OANNES
2025, 7(1) March

Research Article DOI: 10.33469/oannes.1540862

Cultural Heritage-Wise Analysis Based on Multilateral Comparanda Attesting to The Uniqueness of Castrum Zerzevan and its Mithraeum

Aytaç COŞKUN
Department of Archaeology, Dicle University, Sezai Karakoç Faculty of Literature, Diyarbakır, Türkiye
aytaccoskun@hotmail.com

Eser Deniz OĞUZ KIRCA
Independent Researcher, Ankara
zedok33@gmail.com

Volkan DEMİRCİLER
Corresponding Author
Çanakkale Onsekiz Mart University, Faculty of Humanities and Social Science, Department of Archaeology, Çanakkale, Türkiye
volkandemirciler@gmail.com

Submitted	30.08.2024
Revision Requested Last	11.10.2024
Revision Received	14.10.2024
Accepted Date	26.03.2025
Publication Date	26.03.2025

Cite this article
Coskun, A., Oğuz Kırca, E. D. & Demirciler, V. (2025). Cultural Heritage-Wise Analysis Based on Multilateral Comparanda Attesting to The Uniqueness of Castrum Zerzevan and its Mithraeum, *Oannes*, 7(1), March, pp. 39-63.

Abstract

The Zerzevan Fortress on the eastern borders of the Roman Empire reflects the prototype of the headquarters established by the Romans in Upper Mesopotamia. The fortress is one of the rare examples that has survived to the present day, partially preserving its plan scheme. It is also a quasi-civilian settlement where rituals of different belief systems and Roman military planning elements can be seen together. Dating back to the 1st-6th centuries AD, the castrum is a prototype of the castra Romana outside central Rome, with a carefully designed construction scheme and appearance matching a medium-sized garrison.

Based on all the available architectural and archaeological data, without any assumptions or limitations, this paper endeavors to posit the rightfulness of the nomination of the site as a world cultural heritage as a unique testimony of the Roman world in Mesopotamia and the necessity for finalizing the process. It aims to demonstrate the site's uniqueness and show the reasons for its rarity all over the globe through national, regional, and continental comparanda, either on a fortress system, single-building, or duo scale.

There is either a gap in the WHL regarding the co-presence of the duo of Castrum and Mihtraeum, or they have not been adequately represented in the same historical site/archaeological belonging so far. In this context and in comparison to counterparts, Zerzevan, with its Mithraeum, is a featured area where forts and mithraeums known from Europe and the Mediterranean Basin, where Roman rule was established, can be best observed in a single point.

Keywords: *Castrum, Roman, Heritage, Mithraeum, Zerzevan*

Genişletilmiş Özet

Yukarı Mezopotamya'da, Roma İmparatorluğu'nun Suriye eyaleti sınırları içerisinde yer alan Zerzevan Kalesi, günümüzde Diyarbakır'ın 35 km güneyindeki tepelik bir alan üzerine kurulmuştur. İ.S. 1.-6. yüzyıllara tarihlenen kale, orta büyüklükteki bir garnizona denk tasarlanmış planıyla kıta Avrupası dışındaki Roma kalelerinin bir prototipidir.

Literatürde kastrum tipolojisiyle uyum sergileyen Zerzevan Kalesi, Asur Dönemi'nden (MÖ 882-611), 639 yılında İslam ordularının bölgeyi fethine kadar kesintisiz olarak yerleşim görmüştür. Ana askeri yerleşim Roma Dönemi'nde MS 2. ve 3. yüzyıllarda, Severuslar Dönemi'nde (MS 198-235) inşa edilmiştir. Yerleşimin surları ve yapıları I. Anastasios I (MS 491-518) ve I. Justinianos (MS 527-565) dönemlerinde onarılarak bazı yapılar ise yeniden inşa edilerek mevcut son haline getirilmiştir.

UNESCO'ya aday gösterilen alan, Zerzevan Kalesi ve Mithraeum (Mithras Kutsal Alanı)'dan oluşmaktadır. Bu ikisi, Roma egemenliğinin kurulduğu Kıta Avrupası ve Akdeniz Havzası'nda bilinen kalelerin ve mithraeumların tek bir noktada en iyi şekilde gözlemlenebileceği özellikli bir alandır.

Askeri yerleşim, mimari ve teknik bütünlük oluşturan ve Roma askeri tarihinin planlama projelerine örnek teşkil eden ünik bir yapılar grubudur. Yanı sıra, farklı inanç sistemlerinin, ritüellerin ve Roma askeri planlama unsurlarının bir arada görülebildiği yarı sivil bir yerleşimdir. Kale sistemi, askeri mühendislerin stratejik tasarım becerisini net bir şekilde ortaya koymakta, MS 3.-4. yüzyıllar arasında Akdeniz'in doğusundaki Mezopotamya bölgesindeki sınır hatlarında (limes) arazi koşullarına ve topografik özelliklere uygun planlayıp inşa ettiklerini göstermektedir.

Zerzevan Kalesi, pagan Roma'dan Hıristiyan dünyasına geçişi temsil etmesi bakımından önemli bir konumdadır. MS 1-3. yüzyıllara tarihlenen Mithraeum kompleksi, Part-Sasani sınırları boyunca uzanan en eski kutsal alanlardan biri olup tamamen ana kayaya oyulmuştur. İlişkili mekânları, bütüncül bir mimari peyzaj içinde istisnai bir pagan uygulama alanı olarak yerinde gözlemlenebilmektedir. Kompleks, M.S. 4. yüzyılda Hıristiyanlığın kabulünden ve dönemin ilgili otoriteleri tarafından yasaklanıp kaldırılmasından sonra tahrip edilip üzeri örtülmüş olduğundan günümüze değin mümkün olan en iyi durumda ulaşmıştır. Aynı zamanda, planlanma biçimi, yerinde mimari unsurlarla iyi tanımlanmış iç tasarımı ve dönemin "teknolojisini" yansıtan yüzey uygulamaları ve sembol izleriyle ideal bir örnek mekân olup Mithras'ın ritüellerinin yorumlanması için eşsiz bir tanıklık sunmaktadır. Surların içinde yer alan Mithraeum, muhtemelen Roma tarafından doğuda kurulan ilk kült alanlarından biridir.

UNESCO Dünya Mirası Listesi'nde (WHL) Mithras tapınaklarına sahip az sayıda Roma lejyoner kalesi bulunmaktadır. Bunların hiçbiri, yıllardır teorik düzeyde tartışılan Mithras ritüellerinin ayrıntılarına dair kanıt ya da ipucu sağlayacak bütünlüğe sahip değildir. Öte yandan, dini yapıların çoğu Hıristiyanlıkla ilgili olup geri kalanı İbrahimi veya İbrahimi olmayan dinler temelinde listelenmiştir. Ayrıca, antik dönemde sadece Mithras dini ve/veya kültü ile ilgili tescilli bir mülk bulunmamaktadır. Ancak antik merkezlerdeki yapılar içerisinde yer alan mithraeumlar dolaylı olarak listede yer almaktadır. Dolayısıyla bugüne kadar herhangi bir kale ve mihtraeum birlikteliğinin, UNESCO Dünya Miras Listesi'nde şimdiye kadar yeterince temsil edilemediği anlaşılmaktadır.

Zerzevan Kalesi, Yukarı Mezopotamya'daki askeri-dinsel özelliklere sahip en eski Roma surlarından biridir. Bu makale, mevcut mimari ve arkeolojik veriye dayanarak ve herhangi bir varsayım veya sınırlama olmaksızın, Zerzevan'ın, Mezopotamya'daki Roma dünyasının eşsiz tanığı olarak bir dünya kültür mirası olarak aday gösterilmesinin haklılığını ortaya koymaya çalışmaktadır. Ayrıca, Zerzevan'ın benzersizliğinin nedenlerini ulusal, bölgesel ve kıtasal karşılaştırmalar yoluyla ve gerek kale sistemi gerekse tek veya ikili yapı ölçeğinde göstermeyi amaçlamaktadır. Bu bağlamda, bir dizi kriter çerçevesinde;

- Kastrum Zerzevan, Roma sınır garnizonları bağlamında, yakın bölgedeki ve Roma dışındaki benzer örneklerle,

- Mithraeum, tek bina ölçeğinde bölgesel ve diğer mithraeumlarla,

- Kastrum Zerzevan ve Mithraeum birlikte, bir mithras tapınağı içeren yakınlardaki bölgesel ve bölgesel olmayan Roma kaleleriyle karşılaştırılmıştır.

Avrupa örnekleri arasında Zerzevan ile en çok ortak özellik taşıyan kaleler Almanya ve İngiltere sınırları içinde yer almaktadır. Antoninler ve Hadrian Surları, daha erken tarihli varlıklar olup Roma İmparatorluğu'nun stratejik planlama ve organizasyonunu yansıtmaktadır. Hadrian Duvarı, Antonine Surları ve Zerzevan Kalesi, Roma'nın topografyayı dikkate almak suretiyle bir kastrumun planlanması sürecindeki özenli mühendisliği ve uygulamış oldukları süreçleri, mevcut görünür yapılar ve sur sistemleri özelinde gayet iyi yansıtmaktadır. Daha büyük olmasına rağmen, Almanya'daki Novaesum, nehir kenarında konumlanışı, doğal koruma için bir uçurum alanına sahip olması, iç organizasyonu ve sağlam sur sistemi açısından Zerzevan'a en çok yaklaşan kaledir.

Mithraeumlara bakıldığında, İtalya'da Santa Maria Capua Vetere Mithraeumu ön plana çıkarken Roma dünyasının doğusunda, Mezopotamya'daki örneklerin sayısı yetersizdir. Capua Vetere de Zerzevan gibi kasıtlı olarak tahrip edilerek üzeri kapatılmış bir yapıdır. Aralarındaki temel fark, Capue Vetere'nin kent içinde inşa edilmiş bir yapı olması, Zerzevan Mithraeumu'nun ise Mezopotamya'nın kırsalında, tepe üzerine kurulan kale içerisinde inşa edilmiş olmasıdır.

Zerzevan'ın bir muadili, içinde yine bir mithraeum bulunan Duro-Europos Kalesi'dir. Her ikisinin de tepe üstüne inşa edilen kaleler olması; topografik ve konumlanma açısından benzerlik arz etmeleri ve birden fazla inanç sistemine kucak açan dini yapıları içlerinde barındırmaları ve iç planlarındaki benzerlikler dikkat çekicidir. Zerzevan'daki ve Duro-Europos'taki mithraeumlar arasındaki fark, ritüeller sırasında yeme içme eylemlerinin gerçekleştirildiği oturma sekilerinin Zerzevan'da kuzey ve batı yönünde, Dura Europos'ta ise kuzey-güney yönünde planlanmış olmasıdır. Ayrıca MS 2. yüzyıla tarihlendirilen Dura Europos Mithraeumu, Zerzevan'dan daha geç bir döneme işaret etmektedir. Ancak en temel fark, Dura-Europos'taki tüm unsurların yer üstünde inşa edilmiş olmasıdır.

Sonuç olarak, Zerzevan Kalesi, Dicle'nin çevresinde, Roma'nın en doğusundaki limes sistemi içinde bulunan; tipik Roma kastrum geleneğini tepelik bir arazide doğrudan yansıtan; günümüze kadar tamamen korunmuş kaya oygu bir Mithraeum'a ev sahipliği yapan şimdilik ilk ve tek Roma Lejyoner Kalesi'dir.

Introduction

Situated in the Roman province of Syria, which covered Upper Mesopotamia, the Zerzevan Castle (hereinafter referred to as "Castrum Zerzevan, Zerzevan") (Fig. 1-2) is located on a hill 35 km south of Diyarbakır Province in the southeast part of Türkiye. The findings indicate that the area was used during the Parthian (140-85 BC), Late Hellenistic, and Early Roman Periods, from the 2nd century BC to the 3rd century AD. The Castrum became a Roman garrison and legionary base in the 3rd century AD. Given the current architectural ruins and findings, it has been understood that the core military settlement was built during the Severan Period (198-235 AD) and that walls and structures inside the fortification system were reconstructed at the times of Anastasios I (491-518 AD) and Justinian I (527-565 AD) while some of the constructions were rebuilt and restored to their current state. The Castrum remained in use until the advent of Islamic armies around 639 AD (Coşkun, 2017).

Zerzevan exhibits traces left by Roman legionaries, a testament to their strategic prowess. The fortress system (Fig.3) vividly demonstrates the precision and skill of the military engineers. It showcases how they meticulously planned and constructed their fortresses, adapting to the terrain conditions and topographical features in the border lines (limes) in the Mesopotamian region east of the Mediterranean from the 3rd–4th centuries AD. The area is exceptional in representing the transition from pagan Rome to the Christian world. As a potential pioneer for castles outside the central city of Rome, it boasts a carefully designed construction scheme and appearance that reflects that of a medium-sized castrum.

Alongside a variety of defense structures and associated buildings, the significance of Zerzevan reached its peak with the discovery of the first Mithraeum (temple and complex) along the eastern borders of the Roman Empire. The Mithraeum complex has hallmarked the site's attractivity with growing interest since it was unearthed, and the Castrum and Mithraeum were accepted to the UNESCO World Heritage Tentative List together.

The Mithraeum, dating back to the 1st-3rd centuries AD, is one of the oldest sanctuaries along the Parthian-Sasanian borders (Coşkun & Oğuz-Kırca, 2022). Its associated spaces can be observed *in situ* as an exceptional pagan practice area within a holistic architectural landscape.

The Mithraeum complex is completely carved into the bedrock, lying in the northernmost part, near the east-to-north running walls, under a trimmed terrace (Fig. 4-5). It has survived to the present day in the best possible condition since it was destroyed and covered up after the adoption of Christianity in the 4th century AD and its prohibition and abolition by relevant authorities of the period. At the same time, it is an ideal exemplary space with the way it was planned, its well-defined interior design with in-situ architectural elements, and traces of plaster and symbols applied on the surface reflecting "technology". It offers a unique testimony to the mysterious beliefs and secret rituals of Mithras, with four symmetrical animal tethering places on the ceiling, unexplained inscriptions and symbols on the entrance door, a blood or water basin in a niche, a blood or water pool at ground level and a human-sized lying area, three functional niches connected to it, and an underground structure next to the temple (Fig. 6-7). Its architecture is quite well preserved compared to other "temples" found within the Roman borders.

Rationale and Brief Overview

Zerzevan Fortress is one of the oldest Roman fortifications with military-religious features in Upper Mesopotamia. There are few Roman legionary fortresses with Mithras sanctuaries in the UNESCO World Heritage List (WHL). None of them have the integrity to provide evidence or clues to the details of Mithras rituals, which have been discussed for years at a theoretical level. On the other hand, most religious buildings are related to Christianity, with the remainder being listed based on Abrahamic or non-Abrahamic religions. Also, there is no registered property related to the religion and/or cult of Mithras in antiquity. However, the Mithraeum within the structures in the ancient centers is indirectly included in the list.

When the UNESCO WHL is examined, one may come across many religious assets, such as churches and monasteries, along with some located within castle systems. However, the duo of castle and mihtraeum has not been adequately represented in the same historical site/archaeological property so far, and there is a gap in the WHL. Despite many fortress systems with Christian buildings, fortified areas with mithraeums are

rare worldwide. In this respect, Zerzevan represents a combination of little-known building groups simultaneously.

When evaluated in general and regarding pagan and Mithraic elements, every relevant temple and finding completes a missing piece about the Mithras cult. Given small findings in Zerzevan Mithraeum (basically (i) utensils/ ceramic assemblages dating to an interval between Late Roman and Early Islamic periods, (ii) materials of ritual or entertainment function such as fragments of tibiae, (iii) candles, (iv) iron or ornamental objects such as chains, bracelets, etc.), one can hardly mention the paucity of evidence. The number of mithraeums in and outside Türkiye is quite limited. The complex in Zerzevan must be among the best-preserved examples ever found.

The coexistence of the Mihtraeum with small-scale churches provides insight into the history of religions along the limes in Upper Mesopotamia from the 1st to 6th centuries AD. Hence, it has a distinct place in the subcategory of "sanctuaries of Mithras within Roman fortified systems". In this context, there is a need to check and understand other systems within a set of criteria given here below:

- Castrum Zerzevan is compared with similar examples in the immediate region and outside Rome, in the context of Roman border garrisons,

- The Mithraeum is compared with regional and other Mithraeums on a single-building scale,

- Castrum Zerzevan and Mithraeum are compared with nearby regional and non-regional Roman fortresses featuring a Mithras temple.

Comparative Analysis

Castra Romana was established in continental Europe, mostly on flat land and occasionally on barren land in other parts of the Mediterranean Basin. They are physically connected to city walls. A street-avenue system was organized in a T-shaped interior plan. Along the long side of the castle, the Via Principalis, a main road between the gates, and secondary roads (Via Praetoria and Via Decumana) leading to the front and back gates were designed. The gates to the right and left of the long sides were named Porta dextra and Porta sinistra, respectively (Lander, 1984; Campbell, 2006). Legionary forts had three or four gates and regularly spaced towers (Campbell, 2006, pp. 33-49).

The Porta Praetoria, the only excavated gate at Zerzevan, is one of the elements in the best condition that is also compatible with those seen in the fortress plans of the Roman limes. Since Zerzevan has a natural defense orientation, no clavicula or fossa system (double row ditch) can be mentioned (Vitruvius, De Architecture, I.V.) The Principia, the headquarters building built in the center of the fortress, is not far from the main gate but not precisely in the middle. Forts had a Praetorium (Vegetius, De Re Militari I, Lines 22-24), the residence of the commander (often with his family), near the Principium (Lander, 1984, p. 59). All of these are present at Zerzevan. Granaries were usually built of local stone (mainly sandstone) and red tiles. Space was planned for stables, warehouses, drill grounds, weapon stores such as arsenals, dispensaries (valetudinariums), and artisan workshops such as blacksmiths. Soldiers had barrack blocks (centuriae), and officers had private rooms at the ends of these blocks. For now, the difference in other Roman castles is that even smaller forts had communal toilets, saunas, or steam rooms (Campbell, 2006, pp. 37-49 and Goldsworthy, 2013). At Zerzevan, such rooms are thought to have been located inside the barracks, based on some traces of a funnel route.

Close Regional and European Examples in the Context of Roman Border Garrisons

Anatolia was home to other legionary fortresses (Parker, 2000, p. 122; Uzunoğlu, 2012, pp. 96-97). Among the main known headquarters were Zeugma (Gaziantep), Samosata (Adıyaman), Melitene (Malatya) (Gabriel, 1940, pp. 264-269 and Mitford, 1998, p. 16), Satala (Gümüşhane) (Lightfoot, 1998, pp. 273-284 and Hartmann et al., 2006); Ankyra (Ankara); Anastasiopolis (Dara) (Metin ve Durukan, 2022, pp. 429-446) and Nisibis (Nusaybin).

Garrison towns in the province of Syria formed a link in the Roman chain of eastern limes on the Sassanid border. Between the northern Mesopotamian plain and the eastern Anatolian plateau, important stations

included newly established outposts. Zerzevan Fortress was one of the strategic points that completed the chain of fortresses (Eastern Limes) such as Melitene, Zeugma, Samosata, Satala, and Dara, of which very few traces of their integrity remain today.

Compared to sites in the immediate region, such as Dara (Ahunbay, 1991 and Metin, 2021) and Nisibis (Demir & Keçiş, 2017, pp. 1-29), Zerzevan is quite unique. In northern Mesopotamia, where physical evidence is still weak, the roadside forts between Doliche and Samosata resemble the positioning of Zerzevan between Amida and Nisibis. Another may be Eskihisar, which guarded the road between the legionary bases of Zeugma and Samosata on the east bank of the Euphrates (Guyer, 1939, pp. 183-190). In any case, the architectural features of Zerzevan are significantly different from all those mentioned above and have a unique structure (Coşkun & Dursun et al., 2023).

With regard to the Roman road network in Northern Mesopotamia, where physical evidence is still poor, the Tabula Peutingeriana (Özükan, 2017) and the Itinerarium Antonini Augusti (104.7) are important sources, especially for the Osrhoene region (the sub-region corresponding to western Mesopotamia/east of the Euphrates). A look at neighboring legionary forts in the Syrian province reveals several insights. Without a deepwater line for transport and related logistical concerns, the Roman army must have considered terrestrial solutions in this area. The auxiliary fortifications in the Itinerarium Antonini Augusti and Tabula Peutingeriana are all within a day's walk of each other (Mitford, 1977, p. 507; Löhberg, 2006). Zerzevan has physical and relative proximity to both the legionary fortresses such as Nisibis on the modern borders of Syria and Turkey, to fortress cities such as Dura Europos, built on waterfronts and high ground, and to Singara in northern Iraq, as auxiliary forces recruited from local forces. However, it can be stated that very few unified images of these fortresses have remained.

Zeugma (Gaziantep)

Included in the UNESCO World Heritage Tentative List, Zeugma (Fig. 8) is the closest to Amida and Dara and represents a civilian example (Görkay, 2017, pp. 149, 165). Legionaries were present in the city from the end of the 1st until the 3rd century AD (Görkay, 2011; Kadıoğlu & Görkay, 2011, pp. 536-538). Legionaries from continental Europe were mainly stationed from the early 2nd century AD to the middle of the 3rd century AD. Zeugma, which was founded and operated as a Macedonian colony in the Hellenistic period, was a city of propaganda and prestige where Rome demonstrated its power against the Parthians in architectural terms (Görkay, 2017, pp. 149-150). Therefore, it was not a small-scale garrison city with predominantly military qualities like Zerzevan.

Many legion-stamped roof tiles and Latin inscriptions are concentrated in the Horse Square (Hartmann and Speidel, 2013, pp. 385-399 and Görkay, 2017, pp. 153-155), which is spread over an area of approximately 225 acres and consists of terraces. It was built on relatively flat land bounded by Belkıs Tepe in the east and the ridge descending from Belkıs Tepe to the west in the south. Zeugma had a walled settlement texture during the Roman Imperial Period (Görkay, 2017).

It is thought that the Horse Square and the wide flat area to its south may belong to the garrison where Legio IIII Scythica was stationed (Wagner, 1977). This legion, which settled in the city around 66/67 AD, first established a "conventional legion settlement" in this area outside the Hellenistic walls, then expanded towards the south, and together with the incoming Auxilia legions, "transformed the settlement from a fortress to an urban settlement in the form of a Roman military colony." Therefore, we are faced with a very large-scale program. The closest parallel regarding the settlement model is the Dura-Europos. It is meaningful considering that soldiers of Legio IIII Scythica, who moved from Zeugma to Dura-Europos in 165 AD, also engaged in similar practices in Dura-Europos (Görkay, 2017, pp. 161-162). However, the civil city identity of Zeugma predominates.

The discovery of a Mithras relief within the legion compound is significant, suggesting the existence of a Mithraeum in Zeugma. This location is reminiscent of the Mithraeum built adjacent to the city wall within the military camp at Dura-Europos (Görkay, 2017, p. 161).

Dara (Anastasiopolis)

Located 30 km southeast of Mardin, Dara is in today's Oğuzlar Village. The Roman Emperor Anastasius founded it as a garrison (491-518 AD) to protect the eastern border of the Roman Empire against the Sassanid threat. It was designed much later than places like Zerzevan and Zeugma. The walls and the civil settlement are intertwined and spread towards the water source on the plain. All city structures can be seen within the city wall system, which is 4 km long (Ahunbay, 1991). Similar to Zerzevan, Dara's main structures are rock-carved (see Dursun, 2024, for Mardin stone elements). Despite similarities in the functions of in-city buildings, Dara's civilian settlements' distinct design and prominence over the military garrison set them apart (Metin & Durukan, 2022).

Hatra, Iraq (WHL, Dossier 277)

Hatra, a fortified city under Parthian influence, had thick walls and towers. Also known as the city of Shamash, its connection with the sun god is questioned. The Romans captured it in 116 and 198 AD. The city's ruins stand out, especially the temples, which blend Hellenistic and Roman architecture with Eastern ornamental features. It had a circular plan surrounded by inner and outer walls of about 2 km long. The city is also characterized by several temples dedicated to Indo-European deities. There is a possibility of a mithraeum here, but it is not yet clear. The presence of regionally different gods underscores the city's historical significance (Kaizer, 2000, pp. 229–252).

Hatra, which gives its name to the city and the fortress, differs from Zerzevan in that it has more sophisticated architecture and a unique moat system, a defensive trench filled with water, in addition to the inner and outer walls. The moat was a unique feature of Hatra's architecture, enhancing its defensive capabilities. Zerzevan is not an extensive settlement since it is built in a hilly area. As Hatra dates back to the Hellenistic and Roman periods, it also differs chronologically.

Ancient Villages of Northern Syria, Syria (WHL, Dossier 1348)

Encompassing approximately 40 villages, traces of rural life in Late Antiquity and Byzantine times provide important testimony to history in Syria. The cultural landscape of the villages, which date to the 1st–7th centuries AD and were abandoned in the 8th–10th centuries, is an important example of the transition from the ancient pagan world of the Roman Empire to Byzantine Christianity.

Within the North Syrian Villages, Deir Zor in north-eastern Syria (Blétry, 2020, pp. 137-146) may be a worthy comparison. Although its fortification and tower architecture can be compared with Zenobia-Khalabia (Deir Ezzor) and Qasr Bashir in Jordan, the architectural features of Zerzevan differ significantly. Qasr Bashir is a "desert" fortress. The corner towers have 3 stories. Although it is very small in scale, it has giant-sized stones. The Roman fortress of Qreiye in Deir Ezzor is 220 x 220 m. It is one of the rare examples of a Roman fortress that was not integrated into an existing settlement in the region. It is surrounded on three sides by a double-walled moat system. A steep slope towards the Euphrates on the north side forms a natural protection. Archaeological remains are covered only by a thin layer of sand (Gschwind & Hasan, 2008).

Singara, Iraq

A parallel example concerning its natural layout and architectural appearance over a barren landscape is Balad Sinjar (Parker, 2000, pp. 122-138) at Singara, southeast of Nisibis (modern Sinjar in northern Iraq), a fort of Legio I Parthica. Singara Fortress (Oates, 1968, fig. 8), located in the Nineveh (Mosul) region, remained one of the easternmost outposts of Rome during the 3rd century AD. It was promoted to a Roman colony by Septimius Severus. The name appears in Tabula Peutingeriana. Its defense system was formed by ditches and outer and inner walls. Zerzevan shares a similar chronology. However, it lacks, unlike Singara, a ditch and double wall system. Therefore, the layout and silhouette of Singara can only be a comparison criterion. The Roman historian Ammianus Marcellinus wrote that the fortress's terrain was highly arid (Ammianus Marcellinus, History, XVIII.5).

Roman Garrison in Timgad, Algeria

Timgad is an example of a Roman military camp established during the Imperial period. It is a site where Rome's central power was applied in colonizing the Algerian high plains but it also reflects tradition. Its grid plan mirrors the outlines of Roman town planning and is modeled on the original plan of the military camp. The rich architectural inventory, created by Roman military engineers with various typologies, includes a defense system, public buildings, and a religious complex. The stone buildings were quite restored (WHL, Dossier 194).

In Tunisia, a significant part of the forts that were elements of the Limes Tripolitanus, a military frontier region of North Africa under Roman rule, are under the sands. This chain of forts formed the easternmost part of the African Limes. Until the 2nd-6th centuries AD, they were used to defend coastal areas in the Maghreb and port cities up to the border with Cyrenaica. Most of them are lost due to desertification and, hence, are not as visible as the Mesopotamian examples.

Frontiers of the Roman Empire in Europe

The most general category of Roman military forts that can be used as a benchmark for Zerzevan is the "Frontiers of the Roman Empire (Germany, UK, Netherlands, Austria, Slovakia, and Romania)", which is shared by several European countries (Fig. 9). The fragmented frontiers are registered in the WHL as the western and lower frontiers (WHL, Dossier 430ter, 1631, 1608rev, 1718).

The Roman Empire reached its most extensive frontiers in the 2nd century AD. The "limes" system, which was also decisive in the military road system, stretched for more than 5000 km from the Atlantic coast to continental Europe and the Black Sea, from the Red Sea and the North African coast to the south of the Atlantic, including today's Northern Britain. The Roman Limes consisted of fortifications, walls, castles, moat systems, watchtowers, civilian settlements, etc. The surviving boundaries were generally documented in two parts of Germany. These categories include Germany and other countries (England, the Netherlands, Austria, Slovakia and Romania).

The Upper Germanic-Rhaetian Wall (Limes Germanicus) was the Empire's northernmost external frontier between the Rhine and Danube in Germany. The borders, known as the Western and Lower Limes, stretched for 550 km. The next sub-part analyses the fortresses containing a Mithraeum.

As per its military mission, Zerzevan was similar to many documented fortresses such as Chester (Deva) in Britain, Castra Regina (Regensburg) in Germany, where the Regen River meets the Danube, and Novaesum (Neuss) on the Rhine, Inchtuthil in Scotland, etc. (Carrington, 1977, pp. 36-42; Dietz & Fischer, 1996; Campbell, 2006, pp. 24, 33, 39; Shirley, 1996, pp. 111-127; Gechter, 2007, pp. 207-213).

Novaesium (Neuss), Germany

Novaesium (Fig. 10), a Flavian fortress founded in 80 AD, is one of the oldest in the lower German limes system. It was built on a natural terrace, protected by the small river Erft to its south. Zerzevan overlooks a stream bed and valley in the west. This sector, which was formed by a natural scarp, made the castle, like Novaesum, more sheltered. Novaesum covered an area of about 24 ha. Although it can not be a complete comparison criterion for Zerzevan, it is within the standard of a legionary fortress regarding the plan and internal organization (Le Bohec, 2000, fig. 4a; Sparavigna, 2019). In addition to similar standard structures (e.g., valetudinarium), Zerzevan has an oval-shaped Porta Praetoria.

Hadrian's Walls, England

Hadrian's Wall (Fig. 11), an essential segment of the Roman Limes, was built during the reign of Emperor Hadrian in 122 AD in the northernmost part of the Roman province of Britain, 118 km long, on the borders of present-day Britain. It is a complex of fortifications. The original plan envisaged stone walls with a maximum height of 4,6 m and a depth of about 3 m. Milecastles or small forts were placed along the wall with two towers between them. These forts were placed at 7-mile intervals along the wall where the terrain permitted (Hodgson, 2017). Hadrian's Wall and its surroundings are good representatives of Roman military organization, which provide important data on the defense techniques of legionary troops. Offering a long position, it is a "wall" system consisting of fortresses and fortifications. Zerzevan is a singular example.

Antonine Wall, Scotland

The Antonine Wall, 60 km long, at the northernmost part of the Roman Limes, on the borders of Scotland, was built by Antonius Pius in 142 AD against the invasions of the northern tribes. These are complementary borderlines. They demonstrate the close interconnectedness of military points and their associated 'civilian settlements' enormously, showing how the Empire's reach extended far beyond its military outposts. Like the Hadrian's Wall, Antonine Walls reflect the adaptability and ingenuity of the ancient Romans to geography, topography, and climate (Breeze & Hanson, 2020).

The state of preservation of the Roman fortifications varies. For instance, most of the German-Raet Harbour in Germany remains underground while the Antonine Wall in Scotland is in excellent condition. The height and depth of the protected sections can be observed vividly. Seventeen forts, with a capacity of about 6,000–7,000 soldiers, were built at regular intervals along the Antonine Wall. These forts, including Hadrian's Wall, were smaller than the principal legionary forts in the Empire.

Slightly smaller forts were placed in the center of the main legionary strongholds. The fact that some of them were located close to the full-fledged forts suggests that some forts may have been added later as part of a change in plan. This should not be the case for Zerzevan. Most smaller forts/ fortlets, such as those at Zerzevan and the Antonine Wall, are rectangular with rounded corners. Unlike Zerzevan, however, most of these forts were equipped with walls built of loose earth, with stone and timber-inserted buildings.

Examples of Regional and Other Single Building Mithras Temples

The number of sanctuaries known to exist in Anatolia or considered to be Mithraeum is quite insufficient. However, those that can be put forward as a comparison criterion are found in Cappadocia, Pamphylia, Phrygia, Psidia, Mysia, Pontos, Lyconis, etc. Although unclear, these are the areas where the most concrete findings, therefore the most evident traces of the cult, are found. However, none of them is a combination of a legionary fortress and the cult of Mithras. The Mithraeums on a single-building scale are listed below:

Doliche, Gaziantep

A documented site in Anatolia that may provide faint hints of Mithraic features is located at Doliche (Winter & Blömer, 2018) because of an associated relief. However, the structure differs significantly from the architectural features of the Zerzevan Mithraeum in that it was built in a quarry left open. This same architecture and similar belief systems can be seen in the vicinity of the Lalish Temple in northern Iraq, a UNESCO-designated heritage site.

Kapıkaya Mithraeum, İzmir

At Kapıkaya, near Bergama, İzmir, there is a throne arrangement and a cave that appear to have been used as a mithraeum (Radt, 1979). It is recorded that the cave was used during the Hellenistic and Roman periods. The difference here is that Kapıkaya is singular on a scarp area where cults of the mother goddess and the sun are seen together.

Hawarte Mithraeum, Syria

The Mithraism found in the village of Hawarte in Syria can be noted as a point of comparison. However, this Mithraeum was discovered under a church in the village (Fig. 12). The collapse of the floor in the center of the church nave revealed a cave with walls covered with Mithraic paintings. It is understood that this was the main room of a Mithraeum. The wall paintings depicting scenes from the life of Mithra are interesting (Gawlikowski, 2000, pp. 261-271 and Gawlikowski, 2007, pp. 337-361). The main room is orientated E-W and 4,80 m wide. The seating benches are planned on the right, towards the south side of the room. In comparison to that of Zerzevan, Hawarte presents similarities in the placement of architectural elements. The greatest similarity relates to the designation of sitting benches. The difference is that Zerzevan Mithraeum was not located under a church-like structure but rather stood single in an isolated plot.

Caesarea Maritima, Israel

In the ancient city of Caesarea Maritima in Israel, which is on the WHS Tentative List, a vaulted room was found underground near the harbor. Initially thought to have been built as a warehouse, the structure was converted into a temple of Mithras at the end of the 1st or beginning of the 2nd century AD. It is a flat, simple, vaulted space (Bull et al., 2017).

Mithraeums in Europe on a Single Building Scale

The Mithraeums at Rome, Santa Maria Capua Vetere, and Ostia in Italy present some common architectural features with the structure at Zerzevan. They are explained below. The Mithraeums showing the tauroctony scene in frescoes are the Barberini Mithraeum in Rome and the Mitreo di Santa Maria Capua Vetere (Corpus Inscriptionum et Monumentorum Religionis Mithriacae (CIMRM) 180). On the other hand, elements such as arches, vaults, a stone-paved court, and marble decorations on the walls were found *in situ* in the well-preserved Mithraeum next to the Circus Maximus, where entertainment and races were held in the city of Rome. Some objects were also removed. Although ornaments can be seen on some parts of the original wall, they were significantly damaged (Szabo et al. 2023, p. 742). No objects were found inside the Mithraeum of Zerzevan. However, faint wall decorations have remained to date, as in the case of Circus Maximus.

The Vetere Mithraeum of Santa Maria Capua in Italy is considered one of the most important mithraic buildings in the world (Fig. 13). Its roots can be traced back to the end of the 1st or beginning of the 2nd century AD, making it the oldest known in the West. The rectangular room, approximately 13 x 3 m wide, features benches carved out of stone on the long walls. At the end of the room, an altar with a brightly colored fresco depicting tauroctony stands. The southern bench holds a rectangular water trough, while the other bench houses a well with drain pipes. Near these pools, in front of both benches, a small rectangular niche is visible. At the end of the path leading to the benches with small steps, there is a third bench sloping towards the west wall. A small channel in front of this bench disappears into the channel on the north wall and connects to the well. The side walls and the vaulted section are covered with stucco paintings. The vault is decorated with six-point stars painted in red and green on a yellow background, a design similar to the Mithraeum at Marino (Vermaseren, 1963 and CIMRM 180).

In addition to the similar rectangular ground plans, designation of the benches, and possible placement of the water source in the southern sector in the main room in both of the mithraeums, the comparison with the Capua Vetere is also meaningful in the chronological framework because of its "firstness." Probably one of the first mithraeums built in the early 2nd century AD, Capua Vetere, like the one at Zerzevan, was deliberately covered and destroyed.

In Ostia, a sanctuary was found inside the Baths of Trajan. It was built in the northernmost part of a corridor separate from the other underground rooms. Like the Mithraeum of Zerzevan, the entrance is from the west and leads to a vaulted space. Two benches were found along the side wall. The two benches at Zerzevan lie along the adjacent walls. A brick staircase reaches the temple, and the entrance is between two cross walls. The interior dimensions are 15.37 x 4.55; the maximum height of the vault is 2.1 m. The Mithraeum of Zerzervan is limited to an area of approximately 35 m2. In Ostia, the floor was of brick, and to the east of the vault, there was a shallow square recess painted red for a possible relief or inscription. There are niches on the vertical side of the podia, halfway down the temple (CIMRM 229). In Zerzevan, there is a large niche in the middle and two other small niches on either side in the same wall. On the floor of Ostia is a square brick plinth. In front of it is a small, plastered, triangular altar. At the three corners stand small triangular columns that originally supported something. Presumably, an altar for the ex-voto was present in the middle space, over the floor in that of Zerzevan.

There are structures in Greece that have been interpreted as the Mithraum of Eleusis, but these do not provide sufficient information. In the Sanctuary of Eleusis, a Roman building interpreted as a mithraeum consists of a rectangular room with two large seating benches. The evaluation is based on its peculiar interior part, which recalls the typology of Mithras cult sites. The mithraeum at Aigio was built underground (Kolia, 2006, pp. 208-220).

As seen in the natural and architectural assets of the medieval city of Jajce (Sergejevski, 1937), which is on the World Heritage Tentative List, in the Jajce region of Bosnia, a single-celled temple was found in a cave discovered by chance during the excavation of a house (CIMRM 1901). The Mithraeum, included in the National Monuments of Bosnia and Herzegovina, represents the core of the formerly walled city. The complex with fortresses, city walls, and towers is located on the southern slope of a large rocky pyramid, surrounded by the Pliva River bed to the southwest and the Vrbas River to the southeast and east. The perimeter of Jajce is about 1,3 km, spread over an area of 112,000 m2. Although common temporality cannot be established, similarities can be noted in terms of the city's (perimeter) dimensions and the area of distribution (World Heritage Tentative List, Ref.: 2098).

Again in Bosnia-Herzegovina, the Konjic Mithraeum is a significant historical site, one of the best-preserved mithraeums in Europe. It is not carved into a cave but is nestled in a dense forest. Dating back to the 4th century AD, it is believed to have been used since the 2nd century AD and underwent repairs in the 4th century AD. The Jajce Mithraeum is typologically compatible with the rock-cut ones. However, in instances such as Konjic, where topographical conditions were challenging, the earth was excavated to create small single-celled temples, giving the impression of a cave (CIMRM 1896). The minimum commonality with Zerzevan appears to be the cave silhouette of the building.

As given above, most mithraeums are of similar structure, greatly built underground. There was usually a simple, small vaulted room with two seating areas for the adepts on either side. One can check Mitreo di Marino, which was located in the Lazio region and built underground in a longer and narrower space, offering the usual plan (Vermaseren, 1963). It does not belong to any fortress. It has an altar in the center, as seen at Zerzevan, but this and similar mithraeums were part of the city. Another point of note can be that Zerzevan Mithraeum has some similarities with the "ground" plan of the courtyard mithraeum of Les Bolards, Nuites-Saint-Georges in France.

Poetovio Mithraeum III (CIMRM 1578) in Slovenia was found among a villa and house and is monumental in scale. It is oriented north-south and is considered one of the largest in the Roman Empire. Even though it is not built underground (Szabo et al., 2023, pp. 747–748), a commonality with Zerzevan is that they were both built in the same direction. It consists of a rectangular room with two rows of seats along its long sides. The statue of the deity is placed on a built pedestal at the far end of the room. The shape of the rooms and the way in which the benches were placed are the basic commonalities for Poetovio and Zerzevan.

In Spain, the "Els Munts" Mithraeum near Tarragona is among the largest known mithraeums, together with the mitraeum in the Baths of Caracalla (Mitreo delle terme di Caracalla). However, Els Munts, was not built in the form of a cave but was constructed in an open area. In Seville, in the Roman cemetery at Carmona, in the so-called "Elephant's Tomb", a tomb has been identified allegedly as a mithraeum in the light of archaeoastronomical studies. Symbols of Mithras were found in the place with many building phases. One similarity could be that it was also carved in rock and directly received the sun at the equinox (Hernandez & Gomez, 2012, p. 120). There is an equivalent situation in Zerzevan.

In France, the Sarrebourg Mithraeum can be worth discussing because it was also built underground (Meyer, 2017, pp. 209-221). Measuring 5.40 x 6,20 m, the sanctuary was built of limestone in the 3rd century AD and destroyed by the Christians in the late 4th century. During the first archaeological excavations, the skeleton of a man whose hands were tied behind his back with iron chains was unearthed among the ruins of the altar (Turcan, 2016, p. 51). The sacrificial ceremony here reminds us of the man-sized pit in the plan at Zerzevan.

Examples of Roman Fortresses Featuring a Mithraeum

Dura Europos (WH Tentative List), Syria

The archaeological site of Dura-Europos (Fig. 14-15), located in modern Syria, on a hilly area high above the valley on the banks of the Euphrates River, was home to many pagan and Christian worshippers in Late Antiquity. The levelled area is reminiscent of Zerzevan with its terrain. It is similar to Zerzevan's location close to the northern sector valley the military barracks and the Praetorium. Zerzevan, overlooking a stream bed to the west, is also a hilltop fortress built near water (Coşkun, 2017; 2019; 2023; Coşkun & Oğuz Kırca, 2023b). There are pagan temples with remarkable fresco decoration, a mithraeum, a large synagogue, and a

Christian building in Dura Europos (Simon, 2020). After Dura Europos became one of Rome's frontier cities, new buildings and a mithraeum were constructed for different belief groups (Butcher, 2003, pp. 260-261).

The Mithraeum was a remodelled house in the middle of the 2nd century AD (Pearson, 1939, pp. 76-80). It was destroyed in the 3rd century AD. A cult niche was found in a long, rectangular, narrow room, framed by two painted columns. The walls surrounding the niche were covered with paintings, telling stories related to the cult. In front of the reliefs was an altar for sacrifices and long benches for ritual meals along the north and south walls of the niche. On the wall behind the niche are signs of the zodiac (Pearson & Rostovtzeff, 1939, pp. 101-104).

The Mithraeum at Dura Europos resembles the Mithraeum at Zerzevan in terms of the niche, with the tauroctony scene/place and the belts containing symbols on the niche (CIMRM 34). The sanctuary of Mithra in Dura Europos, located at the northwest corner of the city walls, is contemporaneous with the synagogue. This indicates the presence of multi-religious structures, just like at Zerzevan (Coşkun & Oğuz Kırca, 2022; Coşkun, 2023). The difference between Dura-Europos and Zerzevan in this context is that all religious buildings, including the Mithraeum, were built above ground in the former one (Dirven, 1999, pp. 260-261).

Housesteads Mithraeum, England

Outside the Housesteads Roman Fort at Hadrian's Wall (Rushworth, 2009), the Housesteads Mithraeum, an underground temple still buried, was found on the slope of a hill. If it is considered in the category of buildings related to the fortress, it can be stated that they overlap in terms of plan. A relief of Mithras surrounded by a zodiac was found in the building, consisting of a rectangular room surrounded by seating benches. There is a stone water channel in the centre of the floor (Smith, 1962, pp. 278-280 and CIMRM 860). Since Housesteads Fortress has the status of Auxilia, it probably parallels Zerzevan. Another analogy emerges with respect to cisterns. There is no water source at Housesteads. There are large cisterns around the castle for rainwater harvest but these structures are located inside the castle in Zerzevan (Coşkun & Oğuz Kırca, 2022; 2023a)·

Caernarfon Mithraeum, England

The Mithraeum of Caernarfon in England is located 150 m east/northwest of the Roman castrum of Segontium, on the outskirts of Caernarfon in Gwynedd, North Wales. It was linked to the Roman legionary base at Chester via a Roman road, which was built, like many others, in the 3rd century AD and subsequently abandoned; it was dismantled in the late 4th century AD. There have been a few finds, including four small altars, one with an inscription, and some remarkable ceremonial ironwork. Today, it is in a residential area. The building had a roof. The narthex, chapel, nave, side benches and square alcove for cult objects have been documented. It was divided into two phases during the fortress's active time. Four miniature altars were found, one of which had the initials of an officer. Additionally, some potsherds, oil lamps, and ironworks were discovered (Boon, 1960, pp. 136-177 and CIMRM 2374). An interesting point of comparison is that the Segontium Fortress (modern Caernarvon (Casey & Davies, 1993) had Auxilia characteristics, a characteristic it shares with Zerzevan (Coşkun & Oğuz Kırca, 2022; 2023a).

Mithraeum of Lugo, Spain

A Mithraeum was found in Galicia, in the city of Lugo, in present-day Spain. The city walls of Lugo (WHL, Dossier 987) were built in the late 3rd century AD to defend the Roman city of Lucus. The entire wall survives intact and is one of Western Europe's best representatives of Late Roman fortifications. A Galician city wall in north-western Spain is an exceptional architectural, archaeological and structural heritage of Roman engineering from the 3rd and 4th centuries AD. The fortifications are built of internal and external stone facades with lime mortar. They are rectangular with a total length of about 2 km and cover an area of 1.68 hectares. Excavations in the 2000s uncovered a domus (Domus de Victorinus) dating from the 1st century BC, which housed an unusual sanctuary in the area. The most striking feature of the villa was the sanctuary dedicated to Mithras. It is a rectangular building aligned north-south, measuring 15x7 m (Alvar, 2006, pp. 266-277). The period, quadrangular plan, and some finds (e.g., altars and animal bones) remind the Zerzevan Mithraeum.

Apulum Mithraeum, Romania

The fortresses built by the Dacian administration in the 1st century AD that fall within the borders of Romania can be considered in the classical sense. The defence structures, which formed the heart of the Kingdom of Dacia, were captured by the Romans at the beginning of the 2nd century AD and were probably repaired. Dacian fortresses (WHL, Dossier 960) are representatives of military architectural techniques and concepts (Marcu, 2009). Ancient Apulum, located in Roman Dacia, was the legionary fortress base of the Legio XIII Gemina. The city developed around the fortress of the said Legio. The settlement spread over 140 hectares in the 3rd century AD and had two towns called Apulum, Castrum, and numerous temples, including a mithraeum (Szabo, 2013, pp. 54-60). In ancient Apulum, the remains of a building in the northern "municipium" dated to the 2nd/3rd century AD, can be seen today.

Carrawburgh and Walbrook Mithraeum, England

Carrawburgh is situated between Chesters Castle, which reflects the standard of a typical cavalry legionary fort, and the infantry fort at Housesteads. It is a stone structure, identified by a relief representing a taurochtony scene. Unlike the one at Zerzevan (Coşkun and Oğuz Kırca, 2022; 2023a), the London (Walbrook) Mithraeum, a building with a pronaos (3rd century AD), which today stands between Victorian buildings, was built above ground and has a different architecture (Gordon, 2000, pp. 736-737; Szabo et al, 2023, p. 747 and CIMRM 810). Carrawburgh Roman Fort is only one of several forts along Hadrian's Wall. It stands on a slightly elevated natural terrace overlooking the Northumberland National Park, so it is not a hillfort. The Mithraeum was destroyed in the 4th century AD (Richmond & Gilliam, 1951, pp. 1-92 and CIMRM 844).

Künzig Mithraeum, Germany

The Künzig Mithraeum is a subterranean temple located at Quintana Castle in Bavaria, Germany. It was an important part of the Roman limes system on the Danube and was associated with a nearby fortification. It was constructed within the fortification, similar to the Zerzevan Mithraeum (Coşkun & Oğuz Kırca, 2022; 2023a). The entrance of the mithraeum was likely due east.

This mithraeum was situated between the outer fortress and civilian town, covering an area of approximately 4.3 hectares. It could have served as a macellum/ marketplace. Additionally, a cremation cemetery was discovered 30 m away from the mithraeum. There is some debate about the mithraeum's construction, with suggestions of it having two phases. The first phase was a simple wooden structure with a roof, measuring 8.9 x 6.0-6.2 meters, including the exedra. The corridor ended with a small rectangular exedra. The building had a covered corridor and could accommodate around 17 people. Post holes for roof supports were found, and 5 meters to the east, two pits containing sheep and goat bones, pottery, and other items were discovered. After a destruction by fire, it was reconstructed in a larger size with a timber frame. It was lastly 10 m long, with the center corridor expanded. Some painted plasters indicating the presence of a cult image in the exedra were recorded. The findings include a 45 cm high altar and a 55 cm high altar with an inscription. The inscription bears the name Mithras. Swords, knives, arrowheads, four craters decorated with snakes and terra sigillata containers are among the items discovered in the temple. Based on these findings, the second mithraeum is dated to the early part of the 3rd century AD (Fegerl, 2008, pp. 77-83).

Assessment and Conclusion

There is less available information regarding hillforts and forts situated on level ground than riverfront forts in the European region (Campbell, 2006, pp. 17, 22; Lander, 1984, pp. 8-10). In comparison to flat regions, there are comparatively fewer fortifications constructed in steep terrain (e.g., hilltop strongholds in Tunisia and certain regions like the Iberian Peninsula). Zerzevan is one of the few instances that concurrently exemplifies the typical Roman castrum tradition in a hilltop landscape. It is also a legionary fortress with a Mithraeum in Anatolia and Mesopotamia that has been completely preserved, allowing visitors to experience and understand numerous physical aspects and Roman military base building concepts "*in situ*". The Mithraeum is located within the ramparts unveiling the whole architectural layout with the elements of

rare mithraeums preserved in their entirety. It was probably one of the first cult sites established by Rome in the East.

Given the context of comparative examples, Zerzevan conforms to the basic planning principles of the castra in Europe, Mediterranean Basin and Mesopotamia. Although it reflects the general plan and features of many of the castra built in the Roman style, it is clear that they differed in some way by the customization of the site according to specific needs. The Mihtraeum has many distinctive features for the interpretation of Mithraic rituals on the site. In addition to its symbolic value, the depiction of a legionary fortress with a "mysterious" space is important. Therefore, no entity in the WHL is registered as both a fortified area and a mithraeum, at the same time.

Among the European examples, the castles with the most common features with Zerzevan are located within the borders of Germany and England. The Antonine and Hadrian Walls, albeit being earlier works, reflect the strategic planning and organization of the Roman Empire. The chronological gap between Zerzevan and European examples only shows that fortifications like Zerzevan were the outputs of mature engineering works of the Roman army but unique examples about how the Romans implemented new customized projects far afield. Hadrian Wall, Antonine Walls and Zerzevan Castle all reflect the Roman responses to topography and careful engineering in castrum planning in an orderly manner with the available visible structures and rampart systems. Despite its bigger size, Novaesum in Germany is the enclosure that most closely matches Zerzevan in terms of riverside positioning, possessing a scarp area for natural protection, internal organisation and robust rampart system.

Revisiting the Mithraeums at the single structure scale, Santa Maria Capua Vetere Mithraeum in Italy comes to the forefront, while the number of eastern Mesopotamian examples is insufficient. The proposed chronology for Capua Vetere is around 1-2 century AD, while Zerzevan Mithraeum is assigned to a similar interval. In view of the floor plans, commonalities exist to a large extent. Capua Vetere, like Zerzevan, was deliberately covered up and destroyed. Furthermore, the designation of the benches and the appearance of the location of the possible water source present semblances, as well as the purposeful destruction of the mithraeums around the same period. The main difference is that Capue Vetere is an in-city structure, whereas Zerzevan Mithraeum is situated in a hillfort in the suburbs of Mesopotamia.

A counterpart of Zerzevan is the Duro-Europos Fortress with its mithraeum. The topographical similarities; positioning, hence appearance as hillfort sites; the availability of multi-religious buildings and the similarity of the interior plans (a long, rectangular, narrow room with a cult niche, painted columns, the zodiac belt in the wall, presence of an altar) are remarkable. The main difference between the two mithraeums is that the benches, where meals were also taken, are oriented north and west at Zerzevan, whereas they are oriented north-south at Dura Europos. Moreover, the Dura Europos Mithraeum of the 2nd century AD addresses a later date than that of Zerzevan. The main difference, however, is that all these elements were built above ground at Dura-Europos.

In conclusion, Zerzevan Fortress is the first and only Roman Legionary Fortress in the easternmost limes, around the Tigris, hosting a rock-cut Mithraeum.

Ethics Committee Approval: Ethics committee approval is not required.
Peer-review: Externally peer-reviewed.
Author Contributions: [Aytaç COŞKUN (AC), Eser Deniz OĞUZ KIRCA (EDOK), Volkan DEMİRCİLER (VD)] Concept-AC, EDOK, VD; Design-AC, EDOK, VD; Supervision-AC; Resources-AC, EDOK, VD; Data Collection and/or Processing-AC, EDOK, VD; Analysis and/or Interpretation-AC, EDOK, VD; Literature Search-AC, EDOK, VD; Writing Manuscript-AC, EDOK, VD; Critical Review-AC, EDOK, VD.
Conflict of Interest: The authors have no conflicts of interest to declare.
Financial Disclosure: The authors declared that this study has no financial support.

References

Ancient Sources

Ammianus Marcellinus. (1999). *History* (J.C. Rolfe, Trans.) Loeb Classical Library.

Itinerarium Antonini Augusti. (1848). *Itinerarium Antonini Avgvsti et Hierosolymitanvm ex libris manvscriptis 104.7.* (G.F.C. Parthey & M. Pinder (Eds.) Berolini.

Vegetius. (2015). *De Re Militari* (J. Clarke, Trans.) Lume Books.

Vitruvius. (1960). *Ten Books on Architecture* (M.H. Morgan, Trans.) Dover Publications.

Modern Sources

Ahunbay, M. (1991). Dara-Anastasiopolis 1990 yılı çalışmaları. In *XIII. Kazı Sonuçları Toplantısı,* Vol. 2*,* Ministry of Culture and Tourism Publications, Çanakkale (pp. 197-203).

Alvar, J., Grodon, R., & Rodriguez, C. (2006). The mithraeum at Lugo (Lucus Augusti) and its connection with Legio VII Gemina. *Journal of Roman Archaeology* 19 (1):266–277.

Blétry, S. (2020). The Fortifications of Zenobia reinterpreted. EI Emanuele, SJ Barker & C Courault (Eds.), *City Walls in Late Antiquity* (pp. 137–147). Oxbow Books.

Boon, G.C. (1960). A Temple of Mithras at Caernarvon-Segontium. *Archaeologia Cambrensis*, 109, pp. 136–178.

Breeze, D. J., & Hanson, W. S. (2020). *The Antonine Wall: Papers in Honour of Professor Lawrence Keppie*. Archaeopress Publishing, Oxford.

Bull, R.J., Derose, E.J, Ratzlaff, A.L., Bobeck, A.H., Fritzius, R.S. (2017). *Joint Expedition to Caesarea Maritima Excavation Reports 2*, American Schools of Oriental Research Archaeological Reports 25. American Schools of Oriental Research.

Butcher, K. (2003). *Roman Syria and the Near East*. J. Paul Getty Museum, Los Angeles.

Campbell, D.B. (2006). *Roman Legionary Fortresses 27 BC– AD 378.* Osprey Publishing, Oxford.

Carrington, P. (1977). The Planning and Date of the Roman Legionary Fortress at Chester. *Journal of the Chester Archaeological Society*, 60, pp. 35–42.

Casey, P.J., Davies, J.L. (1993). *Excavations at Segontium (Caernarfon) Roman Fort, 1975-1979*, Archaeology Research Reports 90, Council for British Archaeology.

Coşkun, A. (2017). Zerzevan Castle in the Light of Recent Archeological Researches. *Anatolia*, 43, pp. 91-110.

Coşkun, A. (2019). *Zerzevan Castle- Roman Border Garrison*. Diyarbakır Valiliği, Diyarbakır.

Coşkun, A. (2023). The Past and Present of Zerzevan Castle Excavations. A Coşkun (Ed.) *Roman Border Garrison Zerzevan Castle: From Past to the Future* (pp. 2–26). Orient Yayınları.

Coşkun, A., & Oğuz-Kırca, E.D. (2023a). The Mithraeum At Castrum Zerzevan as a Unique Complex of Rock Hewn Structures. A Coşkun (Ed.) *Roman Border Garrison Zerzevan Castle: From Past to the Future* (pp. 46-76). Orient Yayınları.

Coşkun, A., & Oğuz-Kırca, E.D. (2023b). An Evaluation of the Original Identity Problem and Structural Design of Zerzevan Castle. *Anatolian Research*, 28, pp. 119-142.

Coşkun, A., & Oğuz-Kırca, E.D. 2022. Beyond the Roman East: An Archaeological Evaluation of the Mithraeum Based On Its Architectural Authenticity At Castrum Zerzevan (Diyarbakır, Turkey). *Journal of Ancient History and Archaeology*, 9/2, pp. 94-105.

Demir, M., & Keçiş, M. (2017). Nisibis at the Border of Romans and Sasanians Between the Third and Fifth Centuries AD. *Tarih Araştırmaları Dergisi*, 36/62, pp. 1-29.

Dietz, K., & Fischer, T. (1996). *Die Römer in Regensburg*. Pustet, Regensburg.

Dirven, L. (1999). *The Palmyrenes of Dura-Europos: A study of religious interaction in Roman Syria*. Brill, Leiden.

Dursun, F. (2024). From Quarry to Monument: Considering Mardin Stone (SE, Türkiye) as the Symbol of Architectural and Cultural Heritage. *Geoheritage* 16, pp.1–19.

Dursun, F., Toprak, V., Oğuz-Kırca, E.D., & Coşkun, A. (2023). Reconstruction of an Ancient Hill Used as an On-Site Quarry: Castrum Zerzevan (SE-Türkiye). *International Journal of Architectural Heritage*, pp. 1-19.

Fegerl, K. (2008). *Archäozoologische Untersuchungen eines Fundkomplexes aus dem Tempelbezirk des Jupiter Heliopolitanus von Carnuntum* [Unpublished doctoral dissertation]. Universitat Wien.

Gabriel, A. (1940). *Voyages Archéologiques dans la Turquie Orientale*. E. de Boccard, Paris.

Gawlikowski, M. (2000). Hawarte: Excavations, 1999. *Polish Archaeology in the Mediterranean*, 11, pp. 261-271.

Gawlikowski, M. (2007). The Mithraeum at Hawarte and Its Paintings.*Journal of Roman Archaeology*, 20, pp. 337-361.

Gechter, M. (2007). Der Römische militärplatz Neuss (Novaesium). G Uelsberg (Ed.) *Krieg und Frieden: Kelten-Römer und Germanen* (pp. 207-213). Darmstadt.

Goldsworthy, A. (2013). *Armia Rzymska Na Wojnie 100 P.N.E. – 200 N.E.* Ł. Różycki, Oświęcim.

Gordon, R. (2000). The Story of the Wallbrook Mithraeum in London. *Journal of Roman Archaeology,* 13, pp. 736-742.

Görkay, K. (2011). Roman City Walls (3rd Century City Walls). M Kadıoğlu & K Görkay (Eds.) *Roman Ancyra* (pp. 205-216). Yapı Kredi Yayınları.

Görkay, K. (2017). Zeugma Lejyon Yerleşkesi: Yeni Araştırmalar, Sonuçlar ve Ön Değerlendirmeler. *Anatolia*, 43, pp. 147-179.

Görkay, K. (2022). Zeugma/Seleukeia. A Engin & K Görkay (Eds.) *Archaeology of Gaziantep from Prehistoric Times to the Late Antiquity* (pp. 327-400). Ofset Yayınevi.

Gschwind, M., & Ḥasan, H. (2008). Das römische Kastell Qreiye-ʿAyyāš, Provinz Deir ez-Zor, Syrien: Ergebnisse des syrischdeutschen Kooperationsprojektes. *Zeitschrift für Orient-Archäologie*, 1, pp. 316-334.

Guyer, S., 1939. Eski Hisar, ein römisches Lagerkastell im Gebiet von Edessa. In *Mélanges syriens offerts à Monsieur René Dussaud par ses amis et ses élèves*, Librairie Orientaliste Paul Geuthner (pp. 183-190).

Hartmann, M., & Speidel, M.A. (2013). Military Installations at Zeugma: An Overview of the Swiss Archaeological Investigations 2001–2003. W. Aylward (Ed.) *Excavations at Zeugma Conducted by Oxford Archaeology 3 Vols.* (pp. 381-392). Los Altos.

Hartmann, M., Drahor, M.G., Speidel, M.A., Çiğdem, S. (2006). New Research at the Roman Legionary Camp at Satala, Northeast Anatolia; Geophysical and Archaeological Survey. In *21. Arkeometri Sonuçları Toplantısı, 2005 Antalya,* Ministry of Culture and Tourism Publications (pp. 197-204).

Hernandez, A.J., & Gomez, I.C. (2012). La Tumba del Elefante de la Necrópolis Romana de Carmona. Una revisión necesaria desde la Arqueología de la Arquitectura y la Arqueoastronomía. *Archivo Español De Arqueología*, 85, pp. 119–139.

Hingley, R. (2012). *Hadrian's Wall: A Life*. Oxford University Press, Oxford.

Hodgson, N. (2017). *Hadrian's Wall: Archaeology and History at the Limit of Rome's Empire*. The Crowood Press, Wiltshire.

Kadıoğlu, M., & Görkay, K. (2011). Roma Döneminde Ankyra. In Y. Kurt (Ed.), *Tarihte Ankara Uluslararası Sempozyumu Bildiriler, 25-26 Ekim 2011, Ankara* (pp. 531-541).

Kaizer, T. (2000). Some Remarks About The Religious Life of Hatra. *Topoi*, 10/11, pp. 229-252.

Kolia, E. (2006). The Cult of Mithras in Aigion. In *L' Acaia e l' Italia Meridionale. Contatti, scambi e relazioni dall' Antichità ai nostri Giorni, Atti del Convegno, Eghio, 6-9 Luglio 2006* (pp. 208-221).

Lander, J. (1984). *Roman Stone Fortifications: Variation and Change from the First Century AD to the Fourth*. Bar International Series, England.

Le Bohec, Y. (2009). Histoire militaire des Germanies d'Auguste à Commode. Pallas. *Revue d'études antiques*, 80, pp. 175-201.

Lightfoot, C.S. (1998). Survey Work at Satala, a Roman Legionary Fortress in North-east Turkey, Ancient Anatolia. In R. Matthews (Ed.) *Fifty Years' Work by the British Institute of Archaeology at Ankara*, British Institute of Archaeology at Ankara Special Publication (pp. 273–284).

Löhberg, B. (2006). *Das Itinerarium Provinciarum Antonini Augusti*. Frank & Timme, Berlin.

Marcu, F. (2009). *The Internal Planning of Roman Forts of Dacia*. Mega Publishing House, Cluj-Napoca.

Matheson, S.B. (1982). *Dura-Europos: The Ancient City and The Yale Collection*. Yale University Printing Service.

Metin, H. (2021). Dara (Anastasiopolis) Agora Kazı Buluntuları (2020): Erken Bizans Dönemi Pişmiş Toprak Kandiller. *Amisos*, 10, pp. 87-99.

Metin, H., Durukan, A. & Menteşe, D.H. (2022). Dara (Anastasiopolis) Kazı, Restorasyon ve Konservasyon Çalışmaları 2020. In A. Özme (Ed.) *2019-2020 Yılı Kazı Çalışmaları,* Vol. 2, Ministry of Culture and Tourism Publications (pp. 429-446).

Meyer, N. (2017). Les agglomérations de Sarrebourg/Pons Saravi (Moselle) et de Saverne/Tabernis-Tres Tabernae (Bas-Rhin): Deux Destins de Part et D'autre des Vosges Durant L'Antiquité Tardive. *Gallia Archéologie des Gaules*, 74-1, pp. 209-221.

Mitford, T.B. (1977). The Euphrates Frontier in Cappadocia. *In Studien zu den Militärgrenzen Roms. 2. Vorträge des 10. Internationalen Limeskongresses in der Germania Inferior*, Köln (pp. 501-511).

Mitford, T.B. (1998). The Roman Frontier on the Upper Euphrates. In R. Matthews (Ed.) *Fifty Years' Work by the British Institute of Archaeology at Ankara*, British Institute of Archaeology at Ankara Special Publication (pp. 255-272).

Oates, D. (1968). *Studies in the Ancient History of Northern Iraq*. Cambridge British School of Archaeology in Iraq.

Özükan, B. (2017). *2000-Year Roadmap of the Roman Empire-Tabula Peutingeriana- With Traces On Ottoman And Modern Turkish Geography*. Boyut Yayınları, İstanbul.

Parker, S.T. (2000). Roman Legionary Fortresses in the East. RJ Brewer (Ed.) *Roman Fortresses and Their Legions: Papers in Honour of G.C. Boon* (pp. 121–138). Society of Antiquaries of London.

Pearson, H.F. (1939). *A Guide to the Synagogue of DouraEuropos.* Imprimerie Catholique, Beyrouth.

Pearson, H.F., & Rostovtzeff, M. I. (1939). The Mithraeum: Architecture and history. MI Rostovtzeff (Ed.) *The Excavations of Dura-Europos Preliminary Report of the Seventh and Eighth Season of Work, 1933–34 and 1934–35* (pp. 62–77). Yale University Press.

Radt, W. (1979). Kapikaya Bei Pergamon- Ein Heiligtum Der Kybele und Des Mithras. In U. Bianchi (Ed.) *Mysteria Mithrae*: *Proceedings of the International Seminar on the 'Religio-Historical Character of Roman Mithraism, with Particular Reference to Roman and Ostian Sources'. Rome and Ostia 28-31 March 1978*, Études préliminaires aux religions orientales dansl'Empire romain, Leiden (pp. 789-803).

Richmond, I.A., Gillam, J.P. & Birley, E. (1951). The Temple of Mithras at Carrawburgh. *Archaeologia Aeliana*, 29/4, pp. 1–92.

Rushworth, A. (2009). *Housesteads Roman Fort, the Grandest Station: Excavation and Survey at Housesteads, 1954–95,* English Heritage Archaeological Report, Swindon.

Sergejevski, D. (1937). Das Mithraum von Jajce. *Journal of the National Museum in Sarajevo*, XLIX, pp. 11-18.

Shirley, E.A.M. (1996). The Building of the Legionary Fortress at Inchtuthil. *Britannia*, 27, pp. 111–128.
Smith, D.J. (1962). The Restoration of the Birth of Mithras from Housesteads. *Archaeologia Aeliana*, 4/40, pp. 277–80.
Sparavigna, A.C. (2019). The Orientation of the Plan of Novaesium, a Roman Fort on the Rhine (SSRN). http://dx.doi.org/10.2139/ssrn.3392789
Szabo, C. (2013). Sziklából újraszületett – A Nemzetközi Mithras Kutatás Legújabb Eredményei. *Ókor Folyóirat*, 3/4, pp. 54-60.
Szabo, C., Libita-Partica, M., & Muntean, I. (2023). Mithras Exhibited. Perspectives of Sensory Museology in Mithraic Contexts. *Cercetari Arheologice*, 30/2, pp. 737-763.
Turcan, R. (2016). *Recherches Mithriaques*. Les Belles Lettres, Paris.
Uzunoğlu, H. (2012). Anadolu'da Roma Lejyonları. NE Akyürek-Şahin, B Takmer, F Onur (Eds.) *Eskiçağ Yazıları 2* (pp. 93-128). Arkeoloji ve Sanat Yayınları.
Vermaseren, M.J. (1963). *Mithras, The Secret God*. Barnes & Noble, New York.
Wagner, J. (1977). Legio IV Scythica in Zeugma am Euphrat. In J. Fitz (Ed.), *Studien zu den Militärgrenzen Roms 2*, *Studien zu den Militärgrenzen Roms 2, Ed.: Jenö Fitz, Vorträge des 10th International Limeskongresses in der Germania Inferior, Köln* (pp. 517-539).
Winter, E., & Blömer, M. (2018). *Doliche*. Gaziantep Valiliği.

Electronic Sources

Corpus Inscriptionum et Monumentorum Religionis Mithriacae (CIMRM)
34- Mithraeum. Dura Europos. www.tertullian.org/rpearse/mithras/display.php?page=cimrm34
180- Mithraeum. S. Maria Capua Vetere. www.tertullian.org/rpearse/mithras/display.php?page=cimrm180
229- The Mithraeum at the Baths of Mithras in Ostia. www.tertullian.org/rpearse/mithras/display.php?page=cimrm229
844- The Carrawburgh Mithraeum. www.tertullian.org/rpearse/mithras/display.php?page=cimrm844
860- Mithras and the egg, from Housesteads. Hadrian's Wall. www.tertullian.org/rpearse/mithras/display.php?page=cimrm860
1578- Mithraeum III. Poetovio / Pettau / Ptuj. www.tertullian.org/rpearse/mithras/display.php?page=cimrm1578
1896- Two-sided relief. Tauroctony, Mithraic communion. www.tertullian.org/rpearse/mithras/display.php?page=cimrm1896
1901- Mithraeum. Jajce. www.tertullian.org/rpearse/mithras/display.php?page=cimrm1901
2374. Mithraeum. Caernarvon. www.tertullian.org/rpearse/mithras/display.php?page=cimrm2374

Appendices

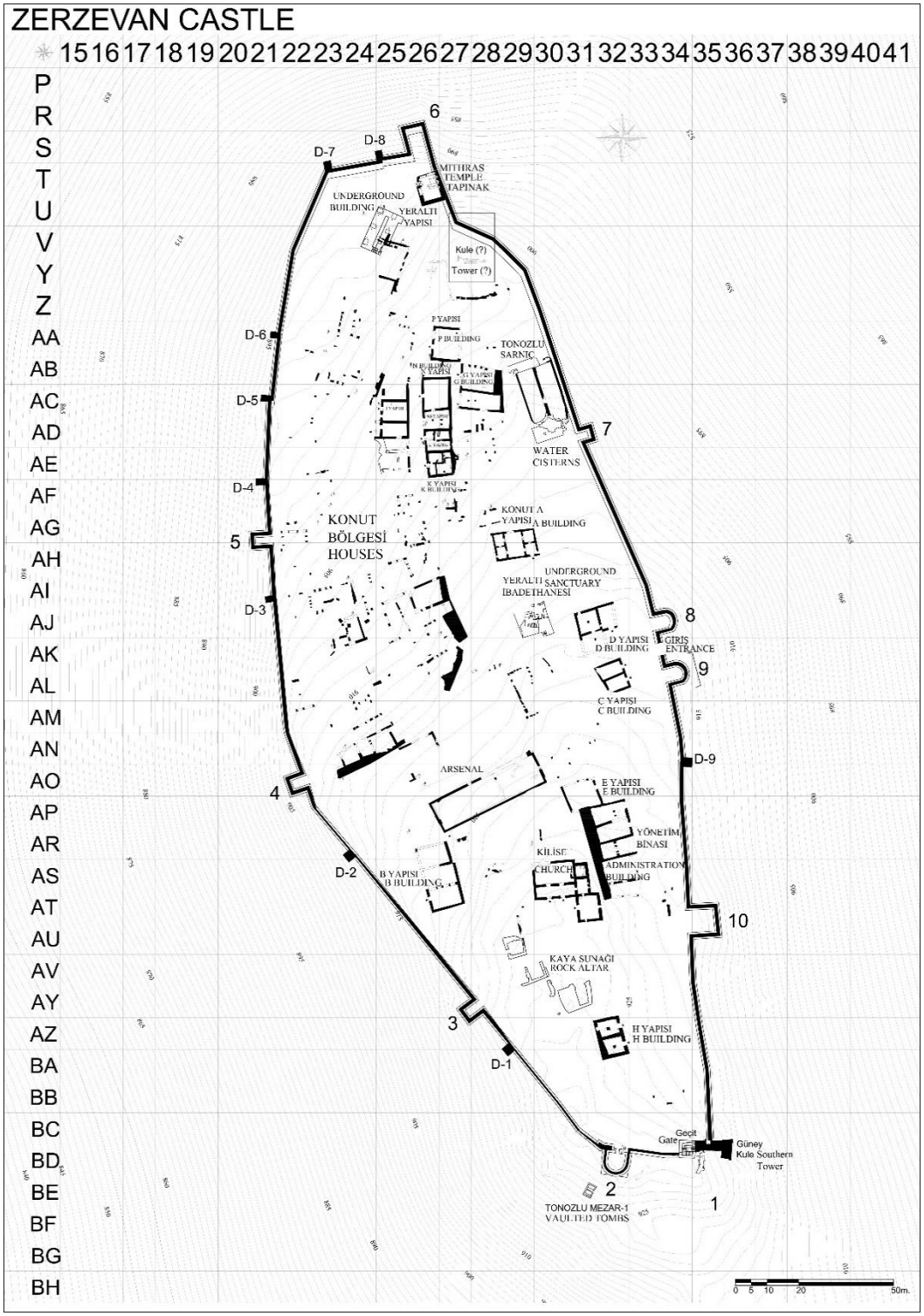

Fig. 1: *Castrum Zerzevan, Topographical Plan. (Zerzevan Excavation Archive)*

Fig. 2: *Castrum Zerzevan, Aerial View. (Zerzevan Excavation Archive)*

Fig. 3*: 3D Reconstruction of Castrum Zerzevan. (Zerzevan Excavation Archive)*

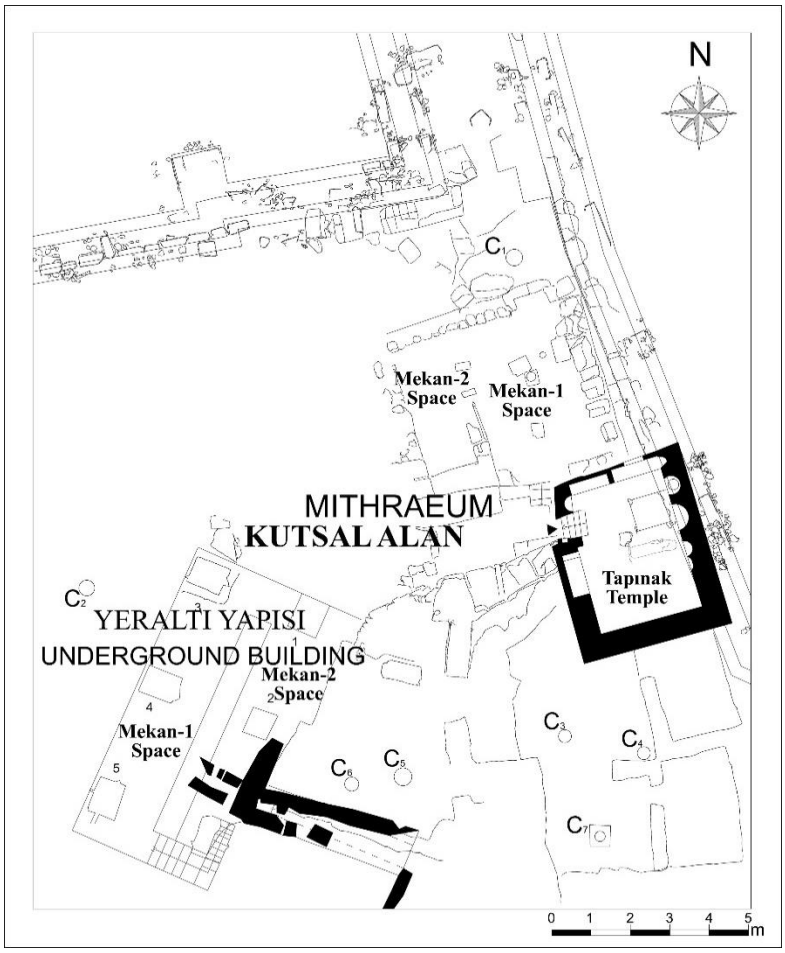

Fig. 4: *Plan of Mithraeum Complex, Zerzevan. (Zerzevan Excavation Archive)*

Fig. 5: *Aerial View of Mihtraeum Complex, Zerzevan. (Zerzevan Excavation Archive)*

Fig. 6: *Inner view of the Mithras Temple, Zerzevan. (Zerzevan Excavation Archive)*

Fig. 7: *3D Reconstruction of Mithras Temple. Zerzevan. (Zerzevan Excavation Archive)*

Fig. 8: *3D View of Zeugma. (Görkay, 2022, fig. 42)*

Fig. 9: *Frontiers of the Roman Empire. https://whc.unesco.org/en/list/430/maps/*

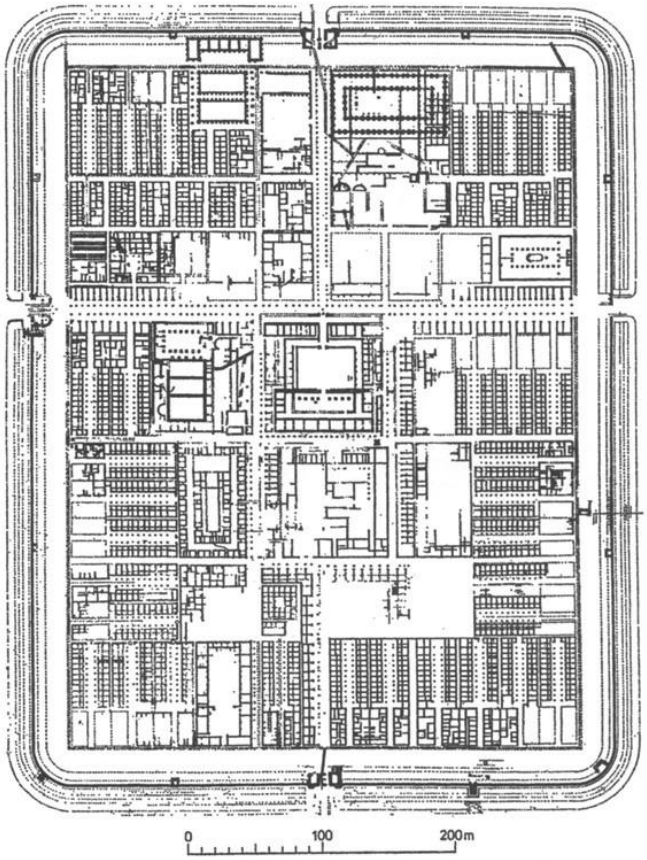

***Fig. 10**: Plan of Castrum Novaesium. (Le Bohec, 2000, fig. 4a)*

***Fig. 11:** Image from Hadrian's Wall. (Hingley, 2012, fig. 2.5)*

Fig. 12: *Inner View of Hawarte Mithraeum. www.tertullian.org/rpearse/mithras/images/supp_22Xmwidok_sali_glownej1.jpg*

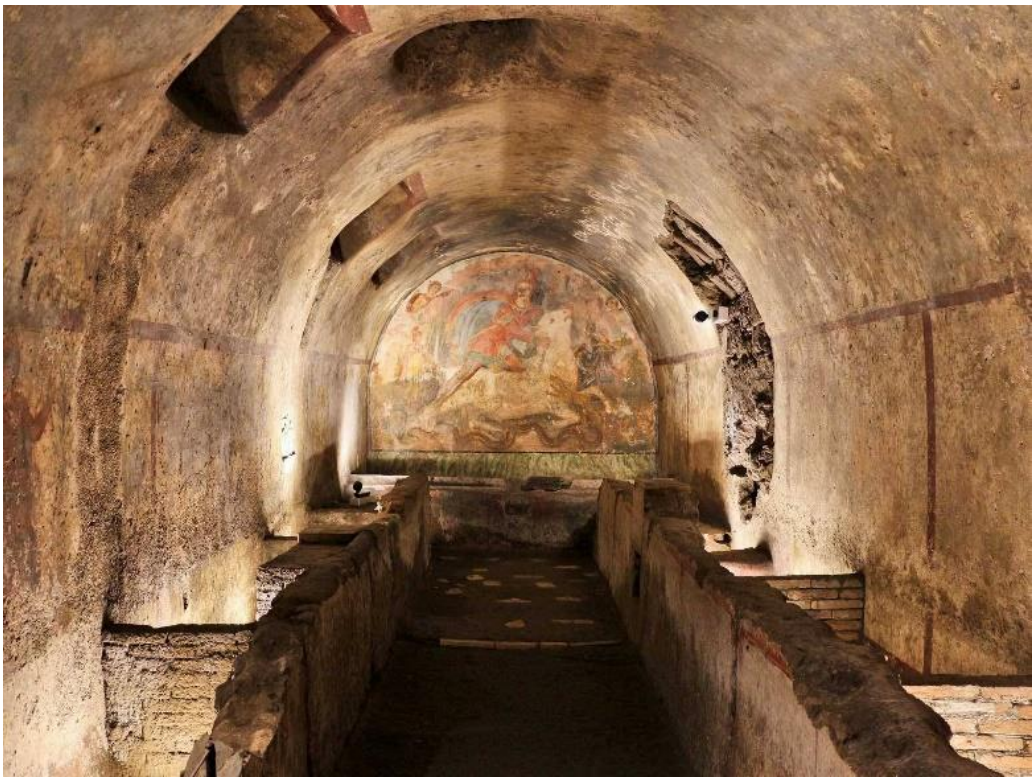

Fig.13: *The Vetere Mithraeum of Santa Maria Capua. www.mithraeum.eu/monument/23*

Fig.14: *Fortress Plan of Dura-Europos. (Matheson, 1982, fig. 15)*

Fig. 15: *Closer Image of Ramparts at Dura-Europos. (Matheson, 1982, fig. 4)*