatter areas (Baran, 2023, p. 11). The fact that the city was close to Çaydere (Idymos) in the south and the sea enabled it to dominate the region (Iren & Gürbüzer, 2005). This can be shown as a reason for the city to be drawn to the flat areas.

Idyma Castle and its surroundings were first documented in 2004 by Kaan Iren and his team. In terms of architectural features of the buildings and cultural finds, Idyma Castle and the Graves around the chapel are associated with the Byzantine Period (Iren & Gürbüzer, 2005). Bean mentions this castle; "At a lower level of the slope, there is a larger castle of the Middle Ages, from which the road descending to the plain continues eastwards beside a short but abundant stream, probably the ancient Idymos." (Bean, 2022, p.177).

The rescue works that started under the presidency of Abdulkadir Baran in 2020- 2021 and the subsequent comprehensive excavations in and around the ancient city of Idyma-Akyaka Castle and its surroundings have revealed new findings. According to current studies, the discovery of 7th century BC ceramics in the existing archaeological finds and the presence of walls similar to the Archaic Period fortification wall line indicate that the history of the city goes back to the early periods (Baran, 2022; Tekkök Karaöz et al., 2022).

According to the artifacts recovered, it was observed that the settlement in the fortress was inhabited continuously from the 7th century BC to the 7th century AD (Baran, 2022, pp. 19-20). In the light of archaeological finds, it is suggested that the settlement was interrupted from the 7th century AD to the 11th century AD (Tekkök Karaöz et al., 2022). It is stated that the castle[3] was built as a garrison in the 12th century AD and then inhabited by the Principalities as of the 13th century AD and some areas were restored and continued to be used during the Seljuk and Ottoman periods (Baran, 2022; Tekkök Karaöz et al., 2022).

2 This is also supported by the mention of the city and Tyrant Paktyes in the Athenian tax lists of the 5th century BC and the mention that he paid 1 talent twice (Baran, 2022, p. 19).

3 Idyma Ancient City/Akyaka Castle is located in the Akyaka neighborhood of Ula district, which is considered in the category of "calm cities" called "Cittaslow" (Ada & Yener, 2017; Özmen et al., 2016; Sürücü et al., 2015; Tayfun & Acuner, 2014).

## Graves

A small number of chamber Graves were opened during the early rescue excavations in the Ancient City of Idyma. In the studies related to these Graves, it is stated that archaeological finds were recovered from a chamber Grave dated to 166 BC, which was allegedly built for Menias, indicating that the Grave was used for about 500 years (Gürbüzer, 2006; 2016). In addition, during the first rescue excavations carried out by the Muğla Archaeological Museum, which lasted for two seasons, limited findings were presented regarding some Graves around a Basilica located in the teritorium of the ancient city of Idyma (Özyurt, 2013a; 2013b).

In the research conducted by Gürbüzer in and around Idyma, 5 grave types such as a rock Grave, a cist grave, a chamasorium, an underground chamber Grave, and an arcosolium were reported about the burial traditions (Gürbüzer, 2019, pp. 63-72 ). It has been reported that rock Graves, which are the type of grave seen from the beginning of the 4th-3rd century BC until the Late Antique Period (Byzantine), can be seen in the necropolis of the ancient city of Idyma (ibid.). However, excavations were not carried out in the graves in this known necropolis area of the city during the 2020-2021 excavation seasons. Therefore, the only source for the rock Grave typology for this study was the İnişdibi Rock Graves.

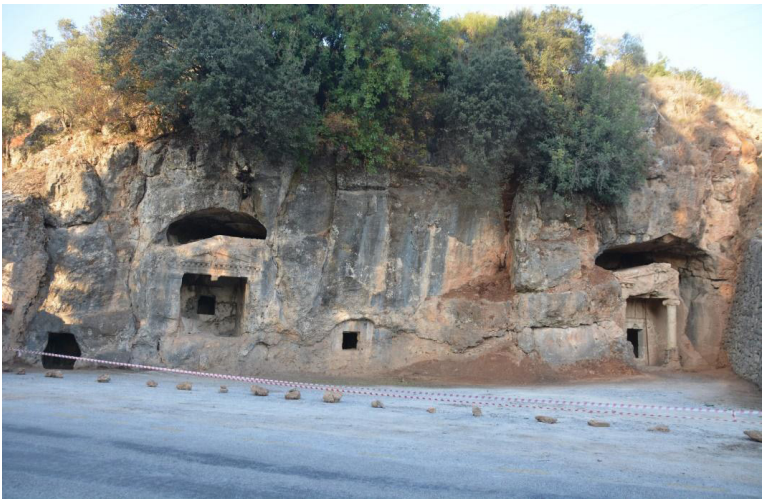
### *Podium Grave*

Alpaslan, in his study regarding the dating and evolution of graves with podiums (2005), characterizes these graves as structures adorned with monuments on elevated platforms. Such graves were employed as symbolic tools to accentuate the social standing of individuals. According to Alpaslan (2005; 2020), Anatolia witnessed the emergence of podium graves as early as the 6th century BC. Notably, during the onset of the Hellenistic period, particularly in the 4th century BC, the prevalence of podium graves surged, and their construction grew more grandiose as a result of interaction between Ancient Greece and Persia. This interaction offers insights into Anatolia's intricate cultural fabric. The podium grave uncovered during the rescue excavations of Idyma Ancient City (Photograph 1.) likely dates back to the Hellenistic Period. In this grave, which embodies the multiple burial tradition, the minimum count of individuals was identified as two, with the human remains indicating signs of disturbance. It is inferred that one of these individuals was a young adult woman, while the sex of the other, an adult, remains undetermined. Additionally, bone material indicative of cremation tradition was retrieved from the grave, suggesting that this individual was a young adult female.

**Photograph 1.** Podium Grave (Idyma Archaeological Field Surveys and Excavations Photography Archive 2020-2021).

## *İnişdibi Rock Graves*

Ünver and Yaman reported that two of the stelae unearthed at İnişdibi have Greek grave inscriptions (Ünver & Yaman, 2013). Bean (2022, p. 178) further elaborates on the rock-cut graves, describing a group of them situated before veering right to traverse the plain (today's Akyaka). Three of these graves were unadorned, while two adhered to the temple (apterous plan) grave type, showcasing Ionian features. One of them featured two columns, albeit one being damaged, and the other surprisingly showcased a solitary column positioned centrally. The perimeter of the grave was meticulously carved, allowing passage between it and the rock. These graves were most likely dated to the 4th century BC. Doğan (2021) provided insights into the structure of temple-form graves. According to Doğan, the western side of these graves encompassed an ante-chamber designated for offerings and the main burial chamber. The facade mimicked a temple with a triangular pediment, with a portion of the column forming the façade still preserved (pp. 449 - 450). Previous publications alluded to the presence of five graves; however, the ongoing excavations led to the discovery of only four rock graves. The current archaeological investigation indicated that the fifth grave, assumed to have a straightforward door structure, might remain situated beneath the highway (Baran, 2022, p. 10). Among the rock graves located in Akyaka İnişdibi (Photograph 2.), only graves 2 and 3 yielded human remains. Grave 2 yielded very few bone materials (diaphyseal fragments and vertebral fragments) belonging to adult individuals. Grave 2 was not analyzed due to insufficient data. The morphological analyses on the bones recovered from rock grave number 3 suggest that this grave was used for a minimum of 6 individuals. Very limited material related to the cranium and pelvic region was recovered. Based on the analyses made on the other postcranial bones, it is estimated that there may be 2 adult males, 2 adult females, and 2 children.



**Photograph 2.** İnişdibi Rock Graves (Idyma Archaeological Field Surveys and Excavations Photography Archive 2020–2021).

## *Grave 1*

The grave called "Grave 1" (Photograph 3.), which is located to the north of the North Wall Line of Akyaka Fortress, has the form of a chamber grave, and according to the materials recovered, it was dated to the 5th century BC. It is understood that it was used between the 5th century BC and the 3rd century AD (Baran, 2022, p. 11). Skeletal remains from this grave, which was used during the Hellenistic and Roman periods, were evaluated. The skeletal group in this grave consists of mixed and fragmented bones. The bones are quite broken and poorly preserved due to various damage and natural factors. When the bones were sorted, long bones, skull fragments, and other bones were separated. This situation made it very difficult to analyze the bones. To understand the minimum number of individuals, teeth were utilized in the study. The classified teeth include maxillary right first premolar, mandibular left first premolar, and mandibular left first incisive teeth. Six pieces of teeth were found. Burnt bones exposed to cremation were also found in the grave. There were no tooth fragments exposed to high temperature among the teeth. Considering the teeth and burnt bone fragments, the minimum number of individuals recovered from this grave is 7. It was found that two maxillary right first molars had not yet completed their development. When the root development of one of these teeth was analyzed according to the stages of tooth development established by Ubelaker (1989), it is seen that the individual was still between 5-6 years of age. The root of the other tooth was damaged, but considering the tubercle development, it is estimated that this individual was between 5-7 years old. Although the age ranges of the other four individuals whose teeth were recovered and the cremated individual are not known, it is understood that these individuals were adults.

There is a structure at the head of a grave at the lowest level in the centerline of the grave, which is thought to have been used as an infant-child grave. Bone material belonging to 2 separate infant-children recovered from the grave supports this hypothesis.

**Photograph 3.** Grave 1 in chamber grave form (Idyma Archaeological Field Surveys and Excavations Photography Archive 2020-2021).

## *Grave 2*

Grave 2 (Photograph 4.), which is located on the border of Idyma Castle, dated to the Byzantine Period and exhibits a multiple burial tradition, was built in a circular form reminiscent of a small well grave. Demographic analyses were made in this grave based on the cranial bones. Accordingly, it can be said that this grave was used for 3 adult individuals: 1 young adult male, 1 older adult (50+) male (?), and 1 adult whose sex was not determined. In addition, 1 fetus and 1 child were found in this grave and it is thought that there were at least 5 individuals in this grave.

**Photograph 4.** Grave 2 was designed in a circular form (Idyma Archaeological Field Surveys and Excavations Photography Archive 2020-2021).

### *Grave 3*

Grave 3, located in the east-west direction in the corridor between the chapel and the south wall body of the north tower 5 in Idyma Akyaka Castle, exhibits a multiple burial tradition. Although it is not as distinct as Grave 2, it has a partial circular form (Photograph 5.). Bone fragments were found intensively in the southeast section of the 0.20 m deep grave. In grave 3, all bone material was collected at a depth of 0.56 m and the level of the earth was made uniform in depth.

Based on the postcranial bones (ulna and humerus), this grave was used for 2 adult male (?) individuals. One mandible recovered from the grave is thought to belong to a young adult male. A very small number of bones (vertebrae, costa, and coxae fragments) belonging to fetus-infant and child individuals were also recovered from the grave. The minimum number of individuals in this grave was determined to be 2 and the bone material belonging to the other individuals was isolated, labeled, and removed to be compared with the bones of infants and children recovered from other graves adjacent to this grave (Grave 5). Light osteophyte formations were observed on the bones. Mild decay was observed on the mandibular teeth.

**Photograph 5.** Grave 3 exhibits a semi-circular form in an east-west direction (Idyma Archaeological Field Surveys and Excavations Photography Archive 2020-2021).

### *Grave 4*

In grave 4 (Photograph 6.), the cranium of an adult individual (Individual 3) was recognized at the first level associated with the bone material. In the following stages, two more skulls (cranium) were exposed to the east of the first cranium. At a depth of 0.25 m, it was thought that the grave may have been used in the east-west direction and the skulls were named as Individual 1, Individual 2, and Individual 3 from east to west. Afterward, the cranium and mandible of Individual 3, located 0.32 m below the surface in the centerline of the grave, were labeled and removed. At this level, mixed body bones (postcranial) belonging to the individuals were found. From this stage onwards, the west-east-orientated (head-feet)

and continuous spinal bones (columna vertebralis) associated with Individual 2 were exposed. Forearm bones (radius-ulna) placed on the abdomen were found. At the same level, upper leg bones (femur) belonging to a child were unearthed on the southeast border of the grave.

After the dorsally buried and continuous body bones of Individual 2 were exposed, the in-grave length was determined to be 1.83 m (meters) and the in-grave width was 0.36 m. This grave seems to have been built on top of grave 7 which was partially destroyed from the north. The boundaries of the grave were found to be 0.70 m further east than the initially exposed boundary. While these boundaries were exposed, a metal ring, which may be a piece of jewelry, was found on the eastern surface (Baran 2020; 2021). In this grave, which exhibits a cist form, a regular lid form could not be reached due to possible natural disasters and/or human interventions. Glazed ceramics and sherds were recovered from the surface up to the level where the bone material was found. It is assumed that this grave, in which skeletal material was found in a very mixed state, was used as an adult grave in its first use.

The length of the right femur and the length of the right humerus of Individual 2, the only individual found in situ in the grave, were measured as 0.41 m and 0.30 m, respectively. Sacral indicators suggest that this individual was female and epiphyseal fusions suggest that it was a young adult.

**Photograph 6.** Grave 4, individual 2 (Idyma Archaeological Field Surveys and Excavations Photography Archive 2020-2021).

## *Grave 5*

In Grave 5 (Photograph 7.), situated to the south of Grave 3 and exhibiting a tradition of multiple burials, we encountered dispersed bones at a depth of 0.14 meters. Upon reaching a depth of 0.67 m, all of the bones were carefully gathered and collected. Based on the partially in situ bones, it is presumed that the individuals within this grave might have been interred in a dorsal position.

Upon analyzing the bones retrieved from the south corridor of North Tower 5, the location of Grave 5, we definitively matched them to the individuals interred within this grave. This meticulous matching process illuminated the presence of a minimum of four individuals in Grave 5. Despite the bones being found in a complex mixture, the distinct age-related differences among the individuals who utilized this grave allowed for a comprehensive individual skeletal classification.

By employing sutural and spongiosal aging methodologies, we have estimated that one of the interred individuals was a middle-aged female. This conclusion is drawn from the overall appearance of the skeletal structure, which exhibits characteristic traits associated with a female. Notably, this individual displays a significant loss of bone density. Alongside her, we have identified another individual, whose bone fusion points (notably on the humerus, coxae, vertebrae, and femur) point towards an adolescent age estimation. Furthermore, this individual's mandibular characteristics suggest a male identity. Additionally, our observations indicate the presence of a child, approximately 8 years old (with an estimated margin of +-2 years), based on dental aging. Intriguingly, a metal trace was detected on the frontal bone of this child. Lastly, we managed to retrieve bone fragments attributed to an infant from the same grave.

**Photograph 7.** Skull unearthed in Grave 5 (Idyma Archaeological Field Surveys and Excavations Photography Archive 2020-2021).

## *Grave 6*

The skeletal material belonging to three individuals in situ was unearthed from this grave (Baran, 2022, p. 11), which dates to the 3rd century BC and exhibits a simple cist type. The partially damaged cranium (skull) and nearly complete postcranial bones (torso bones) belonging to the west-east oriented (head-feet) Individual 1, who was recognized at the first level and was the last to be buried in the grave, were recovered. The symphysis pubis preserved on the coxae of Individual 1 (Photograph 8.) gives an age estimate of 50+ years. The general appearance of the skeleton, cranial, mandibular, and pelvic features suggest that the biological sex of the individual is male. There is a significant degree of AMTL

(antemortem tooth loss) in the mandible of the individual. Severe bone density loss was noticed in the trunk bones of the individual.

The skull of the individual labeled as Individual 2 (Photograph 9.), who was buried in an east-west direction (head-feet), was removed from Individual 1. After the removal of Individual 1, the almost complete postcranial bones of the individual were reached. The unguentarium recovered at the same level as this individual at the level of the distal epiphysis of the right femur of the individual seems to have been left as a death gift for this individual.

Individual 2 is estimated to be a young adult individual aged 22-24 years, based on the general appearance of the skeleton and the symphysis pubis. Grave 6 was made for Individual 3 which was reached at the lowest level. Three coins were recovered from the bone material belonging to the individual (Baran 2020; 2021). While the skull of Individual 3 (Photograph 10.) could not be reached, the mandible and postcranial bones were found fragmented and burnt. We consider that the individual's soft tissues and skull, whose postcranial bones were positioned in an east-west direction (head to feet) and dorsally, might have undergone partial cremation before burial in this grave. Alternatively, they could have been cremated after placement. However, definitive proof of cremation in this grave requires diverse chemical analyses. Based on these results, a change in burial tradition within this grave can be inferred following the presence of this individual. To accurately confirm the occurrence of cremation in this grave, a variety of chemical analyses are necessary.

Individual 3 has the same mandibular AMTL (antemortem tooth loss) as Individual 1. Extremity measurements of this individual are similar to the other individuals. The mandible bone of Individual 3 indicates that characteristic form to be a male. The general appearance of the skeleton and the symphysis pubis suggest that Individual 3 is elderly (50+). Although Individual 2 and Individual 3 were buried in an east-west direction, it is remarkable that Individual 1 was buried in the west-east direction. This cultural practice may have been intended to emphasize that Individual 1 was the last burial in this grave.

**Photograph 8.** Grave 6, Individual 1, and cranium of Individual 2 (Idyma Archaeological Field Surveys and Excavations Photography Archive 2020-2021).

**Photograph 9.** Grave 6, Individual 2 (Idyma Archaeological Field Surveys and Excavations Photography Archive 2020-2021).

**Photograph 10.** Grave 6, Individual 3 (Idyma Archaeological Field Surveys and Excavations Photography Archive 2020-2021).

### *Grave 7*

When Grave 4 was opened, a grave exhibiting a simple cist type, which was noticed at the western end of Grave 4, was named Grave 7 (Photograph 11.). It is thought that Grave 7 was partially destroyed to construct Grave 4 on the eastern line. The grave contained the skeletal material of 1 individual buried in a west-east direction (head-feet), facing slightly south and in situ. The grave was extended in the southeast direction to reach the lower extremities of

the individual and to reveal the boundaries of the grave. Five stones were removed from this 0.50 m area.

A fragment of a glass bracelet, which does not constitute continuity, was found at the level of the lid of the western boundary. A small number of ceramic sherds were recovered from the surface down to the level where the bone material was found. It was observed that this grave was seated on the bedrock and there is a single burial tradition. The length of the grave was recorded as 1.80 m and the width as 0.45 m.

The cranium and postcranial bones, although marked by postmortem fractures, were found scattered yet nearly complete. The individual's in-grave length was documented at 176 cm, with measurements of 38 cm for the left tibia, 44 cm for the right femur, and 32 cm for the right humerus. Analyzing the epiphyseal fusion points of the radius, ulna, and fibula bones, in addition to considering tooth eruption age, conclusively suggested that the individual's age fell within the range of 16 to 18 years, indicative of an adolescent to young adult stage. Furthermore, the male sex is inferred from observations of robustness in the iliac crest of the mandible, long bones, coxa bone, and cranial morphological structure.

**Photograph 11.** Grave 7, individual 1 (Idyma Archaeological Field Surveys and Excavations Photography Archive 2020-2021).

## *Grave 8*

Grave 8 (Photograph 12.) was uncovered on the border of the ancient blocks called "Building 1" located on the south of the outer wall line at Idyma Akyaka Fortress. Bone material was observed at a level of 0.25 m below the surface and the in-grave works were terminated at a depth of 0.60 m.

The grave exhibits a simple earth grave form and a single burial tradition. The skeletal material belonging to 1 adult individual was unearthed in situ in this grave. It is understood that the individual was buried in a half-hocker position, in the west-east direction (head-feet), facing to the right. It was also observed that the left arm was placed on the abdomen and the right arm was placed towards the face. No grave goods were recovered and considering the type of burial, it can be said that the grave was used for an individual with a relatively low socio-economic status.

Considering the state of preservation of the skeleton, it can be said that a significant part of the cranial bones are absent, while the postcranial bones are moderately preserved. The absence of the cranial vertex point and the half-hocker position of the individual made it difficult to measure the grave length of the individual. From the mandibular and pelvic features (coxae-sacrum), it is estimated that this individual was a male, and from the symphysis pubis, an older individual (50+).

Paleopathological evaluations revealed an age-related decrease in bone density and traces of nonspecific infection in the diaphyses of the right clavicle and humerus. Extra ossification and osteoarthritic lesions were present in the tarsal bones. In terms of dental lesions, antemortem tooth loss (AMTL), periodontal disease (alveolar loss), and caries were found in the mandible. Remarkably, dental abrasion was also found in addition to these lesions. This situation reflects the diversity in the diet of the individual.


**Photograph 12.** Half-hocker buried individual found in Grave 8 (Idyma Archaeological Field Surveys and Excavations Photography Archive 2020-2021).

### *Grave 9*

The grave located in front of the boundary stones in the south of Grave 4, which was previously reached within the borders of Idyma Akyaka Fortress, is labeled as Grave 9 (Photograph 13.). A single burial tradition was observed in this grave which was damaged from the south. Although the type of the grave cannot be understood due to the destruction, it is thought that this grave may have been built in the form of a simple cist or simple earth grave like the adjacent graves. Bones were exposed at a depth of 0.10 meters from the grave surface and all bones were removed at a depth of approximately 0.30 meters. A bronze ring was found on the sacrum of the individual. It is thought that this find (at least for this grave) was not a death gift. The find may have been recovered here due to the damages in the area. Considering the burial type, it is thought that this grave was used for an individual who lived in low socioeconomic conditions like the other graves in the vicinity (G4 and 7). Bone material belonging to 1 individual buried dorsally in west-east direction (head-feet) and in situ was unearthed. Due to the destruction in the grave, the cranial bones of the individual could not be reached. For this reason, a rational measurement of the in-grave length of the individual could not be made. Morphological analyses were performed on the moderately poorly preserved postcranial bones. According to the age estimation method (Lovejoy et al., 1985) obtained from the left coxae facies auricularis of the individual, the individual is thought to be a middle adult between 25-40 years of age. In terms of the features in the pelvic region, the individual is estimated to be a female.

**Photograph 13.** Dorsally buried individual recovered from Grave 9 (Idyma Archaeological Field Surveys and Excavations Photography Archive 2020-2021).

### *Grave 10*

In grave 10 (Photograph 14), located to the northwest of grave 2 and in front of the northern city wall, the first bones were encountered at depths of 0.5 to 0.10 meters. Upon

reaching a depth of 0.40 meters, the bone material was systematically collected, and the ground was leveled to create an even surface. The surface level of grave 10 was found close to the floor level of grave 2. The mortar fill noticed here suggests that Grave 10 was built earlier than Grave 2.

Skeletal material belonging to 1 individual was unearthed in situ in the grave. The individual was buried in a west-east direction (head-feet), facing to the left and dorsally. Bone material belonging to another individual was found mixed on top of the individual and towards the south. Based on this, it is thought that the grave may be a multiple burial tradition. The grave type could not be determined due to destruction. An ivory cross was discovered within the grave situated at a depth of approximately 0.14 meters on its southeast side (Baran, 2020; 2021). This finding aligns with the proximity of the grave to the chapel, implying a potential Byzantine Period origin (Baran, 2023, p. 10). The in-grave measurement showed that the individual was approximately 166 (centimeters) in height. The fact that the mastoid structure of the skull of Individual 1 is developed and rough, the coxa in the pelvic region has sharp edges and robust features, and the mandible has narrow angles and robust shape indicates that the sex of this individual is male. According to the age estimation method obtained from the auricular surface of the coxa (Lovejoy et al., 1985), tissue thickness in the proximal femur, and cranium sutural aging, the individual is estimated to be between 45-55 years old. Antemortem tooth loss (AMTL) was found in the mandible of the individual, which is highly prevalent in Idyma people. In addition, alveolar loss is also present.

The postcranial bones and mandible of Individual 2 were recovered fragmentarily but nearly complete. According to the morphological analyses performed on the bone material, it is thought that Individual 2 is male in terms of biological sex characteristics on the mandibular and pelvic bones. The general appearance of the skeleton also strengthens this assumption. According to age estimation methods derived from the auricular surface of the coxa (ibid.) and sutural aging, Individual 2 is estimated to be a middle adult between 40-50 years of age. Antemortem tooth loss in the mandible of the individual is remarkable. Significant bone density loss was detected in the individual.

**Photograph 14.** Dorsally buried individual recovered from Grave 10 (Idyma Archaeological Field Surveys and Excavations Photography Archive 2020-2021).

### *Grave 11*

Grave 11 (Photograph 15), positioned north of the chapel within Idyma Akyaka Fortress and situated at the lower levels of Grave 5, exhibited initial bone visibility commencing at a depth of 0.5 meters below the surface. Subsequently, bones became fully exposed at a depth of 0.20 meters. After the bones were completely collected, the depth reached was recorded as 0.30 meters. The number of individuals in the grave was determined as 1 based on the west-east orientated (head-feet) bones. In the grave where a single burial tradition was used, skeletal material was found partly in situ and partly mixed. It is understood that the bones were pushed from north to south inside the grave. It is thought that the grave may have been vandalized by the ancient treasure hunters and/or for the subsequent use of the area.

According to the skeletal material recovered from the grave, the individual is presumed to be a male in terms of the sex characteristics of the mandible. Considering the costal aging and the general appearance of the skeleton, it can be said that the individual is middle-aged. In the mandible of the individual, antemortem tooth loss starting from P1 (premolar tooth) and alveolar loss were found. Furthermore, within the same grave, fragments of vertebrae and costa were discovered, presumed to have been displaced from other graves. Additionally, a minute quantity of bone material attributed to a separate adult individual was retrieved, including clavicle, humerus trochlea humeri, caput humeri, and symphysis pubis from a young male individual. These distinct bones were designated as “Grave 11 isolated” and have been set aside for subsequent comparison with bone fragments from neighboring graves.

**Photograph 15.** An individual found in Grave 11, was buried dorsally but with partially mixed bones (Idyma Archaeological Field Surveys and Excavations Photography Archive 2020-2021).

## Demographic Analyses and Methods

In this study, the skeletal material recovered from 12 graves unearthed from the Ancient City of Idyma - Akyaka Castle and its surroundings during the 2020-2021 excavation seasons by the excavation team of the Ancient City of Idyma was examined anthropologically. The laboratory analyses of the material were carried out in the Laboratory of the Anthropology Department of Istanbul University with the permission of the Excavation Directorate of the Ancient City of Idyma and the Directorate of the Muğla Archaeological Museum during the 2020-2021 excavation seasons.

Analyses of demographic distribution in graves are based on bioarchaeological and anthropological methods. These methods allow reliable information to be obtained in determining age and sex by evaluating the morphological characteristics and bone development of skeletons (Buikstra & Ubelaker, 1994; Lovejoy et al., 1985; Ubelaker, 1989; White et al., 2012). Age estimates can be made using bone structure, epiphyseal fusion, and other features (Bass, 1987; Buikstra & Beck, 2006). In addition, important data on tooth wear, root length, and other morphological features can be used to estimate the age and duration of tooth use (İzmirli, 2011; Roberts & Manchester, 2005; Smith, 2007). The most reliable data for sex determination are obtained from the cranium and pelvis, and the methods provided by İşcan and Steyn (2013) are frequently used in this field. For sex determination, methodologies established by experts such as Acsadi and Nemeskeri (1970), Brothwell (1981), Buikstra and Ubelaker (1994), cranial and pelvic bones morphological differences. Estimating the age at death of the skeletal remains of an adult individual is one of the most critical elements defining the characteristics of the individual; however, it is also considered one of the most complex determinations. Variations exist between physiological age and chronological aging due to differences caused by growth, development, and deformations. In addition to this, sex and interpopulation differences must be added. These differences may result from socioeconomic status, cultural diversity, genetic variations, behavioral factors, environmental influences, dietary habits, and diseases. Despite such difficulties, different methods exist for estimating the age at death of skeletons from adult individuals. However, these methods usually have high margins of error and are mostly based on techniques to assess degenerative changes in the skeleton (Prince & Köningsberg, 2008). In this study, different age-determination methods were applied to the skeletons analyzed. These methods include the examination of changes in the auricular surface of the skull (facies auricularis) (Lovejoy et al., 1985), techniques for age determination of the pelvic symphysis (Brooks & Suchey, 1990), and age determination methods based on tooth wear (Brothwell, 1981; Buikstra& Ubelaker,1994). In particular, dental age determination methods based on teething processes in infants and children (Brothwell, 1981; Krogman and Iscan,1986; Ubelaker, 1978) and age determination techniques based on factors such as fusion processes in bone epiphyses and root development of permanent teeth during adolescence are used. In addition to these methods, some metric measurements are also used for age estimation of infants and children. For example, measurements such as the maximum length of long bones and inter-epicondylar

width (Acsadi & Nemeskeri, 1970; Baker et al., 2005; Bass, 1987; McKern & Steward, 1957; Scheuer & Black, 2000) are among the metric methods used in age estimation of infants and children. In this study, dental aging and morphometric methods compiled by Buikstra and Ubelaker (1994) and Scheuer and Black (2000) were used to analyze age estimation in the infant and child age groups.

## *Age Determinations and Demographic Distributions in The Graves*

Of the 41 individuals recovered from the graves, 30 were adults, while there was a minimum of 11 individuals of pre-adult age (Table 1.). To measure the homogeneity of the age-related demographic distribution in the graves, it is important to date the graves. Approximately half of the individuals in the graves were found in graves associated with the Byzantine Period. There are at least 22 individuals including 5 fetuses, infants and children, 2 adolescents, and 15 adults recovered from Byzantine Period graves (Graves 2, 3, 4, 5, 7, 9, 10, and 11) which exhibit single and multiple burial traditions. At least 19 individuals were found in the early graves (Podium Grave, Rock Grave 3, Chamber formed Grave, Grave 6, and 8). Of these individuals, 4 were infants and children, also 15 were adults (Table 1.). The most crowded early-period grave is Rock Grave 3, while the most crowded Byzantine-period grave is Grave 4.

**Table 1. Demographic Distributions in The Graves (Age-based)**

| GRAVES | Fetus | Infant, Child | Juvenile | Young Adult | Middle Adult | Undetermined Adult | Old Adult | Total |
|---|---|---|---|---|---|---|---|---|
| Podium Grave | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| Rock-Cut Grave 3 | 0 | 2 | 0 | 0 | 4 | 0 | 0 | 6 |
| Grave 1 | 0 | 2 | 0 | 1 | 0 | 2 | 2 | 7 |
| Grave 2 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 5 |
| Grave 3 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| Grave 4 | 0 | 1 | 1 | 1 | 3 | 0 | 0 | 6 |
| Grave 5 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 4 |
| Grave 6 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 3 |
| Grave 7 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Grave 8 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Grave 9 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Grave 10 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Grave 11 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Total | 1 | 8 | 2 | 7 | 14 | 2 | 7 | 41 |

## *Sex Determinations and Demographic Distributions in The Graves*

In the Byzantine Period graves associated with the castle chapel, the demographic distribution shows that the frequency of (adult) male individuals buried in this area is relatively high. In the graves associated with the Hellenistic Period of the city before the Byzantine Period, it is observed that the number of adult individuals is higher than the number of pre-adult individuals. Although a relatively homogenous distribution is observed for adult

individuals according to sex-based demographic data, the number of male individuals is higher (Table 2.).

**Table 2. Demographic Distributions in The Graves (Sex-based)**

| GRAVES | Female | Male | Undetermined Adult | Fetus, Infant, Child, and Juvenile | Total |
|---|---|---|---|---|---|
| Podium Grave | 1 | 0 | 1 | 0 | 2 |
| Rock-Cut Grave 3 | 2 | 2 | 0 | 2 | 6 |
| Grave 1 | 0 | 0 | 5 | 2 | 7 |
| Grave 2 | 0 | 2 | 1 | 2 | 5 |
| Grave 3 | 0 | 2 | 0 | 0 | 2 |
| Grave 4 | 1 | 0 | 3 | 2 | 6 |
| Grave 5 | 1 | 1 | 0 | 2 | 4 |
| Grave 6 | 0 | 3 | 0 | 0 | 3 |
| Grave 7 | 0 | 1 | 0 | 0 | 1 |
| Grave 8 | 0 | 1 | 0 | 0 | 1 |
| Grave 9 | 1 | 0 | 0 | 0 | 1 |
| Grave 10 | 0 | 2 | 0 | 0 | 2 |
| Grave 11 | 0 | 1 | 0 | 0 | 1 |
| Total | 7 | 17 | 5 | 10 | 41 |

## Findings

### *Dating and Architectural Features of the Graves*

According to Doğan (2021), who emphasizes the rich diversity of funerary architecture in Caria, in the 5th-4th centuries BC, mainly boat-type burials, stone-built boat Graves, Graves carved into the bedrock and carved Grave types were common, and in the 3rd-1st centuries BC, chamber Graves with dromos and cell-type Graves were added to the funerary architecture. In the Byzantine Period, boat-plate type burials were widely used (ibid., pp. 445-446).

The podium grave featuring rock formations dating back to the Hellenistic Period is situated outside the city walls (Table 3). Baran highlighted the possibility of the area north of the castle serving as a necropolis (Baran, 2022). Nevertheless, only two independent graves (Graves 1 and 6) have been uncovered thus far that can be linked to this vicinity. Given their dating and proximity to the settlement, these graves (Graves 1 and 6) are believed to be within the city walls (Table 3). One of these graves, Grave 1, demonstrates a chamber grave structure. While chamber graves were generally regarded as intramural burials, owing to their prevalence from Ancient Greece to the Roman Period, there are exceptions. The graves affiliated with the castle chapel (Graves 2, 3, 4, 5, 7, 9, 10, and 11) along with Grave 8 on the southern slope of the castle are within the city walls.

Mostly cist forms were observed in the graves showing architectural diversity (Table 3.). While 4 of the graves exhibit rock grave form, 1 grave form with a podium is one of the

examples of the diversity in grave architecture. There are two graves in circular and partial circular forms around the chapel. The only grave sample thought to be in simple earth form is Grave 8.

**Table 3. Dating and Architectural Features**

| GRAVES | Proximity to Habitat | Grave Architecture | Dating |
|---|---|---|---|
| Podium Grave | Extramural | Podium Grave | Hellenistic Period? |
| Rock-Cut Grave 1 | Extramural | Rock-Cut Grave | 4th-3rd cen. BC |
| Rock-Cut Grave 2 | Extramural | Rock-Cut Grave | 4th-3rd cen. BC |
| Rock-Cut Grave 3 | Extramural | Rock-Cut Grave | 4th-3rd cen. BC |
| Rock-Cut Grave 4 | Extramural | Rock-Cut Grave | 4th-3rd cen. BC |
| Grave 1 | Intramural? | Chamber Grave | 5th cen. BC - Roman Period |
| Grave 2 | Intramural | Shaft, Circular Grave | Byzantion Period |
| Grave 3 | Intramural | Circular Grave (Half) | Byzantion Period |
| Grave 4 | Intramural | Cist | Byzantion Period |
| Grave 5 | Intramural | Cist? | Byzantion Period |
| Grave 6 | Intramural? | Cist | 3rd Cen. BC |
| Grave 7 | Intramural | Cist | Byzantion Period |
| Grave 8 | Intramural | Simple Grave | Pre-Byzantine |
| Grave 9 | Intramural | Cist? | Byzantion Period |
| Grave 10 | Intramural | Cist? | Byzantion Period |
| Grave 11 | Intramural | Cist? | Byzantion Period |

## *Cremation in the Graves*

Burial practices of inhumation are widespread among the graves. However, some graves also present evidence of both inhumation and cremation (Table 4.). Graves with signs of cremation exhibit diversity in terms of burial types. Chamber graves (Photograph 16.), rock graves, and podium graves (Photograph 17.) serve as examples of these burial types. Traditionally, these classifications are often associated with inhumation burial practices in the literature. Nevertheless, our study's findings challenge this prevailing perspective. In his research on Caria, Doğan (2021) highlighted that, in alignment with our viewpoint, certain graves from the Hellenistic Period, a time known for prevalent inhumation burials, displayed traces of cremation. The ashes of these individuals with cremation evidence were either directly placed within the grave or placed within terracotta vessels before interment.

**Table 4. Cremation Status in Graves**

| GRAVES | With Cremation | Non-Cremation |
|---|---|---|
| Podium Grave | + | |
| Rock-Cut Grave 3 | + | |
| Grave 1 | + | |
| Grave 2 | | + |
| Grave 3 | | + |
| Grave 4 | | + |
| Grave 5 | | + |

| | | |
|---|---|---|
| Grave 6 | | + |
| Grave 7 | | + |
| Grave 8 | | + |
| Grave 9 | | + |
| Grave 10 | | + |
| Total | 3 | 9 |

**Photograph 16.** From the Grave 1, Cremation (Idyma Archaeological Field Surveys and Excavations Photography Archive 2020-2021).


**Photograph 17.** From the Podium Grave, Cremation (Idyma Archaeological Field Surveys and Excavations Photography Archive 2020-2021).

## *Conservation Status of the Graves*

In the Hellenistic Period graves of Caria, skeletal remains were discovered in modest quantities. Following the rise of Christianity, Byzantine Period graves, which primarily displayed characteristics of single burials post-conversion, were reported to undergo secondary or tertiary use. In instances of multiple use, skeletal remains from earlier burials were often cleared to accommodate new interments (Doğan, 2021).

Table 5 presents the preservation status of Idyma graves. Podium graves, chamber graves, and rock graves with monumental typology display poor preservation, yielding limited and fragmented bone material, possibly due to human interference attracted by grave goods. Among cist graves, only Grave 6 is relatively well-preserved, attributed to its flatter location. Grave 8, reflecting a simple earth burial tradition on the southern slope of the castle within early fortification walls, may have suffered more from natural disasters due to its positioning. Similar damage seen in Byzantine-period graves near the chapel could also be due to natural causes. Moreover, the destruction of chapel-surrounding graves, especially along the northern tower wall, may result from both clearance methods and recurrent use. Though Grave 6 (dated 3rd century BC) portrays multiple burials, it contains three in-situ interments (Table 5). Conversely, near the castle, Byzantine Period graves with multiple burials show only the latest interred individuals in situ, implying cultural variations in executing this practice.

**Tablo 5. Conservation Status of Graves**

| GRAVES | Grave Architecture | Conservation Degree | Conservation Status |
|---|---|---|---|
| Podium Grave | Podium Grave | Bad | No data in situ |
| Rock-Cut Grave 1 | Rock-cut Grave | Very Bad | No data material |
| Rock-Cut Grave 2 | Rock-cut Grave | Very Bad | Hardly any material |
| Rock-Cut Grave 3 | Rock-cut Grave | Bad | No data in situ |
| Rock-Cut Grave 4 | Rock-Cut Grave | Very Bad | No data material |
| Grave 1 | Chamber Grave | Bad | No data in situ |
| Grave 2 | Circular Grave | Bad | No data in situ |
| Grave 3 | Circular Grave (Partially) | Bad | No data in situ |
| Grave 4 | Cist | Middle-Bad | 1 individual in situ |
| Grave 5 | Cist | Middle-Bad | 1 individual in situ |
| Grave 6 | Cist | Good-Middle | 3 individual in-situ |
| Grave 7 | Cist | Middle | In situ |
| Grave 8 | Simple Grave | Middle | In situ |
| Grave 9 | Cist | Middle | In situ |
| Grave 10 | Cist | Middle-Bad | 1 individual in situ |
| Grave 11 | Cist | Middle-Bad | In situ |

## *Grave Orientation and Burial Direction*

While the dating and cultural attributes of the examined graves in this study exhibit variation, the orientation of all graves (both cist and simple earthenware) remains consistent (Table 6). Based on the in-situ individuals, the prevailing orientation for these graves is west-

east (head-feet). An exception is observed in Grave 6, where the first two burials adhere to the west-east orientation, while the final interment positions the head to the east and feet to the west. This directional discrepancy in the last burial within this repeatedly used grave might symbolically indicate that this individual was the final one interred.

Literature notes that dorsal burials are commonly found in early Carian graves (Doğan, 2021). In Idyma, dorsal interments were noted in graves from both the early and Byzantine Periods. Notably, only the individual in Grave 8, believed to predate the Byzantine Period, was interred in a half-hocker form.

**Table 6. Grave Orientation and Burial Direction**

| GRAVES | Grave Orientation | Burial Direction/Location (Skull/ Feet) | Lying Position |
|---|---|---|---|
| Grave 4 | West-East | West-East (last burial) | Dorsal |
| Grave 5 | West-East | ? | Dorsal |
| Grave 6 | West-East | 1- West-East (last burial)<br>2-East- West (first and second burials | Dorsal |
| Grave 7 | West-East | West-East (single burial) | Dorsal |
| Grave 8 | West-East | West-East (single burial) | Half-Hocker |
| Grave 9 | West-East | West-East (single burial) | Dorsal |
| Grave 10 | West-East | West-East (last burial) | Dorsal |
| Grave 11 | West-East | West-East (single burial) | ? |

## *Burial Type in terms of Face Orientation and Hand-Arm Position*

In the few graves that provide information about the direction of the face and the position of the hands and arms of the buried individuals, there are different practices regarding the direction of the face, but the position of the hands and arms is similar. It was observed that the hands and arms were commonly positioned on the abdomen, and only in Grave 8 were they positioned on the chest and face (Table 7.).

**Table 7. Burial Type in terms of Face Orientation and Hand-Arm Position**

| GRAVES | Face Orientation | Hand-Arm Position |
|---|---|---|
| Grave 4 | - | On the abdomen |
| Grave 6 | Oriented upwards face | On the abdomen |
| Grave 7 | Slightly south facing | Placed towards the abdomen and face |
| Grave 8 | South facing | Folded over the chest and face |
| Grave 9 | - | On the abdomen |
| Grave 10 | North facing | On the abdomen |
| Grave 11 | - | On the abdomen |

### *Burial Tradition by Number of Individuals*

An interesting contrast in the demographic distribution of graves around the chapel becomes evident when comparing Grave 11 to those recovered from the upper levels within the same area. As indicated in Table 8, Grave 11, constructed during the early phases of area use, adheres to a single burial tradition. Conversely, Grave 2, Grave 3, and Grave 5, linked to the later stages of area utilization, embody a multiple burial tradition (Table 8). Notably, it is surmised that while the chapel area likely saw single burials in its initial period, the later phases of area use witnessed a prevalence of multiple burials, possibly motivated by the need for space optimization.

Supporting these conjectures, existing literature underscores that early Byzantine Period burials in Caria were primarily solitary, with multiple burials becoming more prominent in later stages (Doğan, 2021). In these multiple burial contexts, it can be inferred that bone material from previously interred individuals was displaced to accommodate the latest inhumation. Taking into account the construction methods and cultural artifacts found within these graves, it's reasonable to speculate that they were intended for individuals of relatively modest socio-economic backgrounds.

**Table 8. Burial Tradition by Number of Individuals**

| GRAVES | Number of Individuals |
|---|---|
| Podium Grave | Multiple Burial Tradition |
| Rock Grave 3 | Multiple Burial Tradition |
| Grave 1 | Multiple Burial Tradition |
| Grave 2 | Multiple Burial Tradition |
| Grave 3 | Multiple Burial Tradition |
| Grave 4 | Multiple Burial Tradition |
| Grave 5 | Multiple Burial Tradition |
| Grave 6 | Multiple Burial Tradition |
| Grave 7 | Single Burial Tradition |
| Grave 8 | Single Burial Tradition |
| Grave 9 | Single Burial Tradition |
| Grave 10 | Multiple Burial Tradition |
| Grave 11 | Single Burial Tradition |

## Evaluations and Results

The graves located at lower levels within the chapel area tend to have single burials, suggesting a lower number of individuals. On the contrary, the graves associated with the later use of the area reflect a tradition of multiple burials. We observed a shift from single burials prevalent in the early chapel area graves to a more pronounced practice of multiple burials in the later stages, possibly due to spatial considerations. A comprehensive evaluation of the reasons behind these changes in burial practices concerning health and environmental factors will be a focal point in our future research. When examining the investigated graves,

we observed a notable contrast between the Byzantine and Hellenistic Period cist-form graves with multiple burials. In the former, only the last interred individual was found in situ, typically at the lowest level of the grave, while in the latter, we reached all individuals in situ, typically at the top level. This divergence can be attributed to the practice of moving skeletal remains towards the edges in the Byzantine Period, contributing to this disparity.

Within the context of the castle chapel, we observed a relatively high frequency of (adult) male burials, suggesting a burial tradition that emphasizes male identity within this sacred area. Architecturally assessing the podium graves, chamber graves, and rock graves identified in our study reveals their connection to a distinct social status.

Interestingly, the early graves, including those exemplified by the podium graves, chamber graves, and rock graves, display a sex-based demographic distribution akin to the later graves around the chapel, which are associated with the Byzantine Period. The concept that the deceased continue to exist in their graves and might influence the living, though not definitively proven before the 1st century BC, is common (Civelek, 2007). This notion aligns with the regular practice of leaving gifts at graves, as mentioned in the literature (Adkins & Adkins, 2004, p. 393). However, it is emphasized that socioeconomic class differences have historically influenced the quality of burial styles, grave architecture, and funerary offerings.

The prevalence of cremation graves until the 2nd century AD gave way to inhumation burials after the 3rd century AD, with Roman Period grave architecture significantly influenced by Ancient Greek traditions (Civelek, 2007). Conversely (Yılmaz, 2020, pp. 310-311), the Byzantines continued their burial traditions largely by Christian teachings. The literature emphasizes that the parallels between the burial rituals of the ancient period continued into the Byzantine period. These include practices such as the preparation of the dead, anointing, dressing, blindfolding, and covering the mouth (ibid.). These insights underscore the dynamic nature of burial practices across historical periods and how they interact with complex cultural and social dynamics.

Based on our research findings, it is apparent that beliefs within the ancient city of Idyma transformed over time. However, remnants of cultural influences from the Hellenistic Period endure to some extent into the Byzantine Period. Notably, there are observable similarities in burial traditions, particularly in aspects of social status, gender, and identity relations. These conclusions, derived from limited data amassed during the 2020-2021 excavations and evaluated alongside prevailing scholarly perspectives, are poised to stimulate further excavations within the graves of the ancient city of Idyma. We hope that these new excavations will provide insights and clarification to guide the outcomes of our research.

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# Banikoara'da Baribalar ve Fulbéler Arasındaki Açık Krizlere Karşı Bir Siper Olarak Şaka İlişkisi*

# The Joking Relationship as a Bulwark Against Open Crises Between Baribas and Fulbés in Banikoara

İsmail Yarou Bio Souley[1], Yüksel Kırımlı[2]

*Bu makale, İstanbul Üniversitesi Sosyal Bilimler Enstitüsü Antropoloji Anabilim Dalı'na sunulan "Banikoara'da (Benin Cumhuriyeti) Tarım Politikalarına Karşı Baribalar ve Fulbéler" başlıklı doktora tezinden üretilmiştir.

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**ÖZ**
Bu çalışma, Afrika kıtasında yer alan ve 1975 yılına kadar Dahomey adıyla anılan Benin Cumhuriyeti'nin kuzey bölgesindeki Banikoara komününün iki başat demografik unsuru Baribalar ve Fulbéler arasında meydana gelen açık krizlere karşı bir siper olan şaka ilişkisini konu edinmektedir. Makale, Banikoara'da 2019 yılında katılarak gözlem, odak grup görüşmeleri ve kişisel mülakatlar yoluyla gerçekleştirilen bir etnografik alan araştırmasına dayanmaktadır. Araştırma bulguları, iki topluluk arasındaki şaka ilişkisinin karşılıklı uyum sağlama, sanal akrabalık ilişkisi ve ittifak kurma gibi toplumsal yakınlaşma süreçlerindeki önemine işaret etmektedir. Bir ata geleneği olan şakalaşma pratiği, sanal akrabalık yoluyla uyum ve ittifak örüntüleri yaratmaktadır. Şakalaşma geleneği, zaman zaman birbirleriyle çatışan Baribalar ile Fulbélerin komün içindeki komşuluk ilişkilerini kolaylaştırmaktadır.
**Anahtar Kelimeler:** Benin, Akrabalık, Dayanışma, Şaka İlişkisi, Uyum

**ABSTRACT**
This study explores the joking relationship, a bulwark against the open crises that occur between the two dominant demographic elements of the Banikoara commune in the northern region of the Republic of Benin on the African continent: the Baribas and the Fulbés. The article is based on an ethnographic field research conducted through observation, focus group discussions, and personal interviews with Banikoara residents in 2019. Research findings point to the importance of the joking relationship between the two communities in social rapprochement processes, such as mutual adaptation, kinship, and alliance formation. The practice of joking, an ancestral tradition, has been shown to lead to a kind of virtual kinship, creating patterns of harmony and alliance. The tradition of joking facilitates neighborly relations within the commune between the Baribas and the Fulbés, who sometimes face clashes.
**Keywords:** Benin, Kinship, Solidarity, Joking Relationship, Harmony

## Extended Abstract

This study focuses on the relationship patterns between the Baribas and Fulbés, the two dominant demographic elements of Banikoara, one of the 77 communes of the West African country Benin. The agricultural income earned in Benin over the years comes from the production of food products and cotton. Banikoara is the main center of cotton production in the country, where the Bariba is the main provider. While the Bariba is a sedentary community that produces cash crops, primarily cotton and also food crops, the Fulbé, a semi-nomadic community, are mostly identified with animal husbandry. They raise small livestock such as sheep and goats, and poultry, and also engage in aquaculture, including shrimp and other mollusks. Conflicts between these two communities occasionally arise from the limitations and problems in the agricultural and livestock activities of the region and ecological crises (CARDER, 2000; FAO, 2004).

Banikoara consists of one urban (Banikoara-Marou city) and nine rural (Founougo, Gomparou, Goumori, Kokey, Kokiborou, Ounet, Somperekou, Soroko and Toura districts) local government districts. The rural districts (*arrondisement*) consist of sixty-nine (69) villages. The country's population is diverse, with approximately thirty ethno-linguistic communities. It consists of Bariba (70%), Fulbé (23%), Dendi (1.6%), Yoruba (1.3%), Fon (0.8%) and other groups (3.3%). (RGPH4-2013). Although each of these communities speak their vernacular language, 57 different languages are known to be spoken throughout the country (Bio Bigou, 1987). Bariba people speaking the Baaton language make up the majority of Banikoara's population, while Fulbé people speaking the Fulfulbé language are the second largest community in the commune. Both communities span multiple regions and countries. Baribas are found in the Alibori, Borgou and Atacora regions of Benin and Nigeria; Fulbé people live in almost every region of Benin and in countries such as Cameroon, Nigeria, Niger, Burkina Faso, Guinea and Mali.

This study explores the joking relationship, which is a bulwark against the open crises occurring between the Baribas and Fulbés of the Banikoara commune in Benin. The article is grounded in an ethnographic research conducted in 2019, employing methods such as observation, focus group discussions, and personal interviews within the Banikoara commune in Benin. The research delves into the reflections of agricultural policies aimed at rural development in the Republic of Benin, specifically examining their impact on the socio-economic conditions of the Banikoara commune. A substantial portion of our interviews, totaling 90 individuals, engaged active members of local development associations—12 individuals from each of the 5 associations. Additionally, we interviewed religious leaders (5 individuals) and other residents of the region. This article heavily relies on interviews conducted with members of the Bariba and Fulbé communities, providing insights into their daily interactions.

Although the 'peaceful' history of the two communities has been emphasized in interviews with community members and in common narratives, it is known conflicts arise between these two communities from time to time, especially due to the limitations and problems in the agricultural and livestock activities of the region and ecological crises. It is necessary to evaluate these conflicts within national and regional socio-ecological, economic, and political contexts. The first part of the article outlines the major reasons for the past and future conflicts between the Baribas and Fulbés. The second part discusses the socio-cultural implications of various types of joking relationships between these communities.

Research findings point to the importance of the joking relationship between the two communities in social rapprochement processes, such as mutual adaptation, kinship, and alliance formation. The practice of joking, an ancestral tradition, has been shown to lead to a kind of virtual kinship, creating patterns of harmony and alliance. The tradition of joking facilitates neighborly relations within the commune between the Baribas and the Fulbés.

## Giriş

Tarım, ulusal istatistik sistemlerinde yeterince belgelenmemiş olsa da Batı ve Orta Afrika ekonomilerinde başat bir sektördür. Tarımın kıta bağlamındaki kritik önemi, kırsal kalkınma, gıda güvenliği ve yoksulluğun azaltılması açısından ön plana çıkar (Adjimoti ve Kwadzo, 2018; Ravallion ve Sangraula, 2008). Bu çalışmaya konu olan Benin Cumhuriyeti, tarımsal kalkınmanın toplumsal refahın anahtarı olarak görüldüğü bir Batı Afrika ülkesidir. Batı Afrika Devletleri Ekonomik Topluluğu (ECOWAS) üyesi olan Benin, üçte ikisinden fazlasının kırsal alanda yaşadığı bir nüfusa sahiptir. Ülke genelinde yoksulluk bir 'sosyal problem' olmaya devam etse de büyük toprak sahibi aileler, kırsal toplumun önemli bir unsurunu oluşturur.

Bugün Benin Cumhuriyeti olarak tanımladığımız coğrafyada, 17. ve 20. yüzyıllar arasında Dahomey Krallığı hüküm sürmüştür. 18. yüzyılda Kral Agadja (1708-1740), bölgedeki küçük krallıklardan Allada ve Savi'yi fethederek Dahomey'in sınırlarını Atlantik kıyısına kadar genişletmiş, böylelikle köle ticaretinin hacmi Savi'nin başkenti liman şehri Ouidah'dan Yeni Dünya ve Brezilya'ya varmak üzere kalkan gemilerle önemli ölçüde artmıştır. 19. yüzyılda Kral Guézo (1818-1858) döneminde ortaya çıkan kölelik karşıtı hareketlerin de etkisiyle köle ihracatının hız ve hacim kaybettiğini, erkek emek gücünün kısmen özgürleşmesiyle tarımın geliştiğini ve Dahomey'in mısır ve palmiye fıstığı gibi ihracat ürünleriyle Dünya (doğrudan Avrupa) ekonomisine entegre olduğunu görüyoruz (Adande, 1995). Tarım ihracatı domates ve tütün gibi ürünlerin ekip biçilmesiyle daha da gelişmiş ve tarım sektörü ülke ekonomisinin başat unsuru haline gelmiştir.

1850'lerden itibaren Dahomey ve komşu krallıklar Fransa'nın sömürgelerine dönüşmüş olup, 1899'da irili ufaklı krallıkların Dahomey'e dâhil edilmesiyle ve akabinde Büyük Britanya ve Almanya tarafından sömürgeleştirilen Nijerya ve Togo ile yapılan anlaşmalar sonucunda Afrika coğrafyasının idari sınırları kesinleşmiştir (Sotindjo, 2008). Sömürgeleştirilen Dahomey, özellikle güney bölgelerinde etkin olan Hristiyan misyonerlerin de etkisiyle yaygınlaşan eğitim sonucunda Fransız Batı Afrika'sının siyasi ve entelektüel merkezlerinden biri haline gelmiştir. Aynı dönemde bir yandan birçok siyasi parti kurulmuş, diğer yandan da sömürgecilik karşıtı bir basın gelişmiştir. Bunun bir sonucu olarak iletişim araçları, radikal düşüncelerin yayılmasına vesile olmuş ve ülkede siyasal yaşam canlanmış, bağımsızlık yanlısı aktörler güçlenmiştir. Nihayetinde, 1958 yılında özerklik iddiasıyla Dahomey Cumhuriyeti kurulmuş ve bu cumhuriyet 1 Ağustos 1960 tarihinde bağımsızlığını ilan etmiştir. Birleşmiş Milletlere üye olan yeni devletin başkenti Porto Novo, resmi dili ise Fransızca olmuştur (Adande, 1995).

Benin'in post-kolonyal tarihi, oldukça çalkantılı bir sürece işaret eder. Öyle ki ülke, 1972'de yapılan General Mathieu Kérékou darbesine kadar birbirini takip eden dört rejim deneyimlemiştir. Mathieu Kérékou, 1972'de Başkanlık Konseyi'ni görevden almış ve giderek Marksist-Leninist yönelime giren bir devletin başına geçmiştir. 1975 yılında Dahomey, komşu Nijerya'da bir zamanlar hüküm süren krallığın adı olan Benin (Benin Halk

Cumhuriyeti) ismini almıştır (Schneider, 2000). Ülkede 1977 yılında tek parti rejimini kuran yeni bir anayasa kabul edilmiştir. Aynı yıl, paralı askerlerin desteklediği bir darbe girişimi başarısızlıkla sonuçlanmış ancak bu sürecin bir sonucu olarak Marksist-Leninist rejim daha da sertleşmiştir.

Benin'in 1980'den itibaren giderek fakirleşip sosyo-politik gerginliklere sahne olduğunu söyleyebiliriz (Sotindjo, 2008). Devlet Başkanı Kérékou, 1990'da ülke içindeki farklı toplumsal hareketlerin temsilcilerinin katıldığı bir ulusal konferans düzenleyerek Marksist-Leninist ideolojiden vazgeçildiğini ilan etmiş; kurulan geçiş hükümeti demokrasiye ve çok partililiğe dönüşün yolunu açmıştır. Ayrıca, yine aynı yıl düzenlenen "Ulusun Yaşayan Güçleri" Ulusal Konferansı ile âdemi-merkeziyetçilik kararı alınmıştır (Schneider, 2000). Mart 1991'deki Başkanlık seçimini Başbakan Nicéphore Soglo kazanmış, öte yandan Uluslararası Para Fonu'nun (IMF) önerdiği yapısal düzenlemeler ve kemer sıkma politikaları halk arasında hoşnutsuzluğa yol açmıştır. Muhalifler tarafından adam kayırmacılıkla suçlanan Başkan Soglo, Ulusal Meclis'teki çoğunluğunu kaybettikten sonra Mart 1996'daki Başkanlık seçimlerinde yeniden iktidara dönen Mathieu Kérékou'ya yenilmiştir.

Benin Cumhuriyeti'nin bugünkü idari yapısı, 2003 yılında belirlenmiştir (Harita 1). O yıla kadar 6 bölgeden (*département*) oluşan Cumhuriyet, artık 12 bölge ve 77 komünden (*commune*) oluşmaktadır. Bu idari sistem, yerel yönetimde yurttaş katılımı prensibine dayanır. Bu araştırmanın etnografik bağlamını oluşturan Banikoara, Benin'in 77 komününden biridir ve kuzeybatı Benin'de, Alibori bölgesinde yer alır. Cotonou ve Parakou gibi komünler ağırlıklı olarak kentsel alanlardan oluşurken, Banikoara'nın büyük bir kısmı kırsal alan sayılmaktadır (Harita 2). Bu komün, kuzeyde Karimama, güneyde Gogounou ve Kérou, doğuda Kandi komünleri ve batıda bir başka Batı Afrika ülkesi olan Burkina Faso ile komşuluk eder (DGAT MISD, 2001).

Banikoara, bir kentsel (Banikoara-Marou şehri) ve dokuz kırsal (Founougo, Gomparou, Goumori, Kokey, Kokiborou, Ounet, Somperekou, Soroko ve Toura ilçeleri) yerel yönetimden oluşmaktadır. Bu ilçeler (*arrondisement*) altmış dokuz (69) köyden (*village*) ibarettir. Ülke nüfusu yaklaşık otuz etno-linguistik topluluk içerecek kadar çeşitlilik arz eder; Bariba (%70), Fulbé (%23), Dendi (%1,6), Yoruba (%1,3), Fon (%0,8) ve diğer gruplardan (%3,3) oluşur. (RGPH4-2013). Bu topluluklardan her biri, yerel bir dile sahip olmakla birlikte ülke genelinde 57 farklı dilin konuşulduğu bilinmektedir (Bio Bigou, 1987). Baatonu dilini konuşan Baribalar, Banikoara nüfusunun çoğunluğunu oluştururken, Fulfulbé dilini konuşan Fulbéler ise komünün ikinci büyük topluluğudur. Her iki topluluk da birden çok bölge ve ülkeye yayılmıştır. Baribalar Benin'in Alibori, Borgou ve Atacora bölgeleri ve Nijerya'da; Fulbéler ise Benin'in hemen hemen her bölgesinde ve Kamerun, Nijerya, Nijer, Burkina Faso, Gine ile Mali gibi ülkelerde yaşamaktadır.

Benin'de yıllar içerisinde elde edilen tarımsal kâr, gıda ürünleri ve pamuk üretiminden kaynaklanmaktadır. Banikoara, Benin'deki pamuk üretiminin ana merkezidir ve bu üretimi

büyük ölçüde gerçekleştirenler Baribalardır. Yerleşik bir yaşam süren bu topluluk, pamuk dışında piyasa değeri olan çeşitli sebzeler de (patates, domates vb.) üretir. Yarı-göçebe bir topluluk olan Fulbéler ise daha çok hayvancılıkla özdeşleştirilir. Koyun ve keçi gibi küçükbaş ve kümes hayvanları yetiştiriciliği ile balık avcılığı (karides ve diğer yumuşakçalar dâhil) yaparlar. Öte yandan, bu iki topluluk arasında, bölgenin tarım ve hayvancılık faaliyetlerindeki kısıtlılık ve sorunlar ile ekolojik krizlerden kaynaklanan çatışmalar yaşanmaktadır (CARDER, 2000; FAO, 2004).

Bu çalışma, Banikoara komününün iki başat demografik unsuru olan Baribalar ve Fulbéler arasındaki ilişki örüntülerine odaklanmaktadır. Makale, bu iki topluluk arasında meydana gelen açık krizlere karşı bir siper olan şaka ilişkisini konu edinmiştir. Makalenin amacı, iki topluluk arasında bir ata geleneği olan ve şakayla ilişkilenen akrabalık ilişkisinin, birlikte yaşamayı nasıl kolaylaştırdığını ortaya koymaktır.

## Yöntem

Bu makale, Benin'deki Banikoara komününde 2019 yılında katılarak gözlem, odak grup tartışmaları ve kişisel mülakatlar yoluyla gerçekleştirilen bir etnografik alan araştırmasına dayanmaktadır. Bu araştırma ile Banikoara komününün sosyo-ekonomik koşullarına odaklanarak Benin Cumhuriyeti'nde yürütülen kırsal kalkınma amaçlı tarım politikalarının toplumsal yaşamdaki yansımalarını incelenmiş; alan çalışması bu komünde yaşayan yerleşik Bariba ve ve yarı-göçer Fulbé toplulukları arasında gerçekleştirilmiştir.

Söz konusu araştırma bağlamında yürüttüğümüz mülakatların önemli bir kısmı yerel kalkınma derneklerinde aktif rol alan üyeler (5 dernekten[1] 12'şer üye) ile gerçekleştirilmiş; bu kişilerin yanı sıra dinî liderler (5 kişi) ve bu yörede yaşayan diğer kişilerle de görüşülmüştür.[2] Bireysel mülakatlar ve odak grup çalışmaları ile 90 kişiden nitel veri toplanmıştır. Bu makalede, odaklandığımız sorunsal gereği, elimizdeki etnografik verilerden Baribalar ve Fulbéler arasındaki toplumsal etkileşim örüntülerini açığa çıkaran bir kesitin analizini sunuyoruz. Ele aldığımız veriler, iki topluluk arasındaki şaka ilişkisinin karşılıklı uyum sağlama, sanal akrabalık ilişkisi ve ittifak kurma gibi toplumsal yakınlaşma süreçlerindeki önemine işaret etmektedir.

## Akrabalık ve Şaka İlişkisi: Şaka Kuzenliği

Klasik antropoloji akrabalık kavramını, evlilik ve kardeşlik ilişkileriyle yatay, soy bağı ilişkileriyle ise düşey yönde büyüyen bir sistem olarak tanımlar. Geleneksel tariflerde

1 Bu derneklerin adları, tek kelimelik kavramlardan oluşur ve parantez içinde Türkçe anlamlarıyla şöyledir: SUDOMSE (Çalışmak için uyanalım); SUTIKUA (Kendimiz için yapalım); SUNONNİNRAN (Birlik kuvvettir); DERANA (Karşılıklı yardım) ve ANKWA-ANMON'tir (Çaba kurtarır).

2 Araştırma verileri, katılımcıların bilgilendirilmiş onamlarının alınmasının ardından açık uçlu sorulardan oluşan (yarı-)yapılandırılmış mülakat formları kullanılarak toplanmıştır. Veri analizi, katılımcı yanıtlarının sorunsalla ilişkili olarak sınıflandırılması sonrası gerçekleştirilmiştir. Kişisel verilerin gizliliği prensibi gereği, metin içerisinde katılımcıların isimlerinin baş harfleri kullanılmıştır.

akrabalığın nesep (soy) bağlantıları ağı ve nesep evliliği ilişkilerinde modellenen sosyal bağlara indirgenmesi disiplin içinde eleştirel tartışmalara yol açmıştır (Güvenç, 1999; Holy, 2016: 77), Bu tartışmaların da ortaya koyduğu üzere, evrensel bir olgu olan akrabalık aynı zamanda kültürel çeşitlilik arz eder. Bir başka deyişle, bu kavrama yüklenen anlam ve değerler ve ilintili diğer tanımlama ve sınıflandırmalar toplumdan topluma farklılık gösterir. Eleştirel yazın, soy-temelli tanımların akrabalığı insanlar arasındaki öz paylaşımına ve özün kuşaklar boyu aktarımına dayandıran Batıya özgü bir tahayyülün eseri olduğunu vurgular. Güncel kuram, akrabalık ilişkilerinde, bu tür toptancı tanımlar yerine, insanların kendi tahayyüllerine ve kültürel inşalarına odaklanılması gerektiğine dikkat çeker. Aynı toprak üzerinde yaşama ve hatta aynı yemeği paylaşma gibi sosyal/kültürel unsurlar akrabalık ilişkilerinin belirleyicisi olabilir. Bundan başka, etnisite, sınıf ve cinsiyetin aile, akrabalık ve haneye dair yerel tasavvurlardaki önemine de vurgu yapılmaktadır. Bir başka ifadeyle artık, özellikle klasik aile ve evlilik biçimlerinin değişmesiyle birlikte akrabalıklar da yalnızca "soya dayalı" değil, çeşitli "ilişkilenmeler" ile kurulabilmektedir (Aydın ve Erdal, 2011; Holy, 2016; aktaran Topdemir Koçyiğit, 2023: 145-146, 151).

Antropologlar, pek çok toplumda sanal akrabalık ilişkisi de tespit etmişlerdir. Örneğin, evlat edinilmiş çocuklar, hayali (*fictive*) ilişkiler bağlamında bir tür sanal akrabalık olarak kabul edilir. Törensel akrabalık ilişkileri de bir sanal akrabalık örneğidir. Latin Amerika toplumlarında *compadrazgo* sistemi ya da tanrısal birliğin akrabalık sistemleri arasında önemli bir yeri vardır. Türkiye'de sütkardeşliği, kankardeşliği, ahiretkardeşliği, yolkardeşliği, sağdıçlık, yengelik, kına-analığı, adbabalığı ve kirvelik de sonradan oluşturulan hayali akrabalık örnekleridir (Balaban, 1982: V; Barnouw, 1975: 156; aktaran Kırımlı, 1998: 4).

Dünya tarihinde, sayısız toplumda, soy grupları arasında toplumsal ittifaklar oluşmuş; akrabalığa dayalı siyasi, ekonomik ve diğer boyutları olan yerel örgütlenme biçimleri ortaya çıkmıştır. İktidarın akrabalıkla sık sık temas eden bir olgu olduğu aşikârdır (Eriksen, 2009: 168, 169). Bununla birlikte, tarih ve dolayısıyla politik antropoloji bize, akrabalık temelli ve statü prensibine dayanan toplumsallıklar ve siyasal örgütlenmeler kadar yerel bitişiklik (*contiguité*) ilkesi üzerinden inşa edilen toplumsal sözleşme ve siyasal örgütlenme sistemlerinin de sayısız örneğini sunar.[3]

Batı Afrika'da, yakın olmayan aile üyeleri (örneğin uzak kuzenler) veya etnik topluluklar arasında alay ederek iletişim kurmak bir gelenektir. Baribalar ve Fulbéler arasındaki ilişki örüntülerine bakıldığında da "şaka ittifakı" ya da "şaka kuzeni" (Fulfuldé ve Baatonu

3 Politik antropolojinin fahri kurucusu sayılan Henry James Sumner Maine (1861), soy temelli ve yerel bitişiklik prensibine dayanan bu iki toplumsallık ve ortak siyasal eylem kipi arasında bir tarihsel geçiş olduğunu varsayarak evrimci bir bakış açısı sunmuştur. Maine'nin bu tespiti, Lewis Henry Morgan (1877) ve Friedrich Engels (1884)'in çalışmalarıyla yaygınlaşarak bu alanda uzun bir süre dolaşımda kalacaktır. Ancak, Morgan'ın Maine'den "devşirerek" geliştirdiği – daha sonra Engels'in katkı sunduğu– kuramsal perspektif siyasi örgütlenmeyi (dolayısıyla devlet olgusunu) toprak parçası ve mülkiyet vurgularıyla tanımlarken zaman zaman sosyal bilimlerin batılı önyargılarını körüklemiş, birçok (eski veya uzak) toplumun siyasetten yoksun sayılmasına yol açmıştır (Abélès, 2017; Balandier, 1967).

dillerinde *tollo* ve *gonaru*) olarak adlandırılan ilişkilenmeler dikkat çeker. Bu ilişkilenmeler, literatür de dikkate alındığında niteliği gereği bir tür sanal akrabalık olarak tanımlanabilir. Şaka ilişkisinde, taraflar arasında kimi zaman dostça kimi zaman da belirli hakaretler içeren fakat karşı tarafı çok da incitmeyecek şekilde sözlü çatışmalar yaşanır. Bu çatışmalar, esasında sosyal kısıtlama aracıdır ve taraflar arasındaki olası sosyal gerilimleri etkisiz hale getirmeyi hedefler. Sissao (2002), şaka ittifakını iki toplum arasındaki bağlantının varlığı olarak tanımlar ve bu ilişkiyi kuran toplulukların (iki köy, iki mahalle vb.) dostluk ilişkilerine dayanan kutsal bir anlaşma imzaladıklarını savunur. Fransız antropolog ve sosyolog Marcel Mauss, 1926 yılında École Pratique des Hautes Études'de düzenlenen bir konferansta şaka kurumunun, psikolojik olarak bir duygusal durumu ifade ettiğini ve rahatlama ihtiyacını karşıladığını vurgulamıştır.

Kısacası, şakalaşmanın sosyal yakınlaşma süreçlerini kolaylaştırıcı bir işlevi vardır. Topluluk içinde veya topluluklar arasındaki ortak mizah, kişilerin birbirlerinin bakış açılarını, değerlerini ve dünya görüşlerini anlamayı ve bunlara uyum sağlamayı öğrenmelerine yardımcı olur. Şaka ilişkisinin kaygısızlığıyla kolaylaştırılan bu uyum sağlama süreci, kültürel farklılıkları aşan sanal bir bağ oluşturarak akrabalık duygusuna katkıda bulunur. Dahası, şakalaşma, ittifak oluşumu, sosyal engellerin yıkılması ve bireyler arasında güven inşası için katalizör rolünü üstlenmiştir (Mitas ve ark., 2002). Alay ve şaka, sosyal kontrolün uygulandığı ve sosyal kimliğin sergilendiği araçlardır (Apte, 1983; Carty ve Musharbash, 2008). Durumsal mizah veya konuşma şakaları –özellikle alay etme– çatışmayı dağıtan veya kontrol altında tutan, ancak iki ucu keskin bir kılıçtır (Boxer ve Cortés-Conde, 1997; Fine ve Soucey, 2005). Bu araştırmada, Baribalar ve Fulbéler arasındaki ilişkiler bağlamında mizah ve karşılıklı şakalaşmanın benzer işlevlerine rastlanmıştır. Bu iki topluluk arasında sosyal ve kültürel farklılıklar olsa da karşılıklı geliştirdikleri iletişim, yardımlaşma ve dayanışma biçimleri uyumlu bir birlikteliği mümkün kılabilmektedir. Ortak çıkarlar doğrultusunda bir araya gelen Baribalar ve Fulbélerin birbirleriyle kurdukları şaka ilişkisi, aralarındaki sınıf veya statü ayrımları ve eşitsizliklere rağmen açık çatışmaları önlemekte ve olası isyanların engellenmesine katkı sunmaktadır.

## Baribalar ve Fulbéler Arası İttifak, Dayanışma ve Çatışma Koşulları

Banikoara komününde yerleşik bir yaşam süren Bariba topluluğunun önemli bir kısmının pamuk üreticisi olduğunu, ancak bunun dışında piyasa değeri olan başka tarım ürünleri de yetiştirdiğini belirtmiştik. Aynı komünün ikinci büyük topluluğu sayılan yarı-göçebe Fulbéler ise geçmişten bu yana hayvancılık ve deniz ürünü avcılığı yaparlar. Topluluk üyeleriyle yapılan mülakatlar ve yaygın anlatılarda iki topluluğun "barışçıl" tarihine vurgu yapılmış olsa da zaman zaman bu iki topluluk arasında özellikle bölgenin tarım ve hayvancılık faaliyetlerindeki kısıtlılık ve sorunlar ile ekolojik krizlerden kaynaklanan çatışmalar yaşandığı bilinmektedir. Bu çatışmaları ulusal ve bölgesel sosyo-ekolojik, ekonomik ve politik bağlamlar içinde değerlendirmek gerekir. Bu bölümde, Baribalar ve Fulbéler arasında geçmişte yaşanan ve gelecekte ortaya çıkabilecek çatışmaların en belirgin sebeplerine değineceğiz.

## *Sosyo-ekolojik ve Ekonomik Süreçler:*

Benin'de antropojenik etkinin yarattığı çevresel tahribat ve bu tahribatın halkın geçim ekonomisine, tarımsal ve ticari faaliyetlere olumsuz etkileri, artan ciddiyette ulusal bir sorundur (FAO, 2006). Son yıllarda, ülkenin doğal kaynakları (toprak, bitki örtüsü, nehirler vb.) hızla tükenirken yağışlarda sürekli düşüş kaydedilmiş, pamuk yetiştiriciliğinin ormanların aleyhine geliştiği ve Sahra Çölü'nün genişlediği tespit edilmiştir. Bu meseleler uluslararası düzeyde uzun bir süredir ele alınmakta ve özellikle Benin'de ve Batı Afrika'daki diğer komşu ülkelerde agropastoral alanların bozulması toplumsal çatışmaların temel sebebi olarak ortaya konmaktadır. Dakar'da 1986 yılında düzenlenen Fransızca konuşan ülkelerin Devlet ve Hükümet Başkanları Zirvesi'nde, bu türden çatışmaların engellenmesi Fransa'nın bölgedeki iş birliği programının önceliklerinden birisi olarak belirlenmiştir. 1992 Rio de Janeiro Zirvesinde ise çevre yönetimi ile ilgili eğitim ve bilgi birikiminin yaygınlaştırılması ihtiyacına vurgu yapılmıştır.

Ana akım çevre çalışmaları, ekolojik bozulmaya sebep olan insan faaliyetlerini, aşırı kaynak kullanımı, aşırı otlatma ve orman yangınları olarak sıralamaktadır. Örneğin, Alimi ve Faaki (1998), toplulukların doğal kaynakları doğanın kendilerine bahşettiği bir hediye olarak algıladıklarını belirtir. Bir doğa unsuru için pazar oluşturulduğunda, ekonomik aktörler için istismarcı sömürü cazip bir faaliyet haline gelir, bu da aşırı tüketme ve boz(ul)maya yol açtığı gibi geçim krizleri ve sertleşen rekabet koşulları sonucunda toplumsal çatışmalara sebep olabilmektedir. Banikoara'daki toplulukların ekolojik ve ekonomik koşulları için benzer şeyler söylenebilir.

Araştırmacılar, Batı Afrika ve Benin örneğinde, hayvancılık ve balıkçılıkla geçinen kırsal halkların gelir düzeylerinin düşük oluşuna dikkat çekmektedir (Badahoui, 1996; Pliya, 1980). Balıkçılık bölgelerindeki gıda krizi ve ekonomik istikrarsızlığı çalışanlar arasında Pliya (1980), güneybatı Benin'de geçim sıkıntısıyla başa çıkmaya çalışan balıkçıların diyetlerini basitleştirdiklerini belirtir. Diğer yandan, yoğun tarım faaliyetlerinin, otlakların yok olmasına ve ormansızlaşmaya yol açtığı görülmektedir (Orékan, 2006). Ormanlar, özellikle kurak mevsimlerde, yem kaynaklarının kıtlaştığı durumlarda hayvanlara sığınacak yer sağlar. Orman ve otlakların yokluğunda çobanlar, hayvanlarını, beslenebilmeleri için tarlalara yönlendirir. Bu yem arayışı, hayvan yetiştiricileriyle çiftçiler arasında tipik bir kriz sebebidir. Sounon (2008), pastoral ve çiftçi toplulukların arasındaki ilişkilerin bozulmasına işaret eden bu türden çatışmaların Benin'de 2000'lerden itibaren arttığına işaret etmiştir. Araştırmacılar, ayrıca, toprağın ticari tarım baskısının nispeten az olduğu ve toprağın bir yıl nadasa bırakıldığı dönemlerde bu tür çatışmaların yaşanmadığına dikkat çekmiştir.

Hayvan yetiştiricisi Fulbéler ve çiftçi Baribalar arasında da benzer dinamiklerin varlığından söz etmek mümkündür. Bu iki sosyokültürel grup, aynı ekolojik ortamı paylaşmaktadır ve bu mekânsal paylaşım çatışmalara gebedir. Bu durum, yukarıda da değindiğimiz gibi, sadece Banikoara'ya özgü değildir; Nijer, Nijerya, Burkina Faso ve Togo gibi komşu ülkelerde yaşayan çiftçi ve pastoral toplulukların geneli için geçerlidir. Benin

hükümeti yıllardır uluslararası kalkınma ajanslarının da destek ve motivasyonuyla kalkınma amaçlı tarım politikaları tasarlayıp uyguluyor olsa da özellikle kırsal nüfus, bugün artan oranda güvencesizlik ve derin kırılganlığa teslim olmuştur.

Baribalar, yerleşik, genellikle geniş yüzeylerde tarım yapan toprak sahipleri olarak bilinir. Fulbéler ise küçük yüzeylerde tarım uygulayan yarı-göçebe bir topluluktur. Ancak, gerçekleştirmiş olduğumuz alan araştırması ve toplumsal tarih, bu iki topluluğu hayvancı-çiftçi ikiliğine indirgemektense Fulbéler ve Baribalar arasındaki ekonomik, kültürel ve politik ilişkilerin görünenden karmaşık ve dinamik olduğuna işaret ediyor.

Baribalar tarih boyunca –topluluk içinde ve Fulbélerle– hiyerarşik ilişkiler sergilemiştir; bugün simgesel de olsa topluluk yaşantısına krallık düzeni hakimdir. Topluluk adına karar alıcılar toprak sahiplerinden oluşur. Bunlar bölge yönetiminden sorumlu, yerel güç ilişkilerinde baskın role sahip krallardır. Bu krallar aynı zamanda göçebe Fulbélere hem ev sahipliği yapar, hem de yöreye yerleşmek isteyen Fulbélere toprak sağlar. Her kral, kendi topraklarında bulunan Fulbénin 'sahibidir'.

Baribalar, kendilerini asil insanlar ve diğer halkın sahipleri olarak görürler, günlük sohbetlerde sıklıkla 'benim Fulbém' (Bariba dilinde, *maare*) ifadesini kullanırlar. Bariba kralları, Fulbéleri daha iyi kontrol edebilmek için bu topluluk arasında liderler belirler. Bu Fulbé yetkililerine, ailelerin liderlerini belirleyen *Jonwuro* (ev başkanı) adı verilir. Jonwurolar, Bariba krallarından kendi Fulbé topluluklarına bilgi iletmekten sorumludur. Bariba krallarının doğrudan muhatapları onlardır. Alan araştırmasında, toplumsal kontrolün aracısı olan Fulbé şeflerine *Rouga*, *Djaouga* gibi isimler de verildiği öğrenilmiştir. GC (45 yaşında Bariba erkek), Fulbéler arasında şef atamanın sebebini kültürler arası uyum ve bir tür güvenlik sağlama ihtiyacına bağlamıştır. GC'ye göre, Baliba aristokrasisi için Fulbéler, Bariba, Tchinga, Boo ve Dendi gibi toplulukların kültürlerine uyum sağlayamamış ve kontrol altına alınması gereken bir topluluktur, Jonwuro'nun görevi de bu kontrolü sağlamak olmuştur (GC ile görüşme, Banikoara, 09/03/2019).

Fulbéler, hayvancılık ve göçebelik konusunda her şeyi bilirler, bundan dolayı sürü sahibi Baribalar çoğu zaman hayvanlarını Fulbélere emanet eder. Zaman içinde her iki topluluğun da büyük baş hayvan (özellikle de sığır) yetiştirdiği görülmüştür. Sürü sahibi bir Bariba, finansal problemi olduğunda veya tören için boğaya ihtiyaç duyduğunda bu durumu Fulbéyle paylaşır. Danışman rolünü üstlenen hayvan yetiştiricisi Fulbé, kendisine danışan Baribanın sürüsüyle ilgili kararına yön verme yetki ve yeteneğine sahiptir, çünkü genellikle Fulbéler Baribaların mülk yöneticileri gibi hareket ederler. Baribalara hayvanların yönetimi konusunda tavsiyeler vermek, onlar için bir ahlaki zorunluluktur. Fulbéler, ayrıca "Baatombu bankacıları" olarak kabul edilir ve Kral Bariba'ya tüm ekonomik sorunlarda yardım sağlarlar. Fulbélere atanan bu tür rollerle iki topluluk arasındaki karşılıklı dayanışma ve yardımlaşma, gündelik yaşamın bir parçası olmuştur. Ayrıca, savaşçı karaktere sahip Baribalar, istilacı saldırılara karşı Fulbélerin güvenliğini sağlamıştır.

Katılımcı FT, bu iki topluluk arasındaki ilişkilerin "büyük kuraklığın" yaşandığı 1970 yılından itibaren ve piyasa koşullarının dönüşmesiyle önemli ölçüde değiştiğini ifade etmiştir. Baribalar hayvancılığa, Fulbéler de tarıma yönelmiştir. Geçmişteki hayvansal ve tarımsal ürün takası giderek piyasa rekabetine dönüşmüştür. Karşılıklı bağımlılığın yerini mesafeli piyasa ilişkileri ve mali özerklik almıştır. Günümüz Fulbélerinin kuzey Benin'de yerel pazarların canlandırılmasında ana aktör olduğunu söylemek mümkündür. Topluluk, yiyecek malzemeleri, kıyafet, kumaş ve süs eşyaları alıp küçükbaş hayvan, kümes hayvanları, peynir, taze süt ve yoğurt satarlar. FT'nin (54 yaşında Bariba erkeği) sözleriyle "Fulbe yoksa, piyasa yok, piyasa yoksa, Fulbe yoktur" (FT ile görüşme, Goumori, 08/03/2019).

Burjuva Baribaların bugün çeşitli yerlerde çiftlik kurduklarını ve bu çiftliklerde Fulbélerin çoban olarak çalıştıklarını görüyoruz (Bio Bigou, 1987). Ücretli emekçi olan bu çobanların, geçmişte olduğu gibi hayvanlar üzerinde karar alma yetkisi yoktur. Günümüzün çoban Fulbéleri artık yalnızca maaş karşılığı sürü otlatmak, hayvanların güvenliğini sağlamak ve sağlıklarıyla ilgilenmekten sorumludur. Güncel aylık ücret 60-85 USD arasında değişmektedir. Bu miktar çobanın en temel ihtiyaçlarını güçlükle karşılamaktadır. Hak ve görevlerini vurgulayan yazılı bir sözleşme yapılmadığından çoban-emekçiler, her an işten kovulma riskiyle karşı karşıyadır.

Kısacası, bir zamanlar "usta" olarak adlandırılan Fulbé, kendisini çiftlik sahibi Bariba'nın her an gözden çıkarılabilir çalışanı konumunda bulmuştur. Bunun yanısıra, bu iki topluluk arasında uzun vadeli yardımlaşma biçimlerinin yeniden düzenlenmesi de söz konusudur. Bazı çiftçi Baribalar hayvan bakımı için hâlâ Fulbélere başvurur, onların bilgi ve deneyimlerinden yararlanırlar ya da hayvan sahibi olmayanlar et ve süt ürünü ihtiyaçlarını Fulbélerden temin eder. Nitekim Baribaların geleneklerine göre düzenlenen törenlerin birçoğunda, atalara armağan olarak hayvan kurban etmek gerekir. Fulbéler, Baribaların düzenlediği bayramların, cenazelerin örgütlenmesinde bir şekilde yer alır ve özellikle Bariba krallarının törenlerine katılırlar. AL (42 yaşında Fulbé erkeği) bu durumu şu sözlerle anlatmıştır:

> Ailemizde düzenlenen törenlerde Fulbélerimiz yulaf lapası, süt, peynir, tavuk ve horoz getiriyor. Bu etkinlikler sırasında törenleri yapmamız için bize yardımcı olmak üzere boğa da veriyorlar. Fulbé, rahmetli babama bir öküz vermişti. Bu hediye, harcamalarımızı azaltmış ve misafirlerin düzgün biçimde ağırlanmasını sağlamıştı. (AL ile görüşme, Toura, 07/03/2019).

Baribalar ise evlilik, vaftiz veya cenaze törenlerinde Fulbélerin yanında yer alır. BG'nin (39 yaşında Fulbé kadını) açıklaması da buna işaret ediyor: "B*ize shea yağı yapan Bariba kadınlarıdır. Biz sadece yağı getirdik ve bütün işi onlar yaptı. Verdikleri hizmet için hiçbir zaman ödeme yapmadık. Tören sırasında ek olarak bize tuz, yağ gibi şeyler de veriyorlar.*" (Goumori, 08/03/2019). Bu tip durumlar, iki topluluk arasındaki bağın zaman içinde yok olmadığına ve karşılıklı temasın bir biçimde sürdüğüne işaret etmektedir.

Bu iki topluluk, hayatın sıkıntılarıyla baş edebilmek için birbirlerine sahip oldukları gizli bilgilerle yardım ederler. Yaban hayatını iyi tanıyan Fulbélerin doğaüstü güçlere ve sezgisel yetilere sahip olduklarına inanılır. Baribalara manevi danışmanlık yaptıkları katılımcılar arasında sıklıkla dile getirilmiştir. Doğayla sürekli temas halinde olmaları sayesinde şeytan ve cinlerle iletişime geçebilecekleri düşünülür. Bir Baribanın sözleriyle "Fulbélerin bu özellikleri, Baatonu ve özellikle krallar için gizli veya manevi bir danışman olmalarına izin verir" (GC ile görüşme, Banikoara, 09/03/2019). Baribalar, çeşitli nedenlerden dolayı Fulbélerin manevî güçleri ve bilgeliklerine sığınırlar. Köy güvenliğini sağlamak ya da ölümcül salgın, kıtlık ve kötü hasat büyülerinden korunmak için onlara başvururlar.

## *Yerel Politika ve Fulbéler:*

Fulbé nüfusunun yaklaşık yarısı, 1960'ların başından itibaren bölgedeki hareketli nüfusun kontrol altına alınması amacıyla Banikoara kentine yerleştirilmiştir. Yerleşik oluşun kuşkusuz hem toplumun geneli hem de topluluğun kendisi açısından önemli sonuçları olacaktır. İskan politikasının arkasındaki önemli bir aktör Kilise'dir. Nüfuzlarını artırma çabasındaki Evanjelik misyonerler, nüfusu yerleşik hale getirmenin İncil öğretimini kolaylaştıracağını savunmuşlar, kentlileşen genç nesle yönelmişler, Sinendé'deki bazı çocukları okula göndermişlerdir. Fulbé topluluğunun ilk aydın kesimi bu misyoner okulundan mezun olmuştur. Daha sonra, 1985 yılında, devlet Boukoussera'da Fulbéler için bir ilköğretim okulu açarak civarda yaşayan ailelerin çocuklarını okutmalarını teşvik etmiştir.

Bir zamanlar yarı-göçebe, pastoral bir topluluk olan Fulbéler, kent nüfusuna karışıp kendilerini ve çocuklarını eğittikçe kamusal alanda varlık göstermeye başlamışlardır. "Baribaların bankacıları" olarak yaftalanan topluluk, geçmişte kent yönetimine ilgisizken artık Bankoara komününün geleceği ile ilgili karar alma süreçlerine dahil olma çabasına girecektir. Burada, Fulbélerin sosyo-politik ilişkiler içerisindeki konumlarının farkına vardıkları ve o tarihe dek kendilerine atanan toplumsal kimlik ve rolleri dönüştürme yolunda sancılı bir süreçten bahsediyoruz.

Fulbélerin yerel siyasette boy gösterme çabaları, Bariba seçkinleri tarafından hoş karşılanmamaktadır. Fulbéler, "toprağın oğulları"nın (toprak sahibi Baribaların) aleyhine bir karar veremeyeceği gibi Baribaların hayatına da yön veremez. Bako-Arifari (2006), dışlayıcı bir çoğunluk olan Baribalar ile dışlanmış bir azınlık olan Fulbéler arasındaki yerel seçim çekişmelerini tartışırken çoğunluğun toplumun içerisinden bir unsura yabancı düşmanlığı üretmenin mevcut siyasi koşulların korunması için zaruri görüldüğüne dikkat çeker.

Fulbéler, Baribalara rağmen, seçim yarışlarından çekilmemişlerdir. Katılımcılardan AT, Fulbélerin politize olma süreçlerine dair şunları söylemiştir:

> Fulbelerin konuşmalarında gözlerini açtıklarını sıklıkla duyarız (artık geçmişte olduğu gibi değil). Çünkü bizim (Fulbélerin) hak ettiğimiz yeri işgal ettiğimizi düşünüyorlar. Okullar gözlerimizi açtı ve bugün demografik ağırlığımızın ve

> ... sessiz bir güç olduğumuzun farkındayız. Okula gidiyoruz, yönetici, bürokrat olabiliyoruz; kardeşlerimizin (Baribaların) anlamada güçlük çektiği şey budur (AT ile görüşme, Banikoara, 21/02/2019).

Bazı muhafazakâr çevreler, Fulbélerin yerel siyasi sahneye girerek özgürleşmesinin kurulu düzeni bozduğu görüşündedir. Topluluk üyelerinin seçim yarışına katılma isteği, tarih boyunca koruyucu rolünü üstlenen Bariba seçkinleriyle rekabet hevesi olarak yorumlanır.

Ayrıca, köylerin idari statü kazanmasını sağlayan yasanın (2002) bir sonucu olarak çeşitli Fulbé kampları, idari birimlere (köylere) dönüşmüş ve böylece kırsalda Baribaların, Fulbelerin üzerindeki etkisi zayıflamıştır. Kamplar, kendi bölgelerinin kalkınması için herhangi bir eylemde bulunmadan önce başkalarına başvurmak zorunda değildir. Her bir bölgenin kaderi kendi elindedir ve gelişimlerini teşvik etmek için yerel inisiyatiflere gereksinim vardır, çünkü her köyün öncelikleri farklıdır. Köyler, başkalarının kendileriyle ilgili olmayan kararları almasını beklemek zorunda kalmayacaktır. Bugün Fulbéler ayrıca çiftçilerle anlaşmazlıkların çözümüne katılmak istemektedir. Komün arazilerinde hayvan dolaşımı ve göç ile ilgili konuları ele alan yönetim kurullarında gittikçe daha fazla yer almaktadırlar.

## Şaka Kuzeni: Fulbéler ve Baribalar Arasında Birlikte Yaşamakla İlgili Bir Ata Geleneği

Baribalar ve Fulbéler arasında öteden beri sürdürülen şakalaşma geleneği, "şaka kuzeni" (Fulfuldé ve Baatonu dillerinde *tollo* ve *gonaru)* olarak adlandırılır. Fulbé ve Bariba topluluğu arasında dört çeşit şaka kuzeni vardır: Fulbéler ile kasaplar, demirciler, (*Séko*) Griotlar ve Bariba seçkinleri (özellikle *Wassangari denilen prensler*) arasındaki şakalar.

Fulbéler ile kasaplar arasındaki şakalaşmalar, topluluğun Baribalarla olan ilişkilerinde önemli bir yer tutar. Fulbéler, daha önce de belirttiğimiz gibi, profesyonel hayvan yetiştiricileridir. Bölgenin sığır sürülerinin neredeyse hepsini ellerinde tutarlar. Fulbéler kasap Balibarla yalnızca et kesimi için değil, çiftçilerle ilişkilerinde arabulucu olarak da iletişime geçer, zira kasaplar dürüst bir işbirlikçi olarak görülür. Kasaplar, sosyal tanınmayı teşvik ettiğini düşündükleri için arabuluculuğu önemserler. Kasaplar, Fulbé topluluğuyla sıkı ilişkiler geliştirmiştir. SM'nin sözleri bu konuda açıklayıcıdır: "*Fulbéler, kasapları, ailelerinin üyeleri olarak görür, çünkü bize bağlı (Fulbé) kasapların kastı, Fulbé yetiştiricileri olmadan asla var olmazdı. Kasabın annesinin evi Fulbé'nin evinde, Fulbé kampına gitmezse yiyecek hiçbir şey bulamayacak*."

Sığır sahibi olmanın Fulbélerin hayatında önemi büyüktür. Sürü, ekonomik değerin ötesinde, sosyal statünün bir göstergesi sayılır. Kişiler, sahip oldukları büyükbaş hayvan sayısına göre değerlendirilir. Bir Fulbé ne kadar öküze sahipse o kadar itibarlı kabul edilir. Bir kişi birkaç öküz sahibiyse Mekke'ye hacca gitmemiş olsa bile kendisine "Hacı" (Fulbé dilinde *alaji*) denir ve ağırlıklı olarak Müslüman olan Fulbéler arasında saygınlık kazanmış olur.

Şakalar daha çok Fulbé ile kasap arasındaki alışveriş esnasında gerçekleşir. Gerginlik sonrası anlaşmanın ardından iki taraf da yüksek sesle güler, birbirleriyle dalga geçer ve kardeşce birbirlerini selamlar. Nitekim geleneğe göre şaka yapan bir kuzenle etkileşime girerken sinirlenmeniz tavsiye edilmez. Öfkelenmek zayıflığın, olgunlaşmamışlığın ve zekâ eksikliğinin yanı sıra kişinin kendi geleneğine dair bilgisizliğin bir işaretidir.

İkinci şakalaşma türünün Fulbéler ile Bariba demirci kastının (*Sékobu*) arasında gerçekleştiği görülür. Demirciler, Fulbélerin hayvanlarını otlatmalarında kullandıkları kesici aletler yapıp satar. Bu aletler, örneğin balta, hayvanları beslemek için ağaçların budanmasına yarar ya da çobanların hem kendilerini hem de otlattıkları hayvanları, vahşi hayvanlara ve avcılara karşı korumakta kullanılır. Bir demirci, Fulbé'yle buluştuğunda ona doğumundan beri bir şey yemediğini söyler. Gelenekler açısından Fulbé, sahip olduğu ne varsa ona vermekle yükümlüdür. Kural gereği, demirci kendisine verileni asla reddetmez.

Fulbéler ve Griotlar arasındaki şaka ilişkisi de oldukça ilginçtir. Bir Griot ne zaman bir Fulbé veya Jonwuro görse, hayvan yetiştiricilerinin günlük yaşantısı ile ilgili nükteli sözler sarfeder. Örneğin, inek sağan Fulbé'nin şapkasına konan sineği anlatmak için "sonsu furo bakuru" (sinekten şapka oldu)" der ya da ayakkabısına sık sık inek gübresi yapışan Fulbéyle bu durumu anlatan ifadeler kullanarak dalga geçer. Şakalaşmalar esnasında Griot, bir yandan da bilgeliğiyle övünür: "*Mare bir barugere ka ka goru sina kpai", yani "bilgi vermek için aç kalmak tercih edilebilir".* Bilirler ki Fulbéler, her zaman bilgi arayışı içerisindedir. Bariba köy pazarlarına biraz da bilgiye ulaşmak için giderler.

Bunlardan başka, Fulbélerin, Wassangari prensleri ve diğer Bariba ileri gelenleri ile kurdukları şaka ilişkisi sayesinde Bariba krallarına çok daha kolay yaklaşma olanağı buldukları görülmüştür. Wassangari ve Bariba prensleri, mistik ve okült güçler için her zaman Fulbélere ihtiyaç duyarlar. Etkileşimlerinde ve alışverişlerinde şakalaşmanın özel bir yeri vardır ve bu da iletişimi kolaylaştırır. Bununla birlikte Fulbéler ve Baribalar arasındaki şaka ilişkisi, kişisel yakınlaşmaların ötesinde, bu iki topluluk arasındaki uyumun güçlenmesine vesile olur. Güven ortamında ve barış içinde yaşama isteği, bu ilişkinin sürdürülmesinin birincil sebebidir.

Aynı zamanda, şaka ilişkisinin farklılıkları belirginleştirici ancak bununla birlikte bu farklıların kabullenilmesini kolaylaştırıcı bir yönü de vardır. Ayrıca, şaka, onaylanmayan bir davranışın toplum tarafından şiddetle kınanmasına engel olmak üzere şikâyet ifade etmeye yarar. Kuzeninizin şaka yoluyla söylediği şey, herkesin sizin hakkınızda düşündüğüdür.

Şaka icra edilirken teamüle saygı duyulması esastır. İnanışa göre, buna uymayan şaka kuzeni, doğaüstü güçlerin misillemesine maruz kalma tehlikesiyle karşı karşıya kalır. Kural ihlali, faili için olduğu kadar o kişinin aile üyeleri için de ciddi sonuçlara yol açabilir.

Şakalaşma pratiği, Bariba ve Fulbé arasında açık ve ölümcül çatışmalardan kaçınmayı, toplumsal gerilimleri çözmeyi mümkün kılmaktadır. Trembley (2002)'in de belirttiği gibi

şakalaşma, şiddet ve düşmanlığa karşı geliştirilen bir tür dostluk ilişkisidir. Dolayısıyla şaka kuzeni, farklı etnik toplulukları veya etnik toplulukların üyelerini birbirine bağlayan ve onları uyumlu hale getiren toplumsal çimento görevi görür. 2012 yılında Gomori'deki çiftçiler ve çobanlar arasında çıkan çatışmalar sırasında bölgenin Fulbéleri, Bariba köyü Kokiborou'ya sığınmışlar, köy sakinleri de onlara gerekli tüm misafirperverliği göstermiştir. Beninliler bu olayı, şaka kuzenliği üzerinden yorumlamıştır.

Benin'de Baribalar, Fulbéler dışında Nago-Yorubalar ile de ittifak ilişkilerine girer. Bu anlaşmalar, politik olmaktan ziyade kültüreldir. Bu topluluklar arasında da şaka kuzeni ilişkisi gözlenmektedir (Nakou ve ark., 2013). Ölüm gibi üzücü olaylar karşısında dahi, durum şakaları yapılarak travmayı hafifletme ve toplumsal bağları güçlendirme çabasına girilir.

Fulbélerle Baribalar arasındaki şaka ilişkisinin başka yönleri de vardır. Örneğin, şaka kuzenine bağış yapmak, kutsanmayı sağlar. Bu, Fulbélerde bir teklif (bağış teklifi) anlamına gelir ve *jakka* kavramıyla ifade edilir. Bu geleneğe saygı duyanın Tanrı'nın yüceliğine sahip olacağı düşünülür. Jakka, kişiye ve ailesine saldıran kötü ruhların kovulmasını ve topluluğa refah kapılarının açılmasını sağlar. Katılımcı GN'nin sözleriyle "*jakka adamı ilerletir (fulkada jakka e yaara neddo yesso)"*. Nimet olarak görülen jakka, hem bağışçı hem de alıcıya mutluluk getirecektir. Kısacası şaka kuzeni, herkes için lütuf kaynağı olan bir pratiktir. Bu bağlamda, tüm şaka kuzenleri, kendilerini, ataların ve tanrıların koruyuculuğundan faydalanmak için jakka vermeye zorlarlar. Bu özellikleriyle şaka kuzeni ilişkisi, öz-kontrol ve öz-disiplin mekanizması olarak da işlev görür.

Fulbéler ve Baribalar arasındaki ilişkiler, şaka kuzenliği sayesinde nispeten huzurludur. Topluluklar arasındaki şaka ilişkisindeki en temel amaçlar toplumsal uyumu teşvik etmek, barış ve istikrara katkı sağlamak ve karşılaşılan zorluklarla başa çıkmayı kolaylaştıracak karşılıklı yardım geliştirmektir. Benin'de her yıl çiftçiler ve çobanlar arasında ölümcül çatışmalar yaşanmaktadır. Bu çatışmalar, can kaybı, binlerce öküzün katledilmesi ve maddi hasarla sonuçlanmıştır. Bununla birlikte, Fulbé yetiştiricileri ve Bariba çiftçileri arasında nispeten seyrek çatışma çıkıyor olması, topluluklar arasında şaka ilişkisinin sürmesiyle açıklanır. Burkina Faso topluluklarını çalışan Hagberg (2001), Como eyaletindeki Karaboro çiftçileri ile agro-pastoral Fulani topluluğu arasında benzer bir duruma rastlamış ve topluluklar arası ihtilaf yönetiminde şaka ilişkisinin, önemli bir role sahip olduğunu belirtmiştir.

Baribaların Demirci, Kasaplar, Griot kastları ile Fulbéler arasında var olan şaka ilişkileri, iki topluluğun kardeşlik duygusu ile barış içinde yaşama çabalarına işaret etmektedir. Öte yandan, topluluk büyükleri, genç nesillerin bu geleneği ihmal ettiğinden yakınırlar:

> Bu şaka ilişkilerini okula gitme bahanesiyle ihmal ediyorsunuz. Bu yüzden Benin ve Afrika'da giderek daha fazla sorun görüyoruz, çünkü hiç kimse ülkemizin geleneğine saygı duymak istemiyor. Yine de şaka ilişkilerini sürdürmek bizi birçok talihsizlikten kurtaracak. (AG ile görüşme, Kokey 12/03/2019).

Afrika toplumunda şaka ilişkilerinin değerinin farkında olan bazı ülkeler, bu zengin geleneği yaşatmak için girişimde bulunmuştur. Bu amaçla, 2001 yılında Ouagadougou'da Burkinabè Şaka Akrabalığını Teşvik Derneği ve Bobo-Dioulasso'da Şaka Akrabalığı Teşvik Derneği kurulmuştur (Sissao, 2002). Son yıllarda, Benin toplumunda da benzer bir duyarlılığın geliştiğini söylemek mümkündür.

## Sonuç

Bariba tarlalarının Fulbélerin sürülerinin saldırısına uğraması nedeniyle iki topluluk arasında kimi zaman ciddi çatışmalar yaşandığı bir gerçektir. Ancak, bu topluluklar bir yandan da güçlü tarihsel bağlar ve ortak gelenekler ile bir arada yaşamayı inatla sürdürür. Barış tesis edebilmek için türlü ittifak, uyum ve uzlaşma mekanizmaları geliştirmişlerdir. Şaka ilişkisi, bu mekanizmalar arasında etnografik açıdan en ilginç olan pratiklerden biridir.

Bu araştırma, Baribalar ve Fulbéler arasındaki şaka ilişkisinin iki topluluk arasındaki kültürel bağları güçlendirdiği, ekonomik ilişkileri kolaylaştırdığı ve birbirlerine uyumu mümkün kıldığını göstermiştir. Elde edilen bulgular, bir ata geleneği olan şakalaşma pratiğinin Baribalar ve Fulbéler arasında bir tür sanal akrabalığa yol açarak uyum ve ittifak örüntüleri yarattığını ve bu sürecin zaman zaman birbirleriyle çatışan bu iki topluluğun komün içinde komşuluk ilişkilerini kolaylaştırdığını ortaya koymuştur. Şakalaşma, karşılıklı uyum sağlama, sanal akrabalık ilişkisi ve ittifak kurma gibi toplumsal yakınlaşma süreçlerinin etkin bir unsuru olmuştur.

### Not

Bu makale, 2019 yılında Benin'de gerçekleştirilen etnografik bir alan araştırmasına dayanmaktadır. Araştırma sırasında katılımcılardan bilgilendirilmiş onam alınmıştır.

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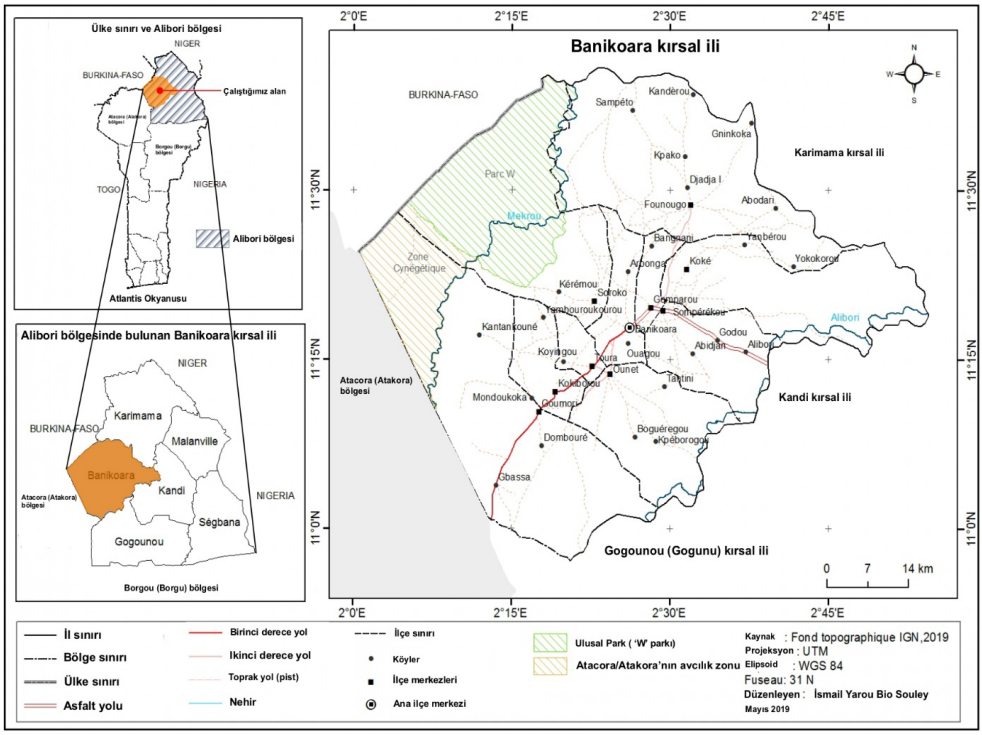


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# The Femoral Midshaft Index as Evidence of a Transition in Mobility Patterns in the Chalcolithic and Bronze Age Populations of Anatolia

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**ABSTRACT**

Several studies have demonstrated mechanical loading to be associated with activity patterns such as human subsistence strategies and to generate an adaptive response in bone. The femoral midshaft index (FMI), also known as the pilasteric index, is used to infer functional loading effects on the femur to indicative of bone strength as a product of physiological loading. FMI is calculated by dividing the femoral midshaft anteroposterior (AP) diameter by its mediolateral (ML) diameter; measurements are taken from the periosteal surface. This research examines FMI in Chalcolithic and Bronze Age populations across Anatolian regions to observe changes in midshaft geometry and test correlations with spatiotemporal and sociocultural transformations. The FMI data were sourced from published literature containing post-cranial measurements of anatomically modern humans from the populations of interest. Overall, FMI in the Anatolian region declined over time, with the exception of Central Anatolian sites where FMI increased through the Chalcolithic to Early Bronze Ages before decreasing during the Middle Bronze Age. Fluctuations in FMI during the transition from the Chalcolithic and Bronze Ages correlate to the gradual lifestyle changes in the region, with sociocultural transformations being linked to the development of new activities. The observed overall decline in FMI correlates to the archaeological evidence, which depicts a local decline in pastoral communities and development of complex export-driven villages.

**Keywords:** Mobility, Bioarchaeology, Prehistory Of Anatolia

## Introduction

The functional adaptation of bone to mechanical stress is a long-studied phenomenon used to understand how bone responds to the physical demands of the individual. The mechanostat hypothesis suggests that bone responds to activity by depositing new skeletal tissue and, in so doing, resists the mechanical stress caused by heavy or frequent loads (Robling et al., 2014). Several experimental studies on the primate vs. non-primate model ( Burr et al., 2002; Cowgill et al., 2010; Demes et al., 1991; Rubin & Lanyon, 1982), as well as bioarchaeological investigations ( Demes et al., 1991; Holt, 2003; Ruff, 1987; Schaffler et al., 1985), have verified the impact of loading on bone behavior and resultantly bone shape. Animal models show that cortical bone distribution on the cross section of the femur corresponds to loading on the midshaft (Burr et al., 1982; Carlson, 2002; MacLatchy et al., 2000; Schmitt, 2003; Stock & Pfeiffer, 2004). For example, in the terrestrial mammalian femur, the deposition of bone tissue as a mechanical response typically occurs in the anteroposterior plane (AP) on the midshaft (Jepsen et al., 2015). Researchers have argued that the differences observed in the AP-ML direction of bone are related to exposure to greater loading stimuli (Macintosh, 2013; Marchi, 2008; Marchi et al., 2011; Wescott, 2006).

The femoral midshaft index (FMI) is one way researchers have made use of the relationship between function and bone structure to estimate the activity trends of historical and prehistorical populations (Bridges, 1985; Brock and Ruff, 1988; Ruff et al., 1984; Trinkaus, 1992). FMI is a macro-measurement calculated from the anteroposterior (AP) diameter and mediolateral (ML) diameter of the femoral midshaft diaphysis (Figure 1; Ruff, 1987). The linear external breadths of AP and ML are analogous to the second moment of areas (Ix/Iy; Junger & Minns, 1979; Ruff, 1987).

This study examines published FMI data to compare two significant, continuous archaeological periods in the Anatolian region: the Chalcolithic and Bronze Ages. In-depth archaeological findings provide material evidence of lifestyle shifts that occurred in the region. Life during the Chalcolithic Age was centered on animal husbandry and trade, where subsistence strategies are assumed to have been physically stressful on the lower limbs. During the Bronze Age, settlement-based activities centered around leadership, development of industry, and craftsmanship were assumed to be less stressful on the lower limbs. While the material culture demonstrates a shift in lifestyle and behavior, whether the skeletal remains of individuals within these relative spatiotemporal periods reflect the lifestyle shifts remains to be examined.

## The Chalcolithic Age

The continuity of material culture (beige-slipped and dark-faced monochrome wares) and the primary subsistence economy of the Neolithic era is found in the early Chalcolithic period (6100-5500 BCE) in all Anatolian regions (Schoop, 2011). However, the development of the Chalcolithic period, especially in the western peninsula, was remarkably inconsistent

based on stratigraphy. Thus, the Neolithic and Chalcolithic periods are delineated based on the presence of fine-painted pottery (Özdoğan, 2015). The observed changes in pottery forms are indicative of the new sociocultural model that has been coined as the Chalcolithic period. The period is further characterized by its increased intercultural dealings, including the rise of trade, emergence of metalwork, and increase in village settlements of varying sizes (Düring, 2011). Settlements in Southeastern Anatolia are known to have had socially complex indigenous populations that interacted with Mesopotamia (Özbal, 2011; Özdoğan, 2014). The central regions produced decorated pottery and stamp seals, used metal intensively, had an increased presence of status objects, and used obsidian tools. These material artifacts signal the emergence of socioeconomic change during the last half of the 7th century (Özbal, 2011; Özdoğan, 2014).

The Middle and Late Chalcolithic periods saw a rise in the exchange of commodities, development in complex social organizations, and increased metal usage. According to Frangipane, "Arslantepe Layer VI, with its monumental palatial complex, thousands of bullae (2007), and temples adorned with frescoes, represents the emergence of a local elite group (2002, 2004)" (Özdoğan, 2014, p.1527). Recovered settlements in the Western and Central Anatolia regions during the Middle Chalcolithic period were severely destroyed, with the architectural remains having been burnt. Meanwhile the purpose, whether sociocultural, environmental, or subsistence-based, remained a mystery. Later findings that correlate to the same continuous stratigraphy as the burnt structural remains suggested that the region had been targeted by an invading group, with the presence of the continued pottery traditions in Beycesultan, Baklatepe, Kuruçay, and Alişar highlighting the same craftsmanship also supporting this conclusion ( Mellart, 1966; Ozdogan, 2014; Schoop, 2005). Beycesultan in Central Anatolia and Alişar in Northern Anatolia present sizable settlements with large multiroom buildings. During the 4th millennium BC, the regions produced new artifacts such as triangular daggers and spiral-headed pins, mass-produced bowls, and seals, typically found in Mesopotamian settlements (Frangipane, 2016; Zimmermann, 2006).

The Late Chalcolithic period is better characterized by locally developed materials, indicating the transition to the Early Bronze Age to have been gradual and arbitrary (Schoop, 2011). The lifestyles of the people during the Chalcolithic Age were predominantly based on farming practices that consisted mainly of cultivating, harvesting, and threshing grains outside of their immediate settlements. Animal husbandry was also a significant aspect of their livelihood, as they utilized pasture lands for sheep, goats, and cows. Marine resources allowed them to participate in large trade networks, which along with specialized crafting techniques, advanced their social stratificational development (Arbuckle, 2012; Foster, 2009;).

## The Early and Middle Bronze Age

The emergence of established city-states accompanied the Bronze Age. These complex

settlements significantly changed the sociopolitical environment, health, and power dynamics. These changes were further compounded by the growth of a dense populace in the neighboring Mesopotamian region (Çevik, 2007; Mellart, 1966; Sagona & Zimansky, 2009). Material artifacts recovered from burial site excavations provide rich evidence of the region's participation in long-distance trade routes, their continued advancement in metalworking, and specialized crafting techniques (Steadman, 2011). Despite the sociocultural and technological advancements observed in neighboring regions during the Chalcolithic and Bronze Ages, the Anatolian region did not see the same significant expansion in settlements as in Mesopotamia (Harmanşah, 2011; Marro, 2011).

## Inferring Mobility from Long Bones

The study uses a historical perspective to examine the impact of nomadic lifestyles on the femur and explore the relationship between mobility and the osteogenic response. The relationship between physical activity and diaphyseal cross-sectional geometry of long bones such as the femur is led by the mechanostat hypothesis. According to this hypothesis, loading pressures associated with activity produce a cellular response in bone tissue that ultimately influences bone remodeling, as well as the structure's cross-sectional geometry in the long term (Bridges, 1989; Larsen, 1997; Marchi et al., 2008; 2011; Ruff & Hayes, 1983; Ruff et al., 1984; Wescott, 2006; Sparacello & Marchi, 2008; Stock, 2006;).

Wescott (2014) highlighted the importance of clarifying mobility type prior to bone analysis for understanding the lives of past human populations, as mobility forms can specifically impact certain bones depending on the physical requirements of the time. Wescott (2014) examined this further by assessing the conditions of aquatic and terrestrial locomotion. Aquatic mobility produces greater robusticity in the upper limbs relative to the lower limbs due to the heavy usage of the arms while treading water (Stock & Pfeiffer, 2001; Weiss, 2003; Wescott, 2014). In contrast, terrestrial logistic mobility (TLM) is broadly defined by everyday activities such as walking and running and by extraneous workloads such as subsistence strategies and long-distance or terrain travel (Holt, 2003; Ruff et al., 1984; Stock & Pfeiffer, 2001; Wescott, 2006). TLM demonstrates the significant effects of terrestrial physical activity on skeletal elements of the lower limbs by influencing the strength and geometry of the femur, tibia, fibula, and tarsal bones (Wescott, 2014; Stock & Pfeiffer, 2001).

Using the FMI as a shape index relies upon the ratio of the anteroposterior (AP) and mediolateral (ML) breadths of its femur cross-section (Figure 1; Jungers & Minns, 1979). A ratio between AP (*y*-axis) and ML (*x*-axis) that approaches 1 indicates that the cross-sectional shape of the femur at midshaft is round; AP:ML ratios that deviate from 1 indicate a more elliptical cross-sectional geometry (FMI > 1 is elliptical along the y-axis; FMI < 1 is elliptical along the x-axis; Ruff, 1987; Brock & Ruff, 1988). FMI reflects the distribution of skeletal tissue (not density) along the AP and ML planes (Figure 1). Use of the femur's second moment-area (moment of inertia; *Ix/Iy*) has also been shown to be a good indicator

of activity-related shape change and resulted in the coining of the term “mobility index” (Larsen, 1997). FMI operates by assuming that the bending stresses sensed by bone will signal a remodeling that will alter the cross-sectional geometry in the long term. Sedentary populations experience lower/similar bending loads along the planes, producing a more circular cross-section (AP:ML ratio = 1), as there is no significant stimulus for any planar change (Ruff, 1987; Ruff & Larsen, 2001). The opposite is observed when activity pressures are high, as these can produce low ML and high AP bending rigidity, resulting in an ovoid cross-section at the femoral midshaft (AP:ML ratio deviates from 1; Ruff, 1987; Ruff & Larsen, 2001).

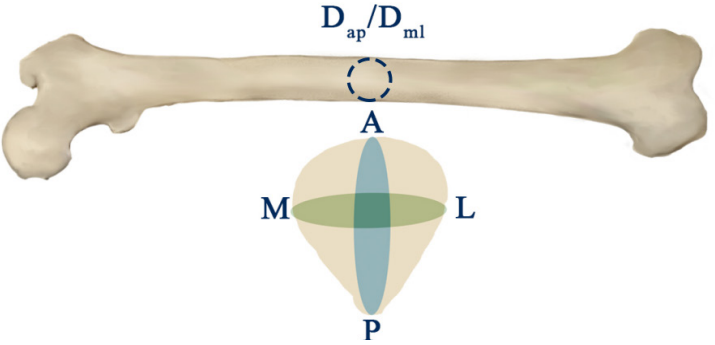


**Figure 1**: The dimensions for calculating FMI are taken from the linear external breadths of the femur at the midshaft. The shape ratio measurements use the anteroposterior and mediolateral diameters based on linear external breadths (D = Diameter, ap = anteroposterior, ml = mediolateral, A = anterior, M = medial, L = lateral, P = posterior; illustration by Gizem S. Günhan, 2021).

The first investigations into the relationship between activity and cross-sectional geometry of past populations to rely on FMI were conducted in Southeast Georgia (Ruff et al., 1984), the Tennessee River Valley (Bridges, 1985), New Mexico (Brock & Ruff, 1988), and the Levantine Mousterian (Trinkaus, 1992). These studies compared the diaphyseal shape of the long bone in different populations and the effects of distinctive subsistence strategies observed in those regions, such as pre-agricultural vs. agricultural, hunting-gathering vs. sedentary, and hunting-gathering vs. industrial. Their observations revealed that the diphyseal circularity increased (FMI = 1) as activity decreased, due to reduced workload. In pre-agricultural societies where nomadic behavior required long-distance walking, femoral midshafts had more elliptical cross-sectional geometries (Ruff et al., 1984). In contrast, individuals in an agricultural subsistence economy, which requires less walking, had rounder femoral cross-sections (Ruff et al., 1984). This trend is also observed in Kebara: those who participated in foraging behaviors possessed more elliptical femoral cross-sections than modern individuals (Lieberman & Shea, 1994; Trinkaus, 1992).

Mobility index studies further support the use of femoral cross-sectional traits to infer behavioral differences and activity changes. Marchi et al. (2006; 2008; 2011) discovered

lower limb rigidity patterns in the Neolithic populations on the Ligurian coast of northwestern Italy: The populations in the region participated in herding activities in the Apennine Mountain, which consisted mainly of traveling across rugged terrain. A comprehensive analysis conducted by Macintosh et al. (2014) shared similar findings among 12 Neolithic populations in the Central European region. These findings suggested the systematic long-term changes in lower limbs to be concordant with the overall pattern of reduced rigidity in Paleolithic, Mesolithic, and Neolithic populations and provided support for the correlations among mobility, bone strength, and rigidity (Macintosh et al., 2014; Stock, 2004).

While the femoral cross-section offers researchers some opportunities to learn from skeletal remains of the past, pointing out bone growth to be multifactorial is essential. Skeletal growth and development are influenced by hormones, genetic factors, climate, nutrition, and other lifestyle factors, and these factors impact bone structure, geometry, and biology (Buckwalter et al. 1995;Cowgill, 2010; Devlin, 2011; Devlin & Lieberman, 2007; Lovejoy et al., 2003; McFarlin, 2006; Pearson, 2000; Seeman, 2003). Understanding that the relationship between long bone shape (moment of area) and orientation of the load is not always controlled or predictable is critical under this framework. FMI should not be applied to archeological populations for interpreting mobility or behavior; instead, it should serve as a tool for helping researchers recognize the presence of sociocultural changes that have already been proposed based on archaeological material. Studying FMI may help guide investigations toward the significance of cultural shifts and provide context to archaeological findings (Wescott, 2014). This paper considers mobility to be the sum of all locomotive and behavioral activities performed using the lower limbs.

## Goals

This study uses FMI to compare and reveal shifts in the general mobility patterns of Anatolian populations from around the 6$^{th}$ millennia BC, as well as to aid in interpreting archeological data. The analysis relies on observing the effects of mechanical stress on the femur as these effects specifically relate to mobility patterns in males and females. This work also emphasizes the importance of using material culture to contextualize the lifestyle changes and biological effects of these changes. Using this biocultural approach, the study generates a holistic analysis of cultural, social, and biological transformation in the Anatolian region during the Chalcolithic and Bronze Ages.

## Materials and Method

Throughout the Anatolian region's historical periods spanning nearly six millennia, it has experienced extremely diverse cultural development. This paper combines different chronologies based on Shoop's (2011) analysis and interprets the data within their spatiotemporal contexts (Table 1).

**Table 1: Literature review of Anatolian Chronology inclusive of the published FMI data**

| Period | Dates | Reference |
|---|---|---|
| **Early Chalcolithic** | ca. 6100–5500 BCE | Schoop 2011 |
| **Middle Chalcolithic** | ca. 5500–4250 BCE | Schoop 2011 |
| **Late Chalcolithic** | ca. 4250–3000 BCE | Schoop 2011 |
| **Early Bronze I** | 3000—2700/2600 BCE | Schoop 2011 |
| **Early Bronze II** | 2700/2600—2300 BCE | Schoop 2011 |
| **Early Bronze III** | 2300—2000 BCE | Schoop 2011 |
| **Middle Bronze Age I** | ca. 2000–1800 BCE | Akkermans and Schwartz 2003 |
| **Middle Bronze Age II** | ca. 1800–1600 BCE | Akkermans and Schwartz 2003 |
| **Late Bronze I** | ca. 1650–1450 BCE | Goldman 1956 |
| **Late Bronze IIa** | ca. 1450–1225 BCE | Goldman 1956 |
| **Late Bronze IIb** | ca. 1225–1100 BCE | Goldman 1956 |

A literature review was conducted to accumulate data on activity patterns and post-cranial measurements from individuals recovered at Chalcolithic and Bronze Age archaeological sites. The data used in this paper have been derived from the relevant articles, bibliographic sources, targeted topical journals, and national thesis database within the Turkish literature on biological anthropology, and archaeology. The study performed combined searches using the following keywords: "long bone," "femur," "Bronze Age," "Chalcolithic Age/ period," "Bronze Age people," "Chalcolithic Age/period people," "anthropological report," "anthropological report of Bronze Age people," and "anthropological report of Chalcolithic Age people." All results were narrowed down using the filter tool to focus only on articles.

The sources provide postcranial measurements of Chalcolithic and Bronze Age populations from the Anatolian region, of which the study reviewed a total of 27 Chalcolithic, 57 Early Bronze Age (EBA), 11 Middle Bronze Age (MBA), and 50 Late Bronze Age (LBA) site reports. Of these, 2 Chalcolithic, 6 EBA, and 4 MBA settlements provided postcranial measurements of human remains (Table 2). Most site reports noted poor preservation of heavily fragmented human skeletal remains or the remains were from sites that had presented evidence of looting. As a result, data from tampered sites were deemed unsuitable for the FMI assessment. Several sites (10 EBA and 3 MBA) provided no postcranial measurements for the recovered human remains. In total, the analysis includes 67 female and 74 male FMI from 11 different archaeological sites spanning the Chalcolithic and Bronze Ages.

We performed a Kruskal-Wallis analysis to understand the nature of the relationships between samples. Mann–Whitney U tests were applied to assess the difference between the sexes. The data was categorized as femoral midshaft index (dependent variable), sex, region (independent variable), and period (independent variable). If the result is significant, Pearson's correlation coefficient test is applied to reveal the causality between variables.

**Table 2: Summary of the reported femoral midshaft index (FMI) data in Anatolia among Chalcolithic and Bronze Age populations**

| Period | Region | Site | Researchers | Publication Year | Female | Avg. (mm) | Male | Avg. (mm) |
|---|---|---|---|---|---|---|---|---|
| **Chalcolithic** | Mediterranean Region | Yumuktepe | Şenyürek | 1954 | - | - | 2 | 106.03 |
| **Chalcolithic1** | Central Anatolia | Tepecik Çiftlik | Aslan | 2005 | 38 | 102.46 | 29 | 99.96 |
| **Chalcolithic1** | Mediterranean Region | Şeyh Höyük | Şenyürek | 1955 | 3 | 110.66 | 2 | 119.20 |
| **Early Bronze Age (EBA)** | Central Anatolia | Salur | Yiğit et al. | 2010 | 3 | 96.47 | 12 | 104.75 |
| **EBA** | Central Anatolia | Alacahöyük | Tunakan, S. | 1965 | 1 | 119.23 | 1 | 106.67 |
| **EBA** | Central Anatolia | Ilıca-Ayas | Çiner | 1967 | - | - | 1 | 100.81 |
| **EBA** | Eastern Anatolia | Arslantepe | Tunakan, S. | 1971 | 1 | 95.83 | - | - |
| **EBA** | Marmara Region | Küçükhöyük | Açıkkol, A. | 2000 | 29 | 100.51 | 32 | 107.49 |
| **EBA** | Southeastern Anatolia | Oylum Höyük | Gökdemir | 2014 | 5 | 104.9 | 3 | 110.2 |
| **EBA** | Eastern Anatolia | Evdi Tepesi | Çiner | 1963 | - | - | 1 | 106.89 |
| **EBA** | Northern Anatolia | İkiztepe | Aslan | 2005 | 41 | 92.10 | 48 | 96.36 |
| **Middle Bronz Age (MBA)** | Central Anatolia | Kültepe | Şenyürek | 1952 | 5 | 101.8 | 2 | 93.6 |
| **MBA (Early Hitit)** | Western Anatolia | Ağızören | Açıkkol et al. | 2003 | 7 | 97.2 | 5 | 100.7 |
| **MBA** | Western Anatolia | Seyitömer | Özdemir | 2011 | 12 | 95.91 | 14 | 105.8 |
| **MBA** | Central Anatolia | Acemhöyük | Çiner, R. | 1965 | 1 | 92.59 | - | - |

[1] The period recorded in this table is the same as in the original source from which data were collected. Later investigation dated both sites to the Late Neolithic. Further information can be found in the Discussion section.

## Results

Although studies on ancient Anatolian societies in the Northern, Southern, and Southeastern regions have noted the existence of long bone remains, the number of FMI studies is relatively low compared to settlements in Central and Western Anatolia. Due to the limited sample sizes in the study, it has focused on seven regions where researchers had carefully sampled and provided a detailed analysis (Figure 2).


**Figure 2:** Map of Anatolia with the settlements where femoral midshaft index (FMI) analysis was applied starting from the Chalcolithic Age to the Middle Bronze Age (Map prepared by Belkis Abufaur, 2023).

## Chalcolithic Period

FMI data studies of populations from the Chalcolithic period are limited. Postcranial measurements of human remains were found for three of the 27 Chalcolithic settlements. Two analyses had been completed in 1955 at Yumuktepe and Seyh Höyük, while the third at Tepecik Çiftlik involved a detailed doctoral dissertation covering the region from Neolithic to modern times. Seyh Höyük and Yumuktepe have smaller sample sizes, providing details on five and two individuals, respectively, while Tepecik Çiftlik was more substantial and provided data on 67 individuals. The highest average FMI was found among males from Seyh Höyük (1.192), while the lowest average male FMI was found at Tepecik Çiftlik (0.999). However, due to stratigraphy update on Şeyh Höyük and Tepecik Çiftlik sites, Yumuktepe is the only Chalcolithic population included into the analyses. Şeyh Höyük has been categorized as Late Neolithic by Şenyürek (1955) and Tepecik Çiftlik as Late Neolithic by Büyükkarakaya and his colleagues (Çakan, 2013, as cited in Büyükkarakaya et al., 2019). Therefore, the average FMI of the only Chalcolithic site, Yumuktepe, males is 1.060.

## Early Bronze Age

Upon completing the literature review, the postcranial bones of Early Bronze Age populations have evidently been more widely studied than from the Middle Bronze and Chalcolithic periods, though FMI studies are still scarce for this period. Overall, FMIs were provided for six of the 57 EBA populations. The earliest study dates back to 1963, with the largest sample size consisting of 69 individuals belonging to the Kücükhöyük population. Early Bronze Age populations included in the study are more diverse than the other compared time periods regarding geographical distribution; this is represented by settlements in the

Western, Northern, Central, Eastern, and Southeastern Anatolian regions. The highest FMI belongs to the Alacahöyük females (1.190) followed by the Oylum Höyük males (1.102); the lowest FMI belongs to İkiztepe, where sample sizes are larger. Apart from the Alacahöyük females, FMIs are generally lower in EBA populations. however, no female FMI data being present needs to be noted for the Ilıca Ayas and Evdi Tepesi populations. This lack of data is detrimental and raises questions about the effects of small sample size on the validity of the trends this study has detected regarding femoral diaphysis shape, as the lowest average FMI was observed to tend to belong to regions with larger population sizes.

## Middle Bronze Age

FMI data were recovered for four of the 11 MBA settlements. Seyitömer and Ağızören are located in Western Anatolia, whereas Acemhöyük and Kültepe are found in Central Anatolia (Figure 2). The representation of the populations in the Middle Bronze Age is relatively higher than the overall populations that were included, though this is not the case in Aslan's 2005study. Seyit Ömer males have the highest average FMI (1.058), followed by Kültepe females (1.018), then Ağızören males (1.007) and females (0.972). The difference between males and females can be said to have decreased even more compared to earlier periods.

Except for Central Anatolian regions during the Chalcolithic (1.06) - Early Bronze Age (1.047) transition, the data indicate FMI to have decreased in Anatolia over the five millennia (Figures 3 & 4).

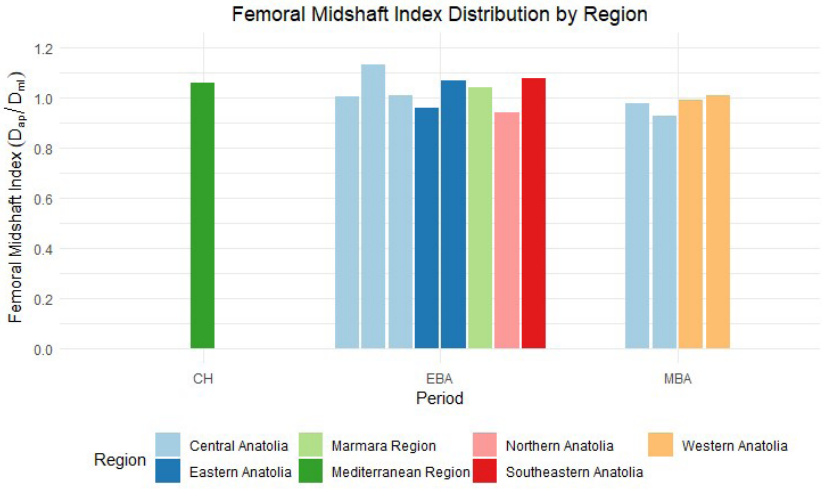


**Figure 3**: Geographical distribution of femoral midshaft index.

Overall, the results of the statistical analysis comparing sex (from EBA to MBA) and regional FMI differences were insignificant. The only variable that resulted significantly is the period. It means that the femoral midshaft index change through chalcolithic to middle bronze age is significant, and the difference is moderately negative (r = -0.45).

## Discussion

Although the studies conducted from 1950-1970 provided no information about the socioeconomic structure, the postcranial measurements taken between 1950-1970 provide a context for finding the origin of Anatolian habitation and inferring possible migrations across the entire region (Çiner, 1963, 1967; Şenyürek, 1951, 1952, 1954, 1955;). For example, according to Şenyürek (1954, 1955), the long bones contain a level marking that is used to denote specific stratigraphic layers. Nevertheless, detailed osteological explanations and FMI studies were common in anthropological studies conducted prior to 1970. Later anthropological investigations provided metric measurements to explore population demographics, health, morphology, and lifestyles. For example, long bone indices were calculated for the Salur peoples to evaluate the population's height (Özdemir, 2011; Yiğit et al., 2010). Based on earlier attempts to measure crania and postcrania, Senyürek (1955), Özgüç (1955), and Çiner (1963) concluded that Chalcolithic Anatolian populations were composed of individuals with a wide range of morphological traits, and their data show high variability regarding anthropometric traits. Even if some occupations in the Neolithic, Early Chalcolithic, and Middle Chalcolithic periods experienced discontinuous occupation, the sites still present evidence of reoccupation, continuity of older traditions, and adoption of new pottery styles (Düring, 2011). The overlap in material culture makes distinguishing between regional- and local-level effects difficult, which may mislead this study's interpretation of the data.

Based on detailed and long-lasting efforts, Düring (2011) divided the settlement layouts of the Anatolian Chalcolithic period into three different organizational types: (1) seasonal residential areas, (2) villages, and (3) complex villages consisting of streets and a fortification system. Among the current article's chalcolithic study areas, which will be described later, Şeyh Höyük is a seasonal residential area (1), while Tepecik-Çiftlik is a permenant occupation (2). This article's last chalcolithic settlement, *Yumuktepe*, is one of the prominent Chalcolithic sites in the Cilician[1] area and is found surrounded by a city hall, gate, and two towers, making it a complex village according to Düring's settlement division. New evidence shows the Yumuktepe XVI population to have relied on obsidian mined from the Cappadocia area and on copper ores from trade with populations near the Taurus Mountain for designing utilitarian tools (Caneva & Palumbi, 2019). Their archaeological findings have also demonstrated that material culture was homogenously distributed across the society, as well as a lack of prestige items and bureaucratic devices. Moreover, archaeologists described 100 houses with more than 200 residences in Yumuktepe, suggesting it to have been an "intersection node" for the Cilicia area and surrounding cultures (Caneva & Palumbi, 2019; Parker, 2010;). Increased cattle usage, highly observed barley remains, and metal tools also indicate Yumuktepe to have been a heavily populated complex village, though it relied on a subsistence economy and the political structures shared throughout Anatolia (Caneva & Palumbi, 2019; Yalçın, 2000).

1 The Cilicia area includes the southern Turkish provinces of Mersin, Adana, Osmaniye, and Hatay.

Contrary to Yumuktepe, Şeyh Höyük (*Tell esh-Sheikh*) is part of a valley in Southern Turkey in Hatay called Amuq, and the material culture reflects the strong influence of Mesopotamia on Ubeid.[2] But , information on Şeyh Höyük still awaits publication, though Şenyürek mentioned Şeyh Höyük as Halaf culture (Şenyürek, 1955; French, 1985; Woolley, 1959). Therefore, the site is assumed to have characteristics of the Halaf culture, which has been categorized as Late Neolithic rather than Early Chalcolithic (Akkermans & Schwartz, 2003; Campbell, 2007; Özbal, 2011). During Late Neolithic, people of this region produced diverse grain (wheat, barley, flax), legumes (lentils, peas, chickpeas, vetch), and fruits or other plants, such as pistachios, grapes, and olives (Bernbeck et al. 2003; McCorriston 1992; van Zeist & Waterbolk-van Rooijen 1996; Watson 1983a). Evidence is also found that they had relied on domestic sheep, goats, pigs, and cattle, as well as wild deer, equids (onager), fish, and birds. These findings have led archeologists to state the subsistence strategy of Halaf populations was as farmers and herders with some degree of seasonal occupations (Gressner, 2011).

The style of the materials produced at Tepecik Çiftlikis similar to other Central Anatolian settlements and *Yumuktepe*. This observation indicates that the Tepecik Çiftlik people weren't isolated in the mountainous area but rather in relation to its contemporaneous settlements in other regions (Caneva 2012). However, while Bıçakçı et al. (2006, 2008) dated the human skeletons obtained from the third layer during their 2000 and 2003 excavation seasons to the Chalcolithic period, this layer was changed to Late Neolithic or Advanced Late Neolithic in 2008. While Aslan (2005) categorized the human skeletons recovered from Tepecik Çiftlik as Chalcolithic, Godon (2005) stated that some skeletons were obtained from the second layer and others from the third layer. Nevertheless, an anthropological study of the Tepecik Çiftlik people published later on stated that the 71 human skeletons obtained in Tepecik Çiftlik not only belong to the second and third layers ($n$ = 36), but also to the fourth and fifth layers ($n$ = 35) (Büyükkarakaya et al., 2009). Vinet and Guilbeau (2018) later described the second layer as Early Chalcolithic (*ca.* 6000 cal BC) and the third layer as Late Neolithic (*ca.* 6300-6000 cal BC). However, all layers were reported as being 6800-6100 cal BC (Çakan, 2013, as cited in Büyükkarakaya et al., 2019). Therefore, the change in dating after Aslan's (2005) dissertation regarding the long bones of the *Tepecik Ciftlik* people shows generalizing this site as Late Neolithic to be correct for this study. However, a detailed investigation is still needed to observe the lifestyle changes over 700 years.

When considering recent dating studies, the FMIs from individuals recovered at the Tepecik Çiftlik and Şeyh Höyük sites are expected to be higher (i.e., closer to nomadic people who were engaged in animal husbandry) than the Yumuktepe results. But even if the difference between results is statistically insignificant, the FMI results regarding Yumuktepe

2 The Ubeid period, dated between 5500-3800BC, emerged in Southern Mesopotamia, which is accepted as the first occurrence of urbanization in the Near East. Specialized craftgoods, imported precious stones, prestige objects, social hierarchy, and structured public organization are some of main characteristics of the Ubeid culture (Adams, 1960; Eraslan, 2008).

males (1.060) are higher than for the Tepecik Çiftlik people (1.012), which may be attributed to Yumuktepe's range of influence and its greater involvement in trade. Based on the material culture, this study anticipates the Yumuktepe people to have been more frequently engaged in continuous, cyclical loading onto the bones than those in Tepecik-Çiftlik (Rubin & Lanyon, 1984; Turner, 1998). However, due to the insufficiency of Tepecik-Çiftlik dating and anthropological studies on adult skeletons, the accuracy of this study's Yumuktepe comparison cannot be proven. In addition, sample size also has a potential effect; the Tepecik-Çiftlik population contains 67 individuals, whereas Yumuktepe contains 2 individuals and thus has a significantly lower population representation. While the observation that the FMI is higher when approaching the Neolithic is straightforward, to narrate the Chalcolithic period based on FMI alone is difficult, the main reason for this being the inadequate number of anthropological studies investigating long bone development and shape change.

The representation of Early Bronze Age settlements in this study is higher than in other ages (Figure 4). Even if EBA populations were to cover various regions, location-based generalizations would be misleading due to inadequate representation. When generalizing the results into regional averages, Southeastern Anatolia seems to have the highest FMI (1.075), followed by the Central Anatolian (1.047) and Marmara (1.04) regions. The FMI values also vary greatly between sites in the same region (Alaca Höyük, 1.129; Salur, 1.006), which is another reason for avoiding regional implications as they fail to capture local nuances. Because of this issue, the study focuses on a settlement-based comparison for the Early Bronze Age.

Alaca Höyük and Oylum Höyük have the highest FMI results (1.129 and 1.075, respectively; Figure 4). Alaca Höyük cemetery is located on a hill in the valley of Çorum and is generally accepted to have been a powerful and wealthy royal center in the Northern Central plateau during this period (Steadman, 2011). Material culture from this site was mainly recovered from burials. Grave goods included metal weapons, figurines, and items made of gold, silver, and copper, as well as standard animal motifs such as bull and antelope paintings on wagons (Anthony, 2007; Düring, 2011). Alaca Höyük and the closer settlements such as Alaca, Horoztepe, and Salur North represent the same culture and indicate an occurrence of social phenomenon in the northern plateau tied with the trade network. Steadman (2011) added that urbanization and the baseline of the future trade roads were established between Alaca, Horoztepe, and Salur North and expanded to Çadır and Alişar. In contrast, Oylum Höyük is located in a small valley in Southeastern Anatolia and was continuously settled, starting from the Chalcolithic to the end of the Bronze Age. Interpretation of the material culture reveals a homogenous cultural structure that is observed in all Anatolian Southeastern Early Bronze populations (Peltenburg, 2007). Based on the burial sites that were uncovered, archaeologists also infer that the communities in the Southeastern Anatolian Early Bronze Age may have had multiple hierarchical groups. Unfortunately, not much is known about the population's daily activities (Ökse, 2011). Only Gökdemir's (2014) detailed anthropological investigation of the Oylum Höyük people reveals that the population had a relatively higher

mortality rate of 0-15 years old among the Anatolian EBA population and had encountered serious environmental and physiological stresses.However, it is hard to describe the nature of the relationship between the environmental factors to which the young generation of the population was exposed and the FMI which this paper examines among adult individuals of the population.

The third settlement with a high FMI among the EBA settlements is Evdi Tepesi, located 20 km from Van at an altitude of 1750m on the rocky hill. This site is known for the burial sites found close to the area in 1962 and the survey done in 2004. Özfırat and Marro (2007) defined the culture of the time in the area as Kura-Araxes, which is a new culture that is assumed to have originated around 3400-3200 BC in Southern Caucasus, Northwest Iran, Eastern Anatolia, and later in Levant (Palumbi & Chataigner, 2014). Kura-Araxes populations are small village-based communities that practiced a mixed agro-pastoral economy and lacked centralized common institutions where, as is also suggested by the collective burial practices, the household may have represented the main economic and kin-related social unit, one that structured the political identity of these communities (Palumbi & Chataigner, 2014). On this point, the high FMI results in Alaca Höyük and Evdi Tepesi among the EBA populations is, as proposed in the literature, to be expected due to the rough terrain and trade. However, the high FMI among the Oylum Höyük people is not expected when taking the terrain into account (Figure 4). Because not much is known about the trade roads in Southeast Anatolia during the EBA, nor the lifestyle of the Oylum Höyük, one may be able to assume the presence of a homogenous culture in the region. Meanwhile, Salur and Ilıca-Ayas have similar results more than was expected, which is likely due to their geographical and cultural closeness. Both populations show similar dental paleopathological patterns indicating the consumption of hard and fibrous food and an agriculture-based economy (Çiner, 1967; Yiğit et al., 2010).

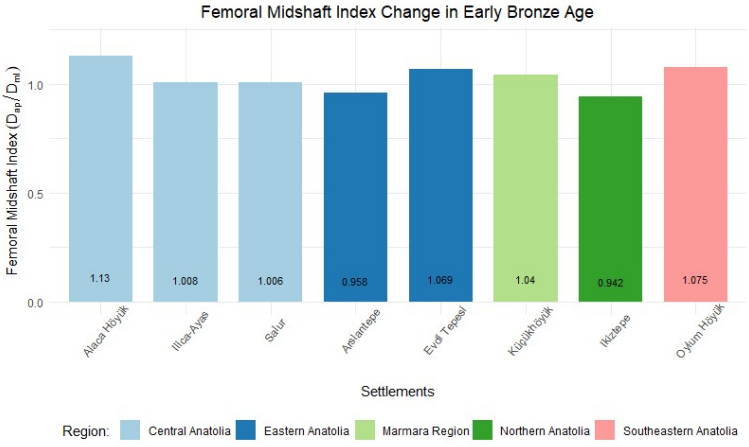


**Figure 4**: Geographical distribution of the femoral midshaft index in the Early Bronze Age based on total sample representations.

The average FMI for the Middle Bronze Age settlements has the lowest results compared to the other periods. The MBA is categorized by city-state settlements surrounded by walls, which were likely constructed to fend off invasions and to manage the migration of populations to Anatolia that occurred at that time. The general features of this period were improved agriculture and weaving, as well as an established complex trade network with Mesopotamia (Açıkkol, 2003). Western Anatolia shows a higher average FMI for Seyitömer (1.00) and Ağızören (0.989; Figure 5). While the two settlements are expected to present similar results, being only 19km away from one another, the FMI results also parallel previous anthropological analyses, which may be indicative of the relationship between the sites (Açıkkol, 2003; Özdemir, 2011). Acemhöyük is one of the larger mounds (800 × 700 m) dated to the *kārum* [trade colony], which is characterized by two forms of inhabitants: town inhabitants and foreign merchants (Michel, 2011). The arrival of Assyrian merchants in Anatolia and the development of highly organized commercial relations gave rise to settlements built on commercial relations called *kārum* (Arbuckle & Hammer, 2019; Michel, 2011; Smith, 2015). The Anatolian town inhabitants relied on a subsistence economy, which was based on agriculture and animal husbandry, mainly sheep, goat, cattle, and pigs in Acemhöyük (Dercksen 2008; Michel, 2011). Donkeys were used especially for long-distance trade to carry gold, silver, copper, grain, and wool from Anatolia (Arbuckle & Hammer, 2019). The result was a low FMI in Acemhöyük, which was likely due to the use of beasts of burden during long-distance trade and the transition to a sedentary lifestyle.

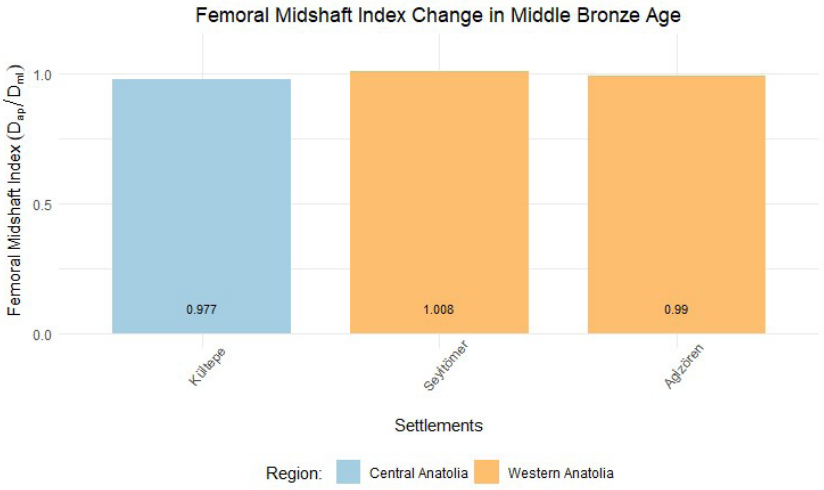


**Figure 5**: Geographical distribution of femoral midshaft index in the Middle Bronze Age.

The overall FMI among the Anatolian populations decreased over time, and this decrease is statistically significant ($p < 0.05$). Aslan's (2005) evaluation of the dimension and robusticity of the Anatolian population and Ruff et al's (2013) study of the adult cross-sections of the Çatalhöyük people present the same decrease. Aslan's (2005) study analyzed the Tepecik

Çiftlik (Neolithic) and İkiztepe (EBA) populations, which this study also includes, and Ruff et al. (2013) relied on Sladek et al.'s (2006) European Bronze Age population determinations to examine the Neolithic Çatalhöyük. The average FMI of European EBA populations in Únětice, Unterwölbling, and Wieselburger was 1.015, which is slightly lower than the Anatolian EBA (Figure 6). This change is expected, but the overall decrease during the transitional periods was the same in Europe as in Anatolia (Pearson correlation, $r$ = -0.45). The decreasing trends in FMI values seem to coincide with material evidence of centralized agriculture, craft production, and food production in the region over a span of 3,900 years.

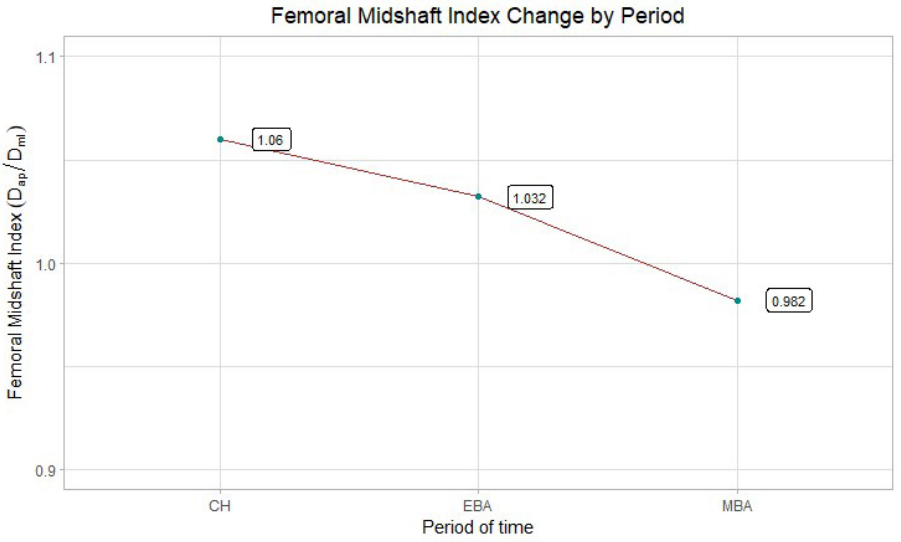


**Figure 6:** Average *FMI* change throughout the Chalcolithic and Bronze Age

The overall decrease in FMI is consistent in the female and male femur results. Various studies have hypothesized that males show greater anteroposterior bending strength (y-axis) for mid-femur values than females, and the current results support this idea (Figure 7). The only populations in which females have a higher FMI than males in the Central Anatolian sites for the Early Bronze Age and Middle Bronze Age are: Alaca Höyük ($FMI_{female}$ = 1.192, $FMI_{male}$ = 1.066) and Kültepe ($FMI_{female}$ = 1.018, $FMI_{male}$ = 0.936). The small sample size at these sites makes determining whether the high female FMI results at these sites are indicative of specific gender roles within the population difficult ($p$ = 0.057). Although other central Anatolian settlements are found from the Early Bronze Age, the study did not observe the same trend in these settlements, nor in males and females from sites in close proximity to these populations and that share a cultural group (Figure 2). Further investigation is needed to explore the population dynamics and lifestyles of these populations within their spatiotemporal contexts.

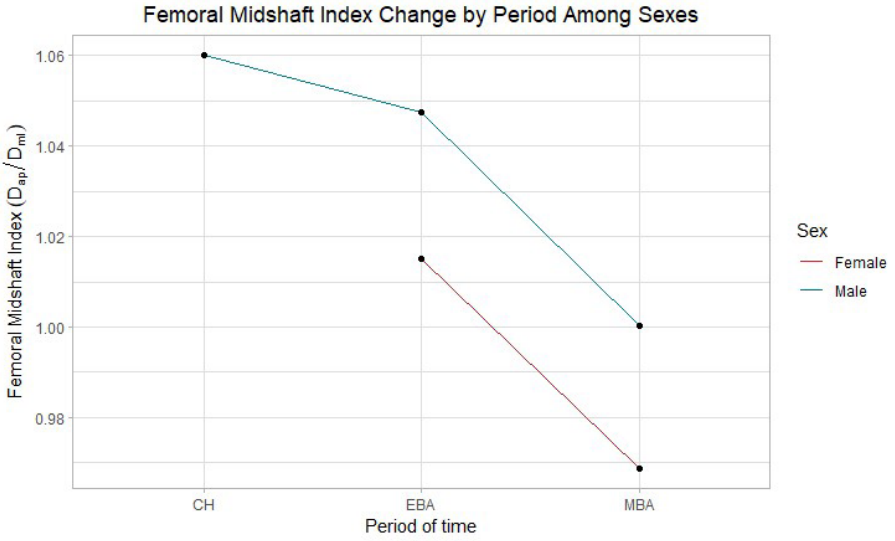


**Figure 7:** Male and female FMI distributions throughout the Chalcolithic and Bronze Ages.

Before concluding the paper, the fact that shape itself isn't enough on its own to infer the mobility of past populations is important to highlight, even if some studies have demonstrated that the diaphyseal shape of the femur changes in association with mobility (Agostini & Ross, 2011; Wescott & Zephro, 2012). The diaphyseal shape of the femur has to be compared with other structural traits of bones, such as bone strength (section modulus) and rigidity (polar moment of area), along with the other limb elements that contribute to the investigated behavior (Shaw et al., 2014; Stock, 2006). This paper, even though the lack of detailed studies examining the changes in long bone shapes in Anatolia and of direct anthropological comparisons of behavior with the increasing inferences made on past human populations based on archaeological data limits revealing detailed explanations on sex and regional variation, confirms previous studies regarding period change. Therefore, this investigation implies the potential of what long bones can reveal when the limitations are overcome.

## Conclusion

Having an anterior-posterior bending strength (y-axis) greater than the mediolateral (x-axis) bending strength has been hypothesized to indicate a higher degree of mobility (Holt, 2003; Stock, 2006; Wescott, 2014). This study supports the relationship between lifestyle and FMI in populations known to practice long-distance trade and animal husbandry. The Chalcolithic period's average femoral midshaft index is 1.06 compared to 1.014 for the Bronze Age. FMI appears to decrease with increased diversity in technology, cattle and donkey usage as secondary products, social stratification, change of production relations, control of resources, and construction of monumental buildings in fortified citadels. The

current study's statistical analysis supports the decrease in the femoral midshaft index over time but does not support the difference in regional divisions.

Interestingly, FMI is lower in Northern and Eastern Anatolian Early Bronze Age and Central Middle Bronze Age sites. Northern and Eastern Anatolian Early Bronze Age sites are located on rough terrain; therefore, further comparisons are needed to understand why these sites' results are lower than their contemporary sites. Unfortunately, interregional FMI transitions could not be examined due to the lack of anthropological studies dating back to the Chalcolithic period. More populations with larger samples are needed to investigate this unanticipated change in Central Anatolian sites.

The FMI differences between sexes reflect the expected result denoted by this study's literature review. The average FMI throughout the period was between 1.109 and 1.000 for males and between 1.065 and 0.968 for females. Though different, these differences between males and females are not significant, further supporting the expectations presented in the literature (Kruskal-Wallis $p = 0.057$). One observation that defied expectation could be seen among females from the Early Bronze and Middle Bronze Central Anatolian sites who possessed higher anteroposterior plane bending (*y-axis*) than the males of their population. This difference cannot be explained by higher mobility but may be explainable through other behavioral patterns. Overall, the results show a mosaic pattern of changes in relation to geography, terrain, and time period and the effectiveness of using FMI to paint a more complete picture of historical sites and the people within them.

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# Constantinople in the Heart: An Urban Anthropological Picture of How Istanbul's Former Greek Minority Remember Their City

## Romain Örs, *İlay. Diaspora of the City: Stories of Cosmopolitanism from Istanbul and Athens*, New York: Springer International Publishing, 2018, 264 pp. ISBN 978-1-137-55485-7

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**Keywords:** Istanbul, Cosmopolitanism, Greek Minority, Migration, Diaspora

**Anahtar kelimeler:** İstanbul, Kozmopolitlik, Rum Azınlık, Göç, Diyaspora

In the book *Diaspora of the City: Stories of Cosmopolitanism from Istanbul and Athens,* İlay Romain Örs (2017) uses extensive ethnographic research and in-depth theoretical discussions of relevant concepts to present an elaborate and convincing argument on the unique cosmopolitanism of the Greek Orthodox community of Constantinople (Rum Polites), the majority of whom live in Athens today. In the book, Örs questions the applicability of the concepts of diaspora, minority, and migrant community for Rum Polites, redefining them in the context of Rum Polites as she revisits these concepts through an incredibly rich array of references to the literature.

In this first anthropological study of the displaced Greek minority (the Rums) of Istanbul, Örs succeeds in two not-very-compatible tasks simultaneously: redefining complex concepts through challenging theoretical arguments and navigating through ethnographic stories in an exquisitely humane and warm manner. Örs's admirable authorship enables her to smoothly move from delicately crafted high theory to passages with personal anecdotes and observations elaborated upon with depictions that would be expected from a top-caliber novelist. Her communication skills in general and excellent command of the Greek language in particular, as well as her bond with the community, enable Örs to write about Rum Polites entirely free of cliches and stereotypes, hence the feeling throughout the book that it has been written by a member of the community. While Örs is not a community member *per se*, that she almost becomes one during her fieldwork is not difficult to see, as well as afterward, as she continues her relations with many of her informants.

There is a literary feeling to *Diaspora of the City,* particularly strong in the Prologue and Epilogue. "Imagine the city through the eyes of its founder. Imagine your name to be Byzas" (2018, p. vii) writes Örs, starting the book with an invitation to time travel. As she continues in the second-person narrative for the next 15 pages, the reader immediately becomes aware that this is a rather unique piece of academic writing, and the author will be speaking to the heart as much as to the mind. In the Prologue, Örs accomplishes the difficult task of summarizing Istanbul's history, from its establishment by Byzas, through the Ottoman Era, then on to the Turkish Republic, with an emphasis on the milestones for the Greek Orthodox population of the city. Halfway through the Prologue, she invites the reader to answer a question: "Imagine asking yourself: When they were living together happily for so long, how did the Greeks and Turks become enemies all of a sudden; really, why did the Greeks leave Istanbul?" (p. xiii). Örs continuously connects this question, both explicitly and implicitly, to her analyses of the Rum Polites community. At the end of the Prologue, she eloquently defines the space where the scholarly meets the personal, hinting at the basis of her work's authenticity:

> Imagine being an Istanbulite in Athens, this time at the turn of the twenty-first century. You are a Turkish woman in Greece, trying to open your ears to both sides of the story in bilateral relations. Imagine you are an anthropology student from Harvard, trying to reconcile between your personal position and trends in the discipline, putting to the fore what the people you study are telling you. The

> people you study come from the city that is your home. Hear them talk about their home, your shared place of longing. Listen to their parallel histories, broken pasts, changing perspectives. Meet the man who decides to tell his story to make a change; talk to the woman who is too bitter to talk. Feel the weight of what you learn, blend these things with what you know, compose stories, and write them down. Share the story of your fieldwork as made up from stories you were told. Always remember that there will be another story, many stories that compete, contrast, or overlap with the story you end up telling. Imagine the city, through the stories told about it. Enjoy the stories. (p. xxii)

Setting the stage for the stories in this way, Örs starts the first chapter with the tale that started it all for her: the day of her arrival in Athens. She is in Paleo Faliro, a neighborhood dominated by Constantinopolitan Greeks. As she walks around, she hears two men, members of this community, speaking in Turkish. The men behave in a welcoming manner when Örs tells them that she is from Istanbul, and after a little chat, they offer to connect her with other members of the community. This is how Örs decided to research this community for her dissertation.

This community is "referred to as Constantinopolitan Greeks in English, as *Konstantinoupolites* or *Polites* in Greek, and as *İstanbullu Rum* in Turkish" (p. 3). Örs prefers to call this community Rum Polites, as it "combines two of the most widely used emic terms of self-designation" (p. 4). Thus, she intends "to avoid confusion with other groups with similar names, to hint at their bilingual culture, and to acknowledge their self-emphasized identity as Istanbulites" (p. 4). She explains, "Rum is the Turkish word for Romios [used for the] ethno-religious category of the Greek Orthodox in Turkey, as well as the wider Middle East," while Polites hints at "an attachment to an urban legacy as the word *Poli* means city as well as Istanbul, the City" (p. 4). Örs then explains who Rum Polites are: a diverse community, many of whom are in Athens while some are still in Istanbul, but also with members in different parts of the world (p. 4). Some of them have "Turkish citizenship, some Greek, some both" while "some are in-between, trying to cancel one and obtain the other" (p. 5). Many of them speak both Greek and Turkish, and while "their mother tongue is mostly the demotic Greek," they use "a large vocabulary unknown to non-Istanbulites," which makes some people regard it as "a different dialect or even a language called Politika or Romeika" (p. 5)

While Örs focuses mostly on Athens in her fieldwork, because this is where most of the Rum Polites live, she also connects with their home community in Istanbul (p. 19). Örs explains that her work is "categorized as urban anthropology not only because it was conducted in two cities with a focus on an urban community," but more because she investigates how the city of Istanbul has become "the main point of reference in the identification of a dispersed community" (p. 20). In other words, the city has become "an object of ethnographic research" in the work (p. 20). The ethnographic fieldwork Örs conducted over the four years she lived in Athens is the primary research method of her work (p. 21). This fieldwork includes:

> observance (engaged or noninvolved, focused or select, of people, objects, performances, events, surroundings, and appearances), conversing (informal, open-ended, semi-structured, descriptive, 'encounter,' focus group interviews, life stories, chitchat, gossip), participation (in events, meals, daily routines, cooking, presentations, performances, seminars, research groups, ceremonies, rituals), analyses (words, language, narratives, discourses, tales, myths, cookbooks, novels, biographies, memoirs, images, tastes, sounds, smells, statistics, surveys, membership records, poems, films, documentaries, newspapers, scholarly work, social networks)— and more. (p. 21)

Örs adds that her "interactions with informants ranging in age from 9 to 90 were conducted in durations varying from 10 minutes to over 10 years" (p. 21).

Such in-depth, long-term, and multi-layered fieldwork enables Örs to produce convincing and well-supported arguments throughout the book. Focusing on the everyday life experiences of Rum Polites in the book's second chapter, she explicates the cosmopolitan knowledge of Rum Polites, utilizing various concepts of Pierre Bourdieu. She observes the references to Istanbul in the everyday experiences of Rum Polites in Athens, the city which she describes as "another city to which they belong, one that is far in space and lost in time, one that lives in their memory through a continuously refreshed and delicately contested cosmopolitan knowledge" (p. 62). She finds that:

> …cosmopolitan knowledge about Istanbul becomes a kind of cultural capital, a way of practicing distinction, through which the Rum Polites can identify each other as belonging to the City and reassure themselves in their identity of being Istanbulites, while at the same time underlining their differences from Athenians on an everyday basis. (p. 62)

In the third chapter of the book Örs analyses the specificities of Rum Polites over two central tenets: "exclusive diversity" and "ambiguity of being out of place" (pp. 67–122). As Örs develops her arguments on Rum Polites' cosmopolitanism, she is always aware of their diversity. She points out that Rum Polites community comprises great diversity, and in her conceptualization of Rum Polites as diaspora of the city, she emphasizes that this diversity "makes any attempt at categorizing them difficult" (p. 110). Örs explains that Rum Polites define and experience cosmopolitanism as a Constantinopolitan trait: "Cosmopolitanism is integral to their culture only insofar as it is perceived in the Constantinopolitan way" (p. 110).

Örs's arguments on the ambiguity of being out of place are also elaborately crafted. She explains that Rum Polites are categorized as a non-Muslim minority in Turkey, in line with the Treaty of Lausanne, and that the Turkish state has almost always "applied a policy of their exclusion" (p. 91). Meanwhile in Greece, "regardless of their legal citizenship status, Rum Polites were always included among the latter in the shifting distinction between kseni (outsiders, foreigners) and dhiki mas (our own)" (p. 91). Örs observes, "[They] cannot be fully

sorted with respect to either the Greek or the Turkish state," as "many Rum Polites declare themselves to be more comfortable with displaying not a nationally but a culturally defined identity" (p. 95). She explains that the Greek nation-state sees them as a "diaspora community because it is assumed that the homeland of Greeks is (in) Greece," hence when they are in Greece they are regarded as having "returned to their homeland" (p. 104). As Örs observes, however, "Rum Polites do not accept these categorizations, simply because they consider their homeland to be Istanbul—neither Greece, nor Turkey, nor Kath 'imas Anatoli" (p. 104). She concludes, "Those who live in Istanbul are at home, not in diaspora and not waiting to be redeemed" (p. 104). While "the terminology of return is very much embedded in the official and popular discourses in both Greece and Turkey" (p. 105), as Örs aptly observes, for Rum Polites, Istanbul is "the reference point of homeland," in other words "their place of belonging." Consequently, they "do not regard themselves to have returned home while in Athens" (p. 107). Anchoring her argument to the bonds Rum Polites have with the city enables Örs to illustrate the uniqueness of their situation. She explains that what makes Rum Polites' experience diasporic is neither nation nor ethnicity but the city (110): "For the Rum Polites specifically, it is Istanbul, the City, which is the home of the Rum Polites, the foundation of their history, the source of their culture. Istanbul is the raison d'etre of the Rum Polites" (110).

Thus, what makes İlay Romain Örs's work such an original example of ethnographic studies is her achievement of locating the spatial at the center of her arguments, "recognizing the city as a basis for diaspora building, and by extension for identity construction" (p. 111). She therefore manages to find:

> …new horizons in those branches of ethnographic studies that were thus far overshadowed by the predominance of Western value systems and the supremacy of the nation-state. The city enables a spatial shrinkage yet a conceptual enlargement by allowing linkages between diverse peoples and experiences, contradictions and complexities, ambiguities and multiplicities, which thus far were attempted to be sorted by the work of nationalism. (p. 111)

Observing this enables Örs to discover new routes as she navigates through her empiric material, for she develops her arguments free of "the bias of ethnic and religious continuity in the categories formed through a reference to the state" (p. 111). Consequently, referring to the realities of "exclusive diversity" and "ambiguity of being out of place," Örs skillfully crystalizes her argument on Rum Polites' cosmopolitanism:

> Cosmopolitanism is not a challenge to their identity; it only strengthens their sense of belonging. They emerge as Polites, urbanites, etymologically urban, and exclusive in their diversity. As they are pushed out of their City, they retain their city identity, maintained and strengthened in memory, practiced by cosmopolitan knowledge in daily life. And they take their City with them wherever they go, building diasporas of the City. (p.111)

Örs addresses the question of why the Rums had to leave Istanbul, particularly in the fourth and fifth chapters of the book. In Chapter 4, titled "Resolutionary Recollections: Event, Memory, and Sharing the Suffering," she analyzes the tragic events the Rums had endured in the 20th century in Turkey, as well as the representations of these events in the cultural sphere. She explains that the current generation of Rum Polites remember the sudden drafting of non-Muslims after the start of WWII, despite Turkey not having joined the war. The Wealth Tax (1942) resulted in deep suffering for Turkey's minority population, as it was implemented arbitrarily resulting in many minority families losing all their belongings; some of those who could not pay the tax were sent to a labor camp (p. 135). In the events of September 6-7 (*Septemvriana*) in 1955 after a provocation about an alleged attack on Ataturk's house in Salonika (a fabricated story), within a couple of hours, "masses of people attacked and destroyed shops, businesses, houses, churches, schools, hospitals, cemeteries, and any other kind of property belonging to Rum Polites" (p. 136). Örs explains that, despite this tragedy, many Rum Polites stayed in the city to rebuild their lives (p. 137). However, over 20,000 Rum Polites had to leave when all Greek passport holders became "illegal residents, therefore working and owning property illegally" (p. 138) as a result of a law passed on March 16, 1964. They were "forced to abandon the country, their property, their business, their family, simply all their life in Istanbul" (p. 138). They were only allowed to take their non-valuables as they left; most of their businesses, wealth, and property were simply left to the Turkish state (p. 138). In the following decade, many members of the remaining Rum Polites community had to leave due to a rise of hatred as a result of the turmoil in Cyprus after 1974 (pp. 138–139). After giving an overview of certain films and television shows dealing with these traumatic events, Örs proceeds to discuss the effects these events had on "how the Rum Polites shape their identities and political orientation" (p. 147). In turn, she also tries to understand if "these identities and orientations affect the ways in which the Rum Polites deal with their suffering" (p. 147). In her ethnographic research, Örs observes that Rum Polites relate to their trauma in multiple ways, which demonstrates "there is no linear correspondence between the nature of individual experiences and how people choose to deal with them" (p. 149). She concludes, "It is rather the political stance or the social status of the actors that informs the way they posit themselves in relation to the traumatic events, and thereby to the Turks" (p. 149).

Örs delves deeper into the concept of cosmopolitanism in Chapter 5, titled "Capital of Memory: Cosmopolitanist Nostalgia in Istanbul." Here, she first attracts attention to the idea of "the Istanbulite *belle époque*" as a period from the 1880s-1960s, which portrays an urban society of a "peaceful, respectful, civilized, multicultural coexistence" (p. 172). She observes how this idea is at the root of cosmopolitanist nostalgia, which she uses as a generic term "to denote the wide array of past-oriented discourses preoccupied with describing Istanbul as a cosmopolitan city" (p. 174). Örs attracts attention to Rum Polites as a main component of this nostalgic discourse:

> Rum Polites play an important role in this nostalgic literature about the cosmopolitan old Istanbul. They usually feature the well-dressed madame, the polite monsieur, hatmakers, florists, patisserie owners, rich bankers, jewelers, friends, and neighbors who were good cooks and spoke Turkish fluently albeit with a charming accent—but this remains just about all of what the reader may find out about the Rum Polites of Istanbul. (p. 175)

Underscoring how "the public nostalgic discourses in Istanbul rarely specify what exactly they romanticize" (p. 177), they remain "apersonal and ahistorical" (p. 178). She takes the readers back to the very question she asked in the Prologue:

> If, for example, there was such a recognized, celebrated, quintessentialized level of cosmopolitanism reigning in Istanbul until recently, how did it give rise to its own dissolution, to the tragic destruction of the very cosmopolitan order it endorsed? How within such a cosmopolitanist landscape could a pogrom like that of 6–7 September 1955 take place? How could large amounts of wealth be seized from minorities by the force of law? How could a campaign that promotes the sole use of the Turkish language in public prevail for years in the multilingual environment of cosmopolitan Istanbul? (p. 178)

Örs observes that the cosmopolitanist nostalgia leaves all these questions unanswered: "What happened to the Rum Polites and others who made the place so cosmopolitan remains mysterious to the bearers of nostalgia. It is as if one day people saw that the Rum shops and patisseries were closed down" (p. 178). In this chapter, Örs also analyzes "how the Rum Polites write about themselves as Rum Polites," because she wants to understand "the ways in which the Rum Polites express themselves, remember their past, relate their experiences to others, articulate their sense of being, and conceptualize their identity through the written word" (p. 189). The answers to the questions she asks in this context demonstrate that "the City is romanticized and abstracted in memory and in the Rum Polites literature; the image of a cosmopolitan Istanbul distant in time and space becomes the necessary basis for the perpetuation of a cultural identity in diaspora" (p. 194). This conclusion is entirely in line with the findings in the earlier chapters of the book with regard to the Rum Polites' identity based on the City and their cosmopolitan knowledge.

One particular strength of Örs's book is her accomplished demonstration "of emic conceptions of cosmopolitanism" through her ethnographic research. She achieves this through the interaction of multiple layers of her analysis. She articulately employs Pierre Bourdieu's theories and illustrates the "everyday experience of cosmopolitanism, with a sense of distinction based on the urban cultural capital of cosmopolitan knowledge" (p. 219). In addition to that, she makes a solid argument about exclusive diversity, where she reveals, "community boundaries (are drawn) not so much along primordial lines but on a sense of commitment to the urban cosmopolitan culture of Istanbul" (p. 219). Consequently, she brings a unique perspective on her subject matter as she observes that:

> …each locality contributes with its own version of Istanbul cosmopolitanism: be it the conservative, status quo, imperial cosmopolitanism of Fanar or the civil, pluralistic, open, visible sharing of a bourgeois public space by institutionally autonomous and privately separate 'others' in Pera or the delineation of self-contained middle working class cultural existences in Tatavla that code Istanbul as a cosmopolitan city, these neighborhood- and experience-based intricacies give much-needed explicitness to an otherwise non-referential notion of cosmopolitanism. (p. 220)

Her ethnographic research and in-depth theoretic arguments enable Örs to achieve what she intends: "to bring out the diversity of meanings associated with the concept of cosmopolitanism from the looking glass of communities who define themselves as cosmopolitan, and participate in the cosmopolitan diversity in the societies where they live" (p. 220). She does this in the best possible manner in the context of the displaced Greek Orthodox community of Istanbul, and her book would certainly be an invaluable guide for ethnographic studies in communities similar to Rum Polites.

## DESCRIPTION

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If more than one citation is made within the same paranthesis, separate them with (;).

**Samples:**

***More than one citation;***
(Esin et al., 2002; Karasar, 1995)
***Citation with one author;***
(Akyolcu, 2007)
***Citation with two authors;***
(Sayıner & Demirci, 2007)
***Citation with three, four, five authors;***
First citation in the text: (Ailen, Ciambrune, & Welch, 2000) Subsequent citations in the text: (Ailen et al., 2000)
***Citations with more than six authors;***
(Çavdar et al., 2003)
**Citations in the Reference**

All the citations done in the text should be listed in the References section in alphabetical order of author surname without numbering. Below given examples should be considered in citing the references.

**Basic Reference Types**

**Book**

**a) Turkish Book**

Karasar, N. (1995). *Araştırmalarda rapor hazırlama* (8th ed.) [Preparing research reports]. Ankara, Turkiye: 3A Eğitim Danışmanlık Ltd.

***b) Book Translated into Turkish***

Mucchielli, A. (1991). *Zihniyetler* [Mindsets] (A. Kotil, Trans.). İstanbul, Turkiye: İletişim Yayınları.

***c) Edited Book***

Ören, T., Üney, T., & Çölkesen, R. (Eds.). (2006). *Türkiye bilişim ansiklopedisi* [Turkish Encyclopedia of Informatics]. İstanbul, Turkiye: Papatya Yayıncılık.

***d) Turkish Book with Multiple Authors***

Tonta, Y., Bitirim, Y., & Sever, H. (2002). T*ürkçe arama motorlarında performans değerlendirme* [Performance evaluation in Turkish search engines]. Ankara, Turkiye: Total Bilişim.

***e) Book in English***

Kamien R., & Kamien A. (2014). *Music: An appreciation.* New York, NY: McGraw-Hill Education.

***f) Chapter in an Edited Book***

Bassett, C. (2006). Cultural studies and new media. In G. Hall & C. Birchall (Eds.), *New cultural studies: Adventures in theory* (pp. 220–237). Edinburgh, UK: Edinburgh University Press.

***g) Chapter in an Edited Book in Turkish***

Erkmen, T. (2012). Örgüt kültürü: Fonksiyonları, öğeleri, işletme yönetimi ve liderlikteki önemi [Organization culture: Its functions, elements and importance in leadership and business management]. In M. Zencirkıran (Ed.), *Örgüt sosyolojisi* [Organization sociology] (pp. 233–263). Bursa, Turkiye: Dora Basım Yayın.

***h) Book with the same organization as author and publisher***

American Psychological Association. (2009). *Publication manual of the American psychological association* (6th ed.). Washington, DC: Author.

**Article**

***a) Turkish Article***

Mutlu, B., & Savaşer, S. (2007). Çocuğu ameliyat sonrası yoğun bakımda olan ebeveynlerde stres nedenleri ve azaltma girişimleri [Source and intervention reduction of stress for parents whose children are in intensive care unit after surgery]. *Istanbul University Florence Nightingale Journal of Nursing, 15*(60), 179–182.

***b) English Article***

de Cillia, R., Reisigl, M., & Wodak, R. (1999). The discursive construction of national identity. *Discourse and Society, 10*(2), 149–173. http://dx.doi.org/10.1177/0957926599010002002

***c) Journal Article with DOI and More Than Seven Authors***

Lal, H., Cunningham, A. L., Godeaux, O., Chlibek, R., Diez-Domingo, J., Hwang, S.-J. ... Heineman, T. C. (2015). Efficacy of an adjuvanted herpes zoster subunit vaccine in older adults. *New England Journal of Medicine, 372,* 2087–2096. http://dx.doi.org/10.1056/NEJMoa1501184

***d) Journal Article from Web, without DOI***

Sidani, S. (2003). Enhancing the evaluation of nursing care effectiveness. *Canadian Journal of Nursing Research, 35*(3), 26–38. Retrieved from http://cjnr.mcgill.ca

***e) Journal Article wih DOI***

Turner, S. J. (2010). Website statistics 2.0: Using Google Analytics to measure library website effectiveness. *Technical Services Quarterly, 27,* 261–278. http://dx.doi.org/10.1080/07317131003765910

***f) Advance Online Publication***

Smith, J. A. (2010). Citing advance online publication: A review. *Journal of Psychology.* Advance online publication. http://dx.doi.org/10.1037/a45d7867

***g) Article in a Magazine***

Henry, W. A., III. (1990, April 9). Making the grade in today's schools. *Time, 135,* 28–31.

**Doctoral Dissertation, Master's Thesis, Presentation, Proceeding**

***a) Dissertation/Thesis from a Commercial Database***

Van Brunt, D. (1997). *Networked consumer health information systems* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 9943436)

***b) Dissertation/Thesis from an Institutional Database***

Yaylalı-Yıldız, B. (2014). *University campuses as places of potential publicness: Exploring the politicals, social and cultural practices in Ege University* (Doctoral dissertation). Retrieved from http://library.iyte.edu.tr/tr/hizli-erisim/iyte-tez-portali

***c) Dissertation/Thesis from Web***

Tonta, Y. A. (1992). *An analysis of search failures in online library catalogs* (Doctoral dissertation, University of California, Berkeley). Retrieved from http://yunus.hacettepe.edu.tr/~tonta/yayinlar / phd/ickapak.html

***d) Dissertation/Thesis abstracted in Dissertations Abstracts International***

Appelbaum, L. G. (2005). Three studies of human information processing: Texture amplification, motion representation, and figure-ground segregation. *Dissertation Abstracts International: Section B. Sciences and Engineering, 65*(10), 5428.

***e) Symposium Contribution***

Krinsky-McHale, S. J., Zigman, W. B., & Silverman, W. (2012, August). Are neuropsychiatric symptoms markers of prodromal Alzheimer's disease in adults with Down syndrome? In W. B. Zigman (Chair), *Predictors of mild cognitive impairment, dementia, and mortality in adults with Down syndrome.* Symposium conducted at the meeting of the American Psychological Association, Orlando, FL.

***f) Conference Paper Abstract Retrieved Online***

Liu, S. (2005, May). *Defending against business crises with the help of intelligent agent based early warning solutions.* Paper presented at the Seventh International Conference on Enterprise Information Systems, Miami, FL. Abstract retrieved from http://www.iceis.org/iceis2005/abstracts_2005.htm

***g) Conference Paper - In Regularly Published Proceedings and Retrieved Online***

Herculano-Houzel, S., Collins, C. E., Wong, P., Kaas, J. H., & Lent, R. (2008). The basic nonuniformity of the cerebral cortex. *Proceedings of the National Academy of Sciences, 105,* 12593–12598. http:// dx.doi.org/10.1073/pnas.0805417105

***h) Proceeding in Book Form***

Parsons, O. A., Pryzwansky, W. B., Weinstein, D. J., & Wiens, A. N. (1995). Taxonomy for psychology. In J. N. Reich, H. Sands, & A. N. Wiens (Eds.), *Education and training beyond the doctoral degree: Proceedings of the American Psychological Association National Conference on Postdoctoral Education and Training in Psychology* (pp. 45–50). Washington, DC: American Psychological Association.

***i) Paper Presentation***

Nguyen, C. A. (2012, August). *Humor and deception in advertising: When laughter may not be the best medicine.* Paper presented at the meeting of the American Psychological Association, Orlando, FL.

**Other Sources**

***a) Newspaper Article***

Browne, R. (2010, March 21). This brainless patient is no dummy. *Sydney Morning Herald, 45.*

***b) Newspaper Article with no Author***

New drug appears to sharply cut risk of death from heart failure. (1993, July 15). *The Washington Post,* p. A12.

***c) Web Page/Blog Post***

Bordwell, D. (2013, June 18). David Koepp: Making the world movie-sized [Web log post]. Retrieved from http://www.davidbordwell.net/blog/page/27/

***d) Online Encyclopedia/Dictionary***

Ignition. (1989). In *Oxford English online dictionary* (2nd ed.). Retrieved from http://dictionary.oed. com

Marcoux, A. (2008). Business ethics. In E. N. Zalta (Ed.). *The Stanford encyclopedia of philosophy.* Retrieved from http://plato.stanford.edu/entries/ethics-business/

***e) Podcast***

Dunning, B. (Producer). (2011, January 12). *inFact: Conspiracy theories* [Video podcast]. Retrieved from http://itunes.apple.com/

***f) Single Episode in a Television Series***

Egan, D. (Writer), & Alexander, J. (Director). (2005). Failure to communicate. [Television series episode]. In D. Shore (Executive producer), *House;* New York, NY: Fox Broadcasting.

***g) Music***

Fuchs, G. (2004). Light the menorah. On *Eight nights of Hanukkah* [CD]. Brick, NJ: Kid Kosher.

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Ensure that the following items are present:

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  - ✓ Confirm that "the paper is not under consideration for publication in another journal".
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## TANIM

İstanbul Antropoloji Dergisi - Istanbul Anthropological Review (IAR), İstanbul Üniversitesi Edebiyat Fakültesi Antropoloji Bölümü bünyesinde faaliyet gösteren hakemli, açık erişimli, akademik bir dergidir. Yılda bir kez (Aralık) elektronik olarak yayımlanan IAR dergisinde, antropolojinin tüm alt dalları ve ilgili diğer beşerî ve sosyal bilimler ile disiplinler arası alanlarda yürütülen ampirik ve kuramsal çalışmalara yer verilmektedir. Yayın dili Türkçe ve İngilizcedir.

Dergiye gönderilen makaleler için herhangi bir işlem ücreti veya yayın bedeli talep edilmez.

## AMAÇ VE KAPSAM

İstanbul Antropoloji Dergisi - Istanbul Anthropological Review, tüm alt dallarıyla antropoloji başta olmak üzere beşerî ve sosyal bilimlerin çeşitli alanlarında çalışmalar yürüten araştırmacıları çok disiplinli bir okuyucu kitlesiyle buluşturmayı amaçlamaktadır.

Dergide, köklü araştırma yöntemlerine dayalı vaka çalışmalarının yanı sıra metodolojik açıdan yenilikçi disiplinler arası araştırmalar, kavramsal yazılar ve kitap değerlendirmelerine de yer verilmektedir.

## EDİTORYAL POLİTİKALAR VE HAKEM SÜRECİ

### Yayın Politikası

Dergi yayın etiğinde en yüksek standartlara bağlıdır ve Committee on Publication Ethics (COPE), Directory of Open Access Journals (DOAJ), Open Access Scholarly Publishers Association (OASPA) ve World Association of Medical Editors (WAME) tarafından yayınlanan etik yayıncılık ilkelerini benimser; Principles of Transparency and Best Practice in Scholarly Publishing başlığı altında ifade edilen ilkeler için: https://publicationethics.org/resources/guidelines-new/principles-transparency-and-best-practice-scholarly-publishing

Gönderilen makaleler derginin amaç ve kapsamına uygun olmalıdır. Orijinal, yayınlanmamış ve başka bir dergide değerlendirme sürecinde olmayan, her bir yazar tarafından içeriği ve gönderimi onaylanmış yazılar değerlendirmeye kabul edilir.

Makale yayınlanmak üzere Dergiye gönderildikten sonra yazarlardan hiçbirinin ismi, tüm yazarların yazılı izni olmadan yazar listesinden silinemez ve yeni bir isim yazar olarak eklenemez ve yazar sırası değiştirilemez.

İntihal, duplikasyon, sahte yazarlık/inkar edilen yazarlık, araştrma/veri fabrikasyonu, makale dilimleme, dilimleyerek yayın, telif hakları ihlali ve çıkar çatışmasının gizlenmesi, etik dışı davranışlar olarak kabul edilir. Kabul edilen etik standartlara uygun olmayan tüm makaleler yayından çıkarılır. Buna yayından sonra tespit edilen olası kuraldışı, uygunsuzluklar içeren makaleler de dahildir.

**İntihal**

Ön kontrolden geçirilen makaleler, iThenticate yazılımı kullanılarak intihal için taranır. İntihal/ kendi kendine intihal tespit edilirse yazarlar bilgilendirilir. Editörler, gerekli olması halinde makaleyi değerlendirme ya da üretim sürecinin çeşitli aşamalarında intihal kontrolüne tabi tutabilirler. Yüksek benzerlik oranları, bir makalenin kabul edilmeden önce ve hatta kabul edildikten sonra reddedilmesine neden olabilir. Makalenin türüne bağlı olarak, bunun oranın %15 veya %20'den az olması beklenir.

**Çift Kör Hakemlik**

İntihal kontrolünden sonra, uygun olan makaleler baş editör tarafından orijinallik, metodoloji, işlenen konunun önemi ve dergi kapsamı ile uyumluluğu açısından değerlendirilir. Editör, makalelerin adil bir şekilde çift taraflı kör hakemlikten geçmesini sağlar ve makale biçimsel esaslara uygun ise, gelen yazıyı yurtiçinden ve /veya yurtdışından en az iki hakemin değerlendirmesine sunar, hakemler gerek gördüğü takdirde yazıda istenen değişiklikler yazarlar tarafından yapıldıktan sonra yayınlanmasına onay verir.

**Açık Erişim İlkesi**

Dergi açık erişimlidir ve derginin tüm içeriği okura ya da okurun dahil olduğu kuruma ücretsiz olarak sunulur. Okurlar, ticari amaç haricinde, yayıncı ya da yazardan izin almadan dergi makalelerinin tam metnini okuyabilir, indirebilir, kopyalayabilir, arayabilir ve link sağlayabilir. Bu BOAI açık erişim tanımıyla uyumludur.

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**İşlemleme Ücreti**

Derginin tüm giderleri İstanbul Üniversitesi tarafından karşılanmaktadır. Dergide makale yayını ve makale süreçlerinin yürütülmesi ücrete tabi değildir. Dergiye gönderilen ya da yayın için kabul edilen makaleler için işlemleme ücreti ya da gönderim ücreti alınmaz.

**Telif Hakkında**

Yazarlar dergide yayınlanan çalışmalarının telif hakkına sahiptirler ve çalışmaları Creative Commons Atıf-GayrıTicari 4.0 Uluslararası (CC BY-NC 4.0) https://creativecommons.org/licenses/by-nc/4.0/deed.tr olarak lisanslıdır. CC BY-NC 4.0 lisansı, eserin ticari kullanım dışında her boyut ve formatta paylaşılmasına, kopyalanmasına, çoğaltılmasına ve orijinal esere uygun şekilde atıfta bulunmak kaydıyla yeniden düzenleme, dönüştürme ve eserin üzerine inşa etme dâhil adapte edilmesine izin verir.

**Hakem Süreci**

Daha önce yayınlanmamış ya da yayınlanmak üzere başka bir dergide değerlendirmede olmayan ve her bir yazar tarafından onaylanan makaleler değerlendirilmek üzere kabul edilir. Gönderilen ve ön kontrolü geçen makaleler iThenticate yazılımı kullanılarak intihal için taranır. İntihal kontrolünün ardından uygun olan makaleler, baş editör tarafından orijinallik, metodoloji, işlenen konunun önemi ve dergi kapsamı ile uyumluluğu açısından değerlendirilir.

Baş Editör, makaleleri, yazarların etnik kökeninden, cinsiyetinden, uyruğundan, dini inancından ve siyasi felsefesinden bağımsız olarak değerlendirir. Yayına gönderilen makalelerin adil bir şekilde çift taraflı kör hakem değerlendirmesinden geçmelerini sağlar.

Seçilen makaleler, en az iki ulusal/uluslararası hakeme değerlendirmeye gönderilir; yayın kararı, hakemlerin talepleri doğrultusunda yazarların gerçekleştirdiği düzenlemelerin ve hakem sürecinin sonrasında baş editör tarafından verilir.

Baş editör; yazarlar, editörler ve hakemler arasında çıkar çatışmasına izin vermez. Hakem atama konusunda tam yetkiye sahiptir ve dergide yayınlanacak makalelerle ilgili nihai kararı vermekle yükümlüdür.

Hakemlerin değerlendirmeleri objektif olmalıdır. Hakem süreci sırasında hakemlerin aşağıdaki hususları dikkate alarak değerlendirmelerini yapmaları beklenir.

- Makale yeni ve önemli bir bilgi içeriyor mu?
- Öz, makalenin içeriğini net ve düzgün bir şekilde tanımlıyor mu?
- Yöntem bütünlüklü ve anlaşılır şekilde tanımlanmış mı?
- Yapılan yorum ve varılan sonuçlar bulgularla kanıtlanıyor mu?
- Alandaki diğer çalışmalara yeterli referans verilmiş mi?
- Dil kalitesi yeterli mi?

Hakemler, gönderilen makalelere ilişkin tüm bilginin, makale yayınlanana kadar gizli kalmasını sağlamalı ve yazar tarafında herhangi bir telif hakkı ihlali ve intihal fark ederlerse editöre raporlamalıdırlar.

Hakem, makale konusu hakkında kendini vasıflı hissetmiyor ya da zamanında geri dönüş sağlaması mümkün görünmüyorsa, editöre bu durumu bildirmeli ve hakem sürecine kendisini dahil etmemesini istemelidir.

Değerlendirme sürecinde editör, hakemlere gözden geçirme için gönderilen makalelerin, yazarların özel mülkü olduğunu ve bunun imtiyazlı bir iletişim olduğunu açıkça belirtir. Hakemler ve yayın kurulu üyeleri başka kişilerle makaleleri tartışamazlar. Hakemlerin kimliğinin gizli kalmasına özen gösterilmelidir.

## YAYIN ETİĞİ VE İLKELER

İstanbul Antropoloji Dergisi - Istanbul Anthropological Review, yayın etiğinde en yüksek standartlara bağlıdır ve Committee on Publication Ethics (COPE), Directory of Open Access Journals (DOAJ), Open Access Scholarly Publishers Association (OASPA) ve World Association of Medical Editors (WAME) tarafından yayınlanan etik yayıncılık ilkelerini benimser; Principles of Transparency and Best Practice in Scholarly Publishing başlığı altında ifade edilen ilkeler için: https://publicationethics.org/resources/guidelines-new/principles-transparencyand-best-practice-scholarly-publishing

Gönderilen tüm makaleler, orijinal ve yayınlanmamış (tam metin konferans bildirisi dahil) olmalı ve başka bir dergide değerlendirme sürecinde olmamalıdır. Her bir makale, editörlerden biri ve en az iki hakem tarafından çift kör değerlendirmeden geçirilir. İntihal, duplikasyon, sahte yazarlık/inkâr edilen yazarlık, araştırma/veri fabrikasyonu, makale dilimleme, dilimleyerek yayın, telif hakları ihlali ve çıkar çatışmasının gizlenmesi, etik dışı davranışlar olarak kabul edilir.

Kabul edilen etik standartlara uygun olmayan tüm makaleler yayından çıkarılır. Buna, yayından sonra tespit edilen olası kuraldışı ve uygunsuzluklar içeren makaleler de dahildir.

### Araştırma Etiği

İstanbul Antropoloji Dergisi - Istanbul Anthropological Review, araştırma etiğinde en yüksek standartları gözetir ve aşağıda tanımlanan uluslararası araştırma etiği ilkelerini benimser. Makalelerin etik kurallara uygunluğu, yazarların sorumluluğundadır.

Uluslararası Araştırma Etiği İlkeleri

- Araştırmanın tasarlanması, tasarımın gözden geçirilmesi ve araştırmanın yürütülmesinde bütünlük, kalite ve şeffaflık ilkeleri sağlanmalıdır.
- Araştırma ekibi ve katılımcılar, araştırmanın amacı, yöntemleri ve öngörülen olası kullanımları; araştırmaya katılımın gerektirdikleri ve varsa riskleri hakkında tam olarak bilgilendirilmelidir.
- Araştırma katılımcılarının sağladığı bilgilerin gizliliği ve yanıt verenlerin gizliliği sağlanmalıdır. Araştırma katılımcıların özerkliğini ve saygınlığını koruyacak şekilde tasarlanmalıdır.
- Araştırma katılımcıları gönüllü olarak araştırmada yer almalı ve herhangi bir zorlama altında olmamalıdırlar. Katılımcıların zarar görmesinden kaçınılmalıdır. Araştırma, katılımcıları riske sokmayacak şekilde planlanmalıdır.
- Araştırma bağımsızlığıyla ilgili açık ve net olunmalı; çıkar çatışması varsa belirtilmelidir.
- Deneysel çalışmalarda, araştırmaya katılmaya karar veren katılımcıların yazılı bilgilendirilmiş onayı alınmalıdır. Çocukların ve vesayet altındakilerin veya tasdiklenmiş akıl hastalığı bulunanların yasal vasisinin onayı alınmalıdır.
- Çalışma, herhangi bir kurum ya da kuruluşta gerçekleştirilecekse bu kurum ya da kuruluştan çalışma yapılacağına dair onay alınmalıdır.
- İnsan öğesi bulunan çalışmalarda, "yöntem" bölümünde, katılımcılardan "bilgilendirilmiş onam" alındığının ve çalışmanın yapıldığı kurumdan etik kurul onayı alındığının belirtilmesi gerekir.

**Yazarların Sorumluluğu**

Makalelerin bilimsel ve etik kurallara uygunluğu yazarların sorumluluğundadır. Yazar makalenin orijinal olduğu, daha önce başka bir yerde yayınlanmadığı ve başka bir yerde, başka bir dilde yayınlanmak üzere değerlendirmede olmadığı konusunda teminat sağlamalıdır. Uygulamadaki telif kanunları ve anlaşmaları gözetilmelidir. Telife bağlı materyaller (örneğin tablolar, şekiller veya büyük alıntılar) gerekli izin ve teşekkürle kullanılmalıdır. Başka yazarların ve katkıda bulunanların çalışmaları ya da yararlanılan kaynaklar, uygun biçimde kullanılmalı ve referanslarda belirtilmelidir.

Gönderilen makalede tüm yazarların akademik ve bilimsel olarak doğrudan katkısı olmalıdır. Bu bağlamda "yazar", yayınlanan bir araştırmanın kavramsallaştırılmasına ve dizaynına, verilerin elde edilmesine, analizine ya da yorumlanmasına belirgin katkı yapan, yazının yazılması ya da bunun içerik açısından eleştirel biçimde gözden geçirilmesinde görev yapan birisi olarak görülür. Yazar olabilmenin diğer koşulları ise makaledeki çalışmayı planlamak veya icra etmek/revize etmektir. Fon sağlanması, veri toplanması ya da araştırma grubunun genel gözetimi tek başına yazarlık hakkı kazandırmaz. Yazar olarak gösterilen tüm bireyler, sayılan tüm ölçütleri karşılamalıdır. Yukarıdaki ölçütleri karşılayan her birey yazar olarak gösterilebilir. Yazarların isim sıralaması, ortak verilen bir karar olmalıdır. Tüm yazarlar, yazar sıralamasını, Telif Hakkı Anlaşması Formunda imzalı olarak belirtmek zorundadırlar.

Yazarlık için yeterli ölçütleri karşılamayan ancak çalışmaya katkısı olan tüm bireyler "teşekkür/bilgiler" kısmında sıralanmalıdır. Bunlara örnek olarak ise sadece teknik destek sağlayan, yazıma yardımcı olan ya da sadece genel bir destek sağlayan, finansal ve materyal desteği sunan kişiler verilebilir.

Bütün yazarlar, araştırmanın sonuçlarını ya da bilimsel değerlendirmeyi etkileyebilme potansiyeli olan finansal ilişkiler, çıkar çatışması ve çıkar rekabetini beyan etmelidirler. Bir yazar, kendi yayınlanmış yazısında belirgin bir hata ya da yanlışlık tespit ederse bu yanlışlıklara ilişkin düzeltme ya da geri çekme için editör ile hemen temasa geçme ve iş birliği yapma sorumluluğunu taşır.

**Editör ve Hakem Sorumlulukları**

Baş editör, makaleleri, yazarların etnik kökeninden, cinsiyetinden, uyruğundan, dini inancından ve siyasi felsefesinden bağımsız olarak değerlendirir. Yayına gönderilen makalelerin adil bir şekilde çift taraflı kör hakem değerlendirmesinden geçmelerini sağlar. Gönderilen makalelere ilişkin tüm bilginin, makale yayınlanana kadar gizli kalacağını garanti eder.

Baş editör, içerik ve yayının toplam kalitesinden sorumludur. Gerektiğinde hata sayfası yayınlamalı ya da düzeltme yapmalıdır. Baş editör; yazarlar, editörler ve hakemler arasında çıkar çatışmasına izin vermez. Dergide yayınlanacak makalelerle ilgili nihai kararı vermekle yükümlüdür.

Hakemlerin araştırmayla ilgili, yazarlarla ve/veya araştırmanın finansal destekçileriyle çıkar çatışmaları olmamalıdır. Değerlendirmelerinin sonucunda tarafsız bir yargıya varmalıdırlar. Gönderilmiş yazılara ilişkin tüm bilginin gizli tutulmasını sağlamalı ve yazar tarafında herhangi bir telif hakkı ihlali ve intihal fark ederlerse editöre raporlamalıdırlar.

Hakem, makale konusu hakkında kendini vasıflı hissetmiyor ya da zamanında geri dönüş sağlaması mümkün görünmüyorsa, editöre bu durumu bildirmeli ve hakem sürecine kendisini dahil etmemesini istemelidir.

Değerlendirme sürecinde editör, hakemlere gözden geçirme için gönderilen makalelerin gizli bilgi olduğunu ve bunun imtiyazlı bir iletişim olduğunu açıkça belirtir. Hakemler ve yayın kurulu üyeleri, başka kişilerle makaleleri tartışamazlar. Hakemlerin kimliğinin gizli kalmasına özen gösterilmelidir. Bazı durumlarda editörün kararıyla, ilgili hakemlerin makaleye ait yorumları aynı makaleyi yorumlayan diğer hakemlere gönderilerek hakemlerin bu süreçte aydınlatılması sağlanabilir.

## DİL

Derginin dili Türkçe ve İngilizcedir.

## YAZILARIN HAZIRLANMASI VE YAZIM KURALLARI

### Yazıların Hazırlanması ve Gönderimi

Makale gönderimi, derginin e-mail adresine: iar@istanbul.edu.tr yapılmalıdır. Gönderilen yazılar, yazının yayınlanmak üzere gönderildiğini ifade eden, makale türünü belirten ve makaleyle ilgili bilgileri içeren (bkz: Son Kontrol Listesi) bir mektup, kapak sayfası, yazar formu, yazının elektronik formunu içeren Microsoft Word 2003 ve üzerindeki versiyonları ile yazılmış elektronik dosya ve tüm yazarların imzaladığı Telif Hakkı Anlaşması Formu eklenerek gönderilmelidir.

1. Çalışmalar, A4 boyutunda, üst, alt, sağ ve sol taraftan 2,5 cm. boşluk bırakılarak, 11 punto Times New Roman harf karakterleriyle ve 1,5 satır aralık ölçüsü ile hazırlanmalıdır. Ana makale dosyası, çift taraflı kör hakemlik gereği yazar bilgilerini içermemelidir.
2. Yayınlanmak üzere gönderilen makale ile birlikte yazar bilgilerini içeren kapak sayfası gönderilmelidir. Kapak sayfasında, makalenin başlığı, yazar veya yazarların bağlı bulundukları kurum ve unvanları, kendilerine ulaşılabilecek adresler, cep, iş numaraları ve e-posta adresleri yer almalıdır (bkz. Son Kontrol Listesi).
3. Giriş bölümünden önce 180-240 kelimelik çalışmanın kapsamını, amacını, ulaşılan sonuçları ve kullanılan yöntemi kaydeden makale dilinde öz ve İngilizce öz ile 600-800 kelimelik İngilizce genişletilmiş özet yer almalıdır. Makale İngilizce ise Türkçe özet ve İngilizce geniş özet istenmez. Çalışmanın İngilizce başlığı İngilizce özün üzerinde yer almalıdır. İngilizce ve Türkçe özlerin altında çalışmanın içeriğini temsil eden 5 İngilizce, 5 Türkçe anahtar kelime yer almalıdır.
4. Çalışmaların başlıca şu unsurları içermesi gerekmektedir: Başlık, Türkçe öz ve anahtar kelimeler; İngilizce başlık, İngilizce öz ve anahtar kelimeler; İngilizce genişletilmiş özet, ana metin bölümleri ve kaynaklar.
5. Çalışmalarda tablo, grafik ve şekil gibi göstergeler numaralandırılarak, tanımlayıcı bir başlık ile birlikte verilmelidir.

6. Referanslar derginin benimsediği American Psychological Association (APA)- 6 referans stiline uygun olarak hazırlanmalıdır.
7. Kurallar dâhilinde dergimize yayınlanmak üzere gönderilen çalışmaların her türlü sorumluluğu ve çalışmada geçen görüşler yazar/yazarlarına aittir.

**Kaynaklar**

Kabul edilmiş ancak henüz sayıya dahil edilmemiş makaleler Erken Görünüm olarak yayınlanır ve bu makalelere atıflar "advance online publication" şeklinde verilmelidir. Genel bir kaynaktan elde edilemeyecek temel bir konu olmadıkça "kişisel iletişimlere" atıfta bulunulmamalıdır. Eğer atıfta bulunulursa parantez içinde iletişim kurulan kişinin adı ve iletişimin tarihi belirtilmelidir. Bilimsel makaleler için yazarlar, bu kaynaktan yazılı izin ve iletişimin doğruluğunu gösterir belge almalıdır.

**Referans Stili ve Formatı**

İstanbul Antropoloji Dergisi – Istanbul Anthropological Review, metin içi alıntılama ve kaynak gösterme için APA (American Psychological Association) kaynak sitilinin 6. edisyonunu benimser. APA 6.Edisyon hakkında bilgi için:

- American Psychological Association. (2010). Publication manual of the American Psychological Association (6th ed.). Washington, DC: APA.
- http://www.apastyle.org/

Kaynakların doğruluğundan yazar(lar) sorumludur. Tüm kaynaklar metinde belirtilmelidir. Kaynaklar aşağıdaki örneklerdeki gibi gösterilmelidir.

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Kaynaklar metinde parantez içinde yazarların soyadı ve yayın tarihi yazılarak belirtilmelidir. Birden fazla kaynak gösterilecekse kaynaklar arasında (;) işareti kullanılmalıdır. Kaynaklar alfabetik olarak sıralanmalıdır.

**Örnekler:**

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(Esin ve ark., 2002; Karasar 1995)
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(Sayıner ve Demirci 2007, s. 72)

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**Kaynak yazımı ile ilgili örnekler aşağıda verilmiştir.**

**Kitap**

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