



ROCKY LANDSCAPE OF GERDEKKAYA: AN OVERVIEW OF THE SURVEY PROJECT IN ÇORUM-ALACA REGION*

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ABSTRACT

The architectural elements and structure traces located on its rocky landscape, alongside the rock-cut tombs and the extensive illegal excavations which have caused damage, indicate the presence of a significant settlement at Gerdekkaya awaiting archaeological discovery. The settlement of Gerdekkaya can be identified as a fortification settlement from the Hellenistic period. New data regarding Gerdekkaya within the framework of rocky landscape is explored. The settlement, inhabited during multiple periods, was within the boundaries of the Mithradatic Kingdom's geography in antiquity and situated between the Mithradatids and its neighboring region of Galatia. This study involves the identification and interpretation of the currently available archaeological data from Gerdekkaya. It is the first to provide field survey results about this settlement, located in the southwestern direction of the Mithradatic Kingdom's geography, referred to in modern literature as *terra incognita*, or unknown lands. Considering the fortress' characteristics and location, this study defines an important fortification settlement in Gerdekkaya that will provide data for the Central Black Sea Region's archaeology. It also offers guiding information for future planned excavations. In this context, information was gathered through archaeological survey and geological prospection methods.

Keywords: Çorum, Alaca, Gerdekkaya, Rocky Landscape, Archaeological Survey

KAYALIK PEYZAJDA GERDEKKAYA: ÇORUM-ALACA BÖLGESİNDE YÜRÜTÜLEN YÜZEY ARAŞTIRMA PROJESİNİN DEĞERLENDİRİLMESİ

ÖZ

Masif kayalık üzerinde yer alan kaya mezarları ve çeşitli yapı izleri, ayrıca yoğun kaçak kazı faaliyetleri sonucunda zarar görmüş mimari unsurlar, Gerdekkaya'da arkeolojik olarak keşfedilmeyi bekleyen önemli bir yerleşimin varlığına işaret etmektedir. Gerdekkaya yerleşimi, Hellenistik döneme ait bir kale-yerleşim alanı olarak değerlendirilebilir. Bu çalışma, Gerdekkaya ile ilgili yeni bilgileri kayalık peyzaj bağlamında ele almaktadır. Birden fazla dönemde iskan edildiği anlaşılan bu yerleşim, antik dönemde Mithradat Krallığı'nın coğrafi sınırları içerisinde yer almakta ve Mithradat Krallığı ile komşusu Galatia arasında konumlanmaktadır. Çalışma, Gerdekkaya'nın mevcut arkeolojik verilerinin tanımlanması ve yorumlanmasını kapsamaktadır. Modern literatürde, araştırma azlığından *terra incognita* olarak ifade edilebilecek Mithradat Krallık coğrafyasının güneybatısındaki bu yerleşim ile ilgili ilk yüzey araştırması verisini sunmaktadır. Kale özellikleri ve stratejik konumu göz önünde bulundurularak, krallığın bu yöndeki sınırlarını anlamaya yönelik olarak, Gerdekkaya'nın Orta Karadeniz Bölgesi arkeolojisine önemli veriler sağlayacak bir kale-yerleşim olarak tanımlanmıştır. Çalışma, ileride yapılması planlanan kazı çalışmaları için yol gösterici bilgiler sunulmaktadır. Bu doğrultuda, yüzey araştırmaları ve jeolojik prospeksiyon yöntemleri kullanılarak bilgi toplanmıştır.

Anahtar Kelimeler: Çorum, Alaca, Gerdekkaya, Kayalık Peyzaj, Yüzey Araştırması

Gönderilme Tarihi: 11 Temmuz 2024

Kabul Tarihi: 11 Eylül 2024

* This project is supported with Hitit University's Scientific Research Projects fund with the code FEF19002.14.003.

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Introduction

Rocky landscape is a current concept in archaeology and ancient history to examine structures located on massive rocks (Sciuto et al., 2021).¹ It involves the construction of structures with certain similar features, reflecting different political and socio-economic activities of communities who carved the rocky surface in different eras. Among such activities are mining, or the creation of shelter for mobile occupational groups and/or agriculturalists. Military purposes may also be included. On the other hand, expressing social traditions regarding death and afterlife on rocks is also a dominant part of the rocky landscape. Massive rocks, carved with in significant portion with human labour, enable the authority which facilitated this process to exercise and maintain its control and legitimacy over the community. Features of a rocky landscape are detected in Gerdekkaya. This rocky landscape, studied through survey and geoarchaeological methods, marks the political power behind Gerdekkaya, specifically the Mithradatic dynasty which dominated the region during the Hellenistic period. This study discusses the results of the survey in question, together with the importance of Gerdekkaya in terms of Central Black Sea archaeology.

The fort settlement of Gerdekkaya is within the perimeters of Geven Village, situated in the borders of district Alaca in the province of Çorum. Gerdekkaya is located about 8 km north of Alaca. Büyüköz Stream, a branch of the Kızılırmak River, borders the west of the settlement, and there are fertile plains to the south. Although Büyüköz, flowing in a north-south direction, makes Gerdekkaya accessible in this direction, the rocky outcrop in the north creates a natural barrier for this fortress settlement. The small plain to its south contains a narrow valley connecting to the fertile Alaca plain. It can therefore be stated with certainty that Gerdekkaya holds a relatively secure and advantageous position (Figure 1). Ancient sources do not provide clear information about this fort settlement. Its two spectacular rock-cut tombs are its visible features upon approaching the site. There has been no previous excavation at the site. It has been exposed to illicit excavations and this has caused damage and destruction at certain points of the settlement.²

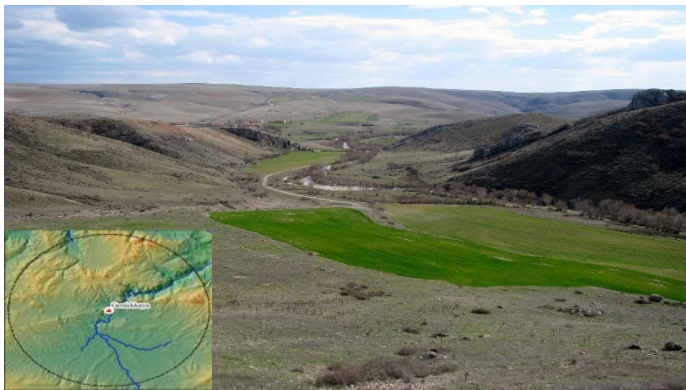


Figure 1. The valley where Büyüköz Stream flows near Gerdekkaya and the location of Gerdekkaya.

¹ See also IFEA, 2024 for preliminary information on presentations concerning rocky landscape at the international conference titled *Rocky Landscapes at the intersection of people and rock*, organized by *L'institut français d'études anatoliennes* (IFEA) on 23-25 May 2024 at Istanbul.

² The fort settlement of Gerdekkaya has been registered as a First Degree Archaeological Site based on the report dated November 2013 prepared by the Çorum Museum Directorate. The research was conducted with the permissions granted by the Çorum Museum.

The Central Black Sea Region, where Gerdekkaya is located, is on the western border of the Mithradatic Kingdom, which was a local kingdom during the Hellenistic Period. The region in question has been ignored until recently in terms of understanding the Hellenistic and later periods. Based on the notes of researchers who visited to the region since the 18th century, some information is available about the antiquity of the area. J.G.C. Anderson (1903) and F. Cumont (Cumont & Cumont, 1906) provided important accounts on settlements of the kingdom's geography. During their visits to the region, Anderson and Cumont provided detailed information about some of these settlements and made suggestions as to their possible ancient names. Furthermore, W. J. Hamilton came to Alaca on 26 August 1836 and drew a sketch of one of the rock-cut tombs at Gerdekkaya (Hamilton, 1842, p. 452). Another important study is by Olshausen and Biller who provided a comprehensive description and mapping study of the settlement patterns within the Mithradatic dynasty's administrative region (Olshausen & Biller, 1984). Additionally, a catalog of stepped tunnels in Anatolia was prepared by von Gall in the 1960s, and Gerdekkaya was also included here (von Gall, 1967, pp. 504-527).

It is possible that the Gerdekkaya settlement was a fort settlement located on the Mithradatic Kingdom's border with Galatia in the Hellenistic Period.³ Historically, the area where Gerdekkaya was located was in the Galatia region, and was the scene of much military activity during the wars between Rome and Mithradates VI, last king of Pontos. Around 103 BC, Mithradates VI occupied Galatia and, in order to keep this region under his rule, established a fort here as part of the kingdom's administrative policy and named it "Mithridatium". Thus, he secured this direction by positioning an administrative unit named after himself in the southwest of the kingdom (Strabon, 12.5.1).⁴ K. Strobel states that the southern tip of the borders of the Pontic Kingdom extends to the region where Gerdekkaya is located. One of the posts along this border should be Gerdekkaya (Strobel, 1997, pp. 146-48). The border passing here determined the region between the Galatian tribe Trokmi and the Mithradatids. Strobel associates Gerdekkaya with Mithridatium (1997, pp. 142-48).⁵ In the kingdom's geography, fort settlements served as administrative and military units and ensured the security of rural life and the related economy (Sökmen, 2016). After Mithradates VI lost the war against the Romans, Mitridation was left to the rule of the Galatian ruler Brogitarus by Pompeius in 65-64 BC (Strabon, 12.5.2). Gerdekkaya was consequently integrated into Galatia's borders.

In the context of the information provided by ancient sources and considering Strobel's suggestion, it is necessary to look at Gerdekkaya's settlement pattern and area of influence, specifically from the settlements identified by several surveys (Figure 2).⁶ Areas identified during

³ In the Alaca region, rocky landscapes have historically served as military and administrative centers. Notably, during the Seljuk and Mongol periods, strategic settlements like Karahisar-ı Demirli stood out with their defensive structures that enhanced control over the surrounding area. The presence of strong fortifications in the region underscores the military character and administrative role of these areas. For further details please see: Yazar and Bozkuş, 2024.

⁴ See also Ramsay, 1890, p. 261; Magie, 1950, p. 178.

⁵ In his article, Sezgin argues that the elevated outcrop known as Kaletepe, which serves as a continuation of Gerdekkaya, presents a more suitable location for Mithridatium. The referenced images provide evidence of traces of a defensive system on this outcrop. See Sezgin, 2024, p. 810.

⁶ For surveys and research in this region, see Sipahi, T., T. Yıldırım, "1996 Yılı Çorum Bölgesi Yüzey Araştırmaları", T.C. Kültür Bakanlığı Anıtlar ve Müzeler Genel Müdürlüğü XV. Araştırma Sonuçları Toplantısı II. Cilt, 19-40, 1998; Sipahi, T., T. Yıldırım, "1997 Yılı Çorum Bölgesi Yüzey Araştırmaları" T.C. Kültür Bakanlığı Anıtlar ve Müzeler Genel Müdürlüğü XVI. Araştırma Sonuçları Toplantısı I. Cilt, 433-450, 1999; Sipahi, T., T. Yıldırım, "1998 Yılı Çorum

these surveys in the region and roughly dating to the classical period are therefore incorporated into the map to visualize the situation of Gerdekkaya during the Hellenistic period. It can be said that the points falling within the influence area of Gerdekkaya on the map may possibly indicate small village societies. As a matter of fact, the result seems to be in line with the rural life pattern of the Mithradatic dynasty under fortress protection.

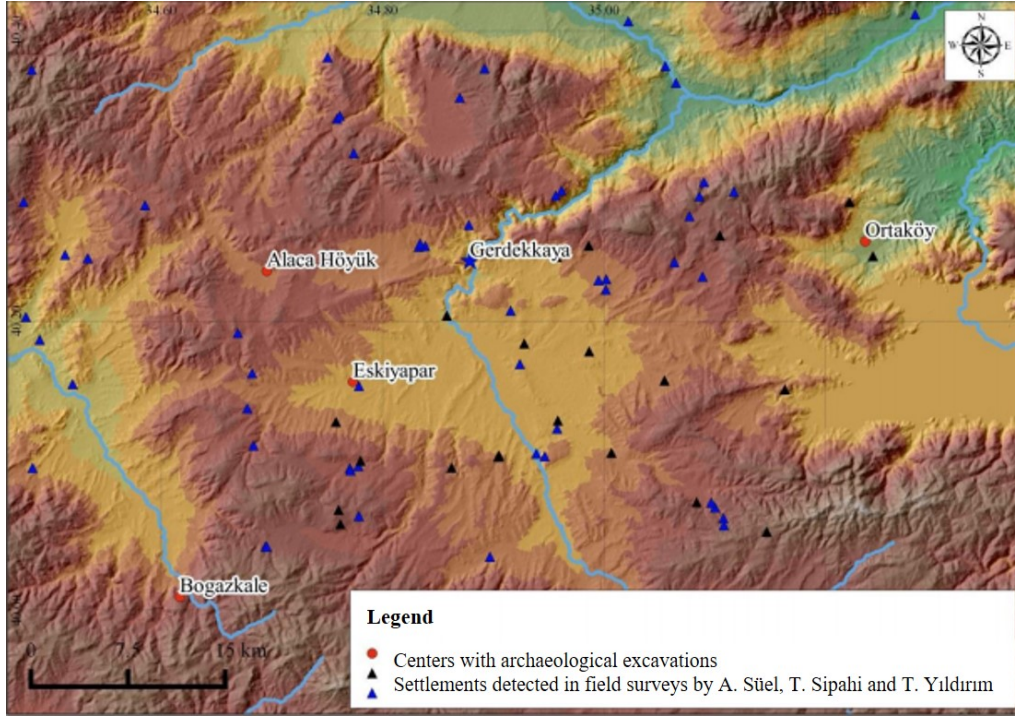


Figure 2: Classical period settlements around Gerdekkaya

Research at Gerekkaya

Research using interdisciplinary methods to understand the Gerdekkaya settlement is the first to provide field survey results about this region. The survey, geophysical analyzes and

Bölgesi Yüzev Arařtırması" T.C. Kültür Bakanlıđı Anıtlar ve Müzeler Genel Müdürlüğü 17. Arařtırma Sonuçları Toplantısı 2. Cilt, 31-40, 2000; Sipahi, T., T. Yıldırım, 1999 Yılı Çorum Yöresi Yüzev Arařtırması" T.C. Kültür Bakanlıđı Anıtlar ve Müzeler Genel Müdürlüğü 18. Arařtırma Sonuçları Toplantısı 2. Cilt, 101-112, 2001; Sipahi, T. "2001 Yılı Çorum ve Çankırı Bölgeleri Yüzev Arařtırması" T.C. Kültür Bakanlıđı Anıtlar ve Müzeler Genel Müdürlüğü 20. Arařtırma Sonuçları Toplantısı 2. Cilt, 275-284, 2003; Yıldırım, T., T. Sipahi, "2002 Yılı Çorum ve Çankırı İlleri Yüzev Arařtırması", T.C. Kültür Bakanlıđı Anıtlar ve Müzeler Genel Müdürlüğü 21. Arařtırma Sonuçları Toplantısı 2. Cilt, 305-314, 2004; Sipahi, T., T. Yıldırım, "2003 Yılı Çorum ve Çankırı İlleri Yüzev Arařtırması", T.C. Kültür Bakanlıđı Anıtlar ve Müzeler Genel Müdürlüğü 22. Arařtırma Sonuçları Toplantısı 2. Cilt, 353-364-350, 2005; Sipahi, T., T. Yıldırım, "2005 Yılı Çorum, Çankırı İlleri Yüzev Arařtırması", T.C. Kültür Bakanlıđı Anıtlar ve Müzeler Genel Müdürlüğü 24. Arařtırma Sonuçları Toplantısı 2. Cilt, 335-350, 2007; Sipahi, T., T. Yıldırım, "2006 Yılı Çorum-Çankırı İlleri Yüzev Arařtırması", T.C. Kültür Bakanlıđı Anıtlar ve Müzeler Genel Müdürlüğü 25. Arařtırma Sonuçları Toplantısı 3. Cilt, 277-298, 2008; Yıldırım, T., T. Sipahi "2007 Yılı Çorum ve Çankırı İlleri Yüzev Arařtırması", T.C. Kültür Bakanlıđı Anıtlar ve Müzeler Genel Müdürlüğü 26. Arařtırma Sonuçları Toplantısı 3. Cilt, 91-106, 2009.

geological investigations carried out in this context contributed to revealing the historical and geographical features of the settlement in detail.

The systematic survey took place in and around the rocky outcrop that characterizes the Gerdekkaya settlement focused on two rock cut tombs, a stepped tunnel and various carved buildings. Pottery findings obtained from the plain surrounding the outcrop shed light on the settlement chronology of Gerdekkaya. Geo-radar and Geo-magnetic methods were integrated and used to try to understand the distribution area of architectures in the settlement. Geoar-chaeological research has provided geological and morphological observations to try to reveal the natural environment wherein Gerdekkaya is located, its site selection for settlement, its architectural distribution and its interaction with surrounding natural habitat. This was combined with previous scholarly works in the region.

a) Field survey:

The archaeological findings identified during the survey can be described as follows: two rock-cut tombs carved into the rocky surface in the northern part, the carving traces indicating the usage of the same outcrop as a fortress, and the settlement unit thought to have spread along the slope leaning against this outcrop.

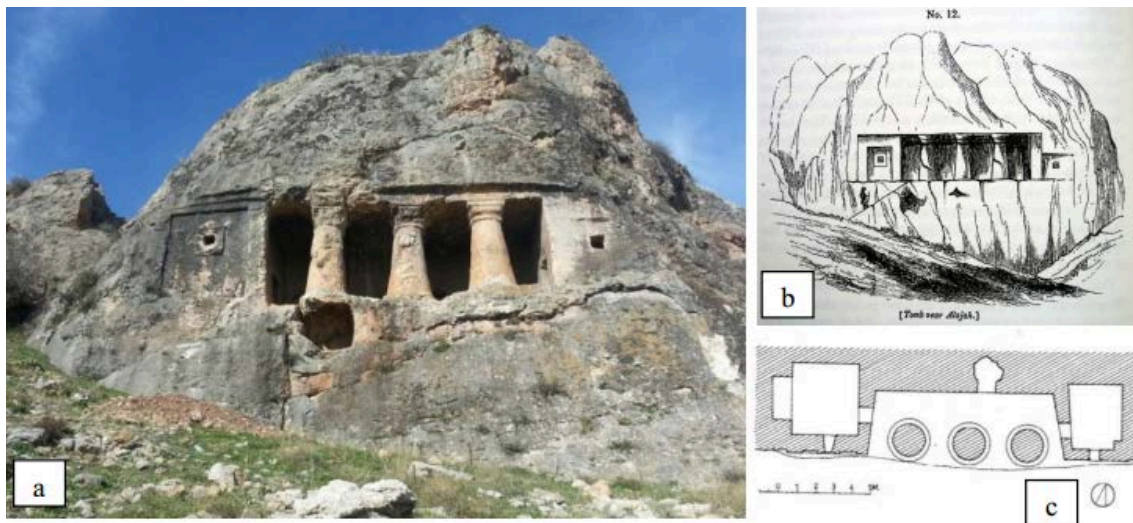


Figure 3: The rock cut tomb and the tomb plan (b. Hamilton's drawing. c. Plan taken from E. Dökü's study)

The rock-cut tomb located to the west has suffered significant damage, with only the burial chamber remaining comprehensible. The tomb in the east is better preserved (Figure 3). The rock-cut tombs at Gerdekkaya were first identified by Hamilton, who also discovered the Alaca Höyük settlement, and he published a drawing of one of these well-preserved tombs. Subsequent western travelers also mentioned Gerdekkaya (Perrot, 1872; Leonhard, 1915). In his doctoral dissertation, E. Dökü (2008) examined the Gerdekkaya rock-cut tombs within the context of Paphlagonian rock-cut tombs, analyzing their architectural and stylistic/iconographic aspects. In this study, both rock-cut tombs were described as having flat roofs and three columns. The poorly preserved rock-cut tomb to the west is considered a unique example within

the tradition of Anatolian rock-cut tombs due to the paintings on its vaulted ceiling, the imitations of wooden beam profiles, and the red paintings on its walls (Dökü, 2008, p. 185; İpek and Sezgin, 2021, p. 202).

The rock-cut tomb located to the east is positioned approximately 50 meters above the ground. When viewed from the front, it is evident that the surface of the outcrop has been leveled to create an entrance area with three columns. There are two burial chambers on the right and left sides of this entrance. It has been observed that the chamber on the left is larger and more meticulously constructed, while the one on the right is smaller and exhibits less careful craftsmanship. The entrance area, accessed by a simple stone staircase extending to the ground on the left side of the rock-cut tomb, is approximately 3 meters deep and 10 meters wide, with an average ceiling height of 3.5 meters. Three columns are present at the front of this entrance. The capitals and bases at the top and bottom were also formed by carving the existing rock. The columns have an average thickness of 1.20 meters, and there is an average gap of 1.25 meters between them. On the right and left sides of the colonnaded entrance area, on the exterior surface, there are window openings situated in the middle of rectangular areas flanked by two buttresses. These windows open to the burial chambers on the right and left. The large tomb chamber in the west is entered through a door opening 0.90 m above the ground. There is a *kline*, 2.40 m wide, 1.20 m high and 1 m deep, carved into the wall on the opposite side of the entrance in the room. The ceiling of this room is carved in the form of a triangular hipped roof. Additionally, a relief band encircles the entire chamber 30 cm below where the ceiling meets the wall. The second burial chamber is entered through a door opening measuring 0.80 x 1.20 m, which is approximately 0.90 m above the ground. The ceiling of the room is similarly carved in the form of a triangular hipped roof. No *kline* was found in the burial chamber, which had a flatted floor.

The façade of the second rock-cut tomb is actually similar to the previous one, but since it was heavily damaged, only the bases of three columns on the front façade have been preserved. The rectangular planned burial chamber has a vaulted ceiling. The most important feature of this tomb is that the two beam profiles in imitation of wood seen at the junction of the vaulted ceiling with the walls are highlighted with red paint. These paint traces were also used to give the impression of wooden construction. It is the only example among Paphlagonia type rock tombs that has this feature preserved (Figure 4).

The rock-cut tombs shed light on the Hellenistic period of the Gerdekkaya settlement. Based on the rock carving techniques of the tombs and other comparative examples in the region, they date back to the 2nd-1st centuries BCE (Dökü, 2008, p. 186).



Figure 4: The second rock-cut tomb and its plan (Çorum Museum Archive) (Plan taken from E. Dökü's study)

The outcrop on which the tombs are located provides a natural fortification for the settlement at its foothills. Traces of a rectangular structure carved into the rock detected at the top of the outcrop (Figure 5). This structure probably formed the basis of a building with wooden construction during its use. Again, cavities made for beams were found towards the east of the rock.



Figure 5: Rectangular planned building foundation at the top of the outcrop

At the western end of the cliff, there is a stepped tunnel descending from the top of the cliff to Büyüköz Stream (Figure 6). The steps of the tunnel are randomly shaped. The tunnel was built to ensure that the water needs of the fortress are met safely. These tunnels, which are very characteristic of Hellenistic period fortresses, are frequently encountered in the Central Black Sea Region. Sazak Fortress, Simali Fortress, and Hisarkavak Fortress, all in the immediate vicinity of Gerdekkaya, can be given as examples (von Gall, 1966; Sökmen Adalı, 2023).



Figure 6: Stepped tunnel descending from the west of the cliff to Büyüköz Stream

The Gerdekkaya settlement, due to the absence of direct research, remains pristine and preserves a wealth of information that could significantly contribute to the archaeology of the region. The area to the south of the rocky outcrop is continuously being damaged due to illicit excavations, resulting in numerous excavation pits. Within these pits, well-preserved stone walls belonging to architecture that can be dated to the late Roman period and geometric motifs floor mosaics made of tesserae in shades of white, gray, brown, and red have been uncovered as a result of these illicit excavations (Figure 7).



Figure 7: Floor mosaics of a building likely to belong to a late Roman villa (Çorum Museum Archive)

The pottery fragments have also shed light on the settlement history of Gerdekkaya. During the survey conducted from the southern slopes of the rocky outcrop to the river, ceramics indicating habitation from the Iron Age, Hellenistic Period, and up to the end of the Roman Period were recorded (Figure 8). The assemblage consists of dense Hellenistic period sherds reflecting the common techniques and forms used during the this time. The frequent use of orange clay and the application of slips are notable. Additionally, the poor quality of the exterior slips and their erosion is a common pattern.

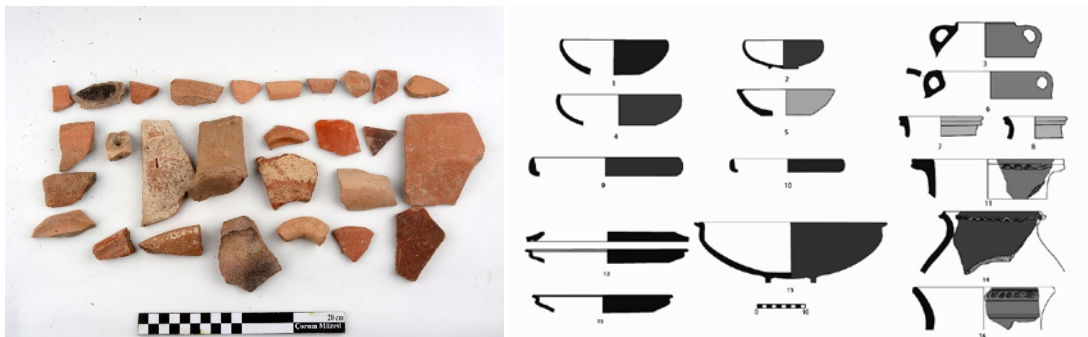


Figure 8: A group of ceramic finds from the Gerdekkaya survey

b) Geophysical Research

By integrating geophysical research, geo-radar and geo-magnetic methods, an attempt was made to try to determine the distribution area of architectural structures in Gerdekkaya settlement. Within the scope of these studies, data was collected by geomagnetic method on a total of 25 grids in the area, and geo-radar measurements were made in parts suitable for georadar measurement within this same area (Figure 9). Grids were positioned around illicit excavations where pottery finds are concentrated. Thus, subsurface images of the area were created using geomagnetic and ground-penetrating radar (GPR) studies, and efforts were made to reveal the plans of the buried archaeological structures in the area through the different magnetic and GPR images obtained.

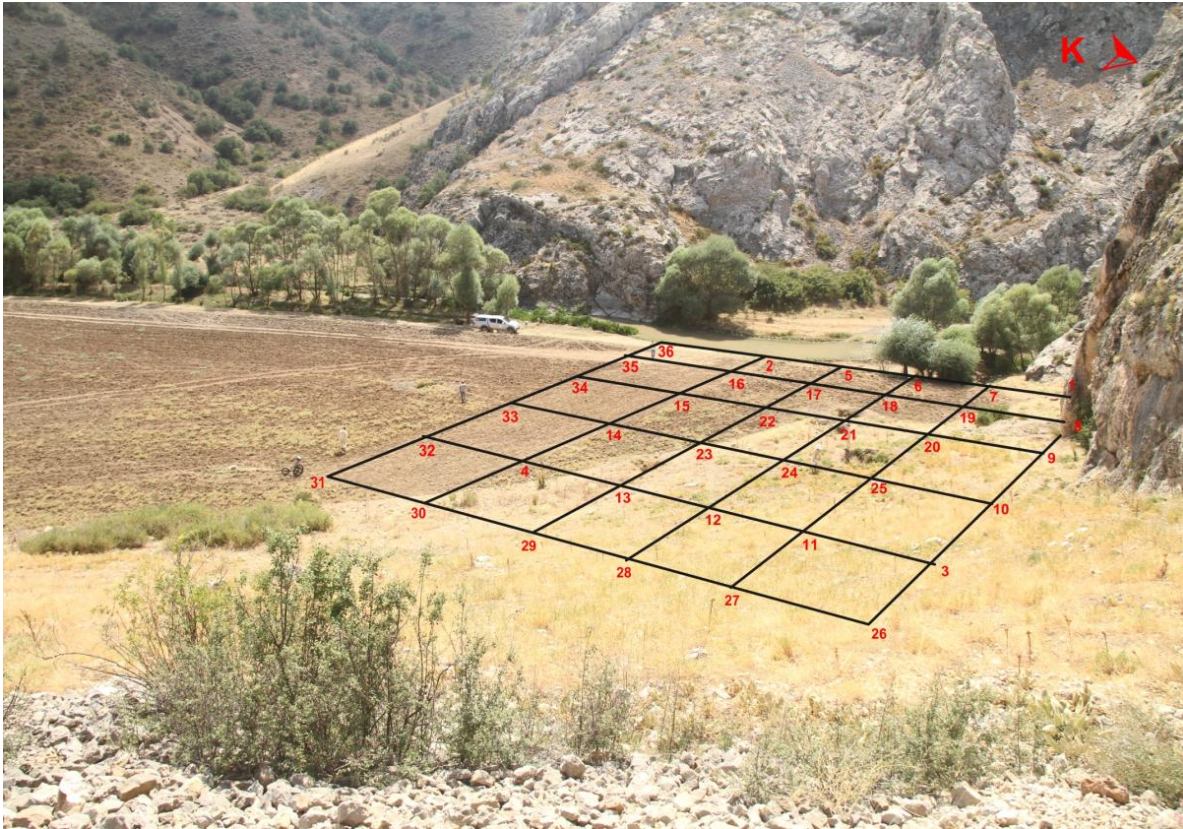


Figure 9: The area where geophysical studies took place

In the study, the presence of building traces in north-south and east-west orientation was detected. Apart from this, it is thought that there is a channel type structure very close to the surface in the part shown with the yellow ellipse and the inside of the structure is filled with soil (Figures 10 and 11). The area shown in red is the wall extension of a possible structure.

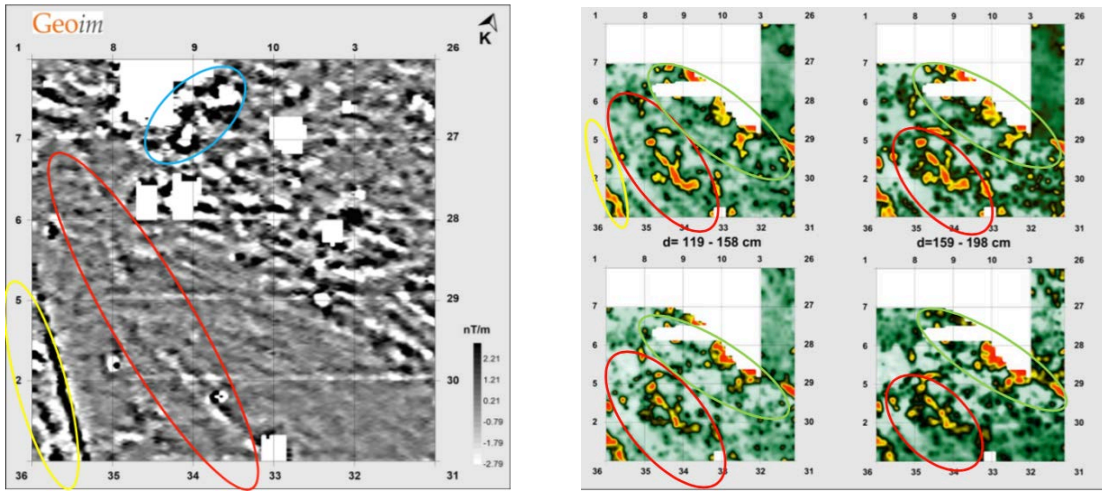


Figure 10: Geophysical area finds -**Figure 11:** Georadar data of the area (prepared by Geoim)

In order to determine both the depth and the dimensions of the building features revealed in magnetic imaging, georadar measurements were made in areas suitable for measurement within the regions that show high anomalies and present important symptoms. Data was collected in an east-west direction (Figure 11). Thanks to georadar, other building traces revealed in the area were seen to have NW-SE, SW-NE, N-S and E-W directional extensions. Differences in structure extensions revealed in depth cuts suggest that deeper structures may reflect early layers. By examining georadar and geomagnetic images together, it was concluded that similar anomalies detected by both methods indicate the main walls of some building complexes in the area. The geophysical study revealed that there are structural directions that continue outside the study area.

c) Geological Research

Settlements are defined along with their natural surroundings and are shaped by their interaction with the natural environment. Therefore, the natural environment plays a crucial role in understanding settlement dynamics. In this context, geological and geomorphological studies are essential in the initial phase of archaeological research projects as they provide data that facilitate the perception of ancient settlements. Geologically, the region where Gerdekkaya is located is located on Triassic-aged volcano-sedimentary rocks, Jurassic-aged ophiolite, Paleogene-aged mudstone, sandstone and conglomerate, neogene-aged mudstone, sandstone and conglomerate and quaternary-aged alluviums (Figure 12). During the field study, it was observed that Gerdekkaya has the characteristics of a Triassic volcano-sedimentary rock. This unit, called the Karakaya formation, was first described in and around the Biga peninsula by Bingöl et al. (1973) and can also be called "unit", "complex" or "group" in the literature. Bingöl (1973) defined this unit as an Early Triassic sequence consisting of slightly metamorphosed mudstone, radiolarite, sandstone, conglomerate, siltstone and spilitic basalt, containing Upper Permian and Middle Triassic blocks. According to Okay and Göncüoğlu (2004), the Karakaya Complex is composed of clastic and volcanic series of Permian and Triassic age that have been severely degraded and changed. There are two parts that make up the Karakaya Complex: the Lower Karakaya Complex, located at the bottom, and the Upper Karakaya Complex, which con-

sists of highly deformed volcanic rocks of Permian or Triassic age. In the Upper Karakaya Complex, there are foreign limestone blocks of Carboniferous and Permian age that are not encountered in the structure of the region. It has been observed that the Gerdekkaya rock tombs were carved specifically into these limestone blocks. Limestone blocks have irregular geometric shapes, are sometimes unbedded, sometimes medium-thickly bedded, cracked, and are light grey, dark grey, yellowish, blackish in colour. As it is known, limestone is an important architectural building material and its selection here is beyond coincidental, indicating a deliberate choice.

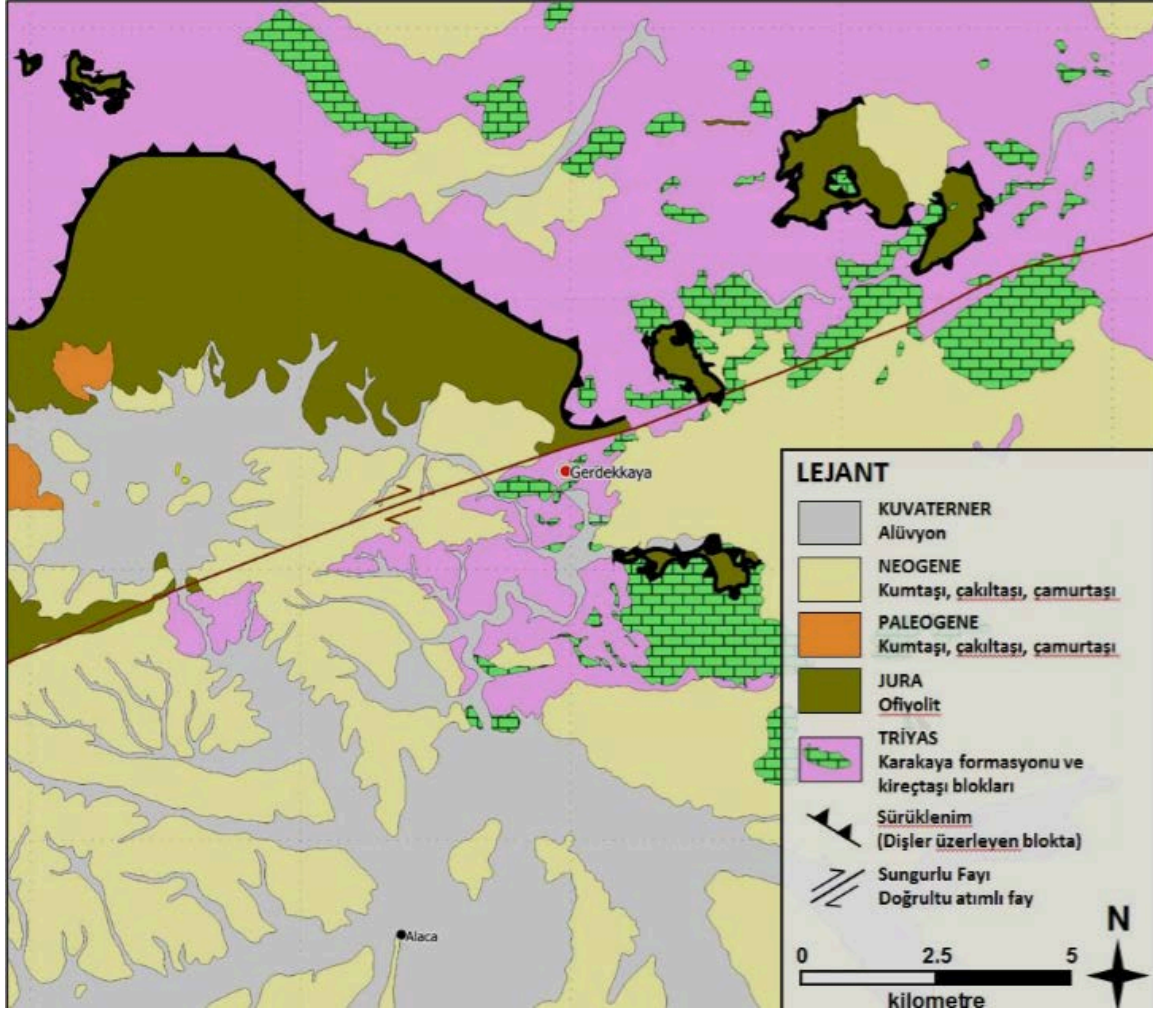


Figure 12: Geological map of Gerdekkaya and its environs

The map given in Figure 13 provides information about the geological units and tectonic relationships of the region. As seen here, the east and north of the region are covered with Pre-Tertiary rocks. There are Paleocene aged granites in the southwest of this region and especially between Kırıkkale and Delice. Paleocene-Early Miocene sediments are common in Şapınıva and its surroundings. Around them are ophiolitic mélangé and Middle Miocene-Pliocene sedi-

ments. The North Anatolian Fault Zone (NAF), the most important neotectonic unit of the region, is located approximately 200 km north of the study area. In addition, the southwest-oriented Kırıkkale-Erbaa fault zone (KEFZ), which is very close to the area and is related to the NAF, is another important neotectonic unit in the region.

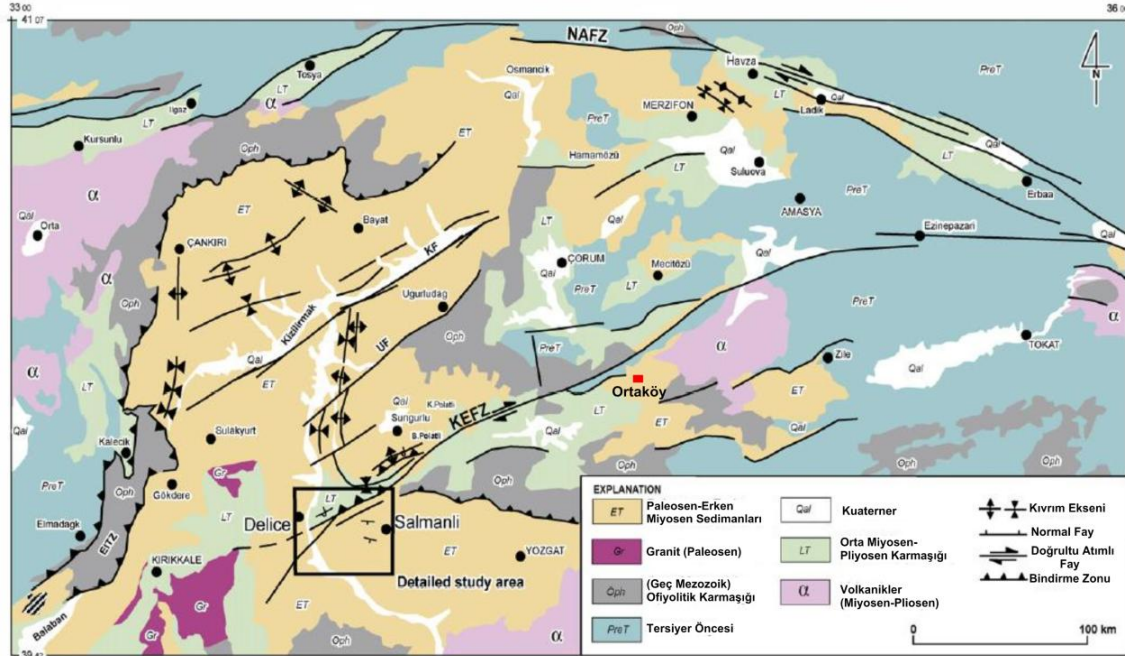


Figure 13: Simplified geological map of the Çankırı-Çorum basin and its surroundings (1: 500,000 MTA). KF: Kızılırmak fault, KEF: Kırıkkale-Erbaa fault zone, NAFZ: North Anatolian fault, UF: Uğurludağ fault (taken from Gökten et al., 2013).

The study area and its surroundings are characterized by a high density of faulting and are located near and within the associated faults of Turkey's significant active fault zone, the North Anatolian Fault Zone. The eastern rock tomb at Gerdekkaya contains traces that are indicative of this, as the fracturing within the tomb is related to the fault systems present here (Figure 14). However, the absence of any displacement on the surface suggests that there has been no movement at least since the time of its construction.



Figure 14: Fault-related fractures inside the tomb

Gerdekkaya's location undoubtedly has a relationship with the landforms surrounding it such as mountains, hills, valleys, passes, rivers and plains. Gerdekkaya is situated in an area enclosed by mountains and limited by narrow passes. Investigations conducted in the research area have shown deep illicit excavation pits and exposed remains on the slopes of the rocky outcrop. It is suggested that the archaeological remains on the slope of the rocky outcrop are buried by soil eroded from the main rock. This cone-shaped accumulation is referred to as a colluvial fan (Figure 15). Agricultural fields are observed in the floodplain of the Büyüköz Stream. These colluvial fans may have developed over these agricultural fields. The present-day agricultural fields are situated in a rather narrow area.



Figure 15: Colluvial fan in front of Gerdekkaya

Conclusion

Survey and observations conducted at the settlement have revealed that Gerdekkaya hosted a fortress-type settlement. Based on the ceramic findings, it can be said that the area was inhabited from the Iron Age through the Hellenistic period and up until the late Roman period. During the Hellenistic period, Gerdekkaya, serving as a fortress with impressive rock-cut tombs, likely controlled the surrounding small rural settlements. Furthermore, the advanced stone craftsmanship displayed in the rock tombs (Sancaktar and Sezgin, 2020, p.346; İpek and Sezgin, 2021, pp. 202-204) indicates a difference in social status at this site. These tombs, probably associated with the fortress commander or the ruling class, are prominently positioned on the front face of the rock. The traces of continuity of the settlement, exposed by illicit excavations at the western corner of the rocky outcrop, indicate that the settlement persisted over time. The mosaic floors suggest that settlers, who wanted to benefit from the natural fortification of the outcrop in the phase following the rock-cut tombs, lived here in prosperity. The use of high-quality tesserae can be considered a reflection of social status, cultural and artistic taste, and prestige.

When the Gerdekkaya settlement is evaluated along with its natural environment using geo-archaeological and geophysical methods, it has been determined that structural remains are close to the surface in areas near the western slope, an east-west oriented outer wall extends, and some of the perceived architecture features mudbrick wall construction. Geological

research has revealed a significant crack in one of the rock tombs. This could potentially damage the structure. The crack is related to the fault lines located near the settlement. Morphological studies suggest that due to erosion in the settlement, inverse stratification may be encountered within the settlement area.

In conclusion, research on Gerdekkaya reveals its importance as a strategic settlement in the Mithradatic Kingdom. The interdisciplinary perspective consisting of surveys, geophysical investigations and geological studies points to the critical role of rocky landscapes in the representation of power. Their choice of location was not coincidental. This position not only underscores strategic defense capabilities, but also symbolizes the representation of power and control in the region. Moreover, the use of the rocky area as a burial site can be seen as a symbol of authority within the kingdom's geography, conveying propaganda and ideological messages, as well as representing regional dominance. These tombs should be considered not merely as individual monuments but also as visual representations of political and social dynamics. The rocky fortification can be seen as a reflection of the kingdom's ability to integrate the natural landscape into the sociopolitical framework.

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Genişletilmiş Özet

Gerdekkaya yerleşimi, Helenistik dönemde tahkimatlı bir yerleşim yeri olarak tanımlanabilir. Kayalık bir peyzajın elverişli bir şekilde kullanıldığı Gerdekkaya'daki yerleşim örüntüsünün yeni veriler bağlamında daha iyi anlaşılması için yüzey araştırması ile jeofizik ve jeoarkeolojik araştırmalar gerçekleştirilmiştir. Bu peyzajda yer alan mimari unsurlar ve yapı izleri, kaya mezarları ve yasadışı kazı faaliyetleri nedeniyle büyük zarar görmüş bir alanı içermektedir. Mevcut veriler, Gerdekkaya'da arkeolojik keşfi bekleyen önemli bir yerleşimin varlığına işaret etmektedir. Yüzey araştırması, kaya mezarları hakkında yeni verileri ortaya koymuştur ve buna göre dokümantasyon sağlanmıştır. Elde edilen seramik buluntuları, kronolojik aralığının Geç Demir Çağı'ndan Bizans dönemine kadar uzandığını göstermektedir. Jeofizik araştırmalar bağlamında Gerdekkaya'nın mimari özelliklerinin dağılım alanını değerlendirmek için jeoradar ve jeomanyetik yöntemleri entegre edilerek kullanılmıştır. Jeoarkeolojik araştırmalar ise, yerleşimin doğal ve fiziksel çevresini, yerleşimin konumlandığı kaya bloğunun jeolojik özelliklerini ve çevresiyle olan potansiyel bağlantılarını araştırmış, jeolojik ve morfolojik unsurları birleştirilmeye çalışılmıştır.

Gerdekkaya'nın Mithradat krallık coğrafyası içindeki konumu, muhtemelen krallığın Galatia sınırını kontrol etme hedefleriyle ilişkilendirilmektedir. VI. Mithradates'in burayı ele geçirmesinden sonra, Gerdekkaya'nın Mithradat Krallığı ile komşusu Galatia arasında bir sınır kalesi işlevi gördüğü düşünülmektedir. Kalenin özellikleri ve konumu dikkate alındığında, bu çalışma, Orta Karadeniz Bölgesi'nin arkeolojisine veri sağlayacak önemli bir tahkimatlı yerleşim yeri olan Gerdekkaya'daki gözlemleri ilk defa tanımlamaktadır. Ayrıca, gelecekteki planlı kazılar için yol gösterici bilgiler sunmaktadır. Arkeolojik ve jeolojik çalışmalar ile elde edilen bilgiler, kaya mezarlarını da içeren bir kale yerleşimi olarak Gerdekkaya'nın çevresindeki kırsal alanları kontrol etmek amacıyla yapıldığını göstermektedir. Ayrıca, kaya mezarlarının sergilediği ileri düzey taş işçiliği, sosyal statüde bir farklılığı göstermektedir. Bu mezarların, muhtemelen kale komutanları ve yerel elitler ile ilişkili olduğu, kalenin ön yüzünde belirgin bir noktada konumlanmasından hareketle söylenebilir. Yerleşimin batı kısmında yasadışı kazılar sonucu ortaya çıkan geç antik yapıların duvar doğrultuları ve mozaik zeminleri ise yerleşimde sürekliliği ve yüksek kültüre işaret etmektedir. Jeofizik veriler, batı yamacına yakın alanlarda yüzeye yakın mimari kalıntıların belirlenmesine yardımcı olmuş ve doğu-batı yönünde uzanan bir dış duvarın yanı sıra algılanan mimarinin bir kısmının yanmış kerpiçten oluştuğunu ve dolayısıyla bir duvar yapımını içerdiğini göstermiştir. Jeolojik araştırmalar, kaya mezarlarından birinde oluşan ve yapıya potansiyel olarak zarar verebilecek önemli bir çatlağın, yakınlardaki fay hatlarıyla ilişkili olduğunu ortaya koymuştur. Bu nedenle, kazılar sırasında elde edilen mimari veriler değerlendirilirken deprem faktörünü dikkate almak önemli olacaktır. Morfolojik çalışmalar, yerleşimdeki erozyonun kazı sırasında ters stratifikasyona neden olabileceğini önermektedir. Gerdekkaya yerleşimini çevreleyen diğer arkeolojik yerleşimler de, belirli bağlantılar doğrultusunda, Gerdekkaya'nın etki alanını tanımlamaya yardımcı olmaktadır. Bu çalışmada tartışılan Gerdekkaya'ya dair yeni veriler, yerleşimin Karadeniz bölgesi arkeolojisi için gelecekteki potansiyeline işaret etmektedir.