FRONTIERS OF THE ROMAN EMPIRE IN ANATOLIA AS AN ARCHAEOLOGICAL HERITAGE: SPATIAL CHARACTERISTICS AND CONSERVATION IN RURAL LANDSCAPE

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ABSTRACT

FRONTIERS OF THE ROMAN EMPIRE IN ANATOLIA AS AN ARCHAEOLOGICAL HERITAGE: SPATIAL CHARACTERISTICS AND CONSERVATION IN RURAL LANDSCAPE

The Roman frontiers are one of the greatest heritage that survived from the Roman Empire, and span three continents in a wide geography. Part of the eastern frontier passes through Anatolia. However, the Anatolian frontier is the least studied compared to other frontier sections, and its protection efforts are insufficient. Dams on the Euphrates and Tigris rivers pose a serious threat to the Anatolian frontier heritage, along with various conservation problems since frontier consists of natural landscapes and spreads over a large geography, mostly in rural areas. In this study, the Anatolian frontier was examined, and its components, characteristics, and chronology were revealed. To draw attention to its protection, conservation problems were researched using literature and site trip carried out in July-August 2022, and cataloguing, mapping, analyses of characteristics and conservation status were made. To fully understand and discuss the place of the Anatolian frontier within the Roman frontiers, other frontier sections were examined from chronological, sociopolitical, spatial and conservation aspects, and a comparative study was carried out. The findings showed that the Anatolian frontier was one of the earliest frontier sections but was not built in a single period; it was strengthened with many legions due to the great Parthian danger in the east; it was a bifurcated and multilayered frontier following the Euphrates and Tigris; and military structures were built into existing civilian settlements. In the face of many conservation problems, especially dams, holistic conservation approaches were not followed, and individual conservation practices were implemented. As a result, further studies on the Anatolian frontier are important for understanding and protecting the frontier system. A new legal regulation for rural-archaeological sites may help solve some conservation problems in rural areas. Instead of single implementations, holistic conservation policies are needed that take into account landscape components as well as the architectural elements of the frontier, highlight the relationship of components with each other and their physical environment, and strengthen bonds of belonging with this heritage by raising awareness of local communities.

ÖZET

ARKEOLOJİK MİRAS OLARAK ANADOLU'DA ROMA İMPARATORLUĞU'NUN SINIRLARI: KIRSAL PEYZAJDA MEKANSAL ÖZELLİKLER VE KORUMA

Roma İmparatorluğu'ndan günümüze ulaşan en büyük miraslardan olan Roma sınırları geniş bir coğrafyada üç kıtaya yayılmaktadır. Doğu sınırının bir kısmı Anadolu'dan geçmektedir. Ancak diğer sınır parçalarına kıyasla Anadolu sınırı en az çalışılmış orandadır ve koruma çalışmaları da yetersizdir. Fırat ve Dicle nehirlerindeki barajlar Anadolu sınır mirası için ciddi bir tehdit oluşturmaktadır ve sınırın doğal peyzajdan oluşup çoğunlukla kırsal alanda olmak üzere büyük bir coğrafyaya yayılmasından dolayı çeşitli koruma sorunları vardır. Bu çalışmada, Anadolu sınırı incelenerek, sınırı oluşturan bileşenler, özellikleri ve kronolojisi ortaya konmuştur. Sınırın korunmasına dikkat çekme amacıyla, literatür ve Temmuz-Ağustos 2022'de gerçekleştirilen arazi gezisinden yararlanılarak koruma sorunları araştırılmış ve sınırın karakteristik özellikleriyle birlikte koruma durumuna ilişkin kataloglama, haritalandırma ve analizler yapılmıştır. Anadolu sınırının tüm Roma sınırları içinde bütünlüklü olarak yerini anlayabilmek ve tartışabilmek için diğer sınır parçaları da kronolojik, sosyopolitik, mekansal ve koruma yönlerinden incelenerek karşılaştırmalı çalışma yapılmıştır. Buluntular, Anadolu sınırının en erken inşasına başlanan Roma sınır parçalarından biri olduğunu ancak tek bir dönemde inşa edilmediğini, doğudaki büyük Part tehlikesinden dolayı çok sayıda lejyonla güçlendirildiğini, Fırat ve Dicle nehirlerini takip eden çatallı ve çok katmanlı bir sınır olduğunu, askeri yapıların var olan sivil yerleşimlere entegre edildiğini, başta barajlar olmak üzere pek çok koruma sorunu karşısında bütüncül koruma yaklaşımlarının izlenmeyip tekil koruma uygulamalarının gerçekleştirildiğini içermektedir. Sonuç olarak, Anadolu sınırına yönelik daha fazla çalışma yapılması, sınır sistemini anlamanın yanı sıra korunması için de önemlidir. Kırsal-arkeolojik alanlar için yeni bir yasal düzenleme, kırsaldaki bir takım koruma problemlerinin çözülmesine yardımcı olabilir. Sınırın korunması için tekil uygulamalar yerine, sınırı mimari elemanlarının yanı sıra peyzaj bileşenlerini de göz önüne alan, bileşenlerin birbiri ve fiziksel çevresiyle ilişkisini ön plana çıkaran ve yerel toplulukları bilinçlendirerek bu mirasla aidiyet bağlarını güçlendiren bütüncül koruma politikalarına ihtiyaç vardır.

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CHAPTER 1

INTRODUCTION

The frontiers of the Roman Empire are the largest single cultural heritage that has survived from the Roman Empire. The frontiers of the Roman Empire spanned three continents surrounding the Mediterranean Sea and passed through modern countries of the United Kingdom, the Netherlands, Germany, Austria, Slovakia, Hungary, Croatia, Serbia, Bulgaria, Romania, Georgia, Turkey, Syria, Jordan, Egypt, Libya, Tunisia, Algeria, and Morocco in clockwise (Figure 1.1). The frontiers of the Roman Empire were established to determine and protect the borders of the Empire and to control the movements of people and goods across the borders, thus ensuring intellectual and cultural exchange along the border and with the inner and outer regions of the Empire. Frontiers were not built in a single period but were built for different political purposes in different emperor periods. Geographical obstacles were benefitted from for the frontiers, and they were shaped according to the topographic features. There are also different local communities living in the frontier regions under Roman protection or on the other side of the border. For this reason, Roman frontiers differ from each other in different regions socio-politically, economically, geographically, topographically, and militarily.

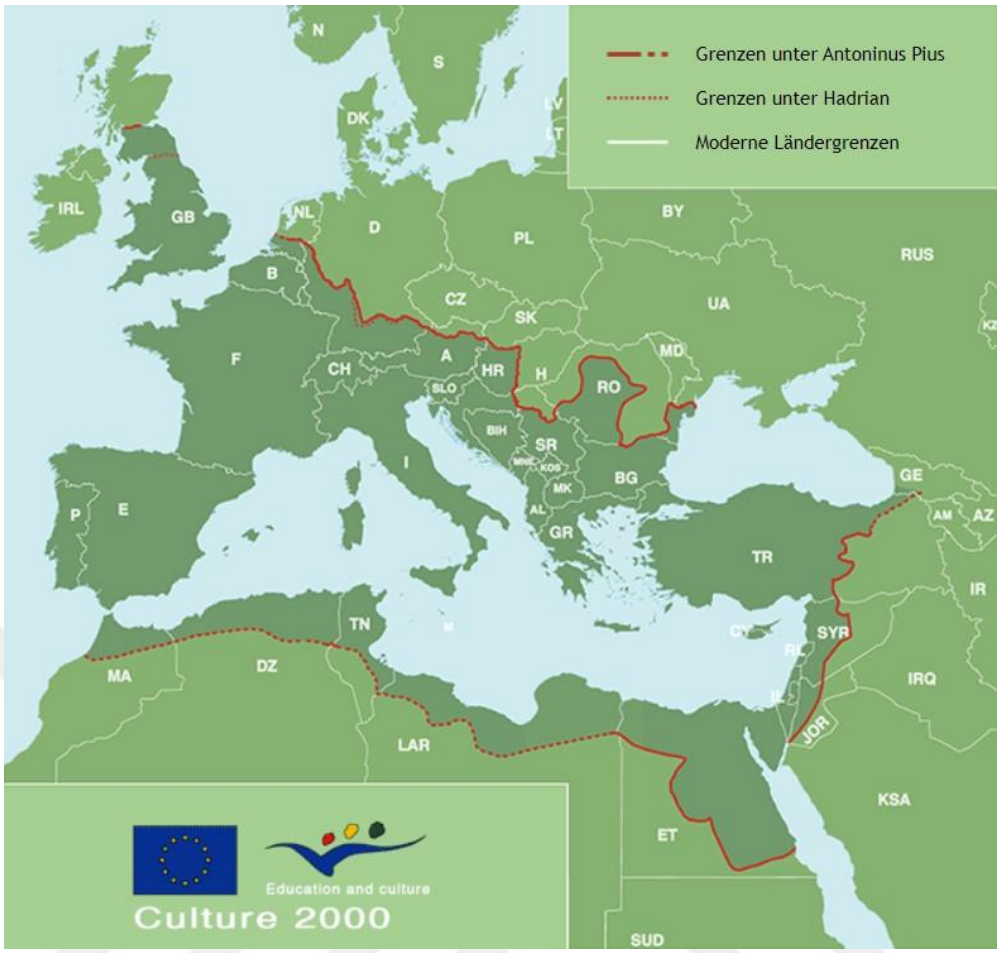


Figure 1.1. Map showing the frontiers of the Roman Empire in the 2nd century with modern countries[1]

The frontiers of the Roman Empire in Turkey constitute a part of the eastern frontier of the Empire. The eastern frontier, which starts in Georgia, continues in the eastern Black Sea region of Turkey, follows the Euphrates line, descends to the south, and Tigris forms the frontier in the southeast Anatolia region. From here, the frontier continues in Syria along two rivers. In Anatolia, there is a mixed frontier that makes use of mountains parallel to the sea, rivers and the mountains surrounding the rivers, and even in Anatolia alone, the frontier shows geographical differences within itself. The eastern frontier was created against the Parthian danger in the east, and it is thought that it was initially protected by four main legionary fortresses in Anatolia, namely *Satala*/

[1] "Moderne Staatsgrenzen Map," Limes.univie, accessed June 9, 2024, https://limes.univie.ac.at/int_map/startpage/map_modern.php.

Gümüşhane, *Melitene*/ Malatya, *Samosata*/ Adıyaman and *Zeugma*/ Gaziantep from north to south. New legionary fortresses may have been built by expanding the frontier in the southeastern Anatolia region in the 2nd century and the late Roman period. The legionary fortresses were strengthened by intermediate fortresses, forts, and watchtowers on the Euphrates frontier, following the Euphrates, and by a network of fortresses in the southeast.

The frontiers of the Roman Empire are an important cultural heritage in terms of reflecting the different responses of the Romans to different political and geographical problems. With its spread across three continents and 19 countries, it is a true common heritage of humanity and plays an important role in terms of the integrative power of the common human heritage. It is a heritage that goes beyond being just a military structure throughout the region where it spreads, by affecting past and present cultures, has different interactions within itself, and therefore needs to be understood and protected holistically as a system. Conservation efforts of Roman frontiers have gained momentum around the world, and different sections of the frontier have been included in the UNESCO World Heritage List through international cooperation. These are Hadrian's Wall (the UK, 1987), Upper German- Raetian Limes (Germany, 2005), the Antonine Wall (the UK, 2008), Lower German Limes (the Netherlands and Germany, 2021), and Danube Limes- western segment (Germany, Austria, and Slovakia, 2021).

Roman frontiers can be divided into two types as natural and artificial borders. Frontiers using natural obstacles such as rivers, deserts, mountains and seas form the natural frontiers. In cases where there are no specific geographical obstacles, artificial frontiers were created by building human-made obstacles such as walls, ditches, ramparts and palisades that were supported with forts and watchtowers. Hadrian's Wall, the Antonine Wall and Upper German- Raetian Limes in Europe are artificial frontiers. As natural frontiers, the Rhine and Danube rivers were benefitted as frontiers in the Lower German Limes and Danube Limes, mountain ranges and rivers were benefitted in the Dacia frontier in Europe; mountain ranges, rivers and the desert were used in the eastern frontier passing through Georgia, Anatolia, Syria, Jordan and Egypt; and mountain ranges and the desert were benefitted in Africa. Fortresses, forts and watchtowers were placed on natural frontier lines. Although they are natural frontiers, human-made artificial barriers have also been used in regions where geographical barriers are not sufficient in Dacia and Africa frontiers. Since natural obstacles constitute not only the setting of the

architectural frontier elements but also the frontier itself, the Roman frontiers cannot be considered separately from the landscape and should be handled as a landscape issue.

Roman frontiers pass through rural areas in many regions, including Anatolia, and very small areas are located in urban centres. Since the frontiers pass through many countries, they remain within the legal responsibilities of different countries, and since they spread over a wide geography, they have a multi-ownership structure in terms of land use. For example, although Hadrian's Wall is a short frontier compared to other frontier sections, it is privately owned by various trusts, institutions, and citizens, as well as public ownership. Since most of these lands are in rural areas, there are areas where they coincide with agricultural and forestry lands. Due to this multi-ownership structure of the frontiers and their spread over different rural landscapes, many stakeholders are involved in the conservation and management aspects, and it becomes important to include local communities living in touch with the heritage in frontier areas in the conservation process and strengthen their ties with the heritage.

1.1. Problem Definition

Roman frontiers are one of the greatest inheritances left to us from the Romans. It is truly a common heritage of the humanity as it spans three continents. Although it may be thought that it has a divisive structure due to being a frontier, Roman frontiers now have a unifying role rather than separating[2], considering both their historical background and their current status as a common heritage of the humanity. Sections of this heritage, especially in Europe, have been researched and documented for a long time. The first research on the Roman frontiers began in the 19th and early 20th centuries. After World War II, with the awareness of the destructive and divisive effects of the war, recognizing and protecting the Roman frontier heritage became more important, and the first Roman Frontier Congress was held in 1949. In this context, in addition to the research and excavations carried out, it is possible to say that even the congress has a long history.[3]

[2] Rebecca H. Jones, "What Divides Us Also Connects Us: Roman Frontiers, World Heritage and Community," *The Historic Environment: Policy & Practice* 12, no. 2 (2021): 120–145. https://doi.org/10.1080/17567505.2021.1916703.

[3] David J. Breeze, Tatiana Ivleva, Rebecca H. Jones, and Andreas Thiel, *A History of the Congress of Roman Frontier Studies 1949-2022* (Oxford: Archaeopress, 2022).

Frontier sections in Africa and the Near East have also been partially documented through international and national collaborations. With the increasing interest in recent years, inscription of Roman frontiers on the UNESCO World Heritage List has also gained momentum. As of 2021, there are 5 European frontier sections on the World Heritage List, and studies are being carried out to include other European sections. On the other hand, Roman frontier research in Turkey remains very limited.

Research on the Roman period in Turkey was limited to the major Roman city centres in the west for a long time, and the Roman frontier was not a subject of research. For this reason, there is limited information on the Anatolian frontier compared to other frontier sections. The fact that the frontier is located in a neglected geography also negatively affected scientific research studies. Moreover, a series of dams and infrastructure projects have been built and continue to be built in the region where the frontier passes, threatening the existence of the frontier and causing some parts of it to be submerged. Among the dams within the scope of the Southeastern Anatolia Project (*GAP* in Turkish), Keban Dam was completed in 1974, Karakaya Dam in 1987, Atatürk Dam in 1990, and Birecik Dam and Karkamış Dam in 2000 on the Euphrates; Kralkızı dam and Dicle Dam in 1997, Batman Dam in 1999, Ilısu Dam in 2020, Silvan Dam in 2022 on the Tigris and its branches. The junction of Euphrates and Murat Stream, Samsat/ Adıyaman region, Zeugma, junction of Uluçay Stream and Tigris, Hasankeyf and Çattepe, north of Batman and north of Diyarbakır were affected by the dams. Although the dams are important in meeting the local water of the region and the national electricity needs of the country, unfortunately the surrounding cultural heritage has been negatively affected by them, and the landscape in the region has changed forever (Figure 1.2). However, rescue efforts, which can be considered as a positive result of the dam projects, started in this way. Despite the dam constructions, rescue efforts started in the 1960s through a cooperation of the Middle East Technical University (METU) with international universities and institutions, and especially the British Institute of Archaeology at Ankara (BIAA), to reveal the multilayered cultural heritage in the region. In this context, Keban Project was carried out in 1965-1974; and later the rescue work was enlarged to lower regions of the dam as the Lower Euphrates Project in 1978-1979. The Ilısu and Karkamış Project was carried out in 1998-2002. Additionally, abundant and well-preserved mosaics in Zeugma attracted public attention, leading to further international collaborative excavations, namely Institut Français d'Études Anatolienne (IFEA). Apart from these, however research in other centres remained at the level of

survey or irregular rescue excavations. The aim of the rescue projects was to reveal the rich cultural history of the region, rather than the Roman frontier or the Roman period heritage, which is why the excavated Roman period centres are limited. Moreover, rescue excavations were carried out quickly due to the dam constructions that were about to be completed, documentation in the desired detail could not be made, the excavations were left unfinished, and the excavations had to be abandoned before conservation measures could be taken. Nevertheless, these rescue excavations constitute one of the main sources of information about the Anatolian Roman frontier. The start of regular excavations has only been possible in recent years. In addition to the research aimed at revealing the Zeugma legionary fortress, excavations of the legionary centres have also started in Zerzevan in 2014 and Satala in 2017. Although other ongoing excavations are not focused on the Anatolian frontier, they are promising to unearth this heritage in the future.

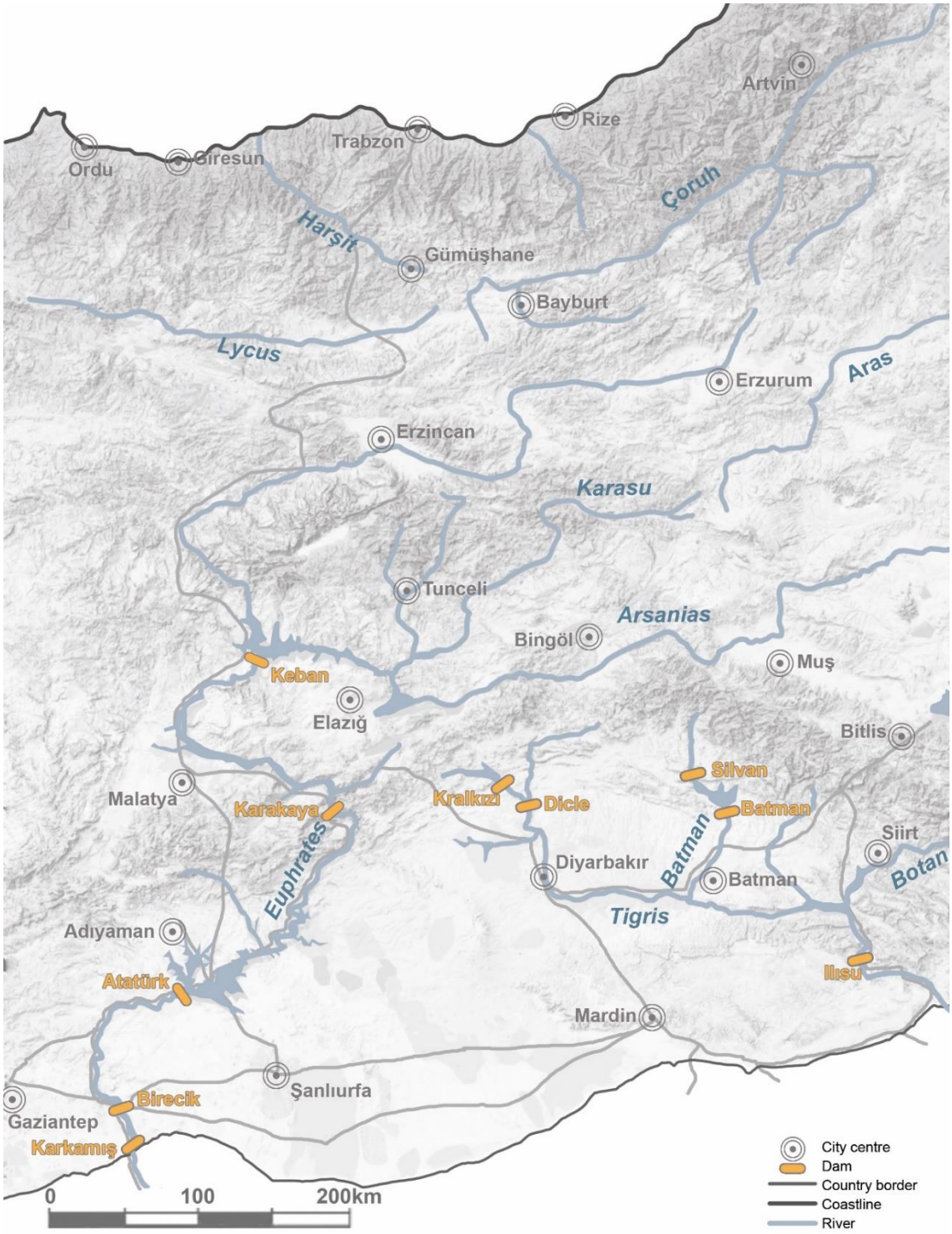


Figure 1.2. Dam constructions in the frontier region

When looked at the history of the cultural heritage conservation discipline, it can be seen a conservation canon that started with monuments and prioritized individual structures and masterpieces. Then, building groups, conservation with structure's setting, local culture and human component of conservation, vernacular and modern architecture began to be discussed. In this discussion, landscape and rural heritage issues have very recently found a place for themselves. Currently, non-monumental rural, vernacular heritage, people's relationships with the built environment and nature, and the relationship of today's local and indigenous communities with heritage and their inclusion in conservation processes are newly discussed issues.[4] In this context, the Roman frontiers are in a different location from the monumental heritage of the Romans and are very valuable for current conservation discussions since they are mostly located in the countryside. However, in other frontier sections and in Turkey, there are conservation problems due to the fact that the Roman frontiers mostly passed through rural areas and spread over a large geography.

Among the practices carried out so far for the archaeological heritage in rural areas, there was a tendency to relocate rural settlements to somewhere else to reveal the archaeological sites. In the example of Aphrodisias[5], Geyre village was removed from the archaeological areas and re-settled to a nearby location, and excavations were carried out after this relocation. Although traditional architecture was abandoned in the new settlement with the relocation of Geyre, some house examples on the archaeological site were preserved in-situ and were re-functioned for purposes such as excavation houses, exhibitions and cafes for the needs of the archaeological site management. Even though Aphrodisias does not currently have a village texture, preserving its existing landscape in a way that makes it feel like it is located in the countryside is still valuable and ensures the connection of the archaeological site with its location (Figure 1.3). In Stratoniceia[6], a more holistic conservation approach was adopted. Although the Eskihisar village was moved due to earthquake and archaeological preservation purposes, some of the remaining village buildings have been preserved as the latest Ottoman and Republic

4 Margarita Diaz-Andreu, and Ana Pastor Perez, "Archaeological Heritage Values and Significance," in *Encyclopedia of Archaeology*, 2nd Edition, eds. T. Rehren, E. Nikita, E. vol. 1 (London: Academic Press), 477–485. https://doi.org/10.1016/B978-0-323-90799-6.00049-5.

5 Evrim Güçer, "Archaeology and urban planning- a consensus between conservation and development: Aphrodisias and Geyre" (Unpublished Master thesis, İzmir Institute of Technology, 2004).

6 Bilal Söğüt, "Stratonikeia'daki Koruma Uygulamalarından Örnekler," in *Prof. Dr. Ömer Özyiğit'e Armağan. Studies in Honour of Ömer Özyiğit,* eds. Emre Okan and Cenker Atila (İstanbul: Ege Yayınları, 2015), 379-396.

settlement layers over the ancient structures, and there is still a small population that continues to live in them (Figure 1.4). In Dara, one of the important Roman frontier cities, the archaeological site was preserved together with the village above it, which is also called Dara, and visual integrity was ensured by the fact that the main building stone material in the village was the same as that of the ancient city (Figure 1.5). Today, life in Dara village still continues, and local people maintain the security of the structures of the Dara archaeological site, run cafes, and children serve as local guides. The excavations in Dara are still very new, but it is hoped that this holistic conservation will be developed and continued in the future.

Of course, the overlapping of rural settlements and archaeological sites also raise conservation issues, such as agricultural and livestock facilities, land ownership and the security of archaeological structures, but holistic conservation approaches that do not see any period as more valuable than other periods and involve the local people in the protection of the heritage in which they live are increasingly being adopted.[7] Since the Anatolian frontier is mostly spread over rural areas, it finds its place in these discussions.

Figure 1.3. One of the Geyre village structures still preserved as discovered by Ara Güler in 1958, the village structure used for exhibition purposes and the preservation of ancient remains in the rural landscape[8]

[7] Richard Hingley, "Living Landscape: Reading Hadrian's Wall," *Landscapes* 12, no. 2 (2011), 41–62. https://doi.org/10.1179/lan.2011.12.2.41.; Robert Witcher, "Globalisation and Roman cultural heritage," in *Globalisation and the Roman World: World History, Connectivity and Material Culture*, eds. Martin Pitts and Miguel John Versluys (Cambridge: Cambridge University Press, 2014), 198-222.

[8] "Ara Güler'in Gözünden Tüm Ayrıntılarıyla Aphrodisias 1958," Arkeofili, accessed June 9, 2024, https://arkeofili.com/ara-gulerin-gozunden-tum-ayrintilariyla-aphrodisias-1958/.; Ö. D. Toköz, 4 May 2022.

Figure 1.4. Preserved village texture and structures belonging to different historical layers in Stratoniceia[9]

Figure 1.5. Roman period remains and the present-day village above them in Dara[10]

Roman frontiers are in an inseparable relationship with the landscape. In addition to the natural landscape being a historical part of the cultural heritage, Roman frontiers were created by taking advantage of the natural landscape. In determining the Roman frontiers, as is the case in modern boundaries of today, natural elements such as mountains, deserts and rivers were used as boundaries by using unchangeable obstacles. In this case, the landscape itself becomes the frontier. While the frontier is more linear in the river frontiers in Europe, the desert frontiers in Africa and the Near East are more areal, and with the placement of outpost forts in the desert, the frontier and the desert are intertwined rather than a frontier line. In this case, it is not reasonable to separate the frontier from the landscape, and it is important to preserve the landscape along with the architectural elements. Although there are laws to protect cultural and archaeological heritage as well as natural landscape elements and areas in Turkey, the lack of

[9] Ö. D. Toköz, 20 May 2017.
[10] Ö. D. Toköz, 25 August 2022.

archaeological-rural and landscape site definitions for the places where these areas come together creates gaps in the law and practice. In addition, unqualified restoration works occur as a result of the inadequacy of national laws and regulations and international conservation regulations, which were taken as a basis for the national laws in Turkey. Without the necessary definitions in the national law, a holistic understanding of the relationship between the landscape and the archaeological heritage cannot be followed. For example, in addition to the ancient city of Aphrodisias, the nearby quarry where the main material for the buildings and sculptures in the city was extracted has been included on the UNESCO World Heritage List together. However, the ancient city and the quarries were registered separately, their protected area degrees are different (Figure 1.6), and the function and role of the area between them in connecting the quarries to the city was ignored.[11] Although there are individual conservation practices in some components on the Anatolian frontier, in these practices holistic relationships neither with the landscape nor between the components were taken into consideration, and the practices remained on a singular scale. However, the frontier should be considered as a whole of systematic relations consisting of components and landscape, and conservation policies should be implemented accordingly.

[11] UNESCO, Aphrodisias Nomination Text, 2017, https://whc.unesco.org/en/list/1519/documents/.

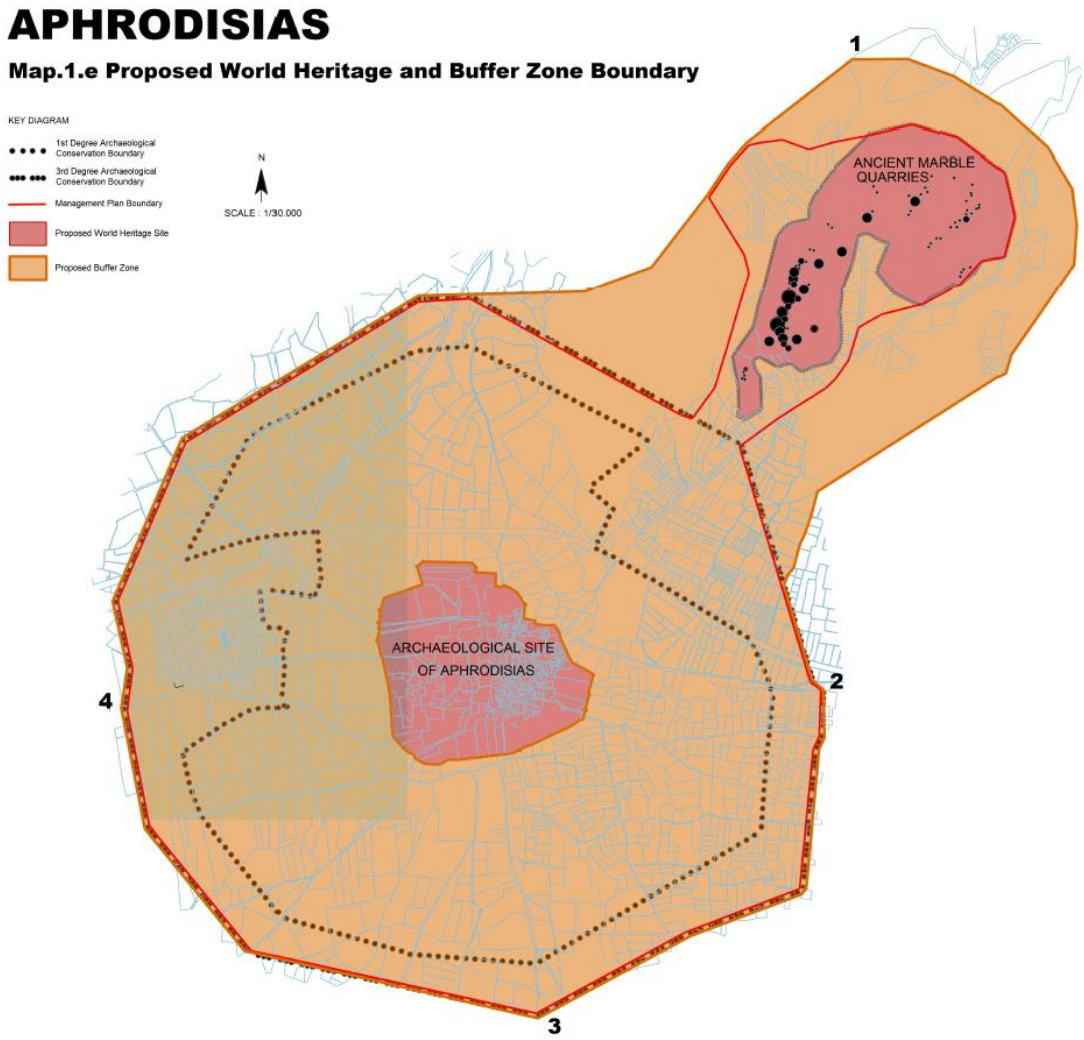


Figure 1.6. Archaeological protected areas and World Heritage Site of *Aphrodisias* ancient city and nearby marble quarries[12]

1.2. Aim of the Study

The first aim of the thesis is to examine the characteristics, chronology and components of the Roman frontier in Anatolia. An inventory of the Anatolian frontier is made using excavation reports, rescue excavation reports, survey reports and travellers' texts as the main sources. The extracted components are grouped according to their component types, and mapped and catalogued. By making a comparative study with other

[12] UNESCO, Aphrodisias map, 2017, https://whc.unesco.org/en/list/1519/documents/.

examined Roman frontier sections, the characteristics of the Anatolian frontier are discussed in historical, socio-political and spatial contexts. The second aim of the thesis is to investigate the conservation problems of the Anatolian frontier and to draw attention to the preservation of the frontier. For this purpose, the conservation status of the components identified in the cataloguing study, the conservation implementations carried out, and the conservation problems are investigated. A methodological framework for the conservation of the Anatolian frontier is drawn by making a comparative study with the conservation laws, legislations and practices for other Roman frontier sections and by examining local and international conservation regulations and laws for archaeological heritage, and rural heritage and landscapes.

For these purposes, the concept of border/boundary/frontier is discussed, and political, social, historical and geographical aspects of the frontier as a system are tried to be understood. Then by examining international and national regulations and laws on the protection of cultural assets, natural environment and landscape, the development of the conservation discipline and the conceptual framework of national conservation laws are discussed. By scanning the literature, the components of the Anatolian frontier are identified and catalogued. During the assessment phase, features of all Anatolian frontier components, their conservation status, and conservation implementations, if any, are analyzed, and conservation problems are discussed, benefitting the literature survey and site trip. Through the catalogue and analysis, maps of the components are created digitally. For a comparative study, other Roman frontier sections are examined, and comparisons are made with the Anatolian frontier in terms of historical, socio-political, spatial and conservation aspects. As a result of the comparative study, the similar and different features of the Anatolian frontier with other Roman frontiers are discussed. In conclusion, the Anatolian frontier is evaluated within the scope of the discussed frontier concept and as rural heritage.

Accordingly, the thesis is expected to answer the following questions:

- What are the characteristics of the Anatolian frontier, and how is it similar to and differentiated from the other Roman frontier sections in historical, socio-political and spatial aspects?
- What are the Anatolian frontier's components, and how were landscape elements integrated into the frontier?
- What are the conservation legislation and conservation practices for other Roman frontier sections, and how might these and the evolution of international

conservation understanding influence national conservation legislation and practices regarding the Anatolian frontier? How can we compare those legislations and practices?

- How is the Anatolian frontier' relation with urban/ rural settings?
- What are the conservation challenges of the Anatolian frontier in rural and urban settings?
- When considered holistically, how does understanding the Anatolian frontier contribute to the overall Roman frontiers?

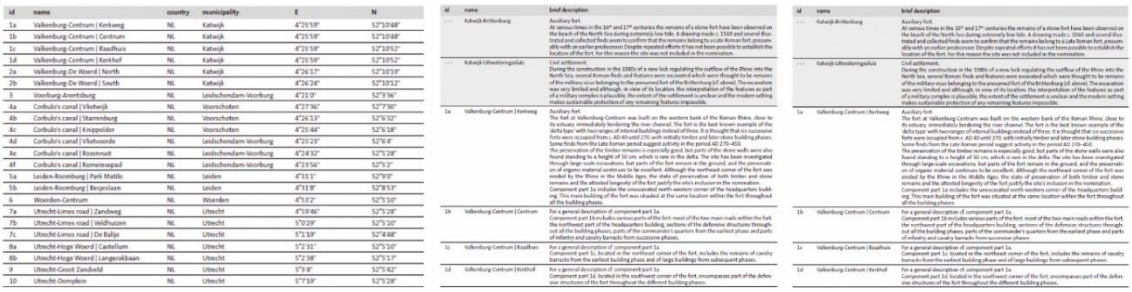
1.3. Method of the Study

As the first step of the method of study, the concepts of border/ boundary/ frontier were discussed by conducting a literature review in order to understand what a frontier is, and to open it up for discussion in a historical context, and to be able to discuss comparatively at an international level in the archaeological field. In order to understand not only the architectural aspect of the frontier but also its other manners, namely sociological, political, economic and geographical aspects, the concept of frontier was discussed in a multilayered context, and the frontier as a landscape was viewed. For later discussion, international charters and conventions on rural heritage and landscape, and international charters and conventions on archaeological heritage were examined, and the evolutionary developments of conservation regulations were revealed. National laws regarding archaeological sites, natural areas, rural environments, and natural or human-made landscapes were also examined, the concepts in the laws were discussed, and international and national legal regulations were compared.

To understand the Anatolian frontier, its historical development was first examined. Later, in order to determine the components of the Anatolian frontier, to understand their history, location and characteristics, and to determine the current studies carried out, a literature review was conducted, including the following sources systematically: Keban Project publications, Lower Euphrates Project publications, Ilısu and Carchemish Salvage Project publications, *Anatolian Studies*, *Journal of Roman Archaeology* supplements, *BIAA British Archaeological Reports* (*BAR series*),

Archaeopress publications, Roman Frontier Studies Congress publications, and Republic of Turkey Ministry of Culture and Tourism's Excavation Results Meetings, Research Results Meetings, Archaeometry Results Meetings, Museum Studies and Rescue Excavations Symposium. Except these sources, other singular literature sources were also surveyed. The thesis is limited to existing sources, and the sources were examined to understand and filter the features and differences of the Anatolian frontier.

A cataloguing study was carried out for the components of the Anatolian frontier. For this purpose, existing cataloguing studies for the European frontiers were examined (Figure 1.7) and taken as a basis, and a similar cataloguing method was carried out for the Anatolian frontier. By creating a table for the 142 determined components of the Anatolian frontier, name, location, former name of the place, ancient location, exact location, component type, period by remains so far, period by sources, survey, excavation, preservation before implementation/ submersion, conservation implementation, conservation status, relationship with settlement, and main sources information was provided (Figure 1.8). This table provided the opportunity to see each component in its entirety, perceive the frontier in a geographical context, and understand it without period limitation. In addition, a site trip that was carried out in Gümüşhane, Erzincan, Malatya, Adıyaman, Diyarbakır, Mardin, Şanlıurfa and Gaziantep in July- August 2022 contributed to understanding the current situation of the frontier and its relationship with the rural. Also, previous personal site observations were benefitted for Trabzon and Harran, and Hasankeyf, which is no longer possible to see.



id	name	country	municipality	E	N
1a	Valkenburg-Centrum | Kerkweg	NL	Katwijk	4°25'59"	52°10'48"
1b	Valkenburg-Centrum | Centrum	NL	Katwijk	4°25'59"	52°10'48"
1c	Valkenburg-Centrum | Raadhuis	NL	Katwijk	4°25'59"	52°10'52"
1d	Valkenburg-Centrum | Kerkhof	NL	Katwijk	4°25'59"	52°10'52"
2a	Valkenburg-De Woerd | North	NL	Katwijk	4°26'17"	52°10'59"
2b	Valkenburg-De Woerd | South	NL	Katwijk	4°26'24"	52°10'52"
3	Voorburg-Arentsburg	NL	Leidschendam-Voorburg	4°21'9"	52°3'36"
4a	Corbulo's canal | Vlietwijk	NL	Voorschoten	4°27'36"	52°7'30"
4b	Corbulo's canal | Starrenburg	NL	Voorschoten	4°26'13"	52°6'32"
4c	Corbulo's canal | Kwppolder	NL	Voorschoten	4°25'44"	52°6'18"
4d	Corbulo's canal | Vlietvoorde	NL	Leidschendam-Voorburg	4°25'23"	52°6'4"
4e	Corbulo's canal | Rosenrust	NL	Leidschendam-Voorburg	4°24'32"	52°5'28"
4f	Corbulo's canal | Romeinsepad	NL	Leidschendam-Voorburg	4°23'56"	52°5'2"
5a	Leiden-Roomburg | Park Matilo	NL	Leiden	4°31'1"	52°9'0"
5b	Leiden-Roomburg | Besjenlaan	NL	Leiden	4°31'8"	52°8'53"
6	Woerden-Centrum	NL	Woerden	4°53'2"	52°5'10"
7a	Utrecht-Limes road | Zandweg	NL	Utrecht	4°59'46"	52°5'28"
7b	Utrecht-Limes road | Veldhuizen	NL	Utrecht	5°0'29"	52°5'16"
7c	Utrecht-Limes road | De Baltje	NL	Utrecht	5°1'39"	52°4'48"
8a	Utrecht-Hoge Woerd | Castellum	NL	Utrecht	5°2'31"	52°5'10"
8b	Utrecht-Hoge Woerd | Langerakbaan	NL	Utrecht	5°2'38"	52°5'17"
9	Utrecht-Groot Zandveld	NL	Utrecht	5°3'4"	52°5'42"
10	Utrecht-Domplein	NL	Utrecht	5°7'19"	52°5'28"

Figure 1.7. Catalogue example containing location, brief description and conservation status of Lower German Limes components[13]

[13] UNESCO, *Frontiers of the Roman Empire – The Lower German Limes. Nomination File for Inscription on the UNESCO World Heritage List. Part I – Nomination file* (Netherlands, Germany: LVR-Druckerei, 2021), 9, 60, 135.

	Name	Location	Former name of the place	Ancient location	Exact location	Component type	Period by remains so far	Period by sources	Survey	Excavation	Preservation before implementation/ submersion	Conservation implementation	Conservation status	Relationship with settlement	Main Sources
1															
2															
3															

Figure 1.8. Catalogue headings for Anatolian frontier

Level of knowledge, component type, multilayeredness, period, preservation level before implementation/ submersion, conservation implementation, conservation status, and relationship with settlement analyses were made for the determined frontier components. In addition to the holistic analyses for the entire frontier, the frontier was divided according to ancient regions (Pontus + Armenia Minor, Cappadocia, Commagene + North Syria, Mesopotamia), and inter-regional comparative analyses of these regions were made. In addition, maps were produced according to the features mentioned in these analyses, and the frontier was visualized geographically and holistically. In addition to different analyses, maps and digital maps of the Anatolian frontier were also produced using QGIS (Quantum Geographic Information System), Google Earth and Google Maps softwares (Figure 1.9).

For the comparative study, the European, Near Eastern and African Roman frontiers were examined in order to understand the place of the Anatolian frontier within all Roman frontiers and to understand its relationship with other frontier sections. Since the frontier does not consist only of architectural elements, a quadruple methodological perspective of historical, socio-political, spatial, and conservation was developed, and other frontier sections were examined accordingly. In the context of historical, socio-political and spatial characteristics, all other frontier sections were grasped, and for the conservation context, the European frontiers that were included in the UNESCO World Heritage List were selected due to resource availability. Because preparing a conservation and management plan is a prerequisite for inclusion in the UNESCO World Heritage List. After these examinations, the frontier sections were compared according to historical (period, multilayeredness), socio-political (purpose, military organization, civil settlements), spatial (type, geography, components, material), conservation (conservation level, conservation regulations, conservation problems, conservation implementations,

ownership and community engagement/ adoption) aspects (Figure 1.10). The evaluation was made after the assessment of the Anatolian frontier and a comparative study with other frontier sections (Figure 1.11).

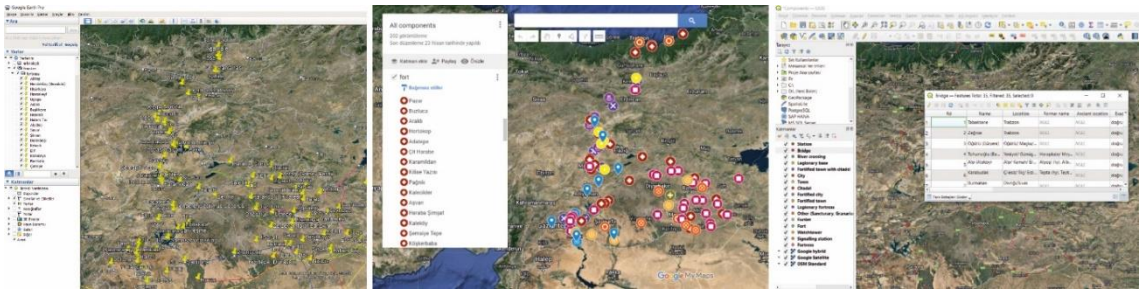


Figure 1.9. QGIS, Google Earth and Google Maps softwares used for mapping

	Chronological		Socio-Political			Spatial			
	Period	Multilayeredness	Purpose	Military organization	Civil settlement	Type	Geography	Components	Material
Hadrian's Wall									
Antonine Wall									
Upper German-Raetian Limes									
Lower German Limes									
Danube Limes									
Dacia Limes									
Near Eastern Limes									
African Limes									
Anatolia Limes									

	Conservation				
	Conservation Level	Conservation Regulations	Conservation Problems	Conservation Implementations	Ownership and Community Engagement/ Adoption
Hadrian's Wall					
Antonine Wall					
Upper German-Raetian Limes					
Lower German Limes					
Danube Limes					
Anatolia Limes					

Figure 1.10. Different aspects of comparative study for the Anatolian frontier with other frontier sections

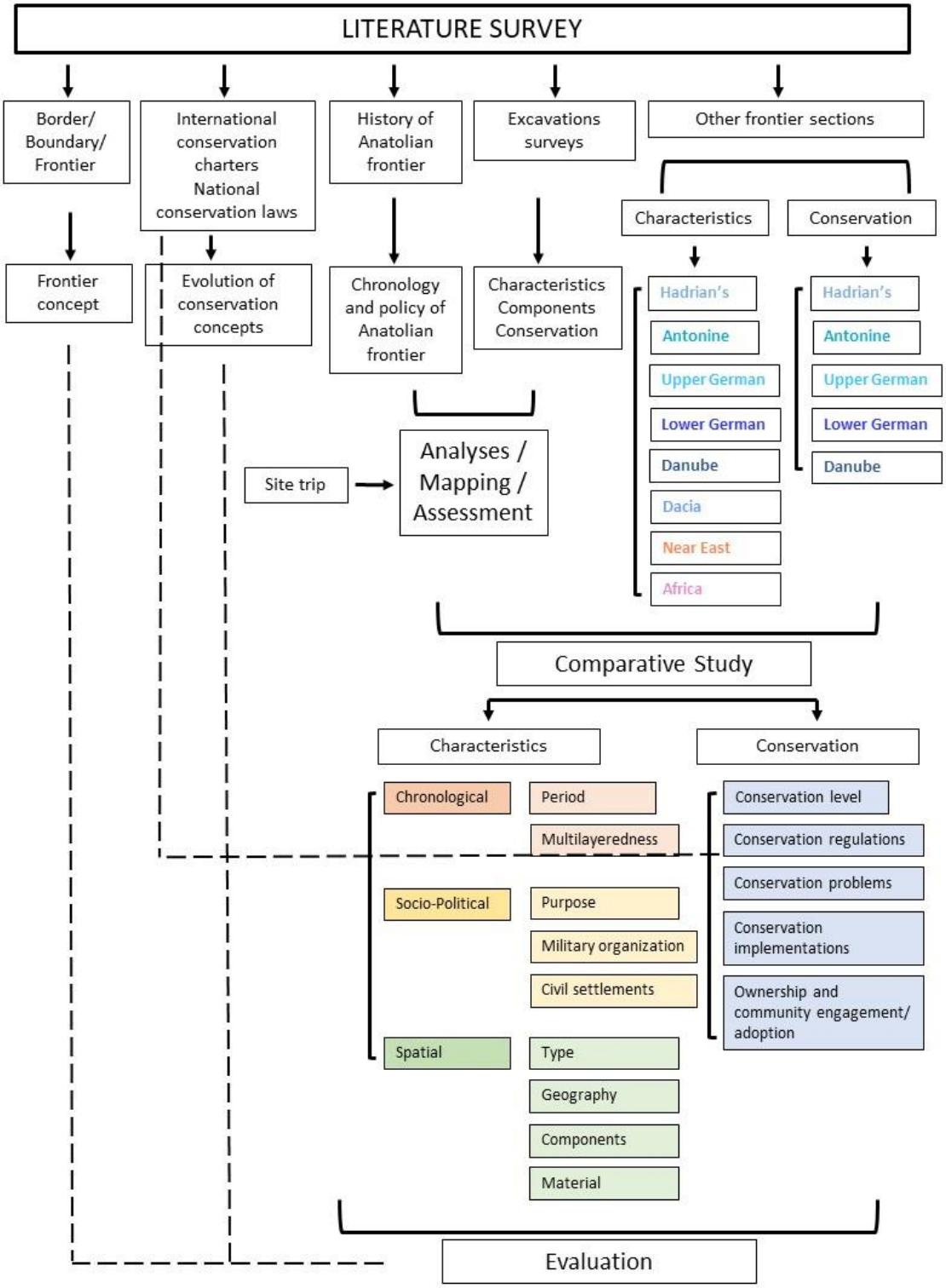


Figure 1.11. Work flow of the study

1.4. Structure of the Thesis

In Chapter 1 of the thesis, after an introduction about Roman frontiers and Roman frontiers in Anatolia, the aim of the study, research questions and method of the study are explained. The theoretical framework in Chapter 2 of the thesis is divided into two and discussed in the context of frontier concept and conservation regulations. In the first part of the theoretical framework, the concepts of border/ boundary/ frontier are explained, and how they are handled in the history of research is examined. Afterwards, the different social, political, geographical and economic contexts of the Roman frontiers are discussed and the consideration of the Roman frontiers as a historic rural landscape is examined. In addition, the development of Roman frontier studies in Anatolia is analyzed, and studies in this field are explained. In the second part of the theoretical framework, firstly, international conservation conventions, charters and documents on the landscape, rural heritage and archaeological heritage are scanned, and their historical development is examined, and then the national laws and regulations concerning archaeological assets and areas and landscape protection are examined, and international and national legal protection regulations are discussed.

In Chapter 3 of the thesis, the historical development of the Roman frontier in Anatolia is examined. For this purpose, first of all, the Romanization process of Anatolia as a result of various wars, inheritances and agreements before the establishment of the frontier, and the frontier policy in Anatolia are discussed, and then the historical and political process from the beginning of the physical formation of the frontier to its collapse is investigated.

In Chapter 4 of the thesis, a methodological framework is formed to understand the Anatolian frontier. For this purpose, firstly, other frontier sections are examined in terms of historical, socio-political, and spatial aspects, as well as conservation. While all frontier sections in Europe, the Near East and Africa are discussed to be considered in historical, socio-political and spatial aspects, the European frontier sections included in the WHL are chosen in terms of accessibility to resources for conservation aspect. In the second part of Chapter 4, the Anatolian frontier is investigated. The Anatolian frontier is divided into four historical regions as Pontus + Armenia Minor, Cappadocia, Commagene

+ North Syria, and Mesopotamia, and a catalogue listing of all frontier components obtained from the literature review is made.

Chapter 5 of the thesis is the comparative study section. For this purpose, in the first part, the analysis and different mappings of the Anatolian frontier investigated in the previous chapter are made for the level of knowledge, component type, period, multilayeredness, rurality, survival level before implementation, conservation implementation, conservation status analyses, additionally conservation problems are discussed by using literature survey and site trip. In the second part, the Anatolian frontier is compared in terms of historic (period, multilayeredness), socio-political (purpose, military organization, civil settlements), spatial (type, geography, components, material), and conservation (conservation level, conservation regulations, conservation problems, conservation implementations, ownership and community engagement/ adoption) aspects with the other frontier sections examined in the previous chapter. In Chapter 6 of the thesis, an evaluation is made in line with the examination of international and national conservation regulations, the historical development of the Anatolian frontier and comparative study; and in Chapter 7, the results of the thesis are discussed, the contributions of the thesis are explained, and future studies are mentioned.

CHAPTER 2

THEORETICAL BACKGROUND

The theoretical framework in this chapter was divided into two and discussed in the context of frontier concept and conservation regulations. In the first part of the theoretical framework, the concepts of border/ boundary/ frontier were explained, and how they are handled in the history of research was examined. Afterwards, the different social, political, geographical and economic contexts of the Roman frontiers were discussed and the consideration of the Roman frontiers as a historic rural landscape was examined. In addition, the development of Roman frontier studies in Anatolia was analyzed, and studies in this field were explained. In the second part of the theoretical framework, firstly, international conservation conventions, charters and documents on the landscape, rural heritage and archaeological heritage were scanned, and their historical development was examined, and then the national laws and regulations concerning archaeological assets and areas and landscape protection were examined, and international and national legal protection regulations were discussed.

2.1. Frontier

2.1.1. The Concept of Border/ Boundary/ Frontier

The border is the boundary that represents the political separation between the two countries when considered in a materialistic way and is the line between things in the more abstract way of thinking. Thus, border studies are a common subject of several disciplines that can be discussed in geographical/ territorial/ historical, sociological/ anthropological, and political/ economic fields. Today, the concept of the border has undergone many changes depending on time and geography until it means that it

represents the edge of the political authority of a state. Until today, the concept was perceived differently by many civilizations and had different meanings for them. For this reason, before moving on to the examination of borders between communities or states that are the subject of this study, the term border should be considered conceptually.

Although the concepts of border, boundary, and frontier can be used interchangeably in English, each term is defined separately. The term "**border**" is defined as "the line that divides two countries or areas; the land near this line".[14] The word "borderland" was derived from "border". While the term of "**boundary**" is defined as "a real or imagined line that marks the limits or edges of something and separates it from other things or places; a dividing line"[15], the term of "**frontier**" is defined "a border between two countries; a region that forms the margin of settled or developed territory; a line of division between different or opposed things".[16]

In the English language, these terms are often used interchangeably. Power suggested that the word frontier is interpreted differently in Europe and America. In British English, frontier refers to the political line or zone between two states or communities, and this linear barrier is needed to keep a community under control. In American English, frontier refers to a regional separation rather than a line and is defined as a transition zone. While the frontier in the European concept is related to political borders, in American concept is for pre-modern frontiers dealing with the environment rather than communities only. However, these different definitions are not specific to the region where they are used. While the American communities are examined with the concept of frontier in Europe, European communities can be examined with the concept of frontier in the US.[17] Use of terms in different contexts and interchangeably cause the semantic distinction between them to become ambiguous. Although studies in this field are referred as "border studies" in the literature, there is a consensus that "boundary" is a broader umbrella term that includes the other two terms, border and frontier. The term border is used to describe modern state borders, while frontier is used to describe

[14] "Border," Oxford Learner's Dictionaries, accessed June 11, 2023, https://www.oxfordlearnersdictionaries.com/definition/english/border_1?q=border.

[15] "Boundary," Oxford Learner's Dictionaries, accessed June 11, 2023, https://www.oxfordlearnersdictionaries.com/definition/english/boundary?q=boundary.

[16] "Frontier," Merriam-Webster, accessed June 11, 2023, https://www.merriam-webster.com/dictionary/frontier.

[17] David Power, "Introduction A Frontiers: Terms, Concepts, and the Historians of Medieval and Early Modern Europe," in *Frontiers in Question: Eurasian Borderlands 700-1700*, eds. David Power and Naomi Standen (UK: Palgrave Macmillan, 1999), 2-3.

historical borders, which are transitional areas where there is no clear distinction.[18] It can be argued that the three terms in Turkish are not separated from each other with such a distinct meaning as in English. In fact, although similar terms with the same meaning, *"sınır"* and *"hudut"* are used for "border" and "boundary", "frontier" has no full-term equivalent and can be defined as the border between two countries.

According to Febvre, who examined the concept and terminology of the frontier in the European tradition, the concepts have different meanings due to their different historical developments. Febvre claimed that before the 15th century, the word "frontier" did not exist in English, but this word was found in French, so the English frontier derived from the French word "*frontière*". He also argued that the word is etymologically and semantically a military word. The term was used after the 16th century French Revolution and has come to express the political border between nation-states.[19] Turner, on the other hand, based on the American tradition, defined the word as the region that separates the "developed" and the "undeveloped" societies whose lands are suitable for conquest. This definition has been shaped with an imperialist perspective by the domination of native American communities by the dominant European powers.[20] In this context, the frontier is not only a point of contact but also a cultural area where native Americans learn about the lives of developed societies. In this way, it is thought that underdeveloped societies started to be developed. This one-sided cultural transfer thesis contrasts with the idea of cultural interplay in the European tradition.[21]

There are different opinions about the use of these terms. According to Kristof, the terms boundary and frontier generally mean the same and can be used interchangeably. However, he stated that these two terms are etymologically different. The frontier comes from the root of "front" which is related to façade, frontal, and front line, so it is outward. On the other hand, boundary, derived from "bonding", is inwardly

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18 Bradley J. Parker, "Toward an Understanding of Borderland Processes," *American Antiquity* 71, no. 1 (January 2006): 79. https://doi.org/10.2307/40035322; Hugh Elton, "Defining Romans, Barbarians and the Roman Frontier," in *Shifting Frontiers in Late Antiquity, Papers from the First Interdisciplinary Conference on Late Antiquity, Lawrence 1995*, eds. by R. W. Mathisen and H. S. Sivan (Ashgate Publishing Company, Hampshire, 1996), 126-135.

19 Lucien Febvre, "Frontière: The Word and the Concept," in *A New Kind of History from the Writings of Lucien Febvre,* ed. Peter Burke, trans. K. Folca (London: Routledge & Kegan Paul, 1973), 213-214; Power, "Introduction A Frontiers," 6.

20 Frederick Jackson Turner, *The Frontier in American History* (New York: Henry Holt, 1920), 1-2; Dietrich Gerhard, "The Frontier in Comparative View," *Comparative Studies in Society and History* 1, no. 3 (1959): 205-206. http://www.jstor.org/stable/177873.

21 Marvin W. Mikesell, "Comparative Studies in Frontier History," *Annals of the Association of American Geographers,* vol. 50, no. 1 (1960): 63. http://www.jstor.org/stable/2561705.

directed. The frontier provides a transition and unifier between the differences on the two sides, but the boundary is a separating element that separates political units and hinders movement by dividing things into both sides.[22]

Prescott and Triggs, on the other hand, argued that although these terms are used interchangeably, they each have different meanings. Frontier and border are used to denote different types of areas, while boundary refers to a real or imaginary line. The boundary is usually determined on the basis of an existing cultural landscape and does not take into account cultural differences. Also, they argued that the terms border and borderland were almost synonyms. Both terms are used to refer to the outermost parts of a country. Borderland is a transition area with a border, while the border is adjacent to this transition area and is its extreme point.[23]

Parker proposed to consider the nature of boundary as a continuum with a border at one end and a frontier at the other by incorporating the terms into the concept of borderland. To differentiate these two terms, he theorized that the border has a more static and restrictive character, while the frontier is more permeable, fluid, and territorial. In this context, borders are perceived as fixed border lines and produced linearly and spatially between policies, while frontiers represent areas of various intertwined and interrelated economic, political, and cultural borders. However, these two types of boundaries are not always clearly separated from each other, so as we move along the continuum, we get closer to one type of another. At one end of the continuum is the most extreme static border, and at the other end is the fluid frontier.[24]

Considering this distinction, some boundaries may be rigid and impermeable, while others may be more freely controlled or completely permeable. And these different situations may even be observed on the same boundaries. For example, the borders between Iraq and Iran in conflict today are mostly impermeable, and protected by armed security forces, even buffer zones can be observed between them, and passes are provided only through customs gates in certain places. On the other hand, boundaries can be something quite fluid and imprecise.[25] Boundaries between countries that belong to the

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[22] Ladis K. D. Kristof, "The Nature of Frontiers and Boundaries," *Annals of the Association of American Geographers* 49, no. 3 (1959): 269–273. http://www.jstor.org/stable/2561460.

[23] Victor Prescott and Gillian D. Triggs, *International Frontiers and Boundaries: Law, Politics and Geography* (Leiden & Boston: Martinus Nijhoff Publishers, 2008), 12.

[24] Parker, "Toward an Understanding of Borderland Processes," 79-83.

[25] Barbara J. Morehouse, Vera Pavlakovich-Kochi, and Doris Wastl-Walter, "Introduction: Perspectives on Borderlands" in *Challenged Borderlands: Transcending Political and Cultural Boundaries,* eds. Vera Pavlakovich-Kochi, Barbara J. Morehouse, and Doris Wastl-Walter (London and New York: Ashgate Publishing, 2004), 3-11.

same economic union but have their own administrative states can be so vague. The border between the Netherlands and Belgium is only indicated by a line on the pavement. Or when thinking of the Roman frontiers, Hadrian's Wall in England was built very rigidly from one end of the sea to the other, dividing the island into two, but the Roman frontiers in Germany take advantage of the Rhein River being the natural boundary and have no solid walls, only watchtowers in certain places. A boundary may also be static in some respects and permeable in others. Frontiers of Assyrians in the Bronze Age, were restrictive in terms of political and militarily but also demographically and culturally porous; opened up space for cultural interaction.[26]

Mignolo argued that frontiers are both conceptualization of knowledge and space. Frontiers are connected to military expansion but include more than plain contact areas between different societies, political control, and influence. Since the frontier has an epistemological dimension that is not inherent in the border, the point of anthropology and archaeology is to search for spatially limited ideologies that categorize the world along similar lines.[27] Linear border thought, which was predominant in border studies, reflects the understanding of the nation-state. Accordingly, it can be characterized as exclusionary or inclusive. However, today's evaluation of the border as a dynamic region where different cultures come together rather than a straight-line separating communities has revealed the concept of border culture in accordance with an anthropological approach.[28] In connection with this, the idea that a different culture from the centre emerged due to the interaction of the communities living on the periphery was adopted. The concept of the border has evolved from barriers to bridges that are areas of interaction, with the thesis that the communities living on the border that away from the control of the centre, create common associations even though they live under different political authorities.[29]

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[26] Parker, "Toward an Understanding of Borderland Processes," 81.

[27] Christian Langer, and Manuel Fernandez-Götz, "Boundaries, Borders and Frontiers: Contemporary and Past Perspectives," *eTopoi Journal for Ancient Studies. Special Volume 7: Political and Economic Interaction on the Edge of Early Empires* (2020): 33–47. http://dx.doi.org/10.17169/refubium-28207; Walter D. Mignolo, *Local Histories/ Global Designs: Coloniality, Subaltern Knowledges, and Border Thinking* (Princeton and Oxford: Princeton University Press, 2012), 298-299.

[28] Fredrik Barth, "Introduction," in *Ethnic groups and Boundaries: The Social Organization of Culture Difference*, ed. Fredrik Barth (Boston: Little, Brown and Company, 1969), 9-10.

[29] Owen Lattimore, *Studies in Frontier History. Collected Papers 1928-1958* (London: Oxford University, 1962), 130; Anthony Giddens, *The Nation-State and Violence. Volume Two of A Contemporary Critique of Historical Materialism* (UK: Polity Press, 1989), 50; Thomas M. Wilson, and Hastings Donnan, "Nation, State and Identity at International Borders," in *Border*

When thinking of borders, although the political boundaries between countries are considered, the boundary is the line that separates two things in the basic meaning. The boundaries indicate the distinction between the two countries, as well as the invisible social boundaries that distinguish different ethnic or social groups. The boundaries are based on the differences, but they also contact and connection zones between these differences. For this reason, being on the border is to be in between at the same time; those living at the border have some kind of double-consciousness. But "borders are not just areas of contact; they are also areas where many opportunities are created by maintaining discontinuities to experience differences".[30]

In the literature on political geography, boundaries are often divided into two categories: "natural" and "artificial". According to Holdich, who supported this dual distinction, natural boundaries are advantageous over artificial boundaries because they are costless and do not change. Natural boundaries such as mountain ranges, deserts, and rivers are used to determine the boundaries, and these natural boundaries are inseparable from the characteristics of the topography. Artificial boundaries such as walls, fences, or latitude and longitude, on the other hand, may not contain such a topographic base. Artificial boundaries can be determined without considering geographical or sociological features.[31] On the other hand, there is an opinion that opposes this dual distinction. Stating that it is misleading to classify boundaries as natural and artificial, Storey argued that the boundaries of a human-made state are of course, human-made. The determination of mountain ranges, rivers, and similar natural features in determining the boundaries also emerged as a result of political affinities.[32] For this reason, the natural boundaries discourse of the political geographers in the 1930s-40s was abandoned with the argument that all borders are determined artificially in modern border studies.[33]

Identities: Nation and State at International Frontiers, eds. Thomas M. Wilson, and Hastings Donnan (Cambridge: Cambridge University Press, 1998), 25-26.

30 Werner Breitung, "Macau Residents as Border People – A Changing Border Regime from a Sociocultural Perspective," *Journal of Current Chinese Affairs* 38, no.1 (2009): 103. https://doi.org/10.1177/186810260903800106

31 Thomas H. Holdich, *Political Frontiers and Boundary Making* (London: Macmillan and Co., Limited, 1916), 147-148, 161-162.

32 David Storey, *Territories: The Claiming of Space* (London and New York: Routledge, 2012), 30-34, 46.

33 David Newman, "Borders and Bordering: Towards an Interdisciplinary Dialogue," *European Journal of Social Theory* 9, no.2 (2006): 174. https://doi.org/10.1177/1368431006063.; Malcolm Anderson, and Eberhard Bort, *The Frontiers of the European Union* (New York: Palgrave Publishers, 2001), 47.

Suggestions are made to systematize the concept of the complex boundary that can accommodate a variety of possible situations. Based on Elton's[34] idea of different types of boundaries that overlap, Parker classified the boundaries into five categories with subcategories. The first one is geographical boundaries that can be diversified, such as topographical features, physical character, climate, flora and fauna, and natural resources; the second is political boundaries with political, administrative and military divisions; the third is demographic boundaries that can be differentiated by parameters such as ethnicity, gender, population density, health; the fourth is cultural boundaries that may have linguistic, religious and material culture distinctions; the fifth is the economic boundaries with the economic factors of extraction of raw materials, the transshipment of commodities, production of finished products, agricultural production.[35] It can be observed many times that these different kinds of boundaries overlap. For example, natural boundaries such as rivers and mountain ranges are used to determine the political boundaries of countries; thus, the control of political authority is expressed through these physical boundaries. In fact, it is seen that these natural elements create not only boundaries between countries but also between geographical regions or cities of a country due these natural boundaries can cause serious administrative difficulties in transportation and communication.

First discussions in the literature on the concept of the frontier began in the early 19th century. Turner, who put forward the frontier thesis considering the colonial period, defined the frontier as the region between the "advanced civilization" and the area of the "barbarians" that had not yet been conquered and settled. From this point of view, the concept was even included in dictionary definitions based on American cities in the 19th century. However, although these definitions of Turner are very controversial today, they are invalid especially when the Persians with whom the Romans dealt in the east and who have an unquestionably equal civilization level with them. Border studies shaped around Turner's thesis mostly focus on discussions such as the borders of the European Union in the post-colonial period or the borders formed by the physical walls built between the states in conflict (e.g., the Mexican-US border). Although there are fewer studies examining the borders of civilizations in the ancient period, the Roman borders come to the fore as a main topic of interest as they still have solid architectural remains. As mentioned above, although the term "frontier" precedes the borders of the American cities

[34] Hugh Elton, *Frontiers of the Roman Empire* (London: B.T. Batsford Ltd, 1996), 3-9.
[35] Parker, "Toward an Understanding of Borderland Processes," 77-100.

in the colonial period based on the frontier thesis, the term "frontier" was chosen to describe the Roman borders, and it was placed in the literature as Roman Frontiers.

In the 20th century, border studies focused on drawing borders rather than understanding them.[36] In this period, with the increase in the number of nation-states, war and peace processes, research has focused on understanding the relations between nation, state, and land.[37] However, the border was seen as just a physical result of political decision-making processes. In this context, borders are changing with re-territorialization as a result of war and peace processes by going beyond the lines drawn on maps.[38] Of course, it is not possible to consider this research focus on the determination of borders independently of the colonization of Asia, the Middle East, and Africa. Kolossov divided the border studies from the end of the 19th century to the World War II into two. The first was the "historical geographical approach", which involved collecting empirical data to understand the economic and social structure of the border region. The field of application of this research area emerged as delineating the borders of post-war European states and delineating colonial possessions in Asia, Africa, and the Middle East. The second area of research focused on the typology and classification of state borders, considering a border as an obstacle and contact zone under the "typology of borders". The application area of this field, on the other hand, was creating geopolitical strategies with a European perspective.[39]

Brunet-Jailly also agreed with the idea that border studies began with the aim of identifying and controlling the colonial possessions of the imperialist powers. In this period, the borders that were the focus of the nation-states were the places that pointed to the physical limits of the state.[40] Minghi also argued that border studies changed after the World War II and only after this period began to focus on the cultural landscape of the border region, not on the determination of the border.[41]

After the World War II, the previous imperialist perspective was abandoned, and borders started to be viewed from a descriptive and classifying perspective. Until this

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36 Gerald Blake, "Geographers and International Boundaries," *IBRU Boundary and Security Bulletin* (Winter 1999-2000): 55.

37 Wilson and Donnan, *Border Identities: Nation and State at International Frontiers*.

38 Newman, "Borders and Bordering," 175.

39 Vladimir Kolossov, "Border Studies: Changing Perspectives and Theoretical Approaches," *Geopolitics* 10:4 (2005): 607-610. https://doi.org/10.1080/14650040500318415.

40 Emmanuel Brunet-Jailly, "Theorizing Borders: An Interdisciplinary Perspective," *Geopolitics* 10:4 (2005): 636. https://doi.org/10.1080/14650040500318449.

41 Julian V. Minghi, "European Borderlands: International Harmony, Landscape Change and New Conflict," in *Eurasia. World Boundaries Volume 3,* ed. Carl Grundy-Warr (London & New York: Routledge, 1994), 89-100.

period, the current research area was concerned with the determining and drawing of borders, but then the functions of borders as political and social tools began to be examined. This functionalist perspective focused on the mobility and information flow in the border areas, the mutual effects of the border on the parties, and the cultural and natural elements of the border areas. This view of the border has led to the conceptualization of the border as a barrier.[42] Power argued that borders are unique and a generalization cannot be made about them, so they should be examined one by one. This thesis has been valid for a long time.[43] Newman stated that the previous deterministic understanding was abandoned, and the view of borders further evolved as borders became the subject of not only geography but also social sciences. The involvement of social sciences in border studies has transformed borders into a phenomenon based on human psychology and social organizations. This brought along a sociologically based reconceptualization of borders.[44]

Border issues are institutionalized on a global scale today, and our perspective on border issues is shaped by this institutionalism. It can be argued that this institutionalized understanding of today is due to the modern European political thought, which was shaped under the influence of capitalism after World War II. The idea of creating fixed and strict political boundaries has been shaped by the desire of the United Nations to protect the status quo and to effectively control the boundaries, thus institutionalized globally. However, this situation raises the problem of how the borders between communities were perceived and how border disputes were handled and resolved in the ancient period. As a matter of fact, Giddens pointed out to this problem and emphasized that "traditional" states and nation-states are based on different principles in terms of territorial boundaries. In "traditional" states, territoriality is based on the "frontier", while in modern states, it is based on the "border".[45] Similarly, it raises the issue of how, for example, the seas are an area of contention between communities. It is known that the Mediterranean was a large contact zone and hosted many civilizations in the ancient period, and it should be understood that there were many smaller contact zones there. Recent studies have focused on the local and interregional interaction of Mediterranean

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42 Blake, "Geographers and International Boundaries," 55; Kolossov, "Border Studies," 608-613.

43 Anssi Paasi, "Bounded spaces in a 'borderless world': Border studies, power and the anatomy of territory", *Journal of Power* 2, no.2 (2009): 218. https://doi.org/10.1080/17540290903064275.; Power, "Introduction A Frontiers", 2.

44 Newman, "Borders and Bordering," 174; Kolossov, "Border Studies," 606–607.

45 Giddens, *The Nation-State and Violence*, 49.

island communities during the Bronze Age, but some aspects of these communities are still the subject of research; for example, the geographical extent of the island communities, their sphere of influence, the extent and nature of their interaction with each other and with the mainland, and negotiation of space. However, it is logical that they also fit into the web of interdependence that unites rural communities and coastal and island communities and possibly provides softer boundaries between policies rather than the present-day nation-state framework.[46] This issue was also addressed by Düring and Stek, with the pre-modern case studies such as Assyrian, Urartian, Achaemenid, Roman, Byzantine, and Inca empires. The study of borders and how they have shaped imperial landscapes were focused. By using archaeological evidence and analysis to investigate the construction, maintenance, and utilization of borders in various imperial contexts, it was concluded that borders are not just physical demarcations, but also social and cultural constructs. By analyzing how borders are perceived and represented in literature, art, and other cultural expressions, a better understanding of the cultural and ideological dimensions of imperial borders can be achieved. Focusing on border zones where different cultures and political entities interact, an insight about the economic, social, and cultural exchange that occurred across imperial borders can be gained.[47]

[46] Cyprian Broodbank, *The Making of the Middle Sea: A History of the Mediterranean from the Beginning to the Emergence of the Classical World* (London: Thames and Hudson, 2013); Helen Dawson, "'Brave New Worlds': Islands, Place-Making and Connectivity in the Bronze Age Mediterranean," in *Of Odysseys and Oddities: Scales and Modes of Interaction between Prehistoric Aegean Societies and Their Neighbours,* ed. B. P. C. Molloy. Sheffield Studies in Aegean Archaeology (Oxford and Philadelphia: Oxbow Books, 2016), 323– 341; John Agnew, "The Territorial Trap: The Geographical Assumptions of International Relations Theory," *Review of International Political Economy* 1, no.1 (1994), 53–80; Kristian Kristiansen, "The Rise of Bronze Age Peripheries and the Expansion of International Trade 1950–1100 BC," in *Trade and Civilisation: Economic Networks and Cultural Ties, from Prehistory to the Early Modern Era,* eds. K. Kristiansen, Th. Lindkvist, and J. Myrdal (New York: Cambridge University Press, 2018), 87–112; Kristian Kristiansen and Thomas B. Larsson, *The Rise of Bronze Age Society: Travels, Transmissions and Transformations* (Cambridge and New York: Cambridge University Press, 2005), 38-39.

[47] Bleda S. Düring and Tesse D. Stek, eds., *The Archaeology of Imperial Landscapes. A Comparative Study of Empires in the Ancient Near East and Mediterranean World* (Cambridge: Cambridge University Press, 2018).

2.1.1.1. Understanding the Roman Frontiers as a System of Relations

The concept of frontiers goes beyond the geographical boundaries; it embodies a complex interaction of social, economic and geographical dynamics. In the context of the Roman Empire, frontiers were not just physical boundaries but complex systems of relationships that shaped interactions, economies, and societies.[48] This section of the thesis addresses the multidimensional nature of the Roman frontiers by examining their sociological, geographical and economic dimensions to explain their role as systems of relationships within the broader framework of the empire.

Frontiers, as academically conceptualized, extend beyond traditional geopolitical boundaries. Drawing from a variety of disciplines such as sociology, geography, and economics, the concept of boundaries covers a wide range of phenomena, including power dynamics, resource competition, and control over natural assets. Unlike static boundaries, frontiers evolve dynamically; it reflects the changing interactions between people and their environments, as well as among different social groups. From a sociological perspective, frontiers are viewed as spatial and social boundaries that shape interactions and relationships between diverse groups and individuals. This perspective emphasizes the role of frontiers in influencing social dynamics and promoting adaptation in globalized societies.[49] Moreover, the historical development of frontiers offers knowledge into the formation of resilience, cohesion, and communal identities that are particularly evident in rural communities.[50]

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48 Charles Richard Whittaker, *Rome and Its Frontiers: The Dynamics of Empire* (London & New York: Routledge, 2004), 1-27, 192; Leonidas Karakatsanis, and Emma L. Baysal, "Introduction: Expanding the Perspective: Towards a Deep History of Borders, Boundaries and Frontiers in Turkey," in *Bordered Places - Bounded Times: Cross-Disciplinary Perspectives on Turkey*, eds. Leonidas Karakatsanis and Emma L. Baysal, BIAA Monograph Series vol. 51 (British Institute at Ankara, 2017), 1–14. http://www.jstor.org/stable/10.18866/j.ctt1n7qk1h.6; Kent G. Lightfoot, and Antoinette Martinez, "Frontiers and Boundaries in Archaeological Perspective," *Annual Review of Anthropology* 24, no. 1 (1995): 471–492. https://www.annualreviews.org/doi/10.1146/annurev.an.24.100195.002351.

49 Anssi Paasi, "Boundaries as social processes: Territoriality in the world of flows," *Geopolitics* 3, no. 1 (1998): 69–88. https://doi.org/10.1080/14650049808407608; Richard Hingley and Rich Hartis, "Contextualizing Hadrian's Wall: The Wall As 'Debatable Lands'," in *Frontiers in the Roman World. Proceedings of the Ninth Workshop of the International Network Impact of Empire (Durham, 16–19 April 2009),* ed. Olivier Hekster and Ted Kaizer (Leiden & Boston: Brill, 2011), 79-95.

50 Hanne Cottyn, Eric Vanhaute, and Esther Beeckaert, "Peasant Frontiers as a Research Strategy: Peasant Resilience and the Reproduction of Common Land Rights," *Continuity and Change* 37, no. 1 (2022): 43–68. https://www.cambridge.org/core/product/identifier/S0268416022000108/type/journal_article.

Geographically, Roman frontiers are characterized by their rich natural resources, diverse population dynamics, and the increasing integration of various ethnic groups into the economic and social fabric of the empire. The strategic significance of these frontiers lay not only in their territorial extent but also in their ability to sustain and feed the growing Roman economy. From an economic perspective, frontiers are linked to market dynamics, economic structures and policy frameworks. Frontier regions often serve as pots for market formation, commodification, and negotiation of economic relations.[51] Understanding the economic imperatives driving frontier economies is crucial to grasping their role within the broader imperial framework.

Roman frontiers served as spatial and social boundaries that determined the extent of Roman influence and control. These frontiers not only demarcated territorial sovereignty but also shaped interactions and relationships between different social groups. The Roman frontiers emphasized the dynamic nature of societal boundaries, which facilitating both conflict and cooperation between diverse ethnic, cultural and linguistic communities. The Roman frontier was more than a physical barrier; it was a dynamic region where different cultures, languages and traditions intersected and sometimes clashed. The presence of Roman military installations, administrative centres, and commercial hubs along the frontier facilitated interaction and exchange between Roman settlers and indigenous peoples.[52] However, these interactions were often marked by tension and conflict, as competing claims to land, resources, and authority induced resentment and resistance.[53]

The Roman frontiers had profound sociological consequences that shaped identity formation, social cohesion, and collective memory.[54] Frontier communities developed distinct cultural identities and social norms, blending Roman influences with indigenous

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51 Edward B. Barbier, "Frontier Expansion and Economic Development," *Contemporary Economic Policy* 23, no. 2 (2005): 286–303. https://doi.org/10.1093/cep/byi022.; Rune Bennike, "Frontier Commodification: Governing Land, Labour and Leisure in Darjeeling, India," *South Asia: Journal of South Asian Studies* 40, no. 2 (2017): 256–271. https://doi.org/10.1080/00856401.2017.1289618.

52 Charles Richard Whittaker, *Frontiers of the Roman Empire. A Social and Economic Study* (Baltimore & London: The Johns Hopkins University Press, 1994), 98-131; Richard Hingley, *Globalizing Roman Culture. Unity, diversity and empire* (London & New York: Routledge, 2005), 56-57, 62, 94.

53 Richard Hingley, "Resistance and domination: social change in Roman Britain," in *Dialogues in Roman Imperialism. Power, discourse, and discrepant experience in the Roman Empire,* ed. David J. Mattingly. Journal of Roman Archaeology Supplementary Series 23 (Portsmouth: Journal of Roman Archaeology, 1997), 81-100.

54 Orietta Dora Cordovana, "Historical Ecosystems. Roman Frontier and Economic Hinterlands in North Africa," *Historia: Zeitschrift Für Alte Geschichte* 61, no. 4 (2012): 458–494. http://www.jstor.org/stable/23265001.

traditions. These hybrid identities were shaped through processes of negotiation, adaptation, and cultural exchange, which reflect the fluidity and complexity of frontier relations. The resilience and adaptability of frontier communities played a crucial role in shaping the historical course of the Roman frontier.[55] Despite external threats and internal challenges, frontier settlements have shown resilience during hard conditions. This resilience is rooted in the adaptive capacity of frontier societies to exploit local resources, form alliances, and innovate in response to changing conditions.[56]

Roman frontiers were characterized by a variety of ethnic, cultural and linguistic groups that reflect the vast territorial reach and cosmopolitan character of the empire. Frontier settlements served as a melting pot where people of different backgrounds met, interacted, and sometimes clashed. The Romanization of frontier populations was a gradual process shaped by complex interactions between Roman settlers and indigenous peoples.[57] Ethnic diversity was a defining feature of Roman frontier societies, where frontier settlements harboured a mosaic of cultures, languages, and traditions. The coexistence of Roman and non-Roman communities enriched the cultural fabric of the empire by encouraging cultural exchange, linguistic diversity, and religious syncretism.[58] But ethnic tensions and identity conflicts also emerged as rival claims to land, resources, and authority intersected with broader imperial policies and interests.[59]

The historical development of Roman frontiers provides valuable information about the dynamics of the formation and evolution of boundaries. Frontiers were not static lines on a map, but dynamic interfaces where cultures converged, conflicts erupted, and identities were negotiated. By examining the historical development of Roman frontiers,

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55 Wim Broekaert and Wouter Vanacker, "Raiders to Traders? Economics of Integration among Nomadic Communities in North Africa," in *Rome and the Worlds Beyond Its Frontiers,* ed. Danielle Slootjes and Michael Peachin (Leiden & Boston: Brill, 2016), 96-122; Cottyn, Vanhaute, and Beeckaert, "Peasant Frontiers as a Research Strategy," 43–68.

56 Whittaker, *Frontiers of the Roman Empire. A Social and Economic Study,* 98-131.

57 C. Opreanu, "Roman Dacia and its Barbarian Neighbours, Economic and Diplomatic Relations," in *Roman Frontier Studies 1995. Proceedings of the XVIth International Congress of Roman Frontier Studies,* ed. W. Groenman- van Waateringe, B. L. Van Beek, W. J. H. Willems, and S. L. Wynia. Oxbow Monograph 91 (Oxford: Oxbow Books, 1997), 247-252; Hingley, *Globalizing Roman Culture. Unity, diversity and empire,* 30-47; J. C. Barrett, "Romanization: a critical comment," in *Dialogues in Roman Imperialism. Power, discourse, and discrepant experience in the Roman Empire,* ed. David J. Mattingly. Journal of Roman Archaeology Supplementary Series 23 (Portsmouth: Journal of Roman Archaeology, 1997), 51-64.

58 Whittaker, *Frontiers of the Roman Empire. A Social and Economic Study,* 98-131.

59 David J. Mattingly, "Dialogues of power and experience in the Roman Empire," in *Dialogues in Roman Imperialism. Power, discourse, and discrepant experience in the Roman Empire,* ed. David J. Mattingly. Journal of Roman Archaeology Supplementary Series 23 (Portsmouth: Journal of Roman Archaeology, 1997), 7-24.

a deeper understanding can be gained of the processes that drove social change, identity formation, and territorial expansion in the Roman Empire. The geographical characteristics of the Roman frontiers played a very important role in shaping the socio-economic dynamics and strategic importance within the empire.[60] From the abundance of natural resources to the diversity of population, Roman frontiers were dynamic landscapes where human and environmental factors intersected to create unique socio-economic ecosystems.

One of the defining characteristics of the Roman frontiers was its wealth of natural resources, including fertile agricultural lands, mineral deposits and timber forests. These resources not only supported economic development but also served as strategic assets for the empire. Roman frontier regions were vital sources of food, raw materials and human power that sustained the imperial economy and military machinery. The exploitation and management of natural resources was at the heart of Roman frontier policy; the empire was actively seeking to control and exploit the frontier territories for economic gain.[61] Roman frontier settlements were generally established in resource-rich areas where agricultural production, mining activities and trade flourished. However, intense exploitation of natural resources also led to environmental degradation and social unrest, as frontier communities struggled with the consequences of Roman expansion and exploitation.[62].

From an economic perspective, Roman frontiers were dynamic centres of economic activity, trade and exchange. Frontier regions served as engines of economic growth, innovation, and integration that connect the imperial core to the periphery and interior regions. The economic structures, policies, and market dynamics of the Roman frontiers provide valuable information for the complex interplay between state power, market forces, and social relations within the empire. Roman frontier economies were characterized by a wide range of economic activities, including agriculture, mining, manufacturing, and trade. Frontier settlements served as centres of production,

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60 Louise Revell, *Roman Imperialism and Local Identities* (Cambridge: Cambridge University Press, 2009), 1-39; Greg Woolf, *Becoming Roman: the origins of provincial civilization in Gaul*, (Cambridge: Cambridge University Press, 1998).

61 Arther Ferrill, *Roman Imperial Grand Strategy. Publications of the Association of Ancient Historians 3* (Lanham& New York& London: University Press of America, 1991), 36-39; David J. Mattingly, "Africa: a landscape of opportunity?," in *Dialogues in Roman Imperialism. Power, discourse, and discrepant experience in the Roman Empire*, ed. David J. Mattingly. Journal of Roman Archaeology Supplementary Series 23 (Portsmouth: Journal of Roman Archaeology, 1997), 113-139.

62 Michael Schmitz, *Roman Conquests: The Danube Frontier* (Barnsley: Pen & Sword Military, 2019), 84-95, 103-110.

distribution, and consumption, driving economic growth and prosperity in the empire. The integration of frontier economies into the wider imperial market encouraged innovation and entrepreneurship by facilitating the exchange of goods, services and ideas.[63]

State intervention played a crucial role in shaping frontier economies, with the empire enacting policies to stimulate economic development, regulate trade, and extract resources from the frontier regions. Frontier settlements were often granted special privileges and exemptions to encourage settlement and investment; this has led to the emergence of vivid commercial centres and trade networks along the frontier.[64] State-supported infrastructure projects such as roads, bridges, and ports facilitated trade and commerce, while legal frameworks and institutions provided a framework for regulating markets and resolving disputes. Social networks and kinship ties also played an important role in facilitating economic exchange and cooperation, and promoting trust among market participants.[65]

The emergence of frontier markets was a defining feature of Rome's economic expansion; since the frontier regions became nodes of exchange and commerce within the empire. Frontier markets facilitated the circulation of goods, capital, and labour by linking producers, consumers, and traders across long distances. The integration of frontier markets into the wider imperial economy stimulated demand, investment, and specialization, increasing economic growth and prosperity in the empire. Market dynamics on the Roman frontier were shaped by a combination of state intervention, market forces, and social relations.[66]

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63 Barbier, "Frontier Expansion and Economic Development," 286–303; Susan P. Mattern, *Rome and the Enemy. Imperial Strategy in the Principate* (Berkeley& Los Angeles & London: University of California Press, 1999), 123-161.

64 Keith Hopkins, "Taxes and Trade in the Roman Empire (200 B.C.–A.D. 400)," *Journal of Roman Studies* 70 (1980): 101–25. https://doi.org/10.2307/299558.; Peter Garnsey and Richard Saller, *The Roman Empire. Economy, Society and Culture* (London & New Delhi & New York & Sydney: Bloomsbury, 2014), 42, 83.

65 Sitta von Reden, and Michael Speidel, "Economy, Frontiers, and the Silk Road in Western Historiographies of Graeco-Roman Antiquity," in *Handbook of Ancient Afro-Eurasian Economies. Volume 1: Contexts,* ed. Sitta von Reden (Berlin & Boston: De Gruyter Oldenbourg, 2020), 693-728. https://doi.org/10.1515/9783110607741-026.

66 Peter Temin, "A Market Economy in the Early Roman Empire," *Journal of Roman Studies* 91 (2001): 169–181. https://doi.org/10.2307/3184775.

2.1.1.2. Understanding the Roman Frontiers as a Historic Rural Landscape

Examining ancient civilizations and their geographies is very crucial to understand the socio-cultural dynamics, economic activities and environmental interactions of past periods. Among these, the Roman Empire stood out as one of the most influential and expansionist civilizations in history, leaving behind a legacy that extends beyond architectural works. In recent years, scholars have increasingly turned their attention to examining Roman frontiers not only as static archaeological sites but also as dynamic historical rural landscapes containing a complex relationship between natural features, human interventions, and socio-political contexts.[67]

Roman frontiers were not just physical phenomena but also cultural and ideological interfaces. Dynamics of power, identity and belonging were active in these regions.[68] By examining the material remains of Roman frontier settlements, fortifications, and infrastructure, information has been obtained about the strategies of conquest, colonization and assimilation used by the Roman Empire to maintain control over its vast territories.[69] Additionally, by following the patterns of settlement, trade and interaction along the frontiers, networks of connection and exchange that shaped the social and economic conditions of the Roman world were revealed.[70]

Examining Roman frontiers as historic rural landscapes has broader implications for understanding contemporary geopolitical challenges and dynamics. Debates on border security, migration and territorial sovereignty hold an important place in global discussions. Information gained from the study of ancient frontiers can contribute to a deeper understanding of the complex interactions of human societies with their environments, contextualizing modern borders within the long period of history.[71] This

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67 Marietta Horster, "Heterogeneous Landscapes: From Theory to Impact," in *The Impact of the Roman Empire on Landscapes. Proceedings of the Fourteenth Workshop of the International Network Impact of Empire* (Mainz, June 12-15, 2019), ed. Marietta Horster, and Nikolas Hächler (Leiden & Boston: Brill, 2022), 18–44. https://doi.org/10.1163/9789004411449_003.

68 Paasi "Bounded Spaces in a 'Borderless World'," 213-234.

69 Stephen L. Dyson, "The Development of Empires," in *Companion Encyclopedia of Archaeology,* ed. Graeme Barker (London & New York: Routledge, 1999), 950-987.

70 Tesse D. Stek, "Roman Imperialism, Globalization and Romanization in Early Roman Italy. Research Questions in Archaeology and Ancient History," *Archaeological Dialogues* 21, no. 1 (2014): 30–40. https://doi.org/10.1017/S1380203814000063.

71 Bryan Avery Feuer, *Boundaries, Borders and Frontiers in Archaeology: A Study of Spatial Relationships* (North Carolina: McFarland & Company, Inc., 2016); Richard Hingley,

contributes to informed policy-making and conflict resolution efforts. Therefore, examining ancient Roman frontiers as historic rural landscapes has the potential to inform and enrich contemporary debates around borders, and belonging.

Before detailing the specifics of Roman frontiers, it is essential to establish a comprehensive understanding of what constituted a rural landscape. In essence, a rural landscape includes the natural and human elements of a countryside environment shaped by centuries of human settlement, agricultural practices, and cultural interactions. The components of the rural landscape are diverse and interconnected, from geographical features such as rivers, mountains and deserts to human settlements, agricultural fields and infrastructure. In the context of rural life, landscape plays a central role in shaping daily existence and cultural identity.[72] The landscape not only provides a physical background for agricultural activities and settlement patterns, but also serves as a repository of collective memory, tradition and heritage.[73] Therefore, the study of Roman frontiers as historic rural landscapes must acknowledge the relationship between people and their environment, recognizing the interdependence of natural and cultural elements. In addition to its physical characteristics, a rural landscape also contains intangible elements that contribute to its identity and significance. Cultural practices, folklore and oral traditions are deeply intertwined with the landscape, which shape the narratives and identities of local communities. Sacred areas, ritual sites and seasonal festivals, which often exist in association with the rural fabric, are solid examples of spiritual beliefs and social harmony.[74] These cultural dimensions add layers of meaning to the landscape,

"Frontiers and Mobilities: The Frontiers of the Roman Empire and Europe," *European Journal of Archaeology* 21, no. 1 (2018): 78–95. https://doi.org/10.1017/eaa.2017.17.

72 John Bintliff, "Contextualizing the Phenomenology of Landscape," in *Human Expeditions: Inspired by Bruce Trigger*, eds. Stephen Chrisomalis and Andre Costopoulos (Toronto & Buffalo & London: University of Toronto Press, 2013), 41-50; Thomas Greider, and Lorraine Garkovich, "Landscapes: The Social Construction of Nature and the Environment," *Rural Sociology* 59, no. 1 (1994): 1–24. https://doi.org/10.1111/j.1549-0831.1994.tb00519.x.

73 Tadhg O'Keeffe, "Landscape and Memory: Historiography, Theory, Methodology," in *Heritage, Memory and the Politics of Identity. New Perspectives on the Cultural Landscape,* eds. Niamh Moore and Yvonne Whelan (The UK: Ashgate), 3-18.

74 Elif Keser Kayaalp, "Boundaries of a Frontier Region: Late Antique Northern Mesopotamia," in *Bordered Places - Bounded Times: Cross-Disciplinary Perspectives on Turkey,* eds. Leonidas Karakatsanis and Emma L. Baysal, BIAA Monograph Series vol. 51 (British Institute at Ankara, 2017), 135–48. http://www.jstor.org/stable/10.18866/j.ctt1n7qk1h.17; Gabriel Cooney, Tom Condit, and Emmet Byrnes, "The Archaeological Landscapes Project: an approach to cultural landscapes in Ireland," in *Europe's Cultural Landscape: Archaeologists and the Management of Change,* eds. Graham Fairclough, Stephen Rippon, and David Bull (Brussels: Europae Archaeologiae Consilium, 2002), 39-48.

transforming it from a sole background to a living source of human experience and expression.[75]

One of the fundamental principles underlying the study of historic rural landscapes is the rejection of a singular, static notion of heritage in favour of a dynamic, contextual understanding. Rather than looking at heritage solely through the lens of individual monuments or structures, an integrated approach is advocated that encompasses the entire landscape as a historical artifact.[76] This leads to recognizing the imprint of human activity on the natural environment and acknowledging the layers of history within the landscape. In the case of Roman frontiers, this perspective becomes especially valid; because these frontiers are not just drawn by walls or military installations, but are touched into the fabric of rural life.[77] The importance of the context cannot be overstated, as the spatial organization of settlements, the use of natural resources, and defence and control strategies all contribute to the formation and maintenance of the frontier landscape. Therefore, any interpretation of Roman frontiers must take into account the wider socio-economic, political and environmental contexts within which these frontiers were located.

Moreover, the dynamic nature of historic rural landscapes challenges traditional notions of authenticity and conservation. Unlike static museum exhibits, rural landscapes evolve over time, shaped by ongoing processes of social, economic and environmental change.[78] Therefore, protecting this multi-layered landscape requires a nuanced approach that balances conservation and adaptation. This may include innovative strategies such as landscape-scale planning, community engagement and adaptive reuse of heritage assets to ensure their continued relevance and resilience in the face of contemporary challenges.[79]

Additionally, the study of historic rural landscapes offers opportunities for interdisciplinary collaboration and knowledge exchange. By utilizing different fields such

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75 Hingley, "Living Landscape: Reading Hadrian's Wall," 41-62.

76 Emine Çiğdem Asrav, "Kırsal Alanların Kültürel Miras Olarak Değerlendirilmesi ve Korunmasına Yönelik Yaklaşımlara Dünyadan Örnekler," in *Topluma Adanmış Bir Yaşam. Prof. Dr. Ömür Bakırer Armağanı,* eds. Ali Uzay Peker, and Neriman Şahin Güçhan (Ankara: ODTÜ, 2021), 125-136.

77 David J. Mattingly, *Imperialism, Power, and Identity. Experiencing the Roman Empire* (Princeton & Oxford: Princeton University Press, 2011), 146-166.

78 Marc Antrop, "Why Landscapes of the Past Are Important for the Future," *Landscape and Urban Planning* 70, no. 1–2 (2005): 21–34. https://doi.org/10.1016/j.landurbplan.2003.10.002.

79 Maria Garcia-Martin, Claudia Bieling, Abigail Hart, and Tobias Plieninger, "Integrated landscape initiatives in Europe: Multi-sector collaboration in multi-functional landscapes," *Land Use Policy* 58 (2016): 43-53. https://doi.org/10.1016/j.landusepol.2016.07.001.

as archaeology, history, geography, architecture, anthropology and environmental science, a more holistic understanding can be gained about the complex dynamics that play a role in these landscapes. This interdisciplinary approach not only enriches scientific understanding but also fosters innovative solutions to pressing problems such as sustainable development, heritage preservation and community empowerment.[80] Investing in collaborative research initiatives and capacity-building efforts is therefore essential to unlock the potential of historic rural landscapes as a source of knowledge, inspiration and cultural enrichment.

Contrary to general perception, Roman frontiers were not static lines on a map, but dynamically changing regions. Although military frontier structures such as Hadrian's Wall in the UK or Upper Rivers, mountains, and deserts often served as natural barriers, shaping the movement of people and goods around the empire. Moreover, the frontier region is not defined only by military infrastructure; also characterized by agricultural settlements, trade routes and indigenous communities.[81] The integration of these elements into the broader Roman system facilitated economic prosperity, cultural assimilation, and strategic defence. However, it is crucial to recognize that the Roman influence was not one-way; indigenous peoples played an active role in shaping the frontier region and adapting Roman technologies and practices to their own needs.[82]

The dynamic nature of the Roman frontiers is evident in its role as a catalyst for cultural exchange and hybridization. As the Roman Empire expanded its influence into various geographic regions, interactions between Roman settlers, indigenous peoples, and neighbouring civilizations resulted in the exchange of ideas, technology, and material culture. This cultural fusion was manifested in the architectural styles, religious practices, and linguistic diversity observed in the frontier regions. Far from being static and homogeneous, frontier communities were vibrant centres of diversity where multiple identities coexisted and interacted that shaped the cultural landscape.[83]

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80 Hannes Palang, Staffan Helmfrid, Marc Antrop, and Helen Alumae, "Rural Landscapes: past processes and future strategies," *Landscape and Urban Planning* 70 (2005): 3–8. https://doi.org/10.1016/j.landurbplan.2003.10.001.

81 David John Breeze, *The Frontiers of Imperial Rome* (The UK: Pen and Sword Military, 2011).

82 Andrew C. Johnston, *The Sons of Remus: Identity in Roman Gaul and Spain* (USA: Harvard University Press, 2017); Blair Fowlkes-Childs, "Palmyrenes in Transtiberim: Integration in Rome and Links to the Eastern Frontier," in *Rome and the Worlds Beyond Its Frontiers,* ed. Danielle Slootjes and Michael Peachin (Leiden & Boston: Brill, 2016), 194-212.

83 Anna Lucille Boozer, "Frontiers and Borderlands in Imperial Perspectives: Exploring Rome's Egyptian Frontier," *American Journal of Archaeology* 117, no. 2 (2013): 275–92. https://doi.org/10.3764/aja.117.2.0275; Revell, *Roman Imperialism and Local Identities,* 1-39; Woolf, *Becoming Roman: the origins of provincial civilization in Gaul*; Greg Woolf, "Beyond

Moreover, the economic dimension of the Roman frontiers contributed to its dynamic nature, as it served for the flow of goods, people and capital. Trade networks spanning vast distances connected the frontier regions to the centre of the empire, facilitating the exchange of agricultural products, luxury goods, and raw materials. This economic interdependence fostered prosperity and innovation, encouraging urbanization, specialization, and the development of market economies in frontier settlements. The presence of military garrisons along frontiers provided stability and security, enabled trade to flourish, and encouraged a sense of connectivity and integration between different regions.[84] Thus, the dynamic interplay of economic, cultural and military factors shaped the evolving landscapes of the Roman frontiers, transforming them into dynamic regions of connection and exchange.

One of the most pressing challenges in the conservation and interpretation of historic rural landscapes is managing the complex interaction between cultural heritage and contemporary ownership issues. As archaeological research uncovers new evidence and reinterprets existing data, questions of ownership, access, and stewardship inevitably arise. In rural areas, where land ownership is fragmented and contested, reconciling conflicting interests can be particularly challenging.[85]

Furthermore, the commodification of heritage sites and the pressure of tourism further complicate matters as local communities seek to balance economic development with the preservation of their cultural heritage. In this context, collaborative approaches which involve stakeholders from many sectors, including government agencies, academic institutions, local communities and heritage organizations, are essential for sustainable heritage management.[86] By encouraging dialogue, building capacity, and promoting

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Romans and Natives," *World Archaeology* 28, no.3 (1997): 339–50. https://doi.org/10.1080/00438243.1997.9980352.

84 Whittaker, *Rome and Its Frontiers: The Dynamics of Empire*, 1-27.

85 Laurajane Smith, Christopher Whitehead, Gary Campbell, and Gönül Bozoğlu, "The Politics of Heritage," in *The Routledge International Handbook of Heritage and Politics*, eds. Gönül Bozoğlu, Gary Campbell, Laurajane Smith, and Christopher Whitehead (Abingdon & New York: Routledge, 2024), 1-32; Neal Ferris, "Between Colonial and Indigenous Archaeologies: Legal and Extra-Legal Ownership of the Archaeological Past in North America," *Canadian Journal of Archaeology / Journal Canadien d'Archéologie* 27, no. 2 (2003): 154–190. http://www.jstor.org/stable/41103447.

86 Andrea Chiricescu, "Who Are the Real Stakeholders of a Nominated UNESCO Site? A Glimpse into the Contextualisation of a Rather Scientific Approach to World Heritage Nominations," *Plural* 8, no. 1 (2020): 48-60. https://doi.org/10.37710/plural.v8i1_5; Geoffrey Rhoel C. Cruz, "Cultural Governance: A Participatory Approach Towards Sustainable Heritage Management," *Journal of Heritage Management* (2024). https://journals.sagepub.com/doi/10.1177/24559296241237364.; J. E. Tunbridge, and G. J. Ashworth, *Dissonant Heritage. The Management of the Past as a Resource in Conflict* (Chichester & New York: J. Wiley, 1996); Gabriella Esposito De Vita, Stefania Ragozino, and

responsible tourism practices, it is possible to preserve historic rural landscapes for future generations while ensuring they remain authentic environments.[87]

The intertwining of archaeological heritage with contemporary ownership issues demonstrates the importance of the need for equitable and inclusive approaches to heritage management. In many cases, local communities and marginalized groups have been historically excluded from decision-making processes regarding the administration of their ancestral lands and cultural heritage.[88] Recognizing and addressing these power imbalances is crucial to improving trust, encouraging meaningful collaboration, and ensuring that diverse voices are heard in the preservation and interpretation of historic rural landscapes.

Sustainable management of archaeological heritage in rural areas requires a holistic approach that exceeds just conservation to promote community empowerment, economic development and social cohesion. By integrating heritage conservation with sustainable development goals such as poverty reduction, job creation and environmental sustainability, it is possible to benefit the potential of historic rural landscapes as a source of prosperity in a balanced way. This can include initiatives such as heritage tourism, cultural festivals and educational programs that involve local communities in the stewardship of their heritage, while also creating economic opportunities and encouraging a sense of pride and belonging.[89] Thus, by adopting a multidimensional approach that

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Maurizio Simeone, "Community Engagement for Cultural Landscape: A Case Study of Heritage Preservation and Tourism Development," *BDC* 15, no. 1 (2015): 131–150.

87 Erik Cohen, "Authenticity and Commoditization in Tourism," *Annals of Tourism Research* 15, no. 3 (1988): 371–386. https://linkinghub.elsevier.com/retrieve/pii/016073838890028X.

88 Dan Hicks and Laura McAtackney, "Introduction: Landscapes as Standpoints," in *Envisioning Landscape: Situations and Standpoints in Archaeology and Heritage,* eds. Dan Hicks, Laura McAtackney and Graham Fairclough (Walnut Creek: Left Coast Press, 2007), 13-29; Shadreck Chirikure, and Gilbert Pwiti, "Community Involvement in Archaeology and Cultural Heritage Management: An Assessment from Case Studies in Southern Africa and Elsewhere," *Current Anthropology* 49, no. 3 (2008): 467–485. https://doi.org/10.1086/588496.; Tanya C. Tran, Natalie C. Ban, and Jonaki Bhattacharyya, "A Review of Successes, Challenges, and Lessons from Indigenous Protected and Conserved Areas," *Biological Conservation* 241, no. 108271 (2020), 1-19. https://doi.org/10.1016/j.biocon.2019.108271.

89 Ana Pereira Roders and Ron van Oers, "Editorial: bridging cultural heritage and sustainable development," *Journal of Cultural Heritage Management and Sustainable Development* 1, no.1 (2011): 5–14. https://doi.org/10.1108/20441261111129898; Tolina Loulanski and Vesselin Loulanski, "The sustainable integration of cultural heritage and tourism: a meta-study," *Journal of Sustainable Tourism* 19, no. 7 (2011): 837–862. https://doi.org/10.1080/09669582.2011.553286.; William L. Fash, Barbara W. Fash, and Jorge Ramos, "New Approaches to Community Stewardship, Education, and Sustainable Conservation of Cultural Heritage at Rastrojón, Copán, Honduras," in *Finding Solutions for Protecting and Sharing Archaeological Heritage Resources,* eds. Anne P. Underhill and Lucy C. Salazar (Springer, 2016), 135-152. https://doi.org/10.1007/978-3-319-20255-6_10.

balances conservation and social development, it is possible to protect the historic rural landscapes for sustainable development.

In conclusion, the study of Roman frontiers as historical rural landscapes offers a rich understanding of the complexities of ancient societies and their interactions with the natural setting. Adopting an interdisciplinary approach that integrates archaeological, historical and environmental perspectives can reveal the layers of meaning embedded within these landscapes, shedding light on the diverse spaces where people have lived, shaped and struggled with their environments over the millennia. However, the conservation and interpretation of rural landscapes presents challenges as it requires addressing numerous ownership issues, conflicts of interest and ethical considerations. By adopting collaboration, community participation and sustainable practices, it is possible to ensure that these landscapes continue to live on as valuable assets of human heritage. In doing so, heritage preservation can be achieved by adopting a more inclusive and equalist perspective for everyone.

Furthermore, examining Roman frontiers as dynamic historic rural landscapes highlights the importance of taking a forward-thinking approach to heritage management. As struggling with today's challenges and navigate an increasingly interconnected world, it is imperative to recognize the intrinsic value of historic rural landscapes as a source of cultural diversity, ecological sustainability, and collective memory. By promoting their preservation, interpretation and sustainable use, not only cultural heritage is preserved, but also the lives of future generations are enriched and the connection between human societies and nature is further deepened. The exploration of Roman frontiers as dynamic historical rural landscapes is a reminder of the importance of the past in shaping the trajectory of present and future humanity. As confronting urgent challenges such as climate change, globalization and social inequality, lessons learned from ancient civilizations and their geographies are crucial to navigating the complexities of the contemporary world. Thus, the study of Roman frontiers is not only academic inquiry, but also serves as an indicator for the power of human interaction and cooperation in shaping the history.

2.1.2. Related studies on the Roman Frontier in Anatolia

Studies on the Anatolian frontier of the Roman Empire are limited compared to other frontier sections even though those in the Near East and Africa sections. These studies were initiated not to research and document the Roman frontier in Anatolia, but by rescue efforts in the region before a series of dams planned to be built within the scope of the Southeastern Anatolia Project (*Güneydoğu Anadolu Projesi* (*GAP)* in Turkish) in southeastern Anatolia. In order to show how rich the cultural heritage of the region is, these rescue missions focused especially on the palaeolithic and neolithic periods, while excavations related to the Roman period were also continued at some points. In this section of the thesis, especially the dam rescue excavations, other excavations and surveys carried out in the region in later periods will be discussed. These sources constitute the main sources for the Anatolian frontier components discussed in the Chapter 4 of the thesis.

Keban Project was initiated as the first rescue research to document the areas that will be submerged by the dams planned to be built in order to develop the Southeast Anatolia region. The project was carried out in the centres considered to be the most important in 1968-1975 after the surveys in 1966 by the leadership of the Centre for Research and Assessment of Historical Environment (TAÇDAM) of Middle East Technical University (METU). In addition to METU, Ankara and İstanbul Universities, academicians from many international universities, such as Michigan University and Chicago University, alongside institutions such as the Directorate of Antiquities and Museums, Directorate of Turkish Historical Society, British Institute at Ankara (BIAA), and German Archaeological Institute (DAI) participated in the project. Although the scope of the project is not limited to the Roman period, it is to determine and document in the short term the cultures of the communities from the Chalcolithic to the Ottoman period and present day that may have lived in the area that has not been explored much will be submerged soon. The excavations were carried out in the Keban region on the Elazığ-Malatya border in the centres of Ağın, Kalaycık, Aşvan, Fatmalı, Kalecik, Korucutepe, Norşuntepe, Pağnik Öreni-Kaşpınar, Pulur, Yeniköy, Tepecik, Tülintepe, Haraba, Han İbrahim Şah, Değirmentepe. In addition to the rescue excavations, the relocation project of the two mosques in Pertek, and inscripted pieces of a bridge in

Elazığ, architectural and ethnographic studies aimed at understanding rural life were also carried out. As a result of the research, starting from the Chalcolithic period, the Roman period, as well as the Hittite and Urartu periods, were found in the region, and it was determined that the continuity in the settlements lasted in the Byzantine, Seljuk, and Ottoman periods. The excavations provided valuable information on the Roman period frontier defence structures on the Euphrates to be investigated in detail in later periods. Accordingly, a group of forts lined up on the banks of the Euphrates, which might date back to the Roman period, were unearthed. These forts were located in Kalecikler mound, Kilise Yazısı hill, Minayık mound, Pağnik and Haraba.

After the Keban Project, research studies and rescue excavations were carried out for the areas that will be under the water of Karakaya and Atatürk dams to be built in the region. The second project implemented after Keban was the **Lower Euphrates Project** in the south of Keban, where rescue excavations were carried out in 1978-79 after the surveys in 1975-1977. As in the Keban Project, the aim of the Lower Euphrates Project is to document centres with various cultural layers in a short time. In this project, Eskitaş (Ancoz), Değirmentepe, Kaleköy (Baskil), Köşkerbaba, Şemsiyetepe, Pirot, Samsat, Horiskale, İmamoğlu, Caferhöyük, Tille, Lidar, Hassek Höyük, Kurban Höyük and Hayaz. Traces of Roman defence structures were found in Eskitaş (Ancoz), Horis Kale, Kaleköy (Baskil), Köşkerbaba Höyük, Şemsiyetepe, Samsat, Tille, and Lidar. The outputs of the two projects were published by METU as Keban Project Publications in 1970-1982[90], and Lower Euphrates Project Publications in 1977-1987[91], alongside the

[90] *Keban Project 1968 Summer Work*, METU Keban Project Publications, serial no 1, (2 vol.: Text and Illustration) (Ankara, 1970); *Keban Project 1969 Activities,* METU Keban Project Publications, series I, no 2 (Ankara, 1971); *Keban Project 1970 Activities,* METU Keban Project Publications, series I, no 3 (Ankara, 1972); *Keban Project 1971 Activities,* METU Keban Project Publications, series I, no 4 (Ankara, 1974); *Keban Project 1972 Activities,* METU Keban Project Publications, series I, no 5 (Ankara, 1976); *Keban Project 1973 Activities,* METU Keban Project Publications, series I, no 6 (Ankara, 1979); *Keban Project 1974-1975 Activities,* METU Keban Project Publications, series I, no 7 (Ankara, 1982).

[91] *Lower Euphrates Project 1978-1979 Activities,* METU Lower Euphrates Project Publications, series I, no 3 (Ankara, 1987); Mehmet Özdoğan, *Lower Euphrates Basin 1977 Survey,* METU Lower Euphrates Project Publications, series I, no 2 (İstanbul, 1977); Ümit Serdaroğlu, *1975 Surveys in the Lower Euphrates Basin,* METU Lower Euphrates Project Publications, series I, no 1 (Ankara, 1977).

excavations and surveys carried out by BIAA such as Tille[92], Pağnik[93], Aşvan[94], Adıyaman[95], and Harran[96] were also included in Anatolian Studies publications in various volumes. With the understanding of the importance of Samosata, the capital of the Commagene Kingdom alongside being an important Hittite city, the research on Samosata aqueduct was carried out by İzmirligil. Özgüç, who was the head of the excavation in 1978-87, also examined all the period structures and finds at Samosata in the monograph she published later, "**Samsat, Sümeysat, Samosata, Kumaha, Hahha, Hahhum**".[97]

The other dam series planned to be built in the Southeast Anatolia region is located on the Euphrates around Birecik, and the Tigris River. For the places to be flooded by dams, the **Euphrates and Tigris Archaeological Reconnaissance Project** was carried out by the directorship of Algaze of the Oriental Institute of Chicago University began in 1988. The project was supported by the Centre for Salvage and Investigation of Historical and Archaeological Finds (TEKDAM) of METU, and the Smithsonian Institution in Washington D.C.[98] The project was initiated in the areas that will be flooded by the

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92 Chris S. Lightfoot, "Tilli - a late Roman Equites fort on the Tigris," in *The Defence of the Roman and Byzantine East: Proceedings of a Colloquium Held at the University of Sheffield in April 1986,* ed. Philip Freeman and David Kennedy. British Institute of Archaeology at Ankara Monograph No. 8 (Oxford: BAR International Series 297, 1986), 509- 529; David H. French, "The Year's Work: Tille," *Anatolian Studies* 30 (1980), 197-199; David H. French, "The Year's Work: Tille," *Anatolian Studies* 32 (1982), 4; Stuart R. Blaylock, "The Year's Work: Tille Höyük," *Anatolian Studies* 40 (1990), 5-8; David H. French, J. Moore and H. F. Russell, "Excavations at Tille 1979-1982: An Interim Report," *Anatolian Studies* 32 (1982), 161-187; Stuart R. Blaylock, "The Year's Work: Tille Höyük Excavation," *Anatolian Studies* 41 (1991), 3-7.

93 Richard P. Harper, "Recent Archaeological Research in Turkey: Pağnik Öreni, 1970," *Anatolian Studies* 21 (1970), 10-12; Richard P. Harper, "Recent Archaeological Research in Turkey: Pağnik Öreni Roman Fort, 1971," *Anatolian Studies* 22, Special Number in Honour of the Seventieth Birthday of Professor Seton Lloyd (1972), 27-28.

94 "Aşvan Project Summary," British Institute at Ankara, accessed June 6, 2024, https://digitalrepository.biaa.ac.uk/asvan-project.; Stephen Mitchell, *Aşvan Kale: Keban Rescue Excavations, Eastern Anatolia. I. The Hellenistic, Roman and Islamic Sites,* British Institute of Archaeology at Ankara Monograph No. 1 (Oxford: BAR International Series 80, 1980).

95 "Adıyaman Survey Summary," British Institute at Ankara, accessed June 6, 2024, https://digitalrepository.biaa.ac.uk/adiyaman-survey.

96 "Harran Summary," British Institute at Ankara, accessed June 6, 2024, https://digitalrepository.biaa.ac.uk/harran-survey.

97 Nimet Özgüç, *Samsat, Sümeysat, Samosata, Kumaha, Hahha, Hahhum.* Ankara: TTK Yayınları, 2009; Ülkü İzmirligil, "Samosata (Samsat) Su Yolu Araştırması- 1982," in *I. Araştırma Sonuçları Toplantısı* (İstanbul, 1983), 21-23; Ülkü İzmirligil, "Samsat (Samosata) Su Yolu Araştırması, 1981," in *IV. Kazı Sonuçları Toplantısı* (Ankara: T.C. Kültür ve Turizm Bakanlığı Eski Eserler ve Müzeler Genel Müdürlüğü, 1983), 345-356.

98 Guillermo Algaze, "A New Frontier: First Results of the Tigris-Euphrates Archaeological Reconnaissance Project, 1988," *Journal of Near Eastern Studies* 48, no. 4 (1989), 241-281; Guillermo Algaze and Michael Rosenberg, "The Tigris-Euphrates Archaeological Reconnaissance Project, 1989," in *VIII. Araştırma Sonuçları Toplantısı* (Ankara: Ankara Üniversitesi Basımevi, 1991), 137-161; Guillermo Algaze, Emily Hammer, Bradley Parker, Ray

Karkamış and Birecik dams on the Euphrates and Cizre and Ilısu dams on the Tigris, and also the Silopi plain. The survey focused on the areas of the western bank of the Batman Stream from the Malabadi Bridge to the junction with the Tigris, and upstream of the Tigris up to Bismil, then the sites of Zeugma and Apamea. Within the scope of the project, many settlements on the banks of the Euphrates, Tigris, Batman Stream, and Botan Stream, the Graeco-Roman city of **Zeugma**, and the fortresses at **Eski Hendek**, **Fenik**, **Çattepe,** and **Semra Kale** were surveyed.[99] In 2000, J. Velibeyoğlu, A. Schachner and Ş. Schachner carried out a survey at **Çattepe** mound within the scope of Ilısu and Karkamış Project. Excavations at Çattepe have been carried out under the directorship of Sağlamtimur from Ege University in 2009- 2019.[100] After the completion of the Ilısu dam, the village was and mound were submerged.

After the successful completion of the Euphrates and Tigris Archaeological Reconnaissance Project, drawing attention to the abundance of settlements of various civilizations around the lower Euphrates and Tigris, two years before the completion of the Karkamış Dam on the Euphrates, **Ilısu and Karkamış Project** was started in 1998. The project was carried out by the leadership of METU TAÇDAM, and with the participation of many national such as İstanbul, Ankara, Hacettepe, Bilkent, Ege, Anadolu, Gazi, and Dicle Universities; and international universities from Bryn Mawr, Binghampton, Utah, Akron, Münster, Munich and Rome; and institutions such as American Research Institute (ARIT), DAI, the Prague Oriental Institute, and the French Anatolian Research Institute (IFEA). The excavations were carried out in Ziyaret Tepe, Kenan Tepe, Hasankeyf, Salattepe, Aşağı Salat, Giricano Tepe, Müslüman Tepe, Kortik Tepe, Kavuşan Höyük, Hakemi Use Tepe, Türbe Höyük, Yenice, and Hasankeyf (Yukarı Şehir) on the Ilısu basin and Zeytin bahçeli Höyük, Fıstıklı Höyük, Şaraga Höyük, Teleilat Höyük, Şavi Höyük, Gre Virike, Gre Dimse, Harabe Bezikan, Akarçay Tepe, Mezraa Höyük, Akarçay Höyük on Karkamış basin. Traces of Roman structures were found in Akarçay Höyük, Zeytin Bahçeli Höyük, Mezraa Höyük, Harabe Bezikan Höyük,

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Breuninger, and James Knudstad, "The Tigris-Euphrates Archaeological Reconnaissance Project. Final Report of the Cizre Dam and Cizre-Silopi Plain Survey Areas," *Anatolica* XXXVIII, (2012), 42-44.

99 Chris S. Lightfoot, "The Year's Work: Euphrates and Tigris Archaeological Reconnaissance Project 1989," *Anatolian Studies* 40 (1990): 19-24.

100 Haluk Sağlamtimur, "A Castle and a River Port from the Late Roman Period on the Shores of Tigris," *Tina Maritime Archaeology Periodical*, no. 2 (2014): 8-25; Haluk Sağlamtimur, Ali Özkan and Ahmet Uhri, "Çattepe Höyük," in *Batman Museum Ilısu Dam* Excavations (Batman: Batman Musuem, 2018), 247-261; Haluk Sağlamtimur and Atilla Türker, "Çattepe Höyük," in *Ege Üniversitesi Arkeoloji Kazıları,* (İzmir: Ege Üniversitesi, 2012), 66-76; Haluk Sağlamtimur and İnan Aydoğan, "Çattepe Höyük," *Aktüel Arkeoloji* (Kasım- Aralık 2017): 88-93.

Gre Dimse, and Fıstıklı Höyük. The outputs of the two projects were published by METU as Ilısu and Carchemish Projects Publications in 1999-2011.[101]

Starting his studies at the same years as the Keban Project, Mitford, who is a historian and naval officer, focused on the Cappadocia and Pontus regions of the Roman frontiers. As a result of these studies, he completed his thesis titled "The Roman Frontier Based on the Valley of the Upper Euphrates from the Black Sea to Samosata" at Oxford University in 1972.[102] Expanding his work to Syria with the support of BIAA[103], Mitford's book "East of Asia Minor: Rome's Hidden Frontier", which was published in two volumes in 2018, provides comprehensive information on the Roman frontiers in Anatolia.[104] Prior to this, he had studies[105] on the historical development of the Roman frontiers in Anatolia, the legion forts and fortresses along the Euphrates, and the ancient settlements mentioned in the historical texts, and especially on **Satala** with the studies on the excavation of Biliotti[106], the first excavations focused on Satala, and the inscriptions found here. After

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101 Numan Tuna and Jean Öztürk, eds., *Salvage Project of the Archaeological Heritage of the Ilısu and Carchemish Dam Reservoirs, Activities in 1998* (Ankara, 1999); Numan Tuna and Jean Öztürk, eds., *Salvage Project of the Archaeological Heritage of the Ilısu and Carchemish Dam Reservoirs, Activities in 2000* (Ankara, 2002); Numan Tuna, Jean Öztürk, and Jale Velibeyoğlu, eds., *Salvage Project of the Archaeological Heritage of the Ilısu and Carchemish Dam Reservoirs, Activities in 1999* (Ankara, 2000); Numan Tuna, Jean Green Halgh, and Jale Velibeyoğlu, eds., *Salvage Project of the Archaeological Heritage of the Ilısu and Carchemish Dam Reservoirs, Activities in 2001* (Ankara, 2004); Numan Tuna and Owen Doonan, eds., *Salvage Project of the Archaeological Heritage of the Ilısu and Carchemish Dam Reservoirs. Activities in 2002* (Ankara, 2011).

102 Timothy B. Mitford, "The Roman frontier based on the valley of the Upper Euphrates from the Black Sea to Samosata" (PhD diss., Oxford University, 1973).

103 "Survey of the Eastern Roman Limes Summary," British Institute at Ankara, accessed June 6, 2024, https://digitalrepository.biaa.ac.uk/survey-eastern-roman-limes.

104 Timothy B. Mitford, *East of Asia Minor. Rome's Hidden Frontier*, 2 Vols. (Oxford: Oxford University Press, 2018); Timothy B. Mitford, *Discovering Rome's Eastern Frontier. On Foot through a Vanished World* (Oxford: Oxford University Press, 2021).

105 Timothy B. Mitford, "Cappadocia and Armenia Minor. Historical setting of the limes," in *Aufstieg und Niedergang der römischen Welt, Olitische Geschichte (Provinzen Und Randvölker: Griechischer Balkanraum; Kleinasien)*, II 7.2, ed. Hildegard Temporini (Berlin & New York: Walter de Gruyter & Co., 1980), 1169-1228. doi.org/10.1515/9783110860429-015; Timothy B. Mitford, "High and low level routes across the Taurus and Anti-Taurus," in *The Eastern Frontier of the Roman Empire. Proceedings of a colloquium held at Ankara in September 1988*, eds. D.H. French and C.S. Lightfoot. British Institute at Ankara Monograph 11 / BAR International Series 553/2 (Oxford, 1989), 329-333; Timothy B. Mitford, "Survey on the Euphrates Limes," *Anatolian Studies* 17 (1967): 13-14; Timothy B. Mitford, "The Euphrates frontier in Cappadocia," in *Studien zu Militärgrenzen Roms II. Vorträge des 10. Internationalen Limeskongresses in der Germania inferior, Xanten 1974*, eds. D. Haupt & H.G. Horn. Bonner Jahrbücher Beiheft 38 (Köln & Bonn: Rheinland-Verlag, 1977), 501-510; Timothy B. Mitford, "The limes in the Kurdish Taurus," in *Roman Frontier Studies 1979. Papers presented to the 12th International Congress of Roman Frontier Studies*, eds. W.S. Hanson and L.J.F. Keppie. BAR International series 71 (Oxford, 1980), 913-926; Timothy B. Mitford, "The Roman frontier on the Upper Euphrates," in *Ancient Anatolia: Fifty Years' Work by the British Institute of Archaeology at Ankara*, ed. Roger Matthews (London: British Institute of Archaeology at Ankara, 1998), 255-272.

106 Timothy B. Mitford, "Biliotti's Excavations at Satala," *Anatolian Studies* 24 (1974), 221-244.

Lightfoot's survey in 1989-90[107], regular excavations in Satala to detect the location of the legionary fortress, started in 2017 conducted by Yıldırım from Bartın University.[108]

Contributing to Keban and Lower Euphrates Projects, BIAA also supported the execution of other projects related to the Roman period in Anatolia. In the long-term "**Roman Roads and Milestones of Asia Minor**" project carried out in the 1970s and 1990s by the BIAA's director French, besides the Roman roads and milestones on the west of the Euphrates, bridges, road stations, and other archaeological features, and related inscriptions were researched and documented.[109] The project is essential in terms of providing information about the frontier road along the Euphrates. In addition to these publications, the papers on the Roman frontiers were published under the British Archaeological Reports (BAR series). "**Armies and Frontiers in Roman and Byzantine Anatolia**: Proceedings of a colloquium held at University College, Swansea, in April 1981[110]" was published in 1983 under the editorship of Mitchell, who is chairperson of BIAA. Later, Mitchell also published a monograph on **Anatolia** in 1993, and in this publication, he included Roman roads and legion garrisons along the Euphrates frontier. Also, "**The Defence of the Roman and Byzantine East:** Proceedings of a Colloquium Held at the University of Sheffield[111]" was published under the editorship of Freeman and Kennedy in 1986, and "**The Eastern Frontier of the Roman Empire**: Proceedings of a

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107 Chris S. Lightfoot, "Roma İmparatorluğu'nun Doğu Sınırı ve Satala," in *1992 Yılı Anadolu Medeniyetleri Müzesi Konferansları,* (Ankara: Ankara Medeniyetleri Müzesi, 1993), 118-128; Chris S. Lightfoot, "Satala Yüzey Araştırması, 1989," in *VIII. Araştırma Sonuçları Toplantısı* (Ankara: Ankara Üniversitesi Basımevi, 1991), 299-309; Chris S. Lightfoot, "Satala Yüzey Araştırması, 1990," in *IX. Araştırma Sonuçları Toplantısı* (Ankara: Ankara Üniversitesi Basımevi, 1992), 289-302; Chris S. Lightfoot, "Survey Work at Satala: A Roman Legionary Fortress in North-East Turkey," in *Ancient Anatolia: Fifty Years' Work by the British Institute of Archaeology at Ankara*, ed. Roger Matthews (London: British Institute at Ankara, 1998), 273–284; Chris S. Lightfoot, "The Year's Work: Satala Survey 1989," *Anatolian Studies* 40 (1990), 13-16; Chris S. Lightfoot, "The Year's Work: Satala Survey," *Anatolian Studies* 41 (1991), 15-17.

108 Şahin Yıldırım, "Satala 2017 Yılı Kazı ve Araştırma Çalışmaları," in *40. Kazı Sonuçları Toplantısı* 3. Cilt (Ankara: T.C. Kültür ve Turizm Bakanlığı, 2019), 429-436; Şahin Yıldırım, "Satala 2018 Yılı Kazı Çalışmaları," in *41. Kazı Sonuçları Toplantısı* 4. Cilt (Ankara: T.C. Kültür ve Turizm Bakanlığı, 2020), 231-242; Şahin Yıldırım, "Satala 2019 ve 2020 yılları Kazı ve Restorasyon Çalışmaları," in *2019-2020 Yılı Kazı Çalışmaları* Cilt 4 (Ankara: T.C. Kültür ve Turizm Bakanlığı, 2022), 265-282; Şahin Yıldırım, "Satala Antik Kenti 2021 Yılı Kazı, Restorasyon ve Konservasyon Çalışmaları," in *42. Kazı Sonuçları Toplantısı* 5. Cilt (Ankara: T.C. Kültür ve Turizm Bakanlığı, 2023), 165-176.

109 David H. French, *Roman Roads and Milestones of Asia Minor 1-4,* Oxford. 1981-2016.

110 Stephen Mitchell, ed., *Armies and Frontiers in Roman and Byzantine Anatolia: Proceedings of a Colloquium held at University College, Swansea in April 1981*, British Institute of Archaeology at Ankara Monograph No. 5 (Oxford: BAR International Series 156, 1983).

111 Philip Freeman and David Kennedy, eds., *The Defence of the Roman and Byzantine East: Proceedings of a Colloquium Held at the University of Sheffield in April 1986,* British Institute of Archaeology at Ankara Monograph No. 8 (Oxford: BAR International Series 297, 1986).

Colloquium held at Ankara in September 1988[112]" was published under the editorship of French and Lightfoot in 1989 in the BAR series. These proceedings mostly focused on the Arabian frontiers, although there are papers on Tigranocerta, Bezabde, Çattepe, Lake Van, Amida, Malatya, Samosata, besides Cappadocia, Cilicia and Isauria regions, and Taurus and Antitaurus routes.

Similar to the BAR series of BIAA, some of the volumes in the supplementary series of the Journal of Roman Archaeology are on Roman frontier and Roman armies. Among these volumes, the ones focusing on the eastern frontier of Rome are mostly on the frontiers in Syria and Arabia, but there is also a volume with chapters on Anatolia. This chapter, prepared under the editorship of Kennedy, titled the "**Roman Army in the East**", focused on river frontiers, Parthian and Roman relations, the Roman's eastern strategy, the designs of the Rome's eastern forts, and the legionaries in the eastern provinces.[113]

After the extensive work of Bryer and Winfield on Pontus topography and monuments[114], Bryer and Crow conducted a survey in Gümüşhane and Trabzon with the support of BIAA in 1992-1994.[115] Hortokop, Canayer, and Araklı forts were investigated during this survey. Apart from this survey, the Roman structures were not excavated, and the research of the Trabzon citadel remained at the level of survey research. However, Roman period remains are encountered in the foundation excavations for new buildings in the city, and irregular rescue excavations are carried out by the Trabzon Museum.

Between 1992-1999, rescue excavations were carried out at Zeugma by Gaziantep Museum under the coordination of Gaziantep Museum director Ergeç. In these excavations, most of three villas, archive room, grave room, bath, and gymnasium excavations and mosaic rescue excavations were carried out, and the mosaics excavated

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[112] David French and Chris S. Lightfoot, eds., *The Eastern Frontier of the Roman Empire: Proceedings of a Colloquium held at Ankara in September 1988*, British Institute of Archaeology at Ankara Monograph No. 11 (Oxford: BAR International Series 553, 1989).

[113] David Kennedy, ed., *The Roman Army in the East*, Journal of Roman Archaeology Supplementary Series 18 (Ann Arbor: Journal of Roman Archaeology, 1996).

[114] Anthony Bryer and David Winfield, *The Byzantine Monuments and Topography of the Pontos*, 2 Vols. (Washington, D.C.: Dumbarton Oaks Research Library and Collection, 1985).

[115] James Crow, "Survey at Buzluca, Trabzon Vilayet, Turkey 1992 [1992 Yılı Buzluca Araştırması, Trabzon]," in *XI. Araştırma Sonuçları Toplantısı* (Ankara: Ankara Üniversitesi Basımevi, 1994), 73-84; James Crow, "The Years's Work: Buzluca, Trabzon Vilayet," *Anatolian Studies* 43 (1993): 6-8; James Crow, "The Year's Work: Trabzon Vilayet Survey 1993," *Anatolian Studies* 44 (1994): 16-18; James Crow, "The Year's Work: Trabzon and Gümüşhane," *Anatolian Studies* 45 (1995): 17-18; James Crow and Anthony Bryer, "Survey in Trabzon and Gümüşhane Vilayets, Turkey, 1992-1994," *Dumbarton Oaks Papers* 51 (1997): 283–89. https://doi.org/10.2307/1291767.

were removed to a museum in Gaziantep. Understanding the importance of Zeugma and finding a large number of mosaics here attracted attention to the area and provided support for international projects. Kennedy from Perth University participated in the work in 1993 with the support of BIAA[116], and since 1996, excavations have been carried out under the direction of Abadie-Reynal from Nantes University, with the support of IFEA and by the French and Turkish cooperation team.[117] Two volumes of the Journal of Roman Archaeology Supplementary Series was devoted to Zeugma: "**The Twin Towns of Zeugma on the Euphrates: Rescue Work and Historical Studies**"[118] edited by Kennedy, and "**Zeugma: Interim Reports**".[119] During the surveys and excavations conducted under the direction of Hartman in 1997-2003, location of the Roman legionary fortress was tried to be determined.[120] With the completion of the dam in 2000, the entire Apamea and partial of Zeugma were submerged. Excavations have continued for the rest of Zeugma under the direction of Görkay from Ankara University since 2009.[121] Zeugma

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116 "Zeugma Excavation Summary," British Institute at Ankara, accessed June 6, 2024, https://digitalrepository.biaa.ac.uk/zeugma-excavation.

117 Catherine Abadie-Reynal. "Les Fouilles De Sauvetage De Zeugma: Un Bilan Des Résultats," *Journal of Roman Archaeology* 28 (2015), 821–45. doi:10.1017/S1047759415003207; Catherine Abadie-Reynal and Rıfat Ergeç, "Zeugma-Moyenne Vallee de L'euphrate Rapport Preliminaire de la Campagne de Fouilles de 1997," *Anatolia Antigua VI* (1998), 379-406.

118 David Kennedy, ed., *The Twin Towns of Zeugma on the Euphrates: Rescue Work and Historical Studies,* Journal of Roman Archaeology Supplementary Series 27 (Portsmouth: Journal of Roman Archaeology, 1998).

119 Robert Early et. al., *Zeugma: interim reports. Rescue excavations* (Packard Humanities Institute), Inscription of Antiochus I, Bronze statue of Mars, House and mosaic of the Synaristôsai, and Recent work of the Roman army at Zeugma, Journal of Roman Archaeology Supplementary Series 51 (Portsmouth: Journal of Roman Archaeology, 2003).

120 Mahmut G. Drahor, M. A. Berge, T. Ö. Kurtulmuş, Martin Hartmann and Michael A. Speidel, "Magnetic and Electrical Resistivity Tomography Investigations in a Roman Legionary Camp Site (Legio IV Scythica) in Zeugma, Southeastern Anatolia, Turkey," *Archaeological Prospection* 15, (2008), 159–186; Martin Hartmann, Christoph B. Rüger, Michael A. Speidel and Rıfat Ergeç, "Roman Military Forts at Zeugma," in *21. Kazı Sonuçları Toplantısı* 2. Cilt (Ankara: Kültür Bakanlığı Milli Kütüphane Basımevi, 2000), 337-340; Martin Hartmann, Christoph B. Rüger, Martin Hartmann, Michael A. Speidel, Hamza Güllüce and Mahmut G. Drahor, "Roman Military Installations at 'At Meydanı'/Zeugma, Report 2003," in *22. Araştırma Sonuçları Toplantısı* 1. Cilt (Ankara: Kültür ve Turizm Bakanlığı DÖSİMM Basımevi, 2005), 217– 226; Martin Hartmann, Michael A. Speidel, Hamza Güllüce, Mahmut G. Drahor and Gökhan Göktürkler, "Roman Military Installations at "At Meydanı" Zeugma," in *21. Araştırma Sonuçları* Toplantısı 2. Cilt (Ankara: Kültür ve Turizm Bakanlığı DÖSİMM Basımevi, 2004), 335-343; Martin Hartmann and Michael A. Speidel, "Military Installations at Zeugma: An Overview of the Swiss Archaeological Investigations, 2001-2003," in *Excavations at Zeugma, Conducted by Oxford University* (Vol. III), ed. William Aylward (California: Packard Humanities Institute, 2013), 381-392; Martin Hartmann, Michael A. Speidel and Rıfat Ergeç, "Roman Military Forts at Zeugma," in *XX. Kazı Sonuçları Toplantısı* 2. Cilt (Ankara: Kültür Bakanlığı Milli Kütüphane Basımevi, 1999), 417-423; Michael A. Speidel and Rıfat Ergeç, "Roman Military Forts at Zeugma (Campaign 1999)," in *22. Kazı Sonuçları Toplantısı* 2. Cilt (Ankara: Kültür Bakanlığı Milli Kütüphane Basımevi, 2001), 255-258.

121 Kutalmış Görkay, "Zeugma Lejyon Yerleşkesi: Yeni Araştırmalar, Sonuçlar ve Ön Değerlendirmeler," *Anadolu / Anatolia* 43, (2017): 147-178. https://doi.org/10.1501/Andl_0000000444.; Kutalmış Görkay, "Zeugma/ Seleukeia," in

Archaeology Project was carried out jointly with the Berlin Freie University and TOPOI Institute in 2009-2012, in order to investigate the city walls and to obtain new information about the legion settlement.

Work on the **Zerzevan fortress**, which is located between Diyarbakır and Mardin highway, started in 2014 under the direction of Coşkun from Dicle University.[122] The Zerzevan fortress, which is not in danger of a dam because it is not on the riverside, has the characteristics of a late Roman period fortress. The importance of the area increased with the presence of the Mithraeum belonging to the religion of Mithras, a common religion among Roman soldiers.

Except for Satala and Zerzevan excavations and possibly Zeugma excavations, excavations that are not focused on the Anatolian frontier and in some of them not even on the Roman period were carried out or are still continuing in some of the other important Roman centres. After singular rescue excavations, the necropolis and the structures and workshops around the necropolis were unearthed during the seasonal excavations in the **Perre** archaeological site in Adıyaman, which have been continuing since 2020 under the direction of Yağız from Adıyaman Museum.[123] Excavations were realized in **Hasankeyf** under the leadership of Arık in 1986-2002, Uluçam in 2004-2017, Eliüşük in 2018. Excavations in the fortress at the high point, which was not submerged after the majority of Hasankeyf was submerged by the waters of the Ilısu Dam, continue excavations have been carried out by Erdal, under the directorship of Hasankeyf Museum since 2017.[124] In

Archaeology of Gaziantep from Prehistoric Times to the Late Antiquity, ed. Atilla Engin and Kutalmış Görkay (İstanbul: Turkish Archaeology and Cultural Heritage Institute Publications, 2021), 327-400.

122 Aytaç Coşkun, "2014 Yılı Zerzevan Kalesi Kazısı (İlk Sezon)," in *37. Kazı Sonuçları Toplantısı* 1. Cilt (Ankara: T.C. Kültür ve Turizm Bakanlığı, 2016), 101-128; Aytaç Coşkun, "2015 Yılı Zerzevan Kalesi Kazı Çalışmaları (2. Sezon)," in *38. Kazı Sonuçları Toplantısı* 1. Cilt (Ankara: T.C. Kültür ve Turizm Bakanlığı, 2017), 125-150; Aytaç Coşkun, "Zerzevan Castle in the Light of Recent Archeological Researches," *Anadolu / Anatolia* 43 (2017): 91-110. https://doi.org/10.1501/Andl_0000000442; Aytaç Coşkun, "Zerzevan Kalesi 2016 Yılı Kazı Çalışmaları," in *39. Kazı Sonuçları Toplantısı* 2. Cilt (Ankara: T.C. Kültür ve Turizm Bakanlığı, 2018), 405-422; Aytaç Coşkun, "Zerzevan Kalesi 2018 Yılı Çalışmaları," in *41. Kazı Sonuçları Toplantısı* 1. Cilt (Ankara: T.C. Kültür ve Turizm Bakanlığı, 2020), 567-586; Aytaç Coşkun, "Zerzevan Kalesi 2021 Yılı Çalışmaları," in *42. Kazı Sonuçları Toplantısı* 1. Cilt (Ankara: T.C. Kültür ve Turizm Bakanlığı, 2023), 377-390.

123 Kahraman Yağız, Mehmet Alkan, and Murat Tosun, "Perre 2021 Kazıları," in *42. Kazı Sonuçları Toplantısı,* 3. Cilt (Ankara: T.C. Kültür ve Turizm Bakanlığı, 2023), 341-356.

124 Abdüsselam Uluçam, "Hasankeyf Kazıları 2005," in *28. Kazı Sonuçları Toplantısı* 2. Cilt (Ankara: Kültür ve Turizm Bakanlığı DÖSİMM Basımevi, 2007), 73-96; Mevlüt Eliüşük, "2018 Yılı Hasankeyf Kazıları," in *41. Kazı Sonuçları Toplantısı* 3. Cilt (Ankara: T.C. Kültür ve Turizm Bakanlığı, 2020), 237-256; Oluş Arık, "Hasankeyf 2002 Yılı Çalışmaları," in *25. Kazı Sonuçları Toplantısı* 2. Cilt (Ankara: Kültür ve Turizm Bakanlığı DÖSİMM Basımei, 2004), 127-138.

the research that were carried out in the **Şanlıurfa** citadel and necropolis, remains dating back to the Roman period were unearthed.[125] Excavations focusing on the medieval period were realized in the **Harran** archaeological site in Şanlıurfa in 1983-2011 by Yardımcı, and continue since 2014 by Önal.[126] Excavations in **Mardin** citadel, which was used as a military centre until recently, started in 2013. Excavations were carried out in the **Doliche** sacred site in Gaziantep since 2003 under the directorship of Blömer from Westfälische Wilhelms Universität Münster.[127] In **Dara** archaeological site, excavations conducted by Ahunbay were realized in 1986-1990 and 2001-2009, and 2010-2013 by Erdoğan, the new excavation and conservation period conducted by Metin, in the directorship of Kafkas University, focusing on agora and southern city walls were started in 2020.[128] Excavations have been carried out in **Karkamış** since 2011 under the directorship of Marchetti from the University of Bologna focusing on Hittite period, however Roman period structures were also revealed.[129] Short period excavations were carried out in **Üçtepe** under the directorship of Sevin in 1988-1991.[130] Additionally, a partial excavation was conducted focusing on the Late Roman cathedral structure in

[125] Gülriz Kozbe, Eyüp Caner, and Akarcan Güngör, "Şanlıurfa Kalesi 2020 Yılı Kazıları," in *2019-2020 Yılı Kazı Çalışmaları* Cilt 2 (Ankara: T.C. Kültür ve Turizm Bakanlığı, 2022), 263-278; Yusuf Albayrak, "Şanlıurfa Kale Eteği Nekropolü 2015-2017 Yılları Kazı ve Temizlik Çalışmaları," in *40. Kazı Sonuçları Toplantısı* 3. Cilt (Ankara: T.C. Kültür ve Turizm Bakanlığı, 2019), 639-650.

[126] Mehmet Önal, "Harran 2021 Yılı Çalışmaları," in *42. Kazı Sonuçları Toplantısı* Cilt 3 (Ankara: T.C. Kültür ve Turizm Bakanlığı, 2023), 447-466; Nurettin Yardımcı, "2011 Yılı Harran Kazıları," in *34. Kazı Sonuçları Toplantısı* 2. Cilt (Çorum: Pegasus Görsel İletişim Hizmetleri, 2013), 35-44.

[127] Hamza Güllüce, Michael Blömer, and Engelbert Winter, "Forschungen in Doliche 2003," in *26. Kazı Sonuçları Toplantısı,* 1. Cilt (Ankara: Kültür ve Turizm Bakanliği DÖSİMM Basimevi, 2005), 53-62; Michael Blömer and Dilek Çobanoğlu, "Doliche Yamaç Kilisesi ve Diğer Dini Yapıları," *Anadolu/ Anatolia* 47 (2021): 43-75. https://doi.org/10.36891/anatolia.774372.

[128] Birol Can, and Nihat Erdoğan, "Dara. Bizans - Sasani Sınırında Bir Garnizon Kenti ve Kazıları," in *Anadolu'nun Zirvesinde Türk Arkeolojisinin 40 Yılı,* ed. Hasan Kasapoğlu, and Mehmet Ali Yılmaz (Ankara: Bilgi Kültür Sanat Yayınları, 2014), 347-371; Hüseyin Metin, and Abdulhadi Durukan, "Dara (Anastasiopolis) Kazı, Restorasyon ve Konservasyon Çalışmaları 2020," in *2019-2020 Kazı Çalışmaları* Cilt 2 (Ankara: T.C. Kültür ve Turizm Bakanlığı, 2022), 429-446; Hüseyin Metin, Abdulhadi Durukan, and D. Hasan Menteşe, "Dara (Anastasiopolis) Kazı, Restorasyon ve Konservasyon Çalışmaları 2021," in *42. Kazı Sonuçları Toplantısı* Cilt 3 (Ankara: T.C. Kültür ve Turizm Bakanlığı, 2023), 189-206; Metin Ahunbay, "Dara-Anastasiopolis," in *XII. Kazı Sonuçları Toplantısı* 1. Cilt (Ankara: Ankara Üniversitesi Basımevi, 1991), 391-397.

[129] Nicolò Marchetti, "A Century of Excavations at Karkemish: Filling the Gaps," in *Karkemish. An Ancient Capital on the Euphrates.* OrientLab 2, ed. N. Marchetti (Bologna: AnteQuem, 2014), 21–43.

[130] Veli Sevin, "1988 Yılı Diyarbakır/ Üçtepe Kazısı," in *XI. Kazı Sonuçları Toplantısı,* 1. Cilt (Ankara: Ankara Üniversitesi Basımevi, 1990), 103-123; Veli Sevin, "1991 Yılı Diyarbakır Üçtepe Höyüğü Kazıları," in *XIV. Kazı Sonuçları Toplantısı,* 1. Cilt (Ankara: Ankara Üniversitesi Basımevi, 1993), 175-191.

Nusaybin under the directorship of Diyarbakır Museum in 2000-2002, and under the directorship of Mardin Museum since 2002.[131]

Apart from these excavations, surveys carried out by foreign researchers focused on the Anatolian frontier or other cultural structures as well as the Roman heritage in Eastern and Southeastern Anatolia. After completing his PhD thesis on Roman bridges, road networks and fortresses in Southeast Anatolia, Comfort continued his research on the late Roman period in the region especially in Tur Abdin.[132] Gregory and Sinclair each have three volumes of works cataloguing architectural structures. While Sinclair's book is not focused on Rome and frontier, Gregory's is focused on frontier architecture, and in addition to the mostly focused Near Eastern frontier structures, some forts and fortresses in Anatolia were also included in his book.[133] Gabriel's work is on the large centres in Eastern and Southeastern Anatolia, but the sections he devotes to Mardin, Battalgazi and Diyarbakır are important in terms of the frontier.[134] Taylor's study published at the end of his survey, also provides valuable information about some frontier structures.[135]

The increase in PhD and Master theses produced in the archaeology and history departments of universities in Turkey in recent years is important in terms of drawing attention to the Roman frontier heritage. These studies focused on the military order of the Romans in Anatolia, the deployment of the legions along the frontier, or some forts and Roman roads on the frontier[136] (Figure 2.1).

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131 Elif Keser-Kayaalp, and Nihat Erdoğan, "The Cathedral Complex at Nisibis," *Anatolian Studies* 63 (2013): 137–54. http://www.jstor.org/stable/42657429.

132 Anthony Comfort, "Fortresses of the Tur Abdin and the Confrontation between Rome and Persia," *Anatolian Studies* 67 (2017): 205-207; Anthony Comfort, *"Roads on the frontier between Rome and Persia: Euphratesia, Osrhoene and Mesopotamia from AD 363 to 602"* (PhD dissertation, University of Exeter, 2008); Anthony Comfort, "Roman bridges of South-East Anatolia," in *L'Anatolie des peuples, des cités et des cultures* (IIe millénaire av. J.-C. – Ve siècle ap. J.-C.). Colloque international de Besançon - 26-27 novembre 2010. Volume 2. Approches locales et régionales (Besançon: Institut des Sciences et Techniques de l'Antiquité, 2013), 315-342; Anthony Comfort, Catherine Abadie-Reynal, and Rıfat Ergeç, "Crossing the Euphrates in antiquity: Zeugma seen from space," *Anatolian Studies* 50 (2000): 119.-121; Anthony Comfort and Rıfat Ergeç, "Following the Euphrates in antiquity: north-south routes around Zeugma," *Anatolian Studies* 51 (2001), 19-50.

133 T. A. Sinclair, *Eastern Turkey: An Architectural and Archaeological Survey,* 3 Vols. (London: Pindar Press, 1989); Shelagh Gregory, *Roman Military Architecture on the Eastern Frontier from AD 200-600,* 3 Vols. (Amsterdam: Adolf M. Hakkert Publisher, 1996).

134 Albert Gabriel, *Şarki Türkiye'de Arkeolojik Geziler,* trans. İdil Çetin (Ankara: Dipnot Yayınları, 2014).

135 J. G. Taylor, "Travels in Kurdistan, with Notices of the Sources of the Eastern and Western Tigris, and Ancient Ruins in Their Neighbourhood," *The Journal of the Royal Geographical Society of London,* vol. 35 (1865): 21–58. https://doi.org/10.2307/3698077.

136 Abdurrahman Sever, "Anadolu'da Roma Lejyonlari: Yollar Ve Güzergahlar" [The Roman legions in asia minor: Roads and itiniraries] (Unpublished Master thesis, Adıyaman University, 2017); Dicle Kaya, "Roma'nın Anadolu'daki Doğu Sınırı: Karargâhlar, Köprüler Ve Yol Ağlarının Arkeolojik Açıdan İncelenmesi" [Rome's eastern frontier in Anatolia: Archaeological

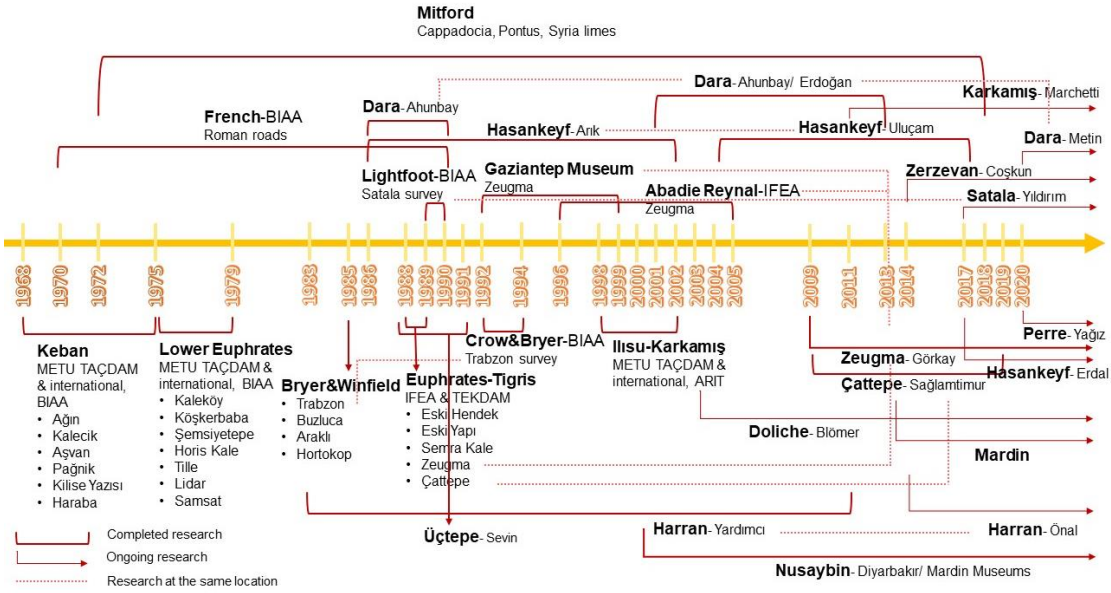

Figure 2.1. Research timeline

Although some of the Roman frontier components are now under dam waters, the fact that dam constructions accelerated the detection and documentation works in those areas can be considered one of the positive results of the development projects. However, most of the studies remained on a singular scale; the focus of most of them was not the Roman period, and since most of them were rescue excavations, they had to be carried out quickly and abandoned before the areas could be fully investigated. These seem to be

investigation of garrisons, bridges and road networks] (Unpublished Master thesis, İstanbul University, 2017); Duygu Özlem Yalçın, "Numismatik Veriler Işığında Roma İmparatorluğu Doğu Sınırı Sikke Sirkülasyonu" [Monetary circulation amongst the Eastern frontier of the Roman Empire in the light of numismatic data] (PhD diss., Ankara University, 2017); Erdal Kaya, "M.Ö. 1. Yüzyıl Ve M.S. 2. Yüzyılda Anadolu'daki Operatif Roma Lejyonları" [The operative Roman legions in Anatolia during 1st century B. C. and 2nd century A. D.] (Unpublished Master thesis, Süleyman Demirel University, 2015); Kerim Altuğ, "Yazılı Kaynaklar ve Arkeolojik Verilerin Işığında Yukaru Fırat (Kappadokia) Sınırı 'Roma Dönemi'" [Upper euphrates (Cappadocian) frontier under the light of written and archaeological sources 'Roman Period'] (Unpublished Master thesis, İstanbul University, 2004); Mehmet Bülent Şenocak, "Anadolu'da Roma Lejyonlari Ve Askeri Birlikleri" [Roman legions and military units in Anatolia] (PhD diss., Selçuk University, 2014); Michael Deniz Yılmaz, "Zeugma: Roma Lejyonlari Ve Madeni Teçhizatlari" [Zeugma: Roman Legions and their metal equipments] (Unpublished Master thesis, Ondokuz Mayıs University, 2015); Oğuz Yarlıgaş, "Principatus Döneminde Roma Devletinin Anadolu'da Oluşturduğu Sınır Boyunca Konuşlandırılan Lejyonlar" [The Roman legions deployed in the euphrates frontier during the principate] (PhD diss., İstanbul University, 2017); Tuba Keklik Doğruyol, "Cappadocia Eyaleti'nin Başkenti Kaisareia Ve Lejyon Karargahı Melitene Arasında Uzanan Roma Yolu Ve Kullanımı" [Roman roads and used en route Kaisareia, capital of cappadocia province and melitene, the legion headquarters] (Mimar Sinan Fine Arts University, 2019).

obstacles to understanding the Anatolian frontier of the Roman Empire. It is hopeful that excavations have been carried out in Satala, Zeugma, Zerzevan in recent years, which will provide information about the Roman frontier passing through Anatolia.

2.2. Conservation of Archaeological Heritage/ Landscape/ Rural Areas in International Conservation Documents and National Conservation Regulations

2.2.1. International Conventions, Charters, Recommendations, and Other Legal Instruments on Conservation of Landscapes and Rural Heritage

The earliest international document that addressed landscapes is UNESCO's **Recommendation concerning the Safeguarding of the Beauty and Character of Landscapes and Sites,** dated 1962.[137] In this recommendation, landscapes were not considered culturally; instead, their aesthetic character was emphasized. However, taking into account the impact of humans on nature, conservation proposals have been made against the threats of industrial and urban development.

Although the concept of the cultural landscape is not directly addressed in the **International Charter for the Conservation and Restoration of Monuments and Sites (Venice Charter)** adopted in 1964 by ICOMOS *(International Council on Monuments and Sites),* which is one of the oldest and most widely known of the conservation charters, it is important because it gives advice on the protection of areas. It was emphasized that not only individual architectural structures but also urban and rural settlements have historical value (art. 1), and historical monuments cannot be considered independently of the environment they are in (art. 7).[138]

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[137] UNESCO, *Recommendation concerning the Safeguarding of the Beauty and Character of Landscapes and Sites,* 1962, https://www.icomos.org/public/publications/93towns7a.pdf.

[138] ICOMOS, *International Charter for the Conservation and Restoration of Monuments and Sites (Venice Charter),* 1964, https://www.icomos.org/en/participer/179-articles-en-francais/ressources/charters-and-standards/157-thevenice-charter.

Although not referred to by the word “landscape”, a reference to the cultural landscape is the 1972 **Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention)**. In Article 1 of the Convention, cultural heritage was categorized into three groups, which are monuments, groups of buildings, and sites; sites were defined as “combined works of nature and man”.[139] This definition can be interpreted as cultural landscapes. As a development, the expression of “rural landscape” was included in the 1988 and 1992 Operational Guidelines[140] (instrument on the application of the Convention). However, this term was not explained, and it was decided that this subject should be investigated for further discussion.

In the **Historic Gardens (Florence Charter)** dated 1981 of ICOMOS IFLA *(International Federation of Landscape Architects)*, the conservation charter for human-made historic gardens, historic gardens are defined as “an architectural and horticultural composition of interest to the public from the historical or artistic point of view”.[141]

In the ICOMOS **Charter for the Preservation of Quebec's Heritage,** adopted in 1982, cultural landscapes were defined as the result of the interaction of human society and nature, and humans’ adaptation to their environment. The landscape, which is considered important as a Quebec heritage, should be a priority in protection, and adaptation, integration and respect of the heritage material must be ensured in any change of the environment.[142]

In the ICOMOS **Tlaxcala Declaration on the Revitalization of Small Settlements** in 1982, the heritage of small rural settlements was emphasized. For the continuity of the vernacular architecture, it was encouraged that traditional building techniques and materials should be available. Any new work that will be constructed in those settlements should be contemporary and distinguishable, and preservation of the local traditional building techniques and regional materials should be conserved.[143]

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139 UNESCO, *Convention Concerning the Protection of the World Cultural and Natural Heritage,* 1972, https://whc.unesco.org/archive/convention-en.pdf.

140 UNESCO, *Operational Guidelines for the Implementation of the World Heritage Convention,* 1988, https://whc.unesco.org/archive/opguide88.pdf.; UNESCO, *Operational Guidelines for the Implementation of the World Heritage Convention,* 1994, https://whc.unesco.org/archive/opguide94.pdf.

141 ICOMOS IFLA, *Historic Gardens (The Florence Charter),* 1981, https://www.icomos.org/images/DOCUMENTS/Charters/gardens_e.pdf.

142 ICOMOS, *Charter for the Preservation of Quebec's Heritage,* 1982, https://www.icomos.org/en/179-articles-en-francais/ressources/charters-and-standards/3553-charter-for-the-preservation-of-quebec-s-heritage.

143 ICOMOS, *Tlaxcala Declaration on the Revitalization of Small Settlements,* 1982, https://www.icomos.org/en/resources/charters-and-texts/179-articles-en-

Again, the **Charter for the Conservation of Historic Towns and Urban Areas (Washington Charter)** (1987) is an essential step towards the recognition of landscapes, although it does not directly refer to landscapes, as it was recommended that historical centres and towns should be considered together with the natural and human-made environment in which they are located.[144]

In 1992, cultural landscapes were recognized as being protected in ordinary sessions of the World Heritage Committee.[145] Hence, cultural landscape description and principles on their inscription in the World Heritage List were determined in the 1994 **Operational Guidelines**.[146] Cultural landscapes were defined as indicators of the evolution of humankind and settlement in their natural environment due to physical, economic, and social factors. It was stated that they are representatives of specific cultures in defined geo-cultural regions and display interaction with humankind and its environment.

Cultural landscapes were categorized into three groups:

- "The most easily identifiable is the **clearly defined landscape** designed and created intentionally by man. This embraces garden and parkland landscapes constructed for aesthetic reasons which are often (but not always) associated with religious or other monumental buildings and ensembles.
- The second category is the **organically evolved landscape**. This results from an initial social, economic, administrative, and/or religious imperative and has developed its present form by association with and in response to its natural environment. Such landscapes reflect that process of evolution in their form and component features.

  They fall into two sub-categories:

  -a **relict (or fossil) landscape** is one in which an evolutionary process came to an end at some time in the past, either abruptly or over a period. Its significant distinguishing features are, however, still visible in material form.

francais/ressources/charters-and-standards/385-tlaxcala-declaration-on-the-revitalization-of-small-settlements.

144 ICOMOS, *Washington Charter for the Conservation of Historic Towns and Urban Areas,* 1987, https://www.icomos.org/images/DOCUMENTS/Charters/towns_e.pdf.

145 UNESCO, *World Heritage Committee Sixteenth Session,* 1992, https://whc.unesco.org/archive/1992/whc-92-conf002-12e.pdf.

146 UNESCO, *Operational Guidelines for the Implementation of the World Heritage Convention,* 1994. https://whc.unesco.org/archive/opguide94.pdf.

-continuing landscape is one which retains an active social role in contemporary society closely associated with the traditional way of life, and in which the evolutionary process is still in progress. At the same time, it exhibits significant material evidence of its evolution over time.

- The final category is the **associative cultural landscape**. The inclusion of such landscapes on the World Heritage List is justifiable by virtue of the powerful religious, artistic or cultural associations of the natural element rather than material cultural evidence, which may be insignificant or even absent."[147]

Along with these developments in Operational Guidelines, the criteria for inclusion in the World Heritage List have also been revised to include cultural landscapes. The phrase "have exerted great influence" in criterion (ii) was replaced with the phrase "exhibit an important **interchange of human values**"; the expression of "**living**" was added to criterion (iii) rather than emphasizing only disappeared civilizations' cultural traditions; the phrase of "the type of structure" in criterion (iv) was enlarged as "type of building or architectural, or technological ensemble or **landscape**"; the expression of "settlement" was enlarged as "or **land-use**" in criterion (v) (in 2005 "**sea-use**" was also included[148]); "and the phrase of "with events or **living traditions**…with artistic and literary works of Outstanding Universal Value" was added to criterion (vi).[149] In this way, the cultural interaction of humans with the place and their inseparableness were emphasized, and it was stated that the cultures that shape and make the cultural landscape valuable might be not only dead but also still ongoing cultures.

The importance of national conservation charters in the development of this inclusivity in the World Heritage system cannot be denied. In the **Burra Charter**, which was first adopted in 1979 and put forward in Australia, where cultural production is made as a result of human interaction with nature rather than monumental structures, the importance of place was emphasized, although the concept of landscape was not directly referenced. Thus, rather than limiting cultural heritage in a defined physical form such as monuments, buildings, sites, etc., in the Charter, the term "place" was preferred for cultural properties and defined as "site, area, building or other work, group of buildings

147 UNESCO, *Operational Guidelines for the Implementation of the World Heritage Convention,* 1994.

148 UNESCO, *Operational Guidelines for the Implementation of the World Heritage Convention*, 6 EXTCOM 5.1, 2005, https://whc.unesco.org/archive/opguide05-en.pdf.

149 UNESCO, *Operational Guidelines for the Implementation of the World Heritage Convention,* WHC/2/Revised. February, 1996, https://whc.unesco.org/archive/opguide96.pdf.

or other works of cultural significance together with pertinent contents and surroundings, ruin structures, and archaeological sites and areas"[150] (Australia ICOMOS, 1979 art. 1). In this way, the opportunity was created for a better expression of more spiritual and traditional places, and this has led to the discussion of the importance of place in the world heritage system.

The Burra Charter was revised several times in 1981, 1988, 1999, and 2013 since it was planned at the beginning to be revised as needed when the concepts evolved in time. During these changes, the definition of the place has changed. Place was stated as "site, area, building or other work, group of buildings or other works together with pertinent contents and surroundings" with the explanatory note that "structures, ruins archaeological sites and areas" are included in the 1981 Burra Charter art. 1.1.[151] Then "landscapes modified by human activity" was added to the definition in explanatory notes in the 1988 Burra Charter art 1.1.[152] While in the 1999 Burra Charter art 1.1 "land and landscape" were added to the main definition and indicated that these places "may include components, contents, spaces and views"[153]; in the last version of Burra Charter 2013 art 1.1 the definition was more expanded as "geographically defined area" which "may include elements, objects, spaces and views" and "have tangible and intangible dimensions".[154] In addition to these, the definition of cultural significance was also broadened in the 1999 and 2013 Burra Charters art 1.2 by adding spiritual value and stating that it is embodied "in the place itself, its fabric, setting, use, associations, meanings, records, related places, and related objects".[155] Thus, the concept of landscape found a wide place in the Burra Charter, and the concept of cultural heritage was broadened to include intangible heritage and spiritual values.

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150 Australia ICOMOS, *Guidelines for Conservation of Places of Cultural Significance (Burra Charter)*, 1979, https://australia.icomos.org/wp-content/uploads/Burra-Charter_1979.pdf.

151 Australia ICOMOS, *The Australia ICOMOS Charter for the Conservation of Places of Cultural Significance (The Burra Charter)*, 1981, https://australia.icomos.org/wp-content/uploads/Burra-Charter_1981.pdf.

152 Australia ICOMOS, *The Australia ICOMOS Charter for the Conservation of Places of Cultural Significance (The Burra Charter)*, 1988, https://australia.icomos.org/wp-content/uploads/Burra-Charter_1988.pdf.

153 Australia ICOMOS, *The Australia ICOMOS Charter for Places of Cultural Significance (The Burra Charter)*, 1999, https://australia.icomos.org/wp-content/uploads/BURRA_CHARTER.pdf.

154 Australia ICOMOS, *The Australia ICOMOS Charter for Places of Cultural Significance (The Burra Charter)*, 2013, https://australia.icomos.org/wp-content/uploads/The-Burra-Charter-2013-Adopted-31.10.2013.pdf.

155 Australia ICOMOS, *The Burra Charter*, 1999; Australia ICOMOS, *The Burra Charter*, 2013.

In parallel with the initiatives of ICOMOS and UNESCO, the **Convention on Biological Diversity** prepared by the United Nations in 1992[156] emphasized the sustainable protection of biological diversity as the common interest of humanity. The importance of taking action against certain human activities that reduce biodiversity was expressed, and it was recommended to protect ecosystems and natural habitats and to improve species populations in situ. It was also recommended that an environmental impact assessment be prepared for projects that may have a negative impact on the environment. Considering that cultural landscapes are integrated with the natural living components in their structure, this Convention is an important step in the protection of cultural landscape elements.

After the debates on authenticity in the ICOMOS **Nara Document on Authenticity** in 1994[157], which is a national charter like the Burra Charter, but which also has an international impact, the definition of authenticity in the World Heritage system was revised to expand the scope of cultural landscapes. The concept of authenticity, previously defined in a materialistic way based on design, materials, workmanship or setting, was expanded to include "form and design; materials and substance; use and function; traditions, techniques and management systems; location and setting; language, and other forms of intangible heritage; spirit and feeling; and other internal and external factors".[158]

In ICOMOS **The Declaration of San Antonio** (1996), inspired by Nara Document, by relating the authenticity with cultural identity, the history of a site, the material fabric, and communal life, attention was drawn to the protection of the cultural landscapes. Many groups own their cultural landscapes, which are dynamic and complex; thus, economic, social, spiritual, and cultural concerns should be integrated for the sustainable development and management of cultural landscapes by considering the needs of the local communities. Preservation of cultural landscapes requires a balanced treatment between natural and cultural resources. Since the overall character and traditions, such as patterns, forms, land use, and spiritual value of the site, may be more

[156] United Nations, *Convention on Biological Diversity,* 1992, https://www.cbd.int/doc/legal/cbd-en.pdf.

[157] ICOMOS, *The Nara Document on Authenticity*, 1994, https://www.icomos.org/en/charters-and-texts/179-articles-en-francais/ressources/charters-and-standards/386-the-nara-document-on-authenticity-1994.

[158] UNESCO, *Operational Guidelines for the Implementation of the World Heritage Convention,* 2005.

important than material and design characteristics, a relationship between values and authenticity should be sustained.[159]

With the **European Landscape Convention (Florence Convention)** prepared by the Council of Europe in 2000, a comprehensive agreement on landscapes entered into force. In the Convention, the landscape was defined as "an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors"[160], and it was aimed to protect, promote management and planning of landscapes. The scope of the Convention covers the land, inland, water, and marine areas -which might display outstanding features or belong to everyday life - in the natural, rural and urban areas of the member states. It was suggested that landscapes should be recognized by law as an indispensable component of the human environment, which displays cultural and natural diversity and is an expression of human identity. In addition, to promote developing local, regional, and national policies on landscape protection and providing education and awareness about it at every stage, it was encouraged for each member to identify and analyze its own landscape characteristics and regions, to determine their values and to record their changes for the application. The Convention is extremely important as it is the first convention on landscape protection and encourages landscape character assessment.

The protection of the intangible heritage, which can be considered as an inseparable whole with nature, was discussed in UNESCO's **Convention for the Safeguarding of the Intangible Heritage** dated 2003. In the Convention, intangible cultural heritage was defined as "practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts and cultural spaces" associated with communities, groups, or even individuals.[161] The intangible cultural heritage can be created by human interaction with nature and provides a sense of identity by transmitting from generation to generation, so increases cultural diversity. The intangible cultural heritage can include:

"(a) oral traditions and expressions, including language as a vehicle of the intangible cultural heritage;

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[159] ICOMOS, *The Declaration of San Antonio,* 1996, https://www.icomos.org/en/charters-and-texts/179-articles-en-francais/ressources/charters-and-standards/188-the-declaration-of-san-antonio.

[160] Council of Europe, *The European Landscape Convention*, 2000, https://rm.coe.int/16807b6bc7.

[161] UNESCO, *Convention for the Safeguarding of the Intangible Heritage,* 2003, https://unesdoc.unesco.org/ark:/48223/pf0000132540.

(b) performing arts;

(c) social practices, rituals and festive events;

(d) knowledge and practices concerning nature and the universe;

(e) traditional craftsmanship".

European Rural Heritage Observation Guide prepared by Council of Europe [Conference of Ministers responsible for Spatial/Regional Planning (CEMAT)][162] in 2003 is not an international conservation document; nevertheless, it is essential in terms of providing a guideline on observation and conservation of rural heritage. In the guide, rural heritage was defined as a combination of landscapes and people. As components of rural heritage, rural communities and their productions (both built environment and products) are crucial parts. In order to understand rural heritage, it was suggested that changes in heritage elements be identified, classified, and evaluated.

In 2005, declarations dealing with the relationship between human and cultural landscape came out one after the other. Just as the Convention on Biological Diversity of the UN, the importance of biological and cultural diversity was presented in the **Tokyo Declaration on the Role of Sacred Natural Sites and Cultural Landscapes in the Conservation of Biological and Cultural Diversity**.[163] However, it differs that it deals with sacred natural sites. As an expression of the cultural diversity mentioned in Nara Document on Authenticity, it was emphasized that natural areas that can be considered sacred by different cultures should be protected as heritage. They are vital for the prosperity of indigenous peoples and local communities. In order to understand sacred natural sites, cultural landscapes, and traditional agricultural lands, they should be considered together with the cultures that shaped them. In **Xi'an Declaration on the Conservation of the Setting of Heritage Structures, Sites and Areas**[164] of ICOMOS, it was emphasized that cities, landscapes, and cultural routes have undergone a rapid change under the influence of factors such as tourism, development, natural disasters, and the need to adequately handle the cultural heritage in the face of this change. It was also emphasized that cultural assets should be handled together with the setting they are.

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[162] CEMAT, *European Rural Heritage Observation Guide*, 2003, https://rm.coe.int/16806f7cc2%20/.

[163] *Tokyo Declaration on the Role of Sacred Natural Sites and Cultural Landscapes in the Conservation of Biological and Cultural Diversity*, 2005, https://www.un.org/esa/socdev/unpfii/documents/tokyo_final_declaration_en.pdf.

[164] ICOMOS, *Xi'an Declaration on the Conservation of the Setting of Heritage Structures, Sites and Areas*, 2005, https://www.icomos.org/images/DOCUMENTS/Charters/xian-declaration.pdf.

Cultural traditions, rituals, spiritual practices and concepts, topography, natural environment values, and interaction with nature are included in the setting components within tangible and intangible values. **Faro Convention on the Value of Cultural Heritage for Society**[165] of Council of Europe, which considers benefiting from cultural heritage as a human right and the foundation of a democratic society, emphasizes the importance of developing a holistic understanding that includes cultural, biological, geological, and landscape diversity.

The Santiago de Cuba Declaration on Cultural Landscape in the Caribbean[166] dated 2006, is about taking action to increase the visibility of cultural landscapes of the Caribbean region on the World Heritage List. For this purpose, it encourages the identification and documentation of cultural landscapes, then the determination of human or natural origin threats, taking protection measures against them, and planning integrated management plans.

With the ICOMOS **Charter on Cultural Routes**, a new concept of cultural routes was introduced in 2008. It was stated that with this concept, the importance of cultural properties within their setting as territorial scale growth evolved. In order to protect them, it should be understood that their significant relationships are with their natural, cultural, and historical setting. The cultural routes should carry three features: they should be interactive movements of people for the exchange of goods, ideas, knowledge and values; they should make interaction between cultures as reflected both in their tangible and intangible heritage; and they should integrate into a dynamic system. It was emphasized that the cultural routes bear a value as a whole, which is greater than the sum of its parts.[167]
In the ICOMOS **New Zealand Charter for the Conservation of Places of Cultural Heritage Value** revised in 2010, cultural landscapes and features, buildings and structures, gardens, archaeological sites, traditional sites, monuments, and sacred places are defined as places of cultural heritage value with indigenous and recent people. It was stated that all aspects, including tangible and tangible values of those sites, should be understood and respected. Indigenous people are an indispensable part of this heritage, and they are natural protectors and stakeholders. By respecting surviving evidence and

[165] Council of Europe, *Faro Convention on the Value of Cultural Heritage for Society*, 2005, https://rm.coe.int/1680083746.
[166] UNESCO, *The Santiago de Cuba Declaration on Cultural Landscape in the Caribbean*, 2005, https://whc.unesco.org/archive/2006/mis841-2006.pdf.
[167] ICOMOS, *Charter on Cultural Routes*, 2008, https://www.icomos.org/images/DOCUMENTS/Charters/culturalroutes_e.pdf.

knowledge, as well as the authenticity and integrity of the sites, protection measures should be realized with minimum intervention. Since the setting of a place is an integral part of the heritage, the setting should be conserved with the place itself (art. 2, 3, 4, 5, 6, 9).[168]

A recommendation guide on historic urban landscapes, **Recommendation on the Historic Urban Landscape**[169] was prepared by UNESCO in 2011 and revised in 2019.[170] In the recommendation, the historic urban landscape was defined as "the urban area understood as the result of a historical layering of cultural and natural values and attributes, extending beyond the notion of "historic centre" or "ensemble" to include the broader urban context and its geographical setting". By considering urban landscapes as part of urban memory that is threatened by rapid developments, integrated historic urban conservation planning was encouraged in order to maintain urban identity. In this planning, a wider urban context which covers the site's topography, geomorphology, hydrology, and natural features, infrastructures above and below ground, open spaces and gardens, land use patterns, natural features and setting of the built environment, and its spatial organization and interrelationships should be taken into account.

Another document that emphasizes the importance of cultural and biological diversity is UNESCO's **Florence Declaration on the Links Between Biological and Cultural Diversity**[171] dated 2014. In the declaration, it was stated that rural and urban livelihoods feed the cultural and biological diversity, for this reason, it is necessary to include local communities in decision-making processes related to cultural and biological diversity. Employing livelihood means activities such as farming, traditional animal husbandry, and small-scale fishing. In this way, it is aimed to maintain the traditional knowledge and know-how process shaped by the landscape. For this reason, it was advised to include biocultural diversity in national and local planning of the conservation of nature and landscape with trans-disciplinary approaches.

[168] ICOMOS, *New Zealand Charter for the Conservation of Places of Cultural Heritage Value,* 2010, https://openarchive.icomos.org/id/eprint/3248/1/NZ_Charter.pdf.

[169] UNESCO, *Recommendation on the Historic Urban Landscape,* 2011, https://whc.unesco.org/uploads/activities/documents/activity-638-98.pdf.

[170] UNESCO, *Recommendation on the Historic Urban Landscape, Report of the Second Consultation on its Implementation by Member States,* 2019, https://whc.unesco.org/en/hul/.

[171] UNESCO, *Florence Declaration on the Links Between Biological and Cultural Diversity*, 2014, https://www.cbd.int/portals/culturaldiversity/docs/21040410-declaration-florence-en.pdf.

In the same year, another declaration, the **Florence Declaration on Heritage and Landscape as Human Values**[172] was prepared by ICOMOS. In this declaration, it was mentioned that cultural heritage and landscapes are important parts of collective memory with their tangible and intangible components. By considering threats facing landscapes, it was advised that an approach be developed that centres on human values and traditional knowledge.

Charter on landscapes in Asia region, **Asia Pacific Region Landscape Charter** was adopted by IFLA Asia Pacific Region in 2015. Landscape was defined as "an area, as perceived by people, whose character is the cumulative result of the action and interaction of natural and/or cultural factors".[173] It was stated that landscapes are biophysical, cultural, and social integrations that develop with tradition, perception, and shared memory. Landscapes include not only land formations but also water and island formations and their combinations. It was mentioned that protecting landscapes and their diversified characteristics is the common duty of communities as a responsibility of shared memory.

Recently, **Principles Concerning Rural Landscapes as Heritage,** which specializes on rural landscapes, a subgroup of cultural landscapes, was adopted by ICOMOS IFLA in 2017. In the principles, rural landscapes, which are representative of cultural traditions, were referred as the most common type of cultural landscapes. They were defined as "terrestrial and aquatic areas co-produced by human-nature interaction used for the production of food and other renewable natural resources, via agriculture, animal husbandry and pastoralism, fishing and aquaculture, forestry, wild food gathering, hunting, and extraction of other resources, such as salt".[174] Rural heritage covers not only rural landscapes but also settlements, rural buildings, vegetation, trade networks and transportation, morphology infrastructure, and etc. Rural landscapes were evaluated as continuing cultural landscapes because of the maintenance of traditional techniques and know-how in rural areas. The factors that threaten their integrity are divided into three groups (demographic and cultural (population growth and exchange, etc.), structural

[172] ICOMOS, *Florence Declaration on Heritage and Landscape as Human Values,* 2014, https://www.icomos.org/images/DOCUMENTS/Secretariat/2015/GA_2014_results/GA2014_Symposium_FlorenceDeclaration_EN_final_20150318.pdf.

[173] IFLA Asia Pacific Region, *Asia Pacific Region Landscape Charter,* 2015, https://iflaapr.org/sites/default/files/content-files/IFLA-APR-Charter-Final.pdf.

[174] ICOMOS IFLA, *Principles Concerning Rural Landscapes as Heritage,* 2017, https://www.icomos.org/images/DOCUMENTS/General_Assemblies/19th_Delhi_2017/Working_Documents-First_Batch-August_2017/GA2017_6-3-1_RuralLandscapesPrinciples_EN_final20170730.pdf.

(globalization, changes in trade relations, etc.), and environmental (climate change and pollution, etc.) and it is recommended to develop long-term sustainable conservation policies against them.

In the same year, the **Document on Historic Urban Public Parks** of ICOMOS IFLA (2017) was also adopted. In the document, public parks were defined as parks that are accessible to everybody without limitation and in public bodies or foundations' ownership. Their composition includes vegetation, architectural elements, water features, and paths; however, historic promenades, boulevards, avenues, and tree-lined streets were not evaluated as public parks; they are public spaces. Social and intangible values, aesthetic values, horticultural and ecological values, and civic values of the parks should be safeguarded to sustain their design and their place in public memory. Their distant panoramas, sight-lines, vistas and views are part of their integral, heritage-character-defining elements. Parks and their immediate surroundings as their buffer zones should be prioritized when putting urban installations, structures, new vegetation, artworks or sitting elements. Besides historic landforms, topography, and grades, natural light, sunshine, and shade of the parks should be carefully approached, and the flora and fauna should be understood and protected.[175]

In ICOMOS **Spain Charter for the Integrated Management of Prehistoric Rock Art and its Landscapes (Alicante Charter)** dated to 2023, it was stated that rock arts are majorly located in the rural areas where their landscapes were generally well conserved. This situation helps to see the rock arts in their original setting. The rock art and geological formations that they were created are inseparable from themselves. For this reason, landscapes bear the meaning and significance of this heritage. The conservation management plans should be prepared in a way that does not endanger the environmental integrity of the fragile landscapes or of the rock art itself[176] (Table 2.1).

[175] ICOMOS IFLA, *Document on Historic Urban Public Parks*, 2017, https://www.icomos.org/images/DOCUMENTS/Charters/GA2017_6-3-2_HistoricUrbanPublicParks_EN_adopted-15122017.pdf.

[176] ICOMOS, *Spain Charter for the Integrated Management of Prehistoric Rock Art and its Landscapes (Alicante Charter)*, 2023, https://openarchive.icomos.org/id/eprint/3119/1/EN_CARTA-CCNAR_V3.pdf.

Table 2.1. International conventions, charters, recommendations, and other legal instruments on conservation of landscapes and rural heritage

Date	**Convention/ Charter/ Recommendation/ etc.**	**Scope**	**Principles**
1962	UNESCO- Recommendation concerning the Safeguarding of the Beauty and Character of Landscapes and Sites	Landscape and sites	-Considering the human impact on nature -Protection proposals against the threats of industrial and urban developments
1964	ICOMOS- International Charter for the Conservation and Restoration of Monuments and Sites (Venice Charter)	Historic sites and monuments	-Value of urban and rural settlements -Protecting monuments with their environment
1972	UNESCO- Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention)	Cultural and natural heritage	-Protection of sites as "combine works of man and nature" -Protection of natural and human-made cultural heritage under a single convention
1979, 1981, 1988, 1999, and 2013	Australia ICOMOS- The Australia ICOMOS Charter for Places of Cultural Significance (The Burra Charter)	Significance of places, lands, landscapes, geographically defined areas	-Inseparableness of human and nature -Addressing places with tangible and intangible components
1981	ICOMOS IFLA- Historic Gardens (The Florence Charter)	Historic gardens	-Historical and artistic consideration of historical gardens
1982	ICOMOS- Charter for the Preservation of Quebec's Heritage	Cultural landscapes	-Cultural landscapes as an interaction of humans and nature -Human adaptation to their environment
1982	ICOMOS- Tlaxcala Declaration on the Revitalization of Small Settlements	Rural settlements	-Continuity of the vernacular architecture -Availability of traditional building techniques and materials
1987	ICOMOS- Washington Charter for the Conservation of Historic Towns and Urban Areas	Historic centres, quarters, towns, and cities	-Considering the historical centres and towns together with the natural and human-made environment in which they are located
1992	UN- Convention on Biological Diversity	Natural sources	-Sustainable protection of biological diversity -Protection of ecosystems and natural habitats
1994	ICOMOS- The Nara Document on Authenticity	The concept of authenticity	-Differences between cultures in terms of not only material but also form and design, location and setting, workmanship, tradition, etc
1992, 1994	UNESCO- Operational Guidelines	Inclusion of cultural landscapes in the WHL	-Definition and classification of cultural landscapes

(cont. on next page)

Table 2.1. (cont.)

Date	Convention/ Charter/ Recommendation/ etc.	Scope	Principles
1996	ICOMOS- The Declaration of San Antonio	Cultural landscapes	-Dynamism and complexity of cultural landscapes -Balanced treatment between natural and cultural resources
2000	CoE- The European Landscape Convention (Florence Convention)	Landscapes	-Protection, management, and planning of landscapes as natural and cultural diversity -Landscape character assessment
2003	UNESCO- Convention for the Safeguarding of the Intangible Heritage	Intangible cultural heritage	-Promoting intangible cultural heritage concerning practices related to nature and cultural identity
2003	CEMAT- European Rural Heritage Observation Guide	Observation of rural heritage	-Identifying, classifying, and evaluating the changes in heritage elements
2005	Tokyo Declaration on the Role of Sacred Natural Sites and Cultural Landscapes in the Conservation of Biological and Cultural Diversity	Cultural and biological diversity in sacred natural sites and cultural landscapes	-Safeguarding of sacred natural sites, cultural landscapes, and traditional agricultural lands
2005	ICOMOS- Xi'an Declaration on the Conservation of the Setting of Heritage Structures, Sites and Areas	The setting of the sites	-Protection of the sites against rapid changes that threaten their integrity within the scope of the setting
2005	CoE- Faro Convention on the Value of Cultural Heritage for Society	Cultural heritage	-Benefitting from cultural heritage as a human right -Integrated conservation approach
2006	the Santiago de Cuba Declaration on Cultural Landscape in the Caribbean	Cultural landscapes	-Inclusion of cultural landscapes in Caribbeans on the World Heritage List
2008	ICOMOS- Charter on Cultural Routes	Cultural routes	-Three features of cultural routes -Greater value than the sum of its parts
2010	ICOMOS- New Zealand Charter for the Conservation of Places of Cultural Heritage Value	Cultural landscapes	-Indigenous people are an indispensable part of cultural landscapes
2011, 2019	UNESCO- Recommendation on the Historic Urban Landscape	Landscapes in urban areas	-An integrated conservation approach considering urban landscapes
2014	UNESCO- Florence Declaration on the Links Between Biological and Cultural Diversity	Biological and Cultural Diversity	-Trans-disciplinary approaches to maintaining biocultural diversity, including local communities and their traditional livelihood activities
2014	ICOMOS- Florence Declaration on Heritage and Landscape as Human Values	Landscapes	-Landscapes as living community identity -A conservation approach based on human rights and traditional knowledge

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Table 2.1. (cont.)

Date	Convention/ Charter/ Recommendation/ etc.	Scope	Principles
2015	IFLA Asia Pacific Region- Asia Pacific Region Landscape Charter	Landscapes	-Common responsibility of developing sustainable management systems to protect land and coastal landscapes
2017	ICOMOS IFLA- Principles Concerning Rural Landscapes as Heritage	Rural landscapes	-The importance of rural landscapes -Heritage values of continuing cultural landscapes -Categorizing of threats to rural landscapes
2017	ICOMOS IFLA- Document on Historic Urban Public Parks	Historic urban public parks	-Definition of public parks -Social, intangible, aesthetic, horticultural, ecological, and civic value of the parks
2023	ICOMOS- Spain Charter for the Integrated Management of Prehistoric Rock Art and its Landscapes (Alicante Charter)	Prehistoric Rock Art and its Landscapes	-Conservation of rock arts in their original setting

2.2.2. International Conventions, Charters, Recommendations, and Other Legal Instruments on Conservation of Archaeological Heritage

The earliest charter on the protection of archaeological heritage is **The Athens Charter for the Restoration of Historic Monuments**, which was prepared by the International Museums Office (IMO) after the congress of the same name in 1931. In this Charter, the preservation of archaeological remains called “ruins”, anastelosis, which is the method of re-erection of the structure by using original parts, was recommended, and it was stated that the new materials to be used in this method should be distinguishable. If it is impossible to preserve the ruins unearthed by excavation, it was recommended that they should be buried and documented before burial (art. VI).[177]

In another early contract, the **Convention for the Protection of Cultural Property in the Event of Armed Conflict (the Hague Convention)**, which was

[177] IMO, *The Athens Charter for the Restoration of Historic Monuments (The Athens Charter)*, 1931, https://www.icomos.org/en/167-the-athens-charter-for-the-restoration-of-historic-monuments.

accepted in 1954 after the devastating impact of World War II on cultural assets, attention was drawn to the protection of cultural assets in case of arm conflict or catastrophe. In the Convention, archaeological sites, architectural monuments, groups of buildings, and art objects were defined as cultural heritage, and it was argued that these should be protected because they are the common heritage of all humanity (art. 1).[178]

In UNESCO **Recommendations on International Principles Applicable to Archaeological Excavations (New Delhi Recommendations)** dated 1956, archaeological excavation was defined as excavation or systematic investigation of the surface or work carried out on the bed or in the sub-soil of inland or territorial waters for the purpose of discovering any object with archaeological character. It was stated that these recommendations are inherent in all movable or immovable historical or artistic remains of public interest. It contains articles on the determination of the legal status of the archaeological site; the authority for archaeological research should be in the hands of the central State administration as much as possible, those who find archaeological remains should notify the competent authorities at the earliest, preservation of a certain number of archaeological sites from different periods, partially or completely, so that excavations can benefit from advanced techniques in the future. (art. 1, 2, 5, 6, 9).[179]

In the **Venice Charter** of ICOMOS dated 1964, excavations were mentioned in a separate section, and it was stated that the articles accepted in New Delhi Recommendations should be taken as a basis, and it was also recommended that all precautions should be taken to protect the ruins and that they should be unearthed without distorting their meaning so that they can be understood. Besides, it was stated that all kinds of reconstruction should be avoided, only anastelosis can be done, and the material used in doing this should be distinguishable and kept to a minimum enough to reinstate the form of the structure (art. 15).[180]

In the **European Convention on the Protection of the Archaeological Heritage (London Convention)** of the Council of Europe in 1969, European archaeological heritage was accepted as the earliest source of European history, and protecting areas that

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[178] UNESCO, *Convention for the Protection of Cultural Property in the Event of Armed Conflict (the Hague Convention)*, 1954, https://www.unesco.org/en/legal-affairs/convention-protection-cultural-property-event-armed-conflict-regulations-execution-convention.

[179] UNESCO, *Recommendations on International Principles Applicable to Archaeological Excavations (New Delhi Recommendations)*, 1956, https://icahm.icomos.org/wp-content/uploads/2017/01/1956-New-Delhi-Recommendations-International-Principles-Applicable-to-Archaeology-Excavations-1.pdf.

[180] ICOMOS, *Venice Charter*.

may contain archaeological objects from illegal excavations, protecting them so that they can be excavated only by experts and future generations, preparing national catalogues of archaeological objects owned by public or private individuals, and preventing the acquisition and movement of archaeological objects of questionable origin in state-owned museums and similar institutions were accepted (art. 1, 2, 3, 4, 6).[181] This Convention is about the illegal excavation of archaeological objects and their illegal circulation between countries and museums instead of protecting archaeological sites with all their values as a whole. UNESCO **Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property** dated 1970 has a similar approach to preventing illicit import, export and transfer of ownership of cultural properties. Thus, the State Parties undertake to make the necessary regulations by eliminating the causes of these practices and ending the current practices.[182] Beyond just protecting archaeological objects excavated from archaeological sites and preventing their illegal trade, it was established that archaeological sites also have value as a whole, that they can even coexist with natural areas, and they are considered as common heritage, with the **World Heritage Convention** adopted in 1972. In the **UNIDROIT Convention on Stolen or Illegally Exported Cultural Objects** by The International Institute for the Unification of Private Law (UNIDROIT) dated to 1995, is also aimed at preventing illegal traffic of cultural objects.[183]

In the UNESCO **World Heritage Convention** adopted in 1972, cultural heritage was defined for the first time by being divided into three groups; these are monuments, group of buildings, and sites. Archaeological sites were included in the sites group, and the structures in the archaeological environment were also included in the monuments group. With this Convention, the foundations of the World Heritage List were laid, and it was decided that selected examples bearing "Outstanding Universal Value" would be included in this list and protected as the common heritage of humanity (art. 1).[184] Although it was a turning point in understanding the importance of protecting natural and cultural heritage, a holistic approach to the assets to be protected has not been achieved

[181] Council of Europe, *European Convention on the Protection of the Archaeological Heritage (London Convention)*, 1969, https://rm.coe.int/1680072318.

[182] UNESCO, *Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property*, 1970, https://www.unesco.org/en/legal-affairs/convention-means-prohibiting-and-preventing-illicit-import-export-and-transfer-ownership-cultural.

[183] UNIDROIT, *UNIDROIT Convention on Stolen or Illegally Exported Cultural Objects*, 1995, https://www.unidroit.org/instruments/cultural-property/1995-convention/.

[184] UNESCO, *World Heritage Convention.*

for a while due to both the distinction between cultural and natural heritage and the triple separation of cultural heritage.

In the **Convention for the Protection of the Architectural Heritage of Europe (Granada Convention)** of the Council of Europe adopted in 1985, by the triple distinction between monuments, group of buildings, and sites as architectural heritage is continuing, it was recommended that the decision plans affecting their surroundings should be submitted to the related authorities in demolition and alteration decisions affecting the architectural heritage, parties should encourage measures for the improvement of the environment where the architectural heritage is located, and to ensure that policies are taken into account both in the preparation of plans and procedures for authorising work, and to develop effective cooperation between conservation, cultural, environmental and planning activities for the implementation of these policies (art. 1, 4, 7, 10, 13).[185]

The ICOMOS **Charter for the Protection and Management of the Archaeological Heritage (Lausanne Charter),** adopted in 1990, is one of the most comprehensive documents on archaeological heritage. In the charter, archaeological heritage was defined as material heritage that covers the places of human existence, including the places where human activities took place, abandoned structures and all their underground and underwater remains and their portable cultural materials. Since the archaeological heritage is not a renewable resource, all precautions regarding land protection should be taken; cultural and development projects should be carried out in an integrated manner to protect the archaeological heritage; public participation in archaeological protection should be included, especially considering the existence of indigenous cultures; all necessary legal regulations should be made to protect the archaeological heritage in situ, if possible. It was also stated that no changes should be made in or around the area without the supervision of the authorities; archaeological remains should be protected with temporary measures until a more comprehensive evaluation is made; information collection should be done without destroying more archaeological remains than necessary; non-destructive methods should be preferred if possible, and therefore excavations should be decided after careful examinations. It should not be forgotten that moving the remains to another area will damage the archaeological context. In addition, since it is very important to introduce archaeological

[185] Council of Europe, *Convention for the Protection of the Architectural Heritage of Europe (Granada Convention)*, 1985, https://rm.coe.int/168007a087.

heritage to the public, appropriate presentation methods should be developed and renewed when necessary. Reconstructions should be made carefully so as not to destroy any archaeological evidence, should take into account all sources for authenticity, should not be built directly on the remains and should be distinguishable (art. 1, 2, 3, 5, 6, 7).[186]

Council of Europe's **European Convention on the Protection of the Archaeological Heritage (Revised) (Valetta Convention)** dated 1992 included updated provisions of the London Convention of Council of Europe. This time, the focus was not only on archaeological objects, but all ruins, traces or objects from the past were accepted as archaeological heritage, and their protection and study were encouraged in order to understand humanity's relationship with its past and natural environment. Therefore, it is accepted that archaeological heritage includes land or underwater structures, groups of buildings, developed sites, moveable objects, and monuments of other kinds, as well as their context. Although the archaeological reserves contain no visible remains, it was suggested that material evidence be preserved for future generations to study. It was also suggested that the excavations to be carried out to reveal this heritage should be realized with non-destructive methods if possible and that the remains should not be left in the open without taking protective measures after the excavation. In addition, it was recommended that the archaeological heritage be preserved in situ, if possible, and that elements that cannot be preserved in situ should be kept under appropriate storage conditions. It was stated that in order to ensure balanced and effective protection, conservation and development plans should be coordinated, the environmental impact plans of the archaeological site should be taken into account and that the intense number of visitors should not have negative effects on the scientific character of the archaeological site and its environment while making the archaeological sites open to the public (art. 1, 2, 3, 4, 5).[187]

Based on the ICOMOS Lausanne Charter, the **Charter on the Protection and Management of Underwater Cultural Heritage** in 1996, focused on archaeological heritage in underwater environment, including submerged sites, and it was stated that cultural heritage is mostly an international resource, and due to its finite and non-renewable nature marine activities that can affect this heritage should be carefully carried

[186] ICOMOS, *Charter for the Protection and Management of the Archaeological Heritage (Lausanne Charter),* 1990, https://www.icomos.org/images/DOCUMENTS/Charters/arch_e.pdf.

[187] Council of Europe, *European Convention on the Protection of the Archaeological Heritage (Revised) (Valetta Convention),* 1992, https://rm.coe.int/168007bd25.

out. This heritage can also be threatened by construction works onshore or seabed that alter the current flow and also be affected by pollutants. These threats can be removed by the consultancy of expert groups and mitigatory projects. Preservation of underwater heritage in-situ should be considered at first; investigations should not disturb it, and public access should be provided as possible.[188]

ICOMOS **The Declaration of San Antonio** dated 1996, recommendations for archaeological sites and cultural landscapes were mentioned separately. For the archaeological sites, it was recommended that in stabilization, consolidation, and construction of protective shelter implementations; more analysis should be carried out for authenticity; archaeological documentation should be done as objective and reliable; interventions and excavations should be realized within a conservation plan; archaeological remains should be prioritized in case of urban infrastructure works; documentation of the site and rescue excavations should be realized in case of construction of dams and artificial flooding; since some of the archaeological sites are still sacred for descendants of the creators of the site minimum intervention should be carried out; and methods such as reburial should be considered to preserve the site.[189]

In **Principles for the Analysis, Conservation and Structural Restoration of Architectural Heritage (Zimbabwe Charter)** of ICOMOS (2003), it was emphasized that the conservation of the architectural heritage cannot be tied to fixed criteria because each heritage must be evaluated within its own culture; all structural and material features of the structures and its construction stages should be understood before an intervention; and in archaeological areas, in order to continue excavations safely, sometimes the structures may need to be secured even if the information cannot be completed and they should be evaluated differently from other historical buildings, but that in doing so, the construction concept and form of the building should not be compromised; minimal interventions should be made to secure the structure, and these interventions should be reversible if possible (art. 1.2, 2.3, 2.4, 3.5, 3.9).[190]

In the ICOMOS **Charter for the Interpretation and Presentation of Cultural Heritage Sites** dated 2008, archaeological sites were included in cultural heritage sites,

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188 ICOMOS, *Charter on the Protection and Management of Underwater Cultural Heritage*, 1996, https://www.icomos.org/images/DOCUMENTS/Charters/underwater_e.pdf.

189 ICOMOS, *The Declaration of San Antonio.*

190 ICOMOS, *Principles for the Analysis, Conservation and Structural Restoration of Architectural Heritage (Zimbabwe Charter)*, 2003, https://www.icomos.org/images/DOCUMENTS/Charters/structures_e.pdf.

and it was stated that the interpretation should explore the historical, political, spiritual, and artistic significance of a site; no period or cultural community should be excluded in interpretation works, cultural heritage should be handled as a whole with the setting in which the site is located, and the work done should be carried out without adversely impacting the authenticity and integrity of a cultural heritage site (principle 3, 4).[191]

In **Salalah Guidelines for the Management of Public Archaeological Sites** adopted in 2017 by ICOMOS, it was stated that archaeological sites that are open to the public or in natural parks have particular challenges due to the tourism industry, especially those became premier destinations after the World Heritage Convention. Therefore, these guidelines were prepared to establish a sustainable management system for those sites. The concept of archaeological park was introduced and described as "as a tool for conservation of archaeological sites on the one hand, and their presentation and interpretation as a means to understand the shared past of humanity on the other hand". As the first step of the management plan, cultural and natural sources should be obtained, and their inventories should be evaluated; sufficient size of site boundaries and buffer zones should be determined; environmental impact assessment should be prepared; plans of monitoring, archaeological research and interpretation should be studied; also, community engagement should be considered.[192]

ICOMOS **Guidelines on Fortifications and Military Heritage,** dated 2021, is particularly important as it refers to frontiers. It was mentioned that throughout history, many civilizations have built fortifications for defensive or offensive purposes, closely linked to the cultural landscape, terrain and the communities living there. Fortifications have an integral relationship with the cultural landscape and their surroundings. Understanding the history and strategic rationales for the design and location of fortifications is of great importance for their preservation. In intermediaries in this direction, not only the construction material or design but also space, panoramas, dominant views, and territories should be taken into consideration in order to reveal their intrinsic relationship with their cultural landscape. Also, an accurate history and relationship to the changing cultural, social, and political contexts should be interpreted in order not to exclude any value or cultural identity. Also, the inter-relationship of their

[191] ICOMOS, *Charter for the Interpretation and Presentation of Cultural Heritage Sites,* 2008, https://www.icomos.org/images/DOCUMENTS/Charters/interpretation_e.pdf.

[192] ICOMOS, *Salalah Guidelines for the Management of Public Archaeological Sites,* 2017, https://www.icomos.org/images/DOCUMENTS/Charters/GA2017_6-3-3_SalalahGuidelines_EN_adopted-15122017.pdf.

physical forms, their spatial organization and connection, their natural characteristics and setting should be taken into account, considering their international or transnational natures rather than being solitary and isolated structures. The values of fortifications were determined as architectural and technical value, territorial and geographical value, cultural landscape value, strategic value, human and anthropological value, memory, identity, educational value, historic value, and social/ economic value. It was recommended that interventions should be carried out according to the master conservation plan that includes such as historical study, morphological development, topographic surveys, evaluation of archaeological studies, structural analysis, cultural landscape analysis, risk assessment, operations plan, visitor surveys, protection plan, and management plan. Also, two principles should be followed; these are the principles of deciding whether traditional or innovative intervention methods are used should be considered case by case by regarding the heritage values as stated in Zimbabwe Charter, and three principles of Vitruvius, material compatibility, functional compatibility, and aesthetic compatibility[193] (Table 2.2).

Table 2.2. International conventions, charters, recommendations, and other legal instruments on conservation of archaeological heritage

Date	**Convention/ Charter/ Recommendation/ etc.**	**Scope**	**Principles**
1931	IMO- The Athens Charter for the Restoration of Historic Monuments	Archaeological heritage "ruins"	-Conservation and restoration implementations of the archaeological monuments "anastelosis"
1954	UNESCO- Convention for the Protection of Cultural Property in the Event of Armed Conflict (the Hague Convention)	Cultural assets, archaeological sites	-Conservation of cultural heritage as a common heritage of humanity in case of armed conflict
1956	UNESCO- Recommendations on International Principles Applicable to Archaeological Excavations (New Delhi Recommendations)	Archaeological sites	-Definition and principles of archaeological excavation -Determination of the legal status of the archaeological site

(cont. on next page)

[193] ICOMOS, *Guidelines on Fortifications and Military Heritage,* 2021, https://www.icomos.org/images/DOCUMENTS/Charters/AGA_202111_6-1_ICOMOS_Guidelines_Fortifications_MilitaryHeritage_2021_EN.pdf.

Table 2.2. (cont.)

Date	Convention/ Charter/ Recommendation/ etc.	Scope	Principles
1964	ICOMOS- International Charter for the Conservation and Restoration of Monuments and Sites (Venice Charter)	Cultural heritage, archaeological sites	-Conservation of "ruins" -Implementations for archaeological sites, avoidance of reconstruction
1969	CoE- European Convention on the Protection of the Archaeological Heritage (London Convention)	Archaeological heritage	-Focus on European archaeological heritage -Protection and excavation for future generations, cataloguing
1970	UNESCO- Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property	Archaeological objects	-Preventing illegal import and trade of archaeological objects from the sites
1972	UNESCO- Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention)	Cultural and natural heritage	-Protection of cultural and natural heritage including archaeological heritage -Distinction between cultural and natural heritage, and definition of cultural heritage kinds -UNESCO World Heritage List
1985	CoE- Convention for the Protection of the Architectural Heritage of Europe (Granada Convention)	Architectural heritage	-Improvement of the environment of the architectural heritage
1990	ICOMOS- Charter for the Protection and Management of the Archaeological Heritage (Lausanne Charter)	Archaeological heritage	-Definition of archaeological heritage -Integrated conservation, public participation, in-situ protection -Conservation implementations in archaeological sites
1992	CoE- European Convention on the Protection of the Archaeological Heritage (Revised) (Valetta Convention)	Archaeological heritage	-Scope of archaeological heritage -Promoting non-destructive excavation methods -Balanced and effective protection, conservation and development plans
1995	UNIDROIT- UNIDROIT Convention on Stolen or Illegally Exported Cultural Objects	Cultural objects	-Preventing illegal traffic of cultural objects
1996	ICOMOS- Charter on the Protection and Management of Underwater Cultural Heritage	Underwater archaeological heritage	-Threats to underwater archaeological heritage -Preservation of underwater heritage in-situ
1996	ICOMOS- The Declaration of San Antonio	Archaeological sites	-Conservation implementations in archaeological sites -Developing a conservation plan -Documentation and rescue excavations in case of artificial flooding

(cont. on next page)

Table 2.2. (cont.)

Date	Convention/ Charter/ Recommendation/ etc.	Scope	Principles
2003	ICOMOS- Principles for the Analysis, Conservation and Structural Restoration of Architectural Heritage (Zimbabwe Charter)	Architectural heritage	-Evaluation of heritage within its own culture -Minimal and reversible interventions in archaeological sites
2008	ICOMOS- Charter for the Interpretation and Presentation of Cultural Heritage Sites	Cultural sites	-Promoting historical, political, spiritual, and artistic significance of the site -Cultural heritage as a whole with the setting
2017	ICOMOS- Salalah Guidelines for the Management of Public Archaeological Sites	Archaeological Sites	-Preservation of archaeological sites that are open to the public or in natural parks -Archaeological park concept
2021	ICOMOS- Guidelines on Fortifications and Military Heritage	Fortifications and military heritage	-Referring frontiers -Fortifications are closely linked to the cultural landscape -Integral relationship with the cultural landscape and their surroundings

2.2.3. Conservation Law and Legislations for Archaeological Heritage/ Landscape/ Rural Areas in Turkey

In Turkey, in addition to the main conservation law, there are many regulations and enactments to protect cultural and natural assets, including archaeological areas. Many laws regarding villages, rural areas and other natural assets have been declared since the first years of the Republic. These laws have undergone many changes over the years; some articles have been removed or changed, and new articles have been added. Even the names of the relevant ministries have changed over time, and some ministries have been merged or separated. In this part of the thesis, the current state of the laws currently in force will be discussed without going into the details of all these changes.

The main law to protect cultural and natural assets is an integrated law which is **2863 numbered Cultural and Natural Assets Protection Law**.[194] The Ministry of

[194] Republic of Turkey, *2863 numbered Cultural and Natural Assets Protection Law*, 1983, https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=2863&MevzuatTur=1&MevzuatTertip=5.

Culture and Tourism is responsible for the implementation of the law. In the Law, the definition of cultural and natural assets was given, and a general framework was drawn for their protection. Accordingly, cultural assets were defined as "all movable and immovable assets above ground, underground or under water that are related to science, culture, religion and fine arts from prehistoric and historical periods, or that have scientific and cultural unique value and were the subject of social life in prehistoric or historical periods", and natural assets were defined as "values found above ground, underground or under water, belonging to geological periods, prehistoric and historical periods, and which need to be protected due to their rarity or features and beauty" (art. 3). The Law also defined "protected area" which is "*sit*" in Turkish that derived from "site" which has not meaning in Turkish, and "*ören yeri*" (art. 3). Although the "*ören yeri*" do not mean much in Turkish also, they appear as archaeological areas in practical applications. However, the fact that the archaeological areas were not categorized as archaeological protected areas under protected areas, but were given a separate naming and definition, and this definition is naturally very similar to the definition of "site" in the Law, creates ambiguity. Another contradiction in the Law is that treasure hunting, which does not follow any scientific method or excavation process, is allowed by Law, and hunting is licensed except in registered protected areas instead of being banned (art. 50).

In this Law, conservation-purposed zoning plan, landscaping project, management area and management plan were also defined. Accordingly, the conservation-purposed zoning plan is based on existing maps containing archaeological, historical, natural, architectural, demographic, cultural, socio-economic, property and construction data in order to protect cultural and natural assets, with strategies and planning decisions, plan notes and explanation reports. Landscaping project is arrangement projects at different scales that will be prepared to protect the archaeological potential of the *ören yeri*, to open them to visitors in a controlled manner, to promote them, and to solve the problems arising from current use and circulation. Management area is a place created to protect, sustain and evaluate protected areas and archaeological sites, and whose boundaries are determined by the Ministry of Culture and Tourism. Management plan is the plan that is created for protecting, sustaining and evaluating the management area by taking into account the management area's operation project, excavation plan, landscaping project or conservation-purposed zoning plan, and reviewed every five years and show the annual and five-year implementation stages and budget of the conservation and development project created (art. 3).

Archaeological protected areas were ranked with **Enactment no. 658 on Archaeological Protected Areas, Term of Protection and Use** dated 1999[195], which was issued in connection with the Conservation Law. Among the archaeological protected areas classified into three degrees, first-degree archaeological protected areas are protected areas that will be preserved as they are in the development plans, absolutely no construction is allowed, and no excavations can be carried out other than scientific excavations. However, it is allowed to continue farming with the condition that no new fields are opened, and fruit growing with existing trees, provided that no new afforestation is made. Ploughing the soil in mounds and tumuli is prohibited. Although taking stone and soil and opening mines are prohibited, burials are also allowed in cemeteries that continue to be used. In addition, despite the construction ban, the construction of units such as WCs, ticket offices and guardhouses in *ören yeri* were allowed. Second-degree archaeological protected areas are areas that need to be protected, but the conditions of protection and use will be determined by the conservation councils, and they will be preserved as they are, except for scientific studies for conservation. Simple repairs of unregistered buildings that are in use despite the construction ban are allowed. Third-degree archaeological protected areas are areas where new arrangements may be allowed in line with conservation and use decisions. In other words, new construction and other activities are allowed in these areas, provided that they comply with conservation-purposed zoning plans.

The first definition of village was made with the **442 numbered Village Law**, which was enacted in 1924.[196] Accordingly, settlements with a population of less than two thousand are called villages, those with a population between two thousand and twenty thousand are called towns, and those with a population of more than twenty thousand are called cities (art. 1). Villages are areas where people have common goods such as mosques, schools, pastures, highlands, and coppices, and live in a group or scattered houses, along with their vineyards, gardens, and fields (art. 2). By this Law, the determination of the boundaries of the villages is left to the village council of elders, *ihtiyar heyeti*. Accordingly, in cases where boundary disputes with neighbouring villages cannot be resolved, the boundaries are determined by the examination and investigation

[195] Republic of Turkey, *Enactment no. 658 on Archaeological Protected Areas, Term of Protection and Use*, 1999, https://teftis.ktb.gov.tr/TR-14329/658-nolu-ilke-karari-arkeolojik-sitler-koruma-ve-kullanma-kosullari.html.

[196] Republic of Turkey, *442 numbered Village Law*, 1924, https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=442&MevzuatTur=1&MevzuatTertip=3.

of the administrative council. In determining the boundaries, all fields, vineyards, gardens, meadows, olive groves, acorn groves and coppices that have long been considered a village should be taken into account. The houses, fields, and pastures scattered in mountainous and forested areas should be considered as being connected to the nearest village. If possible, boundaries should be determined by passing through unchanging elements such as streams, rivers, roads and hills. However, it has been stated that the boundary of a village does not necessarily coincide with the boundary of another village, and that there may be empty lands, mountains, forests and plateaus between the boundaries of two villages, which are not considered the property of any village (art. 3, 4, 5). Villages have legal entity and the chief, *muhtar*, and *ihtiyar heyeti* are responsible for their administration (art. 9, 10). Villagers were also held responsible for all maintenance of the village, protection of its natural landscape, prevention of the spread of diseases, agriculture and animal husbandry (art. 13).

With the Village Law, the Ministry of Agriculture was established in the same year for the development of the villages. However, the name of this ministry has been changed many times over the years, first it was changed to the Ministry of Food, Agriculture and Livestock in 1974, then it was merged with the Ministry of Forestry in 1980 and became the Ministry of Agriculture and Forestry, and then it continued to be merged with and separated the Ministry of Forestry, after changing the Ministry of Agriculture, Forestry and Rural Affairs and the Ministry of Agriculture and Rural Affairs, it eventually became the Ministry of Agriculture and Forestry again since 2018.[197] With the acceptance of **6360 numbered the Law on Establishment of Metropolitan Municipalities in Fourteen Provinces** in 2012[198], village statues in cities with metropolitan status were abolished, all of those villages were transformed into neighbourhoods affiliated with the metropolitan city, and the legal entities of the villages were cancelled.

3194 numbered Zoning Law in 1985[199], was designed to ensure that the settlements and the structures are formed in accordance with the planning, scientific, health and environmental conditions. This Law covers all official and private structures

[197] "Tarım Eski Bakanlarımız," T.C. Tarım ve Orman Bakanlığı, accessed April 9, 2024, https://www.tarimorman.gov.tr/sayfalar/tarimeskibakanlarimiz.aspx?ogeid=4.

[198] Republic of Turkey, *6360 numbered the Law on Establishment of Metropolitan Municipalities in Fourteen Provinces,* 2012, https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=6360&MevzuatTur=1&MevzuatTertip=5.

[199] Republic of Turkey, *3194 numbered Zoning Law,* 1985, https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=3194&MevzuatTur=1&MevzuatTertip=5.

to be built and plans to be made within and outside the boundaries of the municipality and adjacent areas. For areas with an implementation zoning plan, the **Planned Areas Zoning Regulation**[200] is applied, and for areas without a zoning plan, the **Unplanned Areas Zoning Regulation**[201] is applied. Villages may or may not have zoning plans. According to the Law, building licence is not required for housing to be built in village settlement areas or surrounding areas, agricultural and animal husbandry buildings, grocery stores, greengrocers, barbers, village bakeries, village coffeehouses, village restaurants, promotion and display facilities kiosks and business buildings of cooperatives established and operated by village people (art. 27). However, in villages that are important in terms of settlement and construction features, architectural texture and character, development level and potential, village design guides can be prepared in order to protect, develop and maintain these features (art. 8ğ). Neighbourhoods that were transformed into neighbourhoods from village or town municipalities and are located within the boundaries of the metropolitan municipality and are determined to have rural settlement characteristics by taking into account their socio-economic situation, distance from the city centre, accessibility to municipal services, current construction status and similar issues, are considered rural neighbourhoods. **Rural Neighbourhood and Rural Settlement Area Regulation**[202] is applied for these rural neighbourhoods.

According to the **831 numbered Law on Waters** in 1926[203], the supply and management of water for the needs of the village is the responsibility of *ihtiyar heyeti* (art. 1). Accordingly, they are responsible for the maintenance, repair, and cleaning of waterways and resources and keeping the water in compliance with sanitary conditions (art. 7.1). In addition, *ihtiyar heyeti* may prohibit opening and irrigating fields, and leaving animals in a way that would harm drinking water resources and disrupt sanitary conditions (art. 7.7).

With the **6831 numbered Forest Law** in 1956[204], excluding reeds, places covered with steppe plants, all kinds of thorns, and parks; naturally grown or labor-grown tree and

[200] Republic of Turkey, *Planned Areas Zoning Regulation,* 2017, https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=23722&MevzuatTur=7&MevzuatTertip=5.
[201] Republic of Turkey, *Unplanned Areas Zoning Regulation,* 1985, https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=4882&MevzuatTur=7&MevzuatTertip=5.
[202] Republic of Turkey, *Rural Neighbourhood and Rural Settlement Area Regulation,* 2021, https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=38529&MevzuatTur=7&MevzuatTertip=5.
[203] Republic of Turkey, *831 numbered Law on Waters,* 1926, https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=831&MevzuatTur=1&MevzuatTertip=3.
[204] Republic of Turkey, *6831 numbered Forest Law,* 1956, https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=6831&MevzuatTur=1&MevzuatTertip=3.

shrub communities are defined as forest areas together with their settings. However, with many changes made since 1983, many areas have been removed from the definition of forest, such as areas covered with trees and groves in city cemeteries and old cemeteries in towns and villages; places where trees and shrubs are located on owned land and do not grow naturally in the surrounding forests; places covered with all kinds of trees and shrubs, including *pinus pinea* (pine) groves and *quercus ithaburensis* (oak) groves, which are registered within or adjacent to the forest borders, or privately owned outside the forest borders and used as agricultural land; grafted and ungrafted olive groves, wild olive groves and wild or grafted *pinus pinea*, mastic and carob groves on owned land; forests covered with heather or scrub and places that do not have a soil conservation character (art. 1). It was stated that places where it is not deemed beneficial to become a forest but it is determined that it would be beneficial to convert them into agricultural areas; places in forest that covered with shrubs but are found to be beneficial to be converted into agricultural areas; places that lost their forest status before 1981 and are determined to be useful for animal husbandry such as pastures, winter pastures or for agricultural areas such as fields, vineyards, gardens, orchards, olive groves, hazelnut groves, pistachio groves (pistachios, pine nuts); places where residential areas such as cities, towns and villages are located collectively will be excluded from forest status (art. 2). It was also stated that mining operations within the forest, and facilities such as roads, energy, water, communication and infrastructure for mining activities are permitted by the Ministry of Agriculture and Forestry (art. 16). Although there are articles in the Law regarding the prevention and punishment of illegal logging and forest fires, the Law in its current form is about cancelling of forest status and using them for mining and development rather than protecting them.

167 numbered Law on Groundwaters was adopted in 1960.[205] According to this Law, every land owner can drill a well within their land, and the person who drills a well is authorized to use only the amount of water found to meet their own useful needs (art. 4, 5). Ground or spring waters in places that are privately owned by the Treasury or under the disposal of the State are rented out, and if the place where the water comes from is a village, 15% of rental income is given to the village legal entity, and if it is in a municipality, a share of 25% is given to the municipality (art. 4). The amount of use for one's own beneficial needs was not limited in the Law, and privatization of ground or

[205] Republic of Turkey, *167 numbered Law on Groundwaters*, 1960, https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=167&MevzuatTur=1&MevzuatTertip=4.

spring waters has been preferred instead of ensuring their use by everyone through the State.

It is stated that the purpose of **2872 numbered Environment Law** in 1983[206] is to ensure the protection of the environment, which is the common existence of all living things, in line with the principles of sustainable environment and sustainable development (art. 1). Accordingly, definitions such as environment, sustainable environment, natural resources, ecosystem, wetland, biodiversity, and environmental pollution, pollutant, waste, hazardous chemicals which are harmful to them were made (art. 2). According to the Law, everyone, mainly the administration, professional chambers, unions and non-governmental organizations, is responsible for protecting the environment and preventing pollution, and they must comply with the measures to be taken and the principles determined in this regard. In order to use natural resources and energy efficiently during all kinds of activities, it is important to use environmentally compatible technologies that reduce waste generation and ensure the recycling of waste. The right to participate in the formation of environmental policies was emphasized, and an environment of participation should be created for professional chambers, unions, non-governmental organizations and citizens by ministry and local governments (art. 3). Environmental Impact Assessment[207] was also defined in the Law as studies to determine the possible positive and negative effects of the planned projects on the environment, to determine the measures to be taken to prevent or minimize the negative effects, and to determine the selected location and technology alternatives. Accordingly, institutions, organizations and businesses that may cause environmental problems as a result of their planned activities must prepare an Environmental Impact Assessment report. However, as understood from the Law, there are also activities that can be exempted from the Environmental Impact Assessment report by deciding that "Environmental Impact Assessment is Not Required" (art. 10), and with the newly added article, projects that were included in the public investment program before 1997 and started production or operation are exempt from the Environmental Impact Assessment report (art. 16.3).

[206] Republic of Turkey, *2872 numbered Environment Law, 1983,* https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=2872&MevzuatTur=1&MevzuatTertip=5.

[207] Republic of Turkey, *Environmental Impact Assessment Regulation,* 2022, https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=39647&MevzuatTur=7&MevzuatTertip=5.

According to the **2873 numbered National Park Law** in 1983[208], national parks are natural lands with national and international rare natural and cultural resource values and conservation, recreation and tourism areas; natural parks are pieces of nature that have vegetation and wildlife features and are suitable for public recreation and entertainment within the integrity of the landscape (art. 2). The difference between these two definitions and why two different definitions were made are not fully understood. It is understood that there is only a difference in the determination of these areas; while national park areas are determined by the Presidency, natural parks are determined by the Ministry of Forestry and Water Affairs (new Ministry of Agriculture and Forestry) (art. 3). Ecological balance and ecosystem value cannot be disrupted in these areas; wildlife cannot be destroyed; any interventions that cause the loss or change of the characteristics of these areas and actions that will create soil, water and air pollution and similar environmental problems cannot be carried out; any production of forest products or hunting that will disrupt the natural balance, and grazing cannot be done; no structures or facilities can be established other than the facilities required for the defence system that will be needed by the Presidency of General Staff (art. 14). However, despite these prohibitions, all kinds of infrastructure, superstructure and other facilities required for tourism, sports, entertainment and recreation services are built or procured, managed or operated by the Ministry of Agriculture and Forestry in order to realize the purposes of protection and use of these areas (art. 4, 12). Also, mining and petrol exploration and operation licenses may also be granted by Presidential decision in these areas (art. 11).

3621 numbered Coastal Law in 1990[209] was designed to determine the principles of protection and use of sea, lake and river shores and coastlines for the public benefit, taking into account their natural and cultural characteristics (art. 1). Accordingly, the coastline is the line formed by the union of the points where water touches the land in seas, lakes and rivers; coastal edge line is the natural boundary of sandy, gravelly, rocky, stony, reedy, swamp and similar areas in seas, lakes and rivers where water movements occur in the land direction after the coastline; coast refers to the area between the coastline and the coastal edge line; and the shoreline refers to the area at least 100 metres wide horizontally in the landward direction, starting from the coastal edge line (art. 4).

[208] Republic of Turkey, *2873 numbered National Park Law,* 1983, https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=2873&MevzuatTur=1&MevzuatTertip=5.

[209] Republic of Turkey, *3621 numbered Coastal Law,* 1990, https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=3621&MevzuatTur=1&MevzuatTertip=5.

According to the Law, coasts are under the rule and disposal of the State, they are open to everyone's equal and free use, and the public interest is taken into account first. In order to carry out planning and implementation in these areas, it is necessary to determine the coastal edge line. No building can be built on the coast; walls, fences, railings, wire mesh, ditches, piles and similar obstacles cannot be created, and pier cannot be built. The structures to be built may approach the coastal edge line by a maximum of 50 metres (art. 5). However, it has been stated that infrastructure and facilities for the purpose of using the coast for public benefit and protecting the coast; facilities that cannot be built anywhere else other than the coast due to the nature of the activities of the Coast Guard Command; and recreational piers with a width not exceeding three metres can be built in rocky areas where it is not possible to benefit from the water area in any other way (art. 6, 6a). While these are naturally built structures to benefit from the coast, health facilities Trabzon, Rize and Zonguldak coasts, energy transmission lines, and public gardens were allowed to be built on the coast (art. 6e, 6f, 6g).

The purpose of the **4342 numbered Pasture Law** in 1998[210] is to identify pastures, highlands, winter pastures and public grasslands and meadows that have been used since ancient times, to ensure that they are allocated to village or municipal legal entities, that they are used in accordance with the rules to be determined, and that their productivity is increased and sustained by maintenance and improvement (art. 1). According to the Law, meadow is a place where the ground water is high or where it can be irrigated, suitable for mowing, where fodder is produced and generally used for hay production; pasture is the place where animals are grazed and its grass is used; highland is a place used by farmers to spend the summer with their animals, graze their animals and benefit from the grass; winter pasture is a place used to shelter animals and benefit from its grass during the winter; grazing right is the number of cattle units that each farmer can graze jointly in pastures, highlands, and winter pastures where are allocated to one or more villages or municipalities; grazing capacity is the amount of cattle units that can be grazed in a certain area and at equal time intervals for many years without damaging the vegetation, soil, water and other natural resources (art. 3). The right to use pastures, highlands, and winter pastures belongs to one or more villages or municipalities, and they cannot be taken into private ownership and their boundaries cannot be narrowed, but they can be rented (art. 4). In order to ensure the maintenance, improvement, protection,

[210] Republic of Turkey, *4342 numbered Pasture Law,* 1998, https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=4342&MevzuatTur=1&MevzuatTertip=5.

control and appropriate use of pastures, highlands, and winter pastures, pasture research departments can be established within agricultural research institutes and universities, to determine research, planning, improvement projects, grazing time, usage system, protection and control measures (art. 18). *Muhtar*s and mayors are responsible for protecting and ensuring the best use of pastures, highlands, and winter pastures and boundary markings (art. 19). In highlands and winter pastures, dairy farms, watering holes, sheds and non-permanent shelters can be built in accordance with the Zoning Legislation. Although houses, barns and similar constructions are prohibited, it has been stated that wooden structures can be built in regions deemed suitable for opening to tourism upon the request of the Ministry of Culture and Tourism (art. 20).

The purpose of **5403 numbered Soil Conservation and Land Use Law** in 2005[211] is to protect and develop soil, classify agricultural lands, determine agricultural land sizes and prevent their division, and ensure their planned use in accordance with the principle of sustainable development (art. 1). In the Law, agricultural land, absolute agricultural land, special product land, planted agricultural land, marginal agricultural land, irrigated agricultural land, and non-agricultural areas were defined (art. 3). Soil conservation councils were established in each province to conduct examination, evaluation and monitoring for the protection, development and efficient use of land; to ensure that soil protection measures are fulfilled; to direct all initiatives that require the use of land; and to monitor the implementation of local plans or projects. It was aimed to prepare land use plans and agricultural land use plans and projects for the protection of soils (art. 5, 6). It was stated in the Law that absolute agricultural lands, special product lands, planted agricultural lands, and irrigated agricultural lands cannot be used for purposes other than agricultural production (art. 9, 10). However, with the approval of the council, strategic needs for defence, the need for temporary settlements arising after natural disasters, oil and natural gas exploration and operation activities, road infrastructure and superstructure activities, plans and investments for which public interest decisions were taken by the ministries, and mining activities can be carried out (art. 13). In parallel with the Soil Conservation and Land Use Law, the **Protection, Use and Planning of Agricultural Lands Regulation** in 2017[212] includes the classification

[211] Republic of Turkey, *5403 numbered Soil Conservation and Land Use Law*, 2005, https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=5403&MevzuatTur=1&MevzuatTertip=5.

[212] Republic of Turkey, *Protection, Use and Planning of Agricultural Lands Regulation*, 2017, https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=24153&MevzuatTur=7&MevzuatTertip=5.

and development of agricultural lands, allowing non-purpose use in cases of necessity, identification and protection of soil and large plains with high agricultural production capacity, preparation and implementation of soil conservation plans and projects, areas sensitive to erosion. It was aimed to determine these areas and ensure the planned use of the lands in accordance with the principle of sustainable development. In addition, with the **3573 numbered Law on Improvement of Olive Growing and Grafting of Wild Olive Trees** in 1939[213], principles regarding the care and collection of grafted olives, the establishment and cultivation of olive groves to be created by rooting and replanting saplings, and the grafting of wild olive groves were determined.

Similar to the Soil Conservation Law, the **Regulation on the Protection of Wetlands** was adopted in 2014.[214] In the Regulation, wetland, permanent stream, seasonal stream, dry stream, ecological character, Ecosystem Assessment Report, sensitive protection zone, and basin were defined (art. 4). It is imperative that watersheds must not polluted and their natural structures and ecological characters should be protected. It was aimed to protect the functions and values of wetlands, to protect biological diversity in wetlands, to support activities that will contribute to the balance of conservation and use, to rehabilitate wetlands with damaged ecological character, to take necessary measures for the recovery of dried wetlands, and to attach importance to the protection and increase of waterbird populations (art. 6). Filling and drying of wetlands and reclaiming land in this way were prohibited (art. 7). In addition, surface and groundwater cannot be taken to the extent that would negatively affect the ecological character of wetlands, and the directions of streams feeding the system and other surface waters cannot be changed without permission. Also, sand and gravel cannot be taken, the natural structures of the dunes cannot be damaged, and solid waste, rubble or debris cannot be dumped. Burning, removing and destroying reeds and other plant species in wetlands was prohibited. Furthermore, in these areas, without the permission of the ministry, rare, endemic, endangered natural plant species cannot be cut down or removed, wild animals, their eggs and offspring cannot be collected, and their nests cannot be disturbed. Alien species cannot be thrown, left or placed in these areas (art. 8, 9 ,11, 12, 16). However, bird observation structures, pedestrian paths for viewing purposes, and

[213] Republic of Turkey, *3573 numbered Law on Improvement of Olive Growing and Grafting of Wild Olive Trees*, 1939, https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=3573&MevzuatTur=1&MevzuatTertip=3.

[214] Republic of Turkey, *Regulation on the Protection of Wetlands*, 2014, https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=19546&MevzuatTur=7&MevzuatTertip=5.

applications that do not require a zoning plan to meet the needs of visitors were allowed (art. 20, 21) (Table 2.3).

There are many laws and regulations aimed at protecting cultural assets and natural or human-made landscapes on a national scale. Despite all these protection laws, various things can happen to both cultural and natural assets with special permissions or by breaking the law. Forests are massacred[215] or the natural landscape that has been formed over thousands of years can be sacrificed for mining[216], coastlines, national parks[217] and highlands[218] are given to hotels, wetlands can be turned into debris dumping areas[219], and river banks can be given to mining enterprises[220] due to incomplete control or for profit purposes.

Table 2.3. Conservation law and legislations for archaeological heritage/ landscape/ rural areas in Turkey

Date	**Law/ Regulation/ Enactment/ etc.**	**Scope**	**Principles**
1924	442 numbered Village Law	Village	-Definition of village -Determination of village boundaries -Administration of villages
1926	831 numbered Law on Waters	Waters	-Supply, management and use of waters
1939	3573 numbered Law on Improvement of Olive Growing and Grafting of Wild Olive Trees	Olive trees	-Improvement of olive trees -Grafting of wild olive trees -Conservation of olive trees

(cont. on next page)

215 "Akbelen'deki 190 parsellik arazi linyit madeni için kamulaştırıldı," Yeşil Gazete, accessed April 9, 2024, https://yesilgazete.org/akbelendeki-190-parsellik-arazi-linyit-madeni-icin-kamulastirildi/.

216 "Latmos'ta bir madenin daha kapasite artışına 'dur' denildi," Evrensel Ege sayfaları, accessed April 9, 2024, https://www.evrensel.net/haber/519079/latmosta-bir-madenin-daha-kapasite-artisina-dur-denildi.

217 "Şirket Marmaris Milli Parkı içerisinde kalan otel çalışmasına devam ediyor iddiası: Peyzaj işlerini yapıyorlarmış!," Cumhuriyet, accessed April 9, 2024, https://www.cumhuriyet.com.tr/cevre/sirket-marmaris-milli-parki-icerisinde-kalan-otel-calismasina-devam-2209928.

218 "Ayder Yaylası'nda inşaat: Ranta dayalı bir yağma," Gazete Duvar, accessed April 9, 2024, https://www.gazeteduvar.com.tr/ayder-yaylasinda-insaat-ranta-dayali-bir-yagma-haber-1595663.

219 "Sulak alan moloz dökme alanı yapıldı: Asbest tehlikesi kapıda," Gazete Duvar, accessed April 9, 2024, https://www.gazeteduvar.com.tr/sulak-alan-moloz-dokme-alani-yapildi-asbest-tehlikesi-kapida-haber-1606672.

220 "İliç faciası kuralsızlığın ve kontrolsüzlüğün doğrudan sonucu," Evrensel, accessed April 9, 2024, https://www.evrensel.net/haber/511178/ilic-faciasi-kuralsizligin-ve-kontrolsuzlugun-dogrudan-sonucu.

Table 2.3. (cont.)

Date	Law/ Regulation/ Enactment/ etc.	Scope	Principles
1956	6831 numbered Forest Law	Forests	-Definition of forests -Conservation and use forests -Legal and illegal activities in forests
1960	167 numbered Law on Groundwaters	Groundwaters	-Management, use and conservation of groundwaters
1983	2863 numbered Cultural and Natural Assets Protection Law	Cultural and Natural Assets	-Definition and categorization of cultural and natural assets -Conservation of cultural and natural assets -Protected areas and *ören yeri* regulation -Conservation-purposed zoning plan, landscaping project, management area and management plan
1983	2872 numbered Environment Law	Environment	-Protection and sustainable development of environment -Public participation for environment projects -Environment Impact Assessment
1983	2873 numbered National Parks Law	National Parks	-Categories of national parks and natural parks -Conservation, management and operation of national and natural parks
1985	3194 numbered Zoning Law	Built environment	-Regulations on built environment for different scale settlements
1985	Unplanned Areas Zoning Regulation	Built environment	-Regulations on built environment for places without zoning plan
1990	3621 numbered Coastal Law	Coasts	-Conservation and use of coasts, coastal areas, and shores
1998	4342 numbered Pasture Law	Pastures, highlands, winter pastures	-Use, distribution and management of pastures, highlands and winter pastures -Right of use of pastures, highlands and winter pastures -Building regulation in these areas
2005	5403 numbered Soil Conservation and Land Use Law	Soil and land use	-Protection of soil -Planned use of land
2014	Regulation on the Protection of Wetlands	Wetlands	-Conservation of wetlands and bird species in these areas -Prohibited actions in wetlands
2017	Planned Areas Zoning Regulation	Built environment	- Regulations on built environment for places with zoning plan
2017	Protection, Use and Planning of Agricultural Lands Regulation	Agricultural lands	-Protection of agricultural lands -Management and planned use of agricultural lands
2021	Rural Neighbourhood and Rural Settlement Area Regulation	Rural settlement	-Rural neighbourhood principles, procedures and practices -Rural neighbourhood exemptions and discounts

CHAPTER 3

HISTORICAL BACKGROUND OF THE FRONTIER OF THE ROMAN EMPIRE IN ANATOLIA

In this chapter of the thesis, the historical development of the Roman frontier in Anatolia was examined. For this purpose, the Romanization process of Anatolia as a result of various wars, inheritances and agreements before the establishment of the frontier, and the frontier policy in Anatolia were discussed, and then the historical and political process from the beginning of the physical formation of the frontier to its collapse was investigated. Thus, the political and spatial development of the Anatolian frontier was investigated and its chronological aspects were revealed to compare with other Roman frontier sections.

3.1. Roman Rule in Anatolia

The Roman state, which emerged as a city-state in Rome, firstly formed a republic that took the city-states in the Italian peninsula under its administration. Later, by following an expansionist policy, Rome captured other tribes in Europe and expanded dominance to the east, similar to Alexander's Empire. Rome established dominance over Western Anatolia by inheriting Hellenistic Kingdoms, especially by following the divide and rule policy in the Anatolian geography. Romanization started in central Anatolia, which was under the control of the Galatians. Although different methods were followed, as in other parts of the Empire, Romanization was not always through a war in Anatolia. The kings of Pergamon (133 BC) and Bithynia (74 BC) wanted their lands to join the Roman Empire after their death; thus, Roman control over Anatolia began. On the other hand, the unification of the Pontus Kingdom with the Roman Empire took long years of Mithridatic wars in 89-63 BC. Thus, Romans became neighbours with the Parthians, the strongest enemy in the east. At this stage, the struggle for dominance over the Armenia

Kingdom in the region between the Parthians became a problem, and the natural geography passing through the Euphrates River became first the cultural impact area and then the official border. With the acceptance of the Euphrates River as a border, defensive structures similar to the Roman frontiers in Europe and Africa began to be built along the river during the imperial period. This gradual annexation of Anatolia to the Roman Empire effectively impacted border policies. The eastern border of the empire was re-organized several times, the provinces assigned as client kingdoms were merged and separated from time to time, and different policies were followed by different emperors. In order to comprehend the eastern frontier of the Roman Empire and the defence structures that constitute the border, it is necessary to examine the Roman domination process in Anatolia and the policies in the east, especially against the Parthians and the Armenia Kingdom, during the time of different local rulers and emperors.

3.1.1. Anatolia before the Roman Domination and the Establishment of the First Roman Province in Anatolia (from the Hellenistic period to 129 BC)

After the death of Alexander the Great in 323 BC, the lands of his empire, including Anatolia, were shared among his generals (*diadochi*). Satrapic administration (a governor and province system), which originally belonged to Persians, continued in Anatolia, and Anatolian lands were divided into main administrative units. Hierarchically divided as Great, Main, and Minor Satrapies are as follows in Anatolia: The Great Satrapy of Sardis (Sparda/ Lydia) in the Western Anatolia, Main Satrapy of Cappadocia in central Anatolia, Main Satrapy of Armenia in the north-eastern of Anatolia, and Main Satrapy of Assyria in the south-eastern of Anatolia. The number and boundaries of satrapies changed over time, and Roman province borders and impact areas are different from satrapies' borders, although they have the same names. With the Battle of Corupedium in 281 BC, the struggle between the *diadochi* ended, and Anatolia came under the rule of the Seleucid Empire under the rule of Seleucus I Nicator. Although the Seleucid Empire came to the forefront as the strongest ruling power in the region after the death of Alexander, the empire still did not have total dominance over Anatolia. In Anatolia, there were local

kingdoms of Pergamon, Bithynia, Pontus, and Cappadocia, which were smaller than the Seleucid Empire.[221] Until they came under Roman rule, these administrative units turned into Hellenistic kingdoms fighting with each other.

The first relations of the Romans with Anatolia were made in 205 BC with the Treaty of Phoenice signed with the Macedonian King Philippos V at the end of the 1st Macedonian War. In this treaty, the Hellenistic kingdoms in Anatolia became allies to the parties.[222] Another contact between Rome and Anatolia occurred due to the Carthaginian Hannibal's invasion of the Italian peninsula. The Romans believed that the solution to get rid of the Hannibal was in the city of Pessinus in Ballıhisar village in Turkey at present. In 205 BC, with the Pergamon King Attalus I's embassy, a relationship was established with Pessinus, and a holy stone, which was here and symbolized the Mother Goddess, was taken to Rome and placed in the Capitolium. Thus, the first known religious contact with Anatolia between Romans was made.[223] After five years, in 200 BC, Philippos V of Macedonia attacked Western Anatolia and besieged the city of Cyzicus (Erdek/ Balıkesir). This war, which was called the 2nd Macedonian War in 198 BC, ended with the victory of the Romans, and the borders of the Pergamon Kingdom, the ally of the Romans, expanded. Thus, Rome became a protector of the Anatolian Kingdoms, and Rome turned this situation into an opportunity and started to use the Anatolian Kingdoms as a buffer zone for the Seleucid Empire, which was an ally of the Macedonian Kingdom.[224]

Antiochus III of the Seleucid Empire captured the cities of Cilicia and Lycia in 197 BC. Thereupon, the Anatolian cities demanded help from the Roman consuls, but they could not get any response. Still, when Antiochus III invaded Greece in 192 BC, Rome decided to enter the war, and many Anatolian cities supported Rome.[225] Romans

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221 Oğuz Tekin, "Büyük İskender: Doğu Seferi ve Hellenistik Çağ," in *Hellenistik ve Roma Dönemlerinde Anadolu: Krallar, İmparatorlar, Kent Devletleri,* ed. Oğuz Tekin (İstanbul: Yapı Kredi Yayınları, 2021), 7-8.

222 David Magie, *Roman Rule in Asia Minor to the End of the Third Century after Christ*, 2 Vols, (New-Jersey: Princeton University Press, 1950), 103, 744-745; Mehmet Ali Kaya, "III. Makedonya Savaşına Kadar Roma'nın Anadolu Politikası," *Tarih İncelemeleri Dergisi XI* (1996), 211–232.

223 Arthur M. Eckstein, *Rome Enters the Greek East. From Anarchy to Hierarchy in the Hellenistic Mediterranean, 230–170 BC* (UK: Blackwell Publishing, 2008), 122; Christian Marek, *Geschichte Kleinasiens in der Antike* (München: Verlag C.H. Beck, 2010), 286; Gürkan Ergin, *Anadolu'da Roma Hakimiyeti: Direniş ve Düzen* (İstanbul: Türkiye İş Bankası Kültür Yayınları, 2013), 51; Magie, Roman Rule in Asia Minor/ I, 25.

224 Kaya, "III. Makedonya Savaşına Kadar Roma'nın Anadolu Politikası," 217-218.

225 Kaya, "III. Makedonya Savaşına Kadar Roma'nın Anadolu Politikası," 218; Ergin, *Anadolu'da Roma Hakimiyeti: Direniş ve Düzen,* 52; Magie, *Roman Rule in Asia Minor/I,* 105.

defeated Antiochus III in 190 BC, and Antiochus III withdrew to Anatolia. Rome, wanting to strengthen its victory, sent the army under the control of council Lucius Scipio and Publius Scipio Africanus to Anatolia with the help of Eumenes II of Pergamon. Hence, the Roman army entered Anatolia for the first time in 190 BC.[226] The province's name determined by the Roman Senate as the domain of consul Scipio is Asia. Antiochus III was defeated in the war and withdrew from Europe and Asia. Cities that declared their allegiance to Rome thus accepted the Roman domination in Anatolia.

Consul Gnaeus Manlius Vulso, who took over the task in 189 BC, organized an expedition on the Galatians living around Pessinus and Gordion and ally of Antiochus III. This expedition was essential because the Romans wanted to regulate the relations of the communities in Anatolia according to their interests. More than fifty thousand Galatians were killed in these wars. Thus, Rome allowed the Anatolian city-states to live without fear of Galatians. After that, for the reorganization of the Roman Anatolian geography, a council of ten delegates (*decemviri*) was appointed from among the senators and the chairmanship of consul Gnaeus Manlius. The Peace of Apameia, the first sworn treaty signed by the Roman ambassadors in Anatolia in 188 BC, shaped the new political structure of Anatolia.[227] According to the treaty, the region of west Anatolia was out of the influence of Antiochus III, and his sovereignty was limited to the west of Cilicia. On the other hand, the dominance of the Pergamon Kingdom was extended, Phrygia (great and small), Mysia, Lycaonia, Milyas, Lydia, Tralleis (Aydın), Ephesus (Selçuk/ İzmir), Telmessos (Fethiye/ Muğla), the part of Pamphylia to the north of the Taurus Mountains, Thracian Chersonese (Gelibolu), Lysimachia (Ekzamil) was given to the Pergamon Kingdom.[228] The entire Lycia and Caria region up to the banks of the Meander (Menderes) River, except Telmessos, was left to Rhodes. The cities of Smyrna, Erythrai (Ildırı/ İzmir), Klazomenai (Urla/ İzmir), Miletus (Didim/ Aydın), Ilium/ Troia (Çanakkale), Dardanos, Halicarnassus (Bodrum/ Muğla), Myndos (Gümüşlük/ Muğla), and Knidos (Datça/ Muğla), which remained attached to Rome during the war, were declared free and exempted from tax.[229]

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[226] Magie, *Roman Rule in Asia Minor/I,* 19; Mehmet Ali Kaya, "Anadolu'da Roma Egemenliği (İÖ 205–25)," *Doğu Batı 49 (Romalılar I),* (2009), 198.

[227] Kaya, "Anadolu'da Roma Egemenliği (İÖ 205–25)," 200-201; Magie, *Roman Rule in Asia Minor/ I,* 19.

[228] Kaya, "III. Makedonya Savaşına Kadar Roma'nın Anadolu Politikası," 227.

[229] Kaya, "III. Makedonya Savaşına Kadar Roma'nın Anadolu Politikası," 227-228; Magie, *Roman Rule in Asia Minor/ II,* 758–764.

Although Rome did not gain territory due to this treaty, it gained political superiority. It started to put into effect the policy of *divide et impera* (divide and rule) by bringing the political status of the city-states in Anatolia to the same level as the kingdoms. Rome, which put forward the policy that the city-states and kingdoms in Anatolia should resolve the disagreements that may arise among themselves only in consultation with the Senate, would be able to eliminate the alliances that may occur against itself in Anatolia.[230]

Attalus III, son of Eumenes II, the last king of the Pergamon Kingdom, died without leaving an heir in 133 BC and stated that he left the kingdom lands to the Roman citizens in his will.[231] Although the lands of the Pergamon Kingdom, which were left to Rome by will, do not include Pergamon city, the temple lands, and the free Greek cities on the coast; it is vital for the dominance of the Romans in Anatolia in terms of the kingdom being on the important trade routes on the east-west axis, having valuable agricultural lands, and being a buffer zone against the Seleucid Empire.[232] After the death of Attalus III, Aristonicus, who declared himself king as Eumenes III as the illegitimate son of Eumenes II, claimed the throne of Pergamon.[233] Aristonicus became the leader of a great uprising in western Anatolia by finding himself supporters from the slaves and the soldiers in the Pergamon army. Aristonicus called out to the supporters as citizens of the sun country and stated that there would be no slavery in the country he would establish and that everyone would have property.[234] Placing the rebellion on such a philosophical basis contributed to the Aristonicus finding more supporters from among the slaves and soldiers. The social injustices experienced in western Anatolia also led to the support of the rebellion movement. Aristonicus started the rebellion and captured cities such as Leucae (near Çiğli/ İzmir), Phokaia (Foça/ İzmir), Colophon (Menderes/ İzmir), Myndos (Gümüşlük/ Muğla), and Samos (Greece). However, his first movement was defeated by the Pergamon army in Cyme (Aliağa/ İzmir). Gathering strength again, Aristonicus captured Thyateira (Akhisar/ Manisa), Apollonis (near Akhisar/ Manisa), and

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230 Kaya, "Anadolu'da Roma Egemenliği (İÖ 205–25)," 201; Ergin, *Anadolu'da Roma Hakimiyeti: Direniş ve Düzen*, 54.

231 Magie, *Roman Rule in Asia Minor/ I,* 32; Strabon, *Geographika XII-XIII- XIV*, trans. Andan Pekman (İstanbul: Arkeoloji ve Sanat Yayınları, 2009), 130-131.

232 Magie, *Roman Rule in Asia Minor/ I,* 33.

233 Ergin, *Anadolu'da Roma Hakimiyeti: Direniş ve Düzen,* 59; Magie, *Roman Rule in Asia Minor/ I,* 148.

234 Kaya, "Anadolu'da Roma Egemenliği (İÖ 205–25)," 206; Marek, *Geschichte Kleinasiens in der Antike,* 324-326.

Stratoniceia (Eskihisar/ Muğla) this time.[235] Rome sent *pontifex maximus* Publius Licinius Crassus to Anatolia in 131 BC to suppress the rebellion and have the legacy of Attalus III.[236] Although Publius Licinius Crassus was supported by Nicomedes III of Bithynia, Mithridates VI of Pontus, Ariarathes VI of Cappadocia, and Pylaemenes of Paphlagonia, he was killed by the supporters of Aristonicus.[237] After the death of Publius Licinius Crassus, Aristonikus was captured and killed by another Roman council Marcus Perperna in 130 BC, and the rebellions movement was ended in 129 BC.[238] After the suppression of this rebellion, Rome sent a delegation under the leadership of Council Manius Aquillius to Anatolia, and after the necessary arrangements were made, *Provincia Asia*, the first Roman province, was established in Anatolia in 129 BC, which included the lands of the Pergamon Kingdom.[239]

While determining the borders of the new province, the kingdoms and cities that supported the Romans in the Aristonicus rebellion were not forgotten. The great Phrygia region was given to Mithridates V Euergetes of Pontus; Lycaonia and Cilicia regions were given to the sons of Ariarathes V of Cappadocia, who lost his life in the rebellion. Troas, Mysia, Aiolis, Lydia, Ionia, Caria, and the south-west of Phrygia were included in the borders of the new province. The administration of these lands was left to the rule (*imperium)* of the Roman governors (*proconsul*). Cities that resisted Aristonicus preserved their status as free cities (*civitas libera*), and these cities were exempted from taxation. The cities that supported the rebellion were included in the administrative area of the provincial governors and were subject to taxation. As a requirement of the will, the lands of the kingdom were given into the property of the Roman people (*ager publicus*).[240] The territories included in the province are productive places both in terms of natural resources and taxes. The border of the province extended along from the Sea of Marmara

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235 Kaya, "Anadolu'da Roma Egemenliği (İÖ 205–25)," 207; Strabon, *Geographika XII-XIII- XIV,* 166.

236 Hasan Malay, "Batı Anadolu'da Aristonikos Ayaklanması," *Tarih İncelemeleri Dergisi III,* (1987), 40-41.

237 Eutropius, *Breviarium Historiae Romanae. Roma Tarihinin Özeti,* trans. Çiğdem Menzilcioğlu, (İstanbul: Kabalcı Yayınevi, 2007), 115; Malay, "Batı Anadolu'da Aristonikos Ayaklanması," 42.

238 Malay, "Batı Anadolu'da Aristonikos Ayaklanması," 44.

239 Kaya, "Anadolu'da Roma Egemenliği (İÖ 205–25)," 208-210; Magie, *Roman Rule in Asia Minor/ I,* 154-156; Mehmet Ali Kaya, "Anadolu'da Roma Eyaletleri: Sınırlar ve Roma Yönetimi," T*arih Araştırmaları Dergisi 24,* no:38, (2005), 15-16.

240 E. W. Gray, "M'. Aquillius and the Organisation of the Roman Province of Asia," in *The Proceedings of the Xth International Congress of Classical Archaeology Vol. II, Ankara-İzmir 23-30/IX/1973,* ed. Ekrem Akurgal (Ankara: Türk Tarih Kurumu Basımevi, 1978), 972–976; Kaya, "Anadolu'da Roma Egemenliği (İÖ 205–25)," 209; Magie, *Roman Rule in Asia Minor/ I,* 154–155.

in the north to the Gulf of Marmaris in the south.[241] Thus, the Roman domination officially began in Anatolia (Figure 3.1).

Figure 3.1. First Roman provinces in Anatolia

3.1.2. Mithridatic Wars (89- 63 BC) and Consul Sulla's Anatolian Policy

After the death of Mithridates V Euergetes, the Great Phrygia region that the Roman gave to Pontus was taken back and included in the Provincia Asia in 119/116 BC, which caused Mithridates VI Eupator son Mithridates V Euergetes, to bear Roman hostility and to follow an expansionist policy.[242] In the following years, 3 Mithridates wars took place, which would cause Rome to struggle the most in Anatolia in the first century.[243]

Mithridates VI Eupator, to expand his sovereignty in Anatolia, firstly invaded the Paphlagonia region and shared it with Nicomedes III of Bithynia in 109/108 BC, with

241 Magie, *Roman Rule in Asia Minor/ I,* 155.
242 Kaya, "Anadolu'da Roma Egemenliği (İÖ 205–25)," 210.
243 Murat Arslan, "1. Mithridates - Roma Savaşı. Rhodos ve Lykia'nın Durumuna Genel Bakış" in *Likya İncelemeleri 1,* ed. Sencer Şahin & Mustafa Adak (İstanbul: Arkeoloji ve Sanat Yayınları, 2002), 115; Murat Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı* (İstanbul: Odin Yayıncılık, 2007), 79-80.

whom he formed an alliance; then invaded Galatia also.[244] In 91 BC, Mithridates VI Eupator dethroned Nicomedes IV of Bithynia, who took over after the death of Nicomedes III in 94 BC, and Ariobarzanes I of Cappadocia (who was dethroned several times by Mithridates VI), after the Rome did not react clearly to invasions.[245] Later, when Nicomedes IV attacked the cities of Pontus with the support of the Romans, Mithridates VI Eupator started the First Mithridatic War, which would last between 89-85 BC.[246]

Mithridates VI defeated the Roman in the first year of the war, then came to Ephesus and provoked the people here - because Anatolian people, who were oppressed by the taxes they paid to the Romans, started to see Mithridates VI as a saviour[247]- and killed 80.000-150.000 Roman citizens in Anatolia, especially traders, tax collectors, retired soldiers, and farmers.[248] When Mithridates VI crossed the Aegean Sea and advanced towards Athens with his armies, the consul Lucius Cornelius Sulla was sent to the expedition by Rome in 87 BC. Sulla's army won the first victory of the Romans in the war by defeating Mithridates VI in Athens in 86 BC.[249] Although Mithridates VI strengthened his army by recruiting soldiers from Anatolia again after this defeat, he suffered a heavy defeat against Rome in the Battle of Orchomenus in 85 BC. Mithridates VI agreed to sign the Treaty of Dardanos with Rome at the end of the war. According to this treaty, Mithridates VI will withdraw from the lands of Asia, Galatia, and Paphlagonia, make peace with the Nicomedes IV of Bithynia and Ariobarzanes I of Cappadocia, will pay compensation to Rome, and hand over a part of his navy, in return, Rome will recognize the king's dominance in Pontus, accept as an ally and forgive the Anatolian and Greek cities that joined the Pontus side in the war.[250]

When Sulla came to Anatolia in 85 BC, he made some changes in the political structure of Anatolia. After the kings of Bithynia and Cappadocia were reenthroned, cities such as Aphrodisias (Geyre/ Aydın), Stratoniceia, and Tabae (Tavas/ Denizli),

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244 Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 92–93.
245 Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 107.
246 Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 109–111; Magie, *Roman Rule in Asia Minor/ I,* 209–211; Richard Evans, *Roman Conquests: Asia Minor, Syria and Armenia* (South Yorkshire: Pen & Sword Military, 2011), 54–55.
247 Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 147.
248 Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 159-166.
249 Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 202.
250 Adrian Nicholas Sherwin-White, *Roman Foreign Policy in the East, 168 B.C. to A.D. 1* (London: Duckworth, 1984), 143- 144; Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 244–245; Magie, *Roman Rule in Asia Minor/ I,* 229–231.

which supported Rome in the war, were declared as allies of the Rome and free cities.[251] In the Caria region, while Balboura (Altınyayla/ Burdur), Boubon (Gölhisar/ Burdur), and Oenoanda (İncealilier/ Muğla) which had previously formed the *tetrapoleis* union, were separated and included in the Lycian League, Cibyra (Gölhisar/ Burdur) joined the lands of Provincia Asia.[252] The province of Cilicia was expanded to the north in the direction of Phrygia and Lycaonia to include the Pisidia region. Also, a buffer zone was created between Provincia Asia and the Kingdom of Pontus by allowing Mithridates VI to withdraw from Galatia.[253] Cities such as Ephesus, Sardis, Metropolis, Tralleis, Colophon, Miletus, Phokaia, and Klazomenai where 80.000-150.000 Romans were murdered, were punished, and their freedom was taken from them.[254] Sulla came to Ephesus and had the people responsible for the death of 80.000-150.000 Romans executed there. A heavy compensation was requested from the city of Ephesus, which had not paid taxes for five years, and the slaves, whom Mithridates VI gave their freedom, were returned to their owners.[255]

Sulla's punitive policy in Anatolia caused many cities to be crushed under the tax burden and to plunder the sacred areas and sell their own goods in order to meet these taxes. As a result, an economic collapse began to occur in Anatolia.[256] This collapse increased the pirate activities located in the Aegean, eastern Mediterranean, and Cilicia regions, and cities such as Klazomenai, Iasos (Kıyıkışlacık/ Muğla), and Knidos were plundered with pirate activities.[257]

Sulla, who was in Anatolia between the years 85-84 BC, returned to Italy to fight his opponents after making the arrangements in Anatolia and left his authority to the commander Lucius Lucullus and proconsul Lucius Licinius Murena.[258] Archelaus, the commander of Mithridates VI, who fled to Murena as a refugee after the defeat of the first

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[251] Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 252–253; Magie, *Roman Rule in Asia Minor/ I*, 233; Murat Arslan, "Sulla'nın Küçükasya Politikası," *Arkeoloji ve Sanat Dergisi* 94, (2000), 33-34.

[252] Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 248–249; Arslan, "Sulla'nın Küçükasya Politikası," 33; Strabon, *Geographika XII-XIII- XIV*, 138-139.

[253] Arslan, "Sulla'nın Küçükasya Politikası," 33-34.

[254] Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 256–257; Arslan, "Sulla'nın Küçükasya Politikası," 35; Magie, *Roman Rule in Asia Minor/ I,* 237.

[255] Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 258–259; Arslan, "Sulla'nın Küçükasya Politikası," 35; Magie, *Roman Rule in Asia Minor/ I,* 237-238.

[256] Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 261-263; Arslan, "Sulla'nın Küçükasya Politikası," 36; Arslan, *Magie, Roman Rule in Asia Minor/ I,* 238–239.

[257] Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 268–269; Arslan, "Sulla'nın Küçükasya Politikası," 36-37; Magie, *Roman Rule in Asia Minor/ I,* 239–240.

[258] Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 267-268; Magie, *Roman Rule in Asia Minor/ I,* 240.

war, provoked him to attack Mithridates VI, so Murena entered the lands of Pontus, plundered the temples, and occupied many villages in 83- 82 BC.[259] In return, Mithridates VI's army attacked the villages in Galatia, Phrygia, and Cappadocia, and the two armies came face to face with each other near Halys (Kızılırmak) River. Mithridates VI defeated the Roman army here and then attacked the Roman garrison in Cappadocia.[260] Meanwhile, Sulla, who won the war with his opponents and declared himself a *dictator* in 81 BC, sent a delegate to Anatolia and ended the war by reconciling Mithridates VI and Ariobarzanes I. Mithridates VI sent delegates to Rome for the approval of the Treaty of Dardanos by the Senate. However, the treaty remained unconfirmed due to the death of Sulla in 78 BC.[261]

Sulla's death caused a new civil war in Rome. Mithridates VI, who took advantage of this situation, received the support of the Anatolian people and especially cooperated with the Cilician pirates. In order to fight this pirate threat in the eastern Mediterranean and to take the eastern Lycia, Pamphylia, Pisidia, and Lycaonia regions under Roman control, Rome appointed consul Publius Servilius Vatia as the proconsul of Cilicia. Vatia cleared important cities such as Olympus (Kumluca/ Antalya), Phaselis (Kumluca/ Antalya) in Lycia, Corycus (Erdemli/ Mersin) in Cilicia Trachea, and the Isauria region from pirates.[262]

While the second Mithridatic war was ending like this, king Nicomedes IV of Bithynia died in 74 BC and bequeathed the lands of his kingdom to Roman people, like Attalus III of Pergamon.[263] Although Nicomedes' son claimed the throne, Rome appointed Marcus Junius Juncus, the proconsul of Provincia Asia, to make the necessary arrangements to make Bithynia a province. Thus, Bithynia was also turned into a Roman province in 74 BC, and Rome became a neighbour of the Pontus Kingdom.[264] Realizing that Rome was a permanent threat to his kingdom, Mithridates VI strengthened his army

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[259] Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 273–276; Evans, *Roman Conquests: Asia Minor, Syria and Armenia,* 67–68; Magie, *Roman Rule in Asia Minor/ I,* 243–244.

[260] Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 278–280; Evans, *Roman Conquests: Asia Minor, Syria and Armenia,* 68–69; Magie, *Roman Rule in Asia Minor/ I,* 244–245.

[261] Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 280–286; Magie, *Roman Rule in Asia Minor/ I,* 245.

[262] Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 294-300; Magie, *Roman Rule in Asia Minor/ I,* 287-289.

[263] Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 305; Magie, *Roman Rule in Asia Minor/ I,* 320.

[264] Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 306-307; *Magie, Roman Rule in Asia Minor/ I,* 320.

and allied with his son-in-law, Tigranes II of Armenia Kingdom, attacked Rome again in 73 BC, and invaded Galatia, Paphlagonia, Bithynia, and Asia. In return, Marcus Aurelis Cotta, the proconsul of Bithynia, and Lucius Licinius Lucullus, the proconsul of Asia, joined their forces and attacked Mithridates VI.[265] After the war that lasted about five years, Mithridates VI escaped to Armenia. Although Lucullus was dismissed because the desired success could not be achieved in the war, he expanded the territory of Rome up to the Euphrates River by capturing most of the territory of the Armenia Kingdom.[266]

While the Mithridatic War continued, the pirate threat in the Mediterranean emerged again. The Roman Senate appointed General Gnaeus Pompeius Magnus to combat piracy, which spread not only to the eastern Mediterranean but also to the shores of Egypt, Sicily, and Sardinia, and he was given unlimited authority to clear the Mediterranean from pirates.[267] Previously in 100 BC, a pirate law *Lex de Provinciis Praetoriis* was prepared to combat pirates, and it was stated in this law that Cilicia was turned into a Roman province. Although the name of this newly established state is Cilicia, it is thought that this state was not originally a territory of Cilicia but probably included lands from the regions of Pamphylia and Pisidia.[268] After Pompeius cleared the Mediterranean from pirates in a short time, he gave them lands in the Cilicia region and settled them here.[269] After this success, Pompeius' authority was expanded to include Anatolia as well as the Mediterranean, and he was assigned to organize a campaign against Mithridates VI in 66 BC.[270] Mithridates VI suffered a heavy defeat in the conflicts that started on the border of Pontus and Cappadocia, and he fled first to Armenia and then to the Bosporus Kingdom in the eastern Crimean peninsula.[271] Mithridates VI committed suicide in 63 BC after learning that his son Pharnaces II had taken over the throne of the

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265 Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 310–340; Evans, *Roman Conquests: Asia Minor, Syria and Armenia,* 73–79; Magie, *Roman Rule in Asia Minor/ I,* 323–332.

266 Eutropius, *Breviarium Historiae Romanae. Roma Tarihinin Özeti,* 147; Magie, *Roman Rule in Asia Minor/ I,* 345-346.

267 Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 438-443.

268 Murat Arslan, and Nihal Tüner Önen, "Akdeniz'in Korsan Yuvaları: Kilikia, Pamphylia, Lykia ve Ionia Bölgelerindeki Korykoslar," *Adalya* XIV (2011), 192; Murat Tozan, "Marcus Antonius'un Korsanlara Karşı Seferi ve Lex De Provincii Praetoriis," *Tarih Okulu İlkbahar-Yaz, Sayı XIV,* (2013), 13-14.

269 Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 444; Strabon, *Geographika XII-XIII- XIV,* 192, 202.

270 Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 446–448.

271 Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 464-473; Magie, *Roman Rule in Asia Minor/ I,* 355-356.

Pontus Kingdom and the soldiers who rebelled against him.[272] Thus, the greatest enemy of the Romans in Anatolia up to that time disappeared, and Rome started to establish new provinces by consolidating its dominance in Anatolia.

3.1.3. Pompeius' Administrative Organizations in Anatolia

After Pompeius defeated Mithridates VI and took Armenia under control, he made some administrative arrangements in Anatolia. He divided the lands of the Pontus Kingdom into 11 regions, excluding the Armenian border and the vicinity of Colchis, and included it in the province of Bithynia, thus created a new province with the name of *provincia Pontus et Bithynia*.[273] Thus, with the provinces of Asia, Cilicia, and Pontus-Bithynia, the western, southern, and northern parts of Anatolia were under Roman domination. The local kings who helped Rome in the war were rewarded with new lands: the Armenia region was given to Tigranes II, the Bosporus region was given to Pharnaces II, the Cappadocia region was given to Ariobarzanes I, the Paphlagonia region was given to Pylaemenes descendants, the Galatia region was given to Galatians.[274] In addition, some new cities were established by Pompeius in Pontos and Armenia regions. The name of the city of Eupatoria, which Mithridates VI previously established in the Pontus region, was changed to Magnopolis (Çevresu/ Tokat). Besides, Nikopolis (Bayramköy/ Giresun), Diospolis (Niksar/ Tokat), Megalopolis (Sivas), Zela (Zile/ Tokat), Neapolis (Vezirköprü/ Samsun), Amastris (Amasra), Sinope (Sinop), Amisos (Samsun), Amaseia (Amasya), and Pompeiopolis (Taşköprü/ Kastamonu), which Pompeius gave his name, were established.[275] While establishing these cities, Pompeius combined the Hellenistic polis

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[272] Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 505–506; Magie, *Roman Rule in Asia Minor/ I,* 364.

[273] Magie, *Roman Rule in Asia Minor/ I,* 369–370; Mehmet Ali Kaya, "Anadolu'da Roma Egemenliği ve Pompeius"un Siyasi Düzenlemeleri," *Tarih İncelemeleri Dergisi,* Sayı XIII, No 1, (1998), 165; Strabon, *Geographika XII-XIII- XIV,* 11; Marek, *Geschichte Kleinasiens in der Antike,* 368-372.

[274] Kaya, "Anadolu'da Roma Egemenliği (İÖ 205–25)," 220-222; Kaya, A"nadolu'da Roma Egemenliği ve Pompeius"un Siyasi Düzenlemeleri," 165; Strabon, *Geographika XII-XIII- XIV,* 11.

[275] Jesper Majbom Madsen, *Eager to be Roman. Greek Response to Roman Rule in Pontus and Bithynia* (London: Duckworth, 2009), 29-34; Kaya, "Anadolu'da Roma Egemenliği (İÖ 205–25)," 221; Magie, *Roman Rule in Asia Minor/ I,* 370–371; Marek, *Geschichte Kleinasiens in der Antike,* 370; Strabon, *Geographika XII-XIII- XIV,* 17, 18, 20, 31, 32, 33, 37, 38, 39-40, 40.

and Roman infrastructure and did not change the existing organizational constitution in Pontus much. Against the Parthian danger that started to appear in the east, some arrangements were made to protect eastern Anatolia. For this, the kings, who were allies of Rome, were assigned to the client kingdoms of Colchis, Commagene, and Osrhoene in the north-eastern and eastern Anatolia.[276]

Pompeius, Gaius Julius Caesar, and Marcus Licinius Crassus established the First Triumvirate to rule the Roman Republic together in 60 BC. However, this alliance turned into enmity, the victories of Caesar in the Britannia, Gallia, Germania, and Hispania expeditions increased his power, and the civil war began in Rome. The armies of Caesar and Pompeius faced each other in Thessalia, and Pompeius' army was defeated. Like every civil war in Rome, this defeat also played a role in the fate of the Anatolian peoples who supported Pompeius. However, unlike other Romans, Caesar did not organize a plundering expedition in Anatolia; he made changes only to the tax system of the cities.[277] After the defeat of Pompeius, Pharnaces II, son of Mithridates VI, started a rebellion attempt in Anatolia and captured Pontus, Bithynia, and Cappadocia. Thereupon, Caesar came to Anatolia, defeated the Pharnaces II, and established new Roman colonies in Anatolian cities instead of the cities which Pompeius was inspired by the Hellenistic culture.[278] Roman citizens were placed in the colonies established in Lampsacus (Lapseki/ Çanakkale), Apameia (Mudanya/ Bursa), Sinope (Sinop), and Heraclea Pontica (Ereğli/ Zonguldak), and these colonies were called *Colonia Julia* with the respect of Caesar's ancestry.[279]

3.1.4. Augustus' Administrative Organizations in Anatolia

In the Second Triumvirate established after the assassination of Caesar, the administration of the Roman lands was shared between Caesar's nephew and adopted son Gaius Octavius (later Caesar Augustus), general Marcus Antonius, and general Marcus

[276] Eutropius, *Breviarium Historiae Romanae. Roma Tarihinin Özeti,* 151; Madsen, *Eager to be Roman,* 34-40.

[277] Kaya, "Anadolu'da Roma Egemenliği (İÖ 205–25)," 223–224; Magie, *Roman Rule in Asia Minor/ I,* 404.

[278] Magie, *Roman Rule in Asia Minor/ I,* 409–415.

[279] Elmar Schwertheim, *Antikçağda Anadolu,* trans. Nuran Batu (İstanbul: Kitap Yayınevi, 2009), 80–81; Magie, *Roman Rule in Asia Minor/ I,* 414-415.

Aemilius Lepidus in 42 BC, and the Anatolian lands fell to the share of Marcus Antonius.[280] Marcus Antonius, like other Roman rulers, made administrative arrangements in Anatolia. According to the first administrative arrangements in 40/ 39 BC; Castor was appointed as king of Galatia; Darius, son of Pharnaces II, was appointed as the king of a part of Pontus; and Polemon I, son of Zenon from Laodicea, was appointed as the king of the region covering the Lycaonia plain and the passes that cross the Taurus Mountains with the capital Iconium (Konya). In addition, due to the military support he gave to the Triumvirs in the civil war, Amyntas, the future king of Galatia, was given the kingdom of the regions of Phrygia, Paroreia, Pisidia, and a part of Cilicia.[281] Also, in order to create a safe buffer zone between Romans and the Parthians, a client kingdom was created in the region between the Cilicia Trachea (rough Cilicia) and Cilicia Pedias (flat Cilicia) lands, and its administration was given to Tarcondimotus I.[282] Marcus Antonius re-organized the local kingdoms in Anatolia in 37/ 36 BC, by appointing Amyntas as the king of Galatia, and gave him the west of the Province of Cilicia, the Side coast of Pamphylia, and the Lycaonia region. Also, he gave the interior of Paphlagonia to Deiotarus Philadelphus, son of Castor.[283] Marcus Antonius gave the Cilicia Trachea, excluding the Olba temple kingdom, to the Egyptian Pharaoh Cleopatra, who was his ally.[284]

As a result of Marcus Aemilius Lepidus' withdrawal from the Triumvirate in 36 BC, Rome entered a civil war period again. Continuing conflicts between Octavius and Marcus Antonius ended in the Battle of Actium in 31 BC, and the last of the civil wars that ended the Roman Republican regime resulted in the victory of Octavius. Octavius, who came to the province of Asia shortly after the victory of Actium, made some arrangements here as a requirement of the traditional Roman policy. Accordingly, the local kings and cities that sided with Marcus Antonius in the Battle of Actium were

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280 Magie, *Roman Rule in Asia Minor/ I*, 423.

281 Anthony Bryer and David Winfield, *The Byzantine Monuments and Topography of the Pontos*, 2 Vols. (Washington, D.C.: Dumbarton Oaks Research Library and Collection, 1985), 180; Kaya, "Anadolu'da Roma Egemenliği (İÖ 205–25)," 227-228; Magie, *Roman Rule in Asia Minor/ I*, 433–434.

282 Kevser Taşdöner, "Romalı Triumvir Marcus Antonius'un Anadolu'da Siyasi Düzenlemeleri," *Tarih Araştırmaları Dergisi 31,* (2012, No: 51), 221.

283 Kaya, "Anadolu'da Roma Egemenliği (İÖ 205–25)," 227-228; Magie, *Roman Rule in Asia Minor/ I*, 433–435; Stephen Mitchell, *Anatolia. Land, Men and Gods in Asia Minor I: The Celts in Anatolia and the Impact of Roman Rule* (Oxford: Clarendon Press, 1993), 37–38; Taşdöner, "Romalı Triumvir Marcus Antonius'un Anadolu'da Siyasi Düzenlemeleri," 223–224.

284 Kaya, "Anadolu'da Roma Egemenliği (İÖ 205–25)," 227-228; Magie, *Roman Rule in Asia Minor/ I*, 437; Taşdöner, "Romalı Triumvir Marcus Antonius'un Anadolu'da Siyasi Düzenlemeleri," 228.

punished, and the allies, such as Galatians, who took the side of Octavius at the last moment, were rewarded.[285] In 29 BC, Octavius revised the Roman Senate and declared himself *Princeps* (first man). From this date on, the period of *Principatus*, which would last until 284 AD, began in Rome.[286] During the imperial period that started with Octavius (who took the name of "Augustus"), important innovations were made in the provincial system and in the army. Augustus divided the Roman provinces into senatorial provinces and imperial provinces.[287] Thus, while the provinces of Asia and Pontus-Bithynia were turned into senatorial provinces, Cilicia was made an imperial province. Also, the number of new Roman provinces in Anatolia gradually increased from this date. Galatia (after the death of Amyntas) and Cappadocia were made imperial provinces in 25 BC and 17 AD, respectively.[288] As a result of the innovations made in the army, the Roman legions and the auxiliary units (auxilia) that joined them were sent to the provinces all places of the empire, some of them permanently, and thus it is possible to say that the state authority was fully felt in all Roman provinces (Figure 3.2).

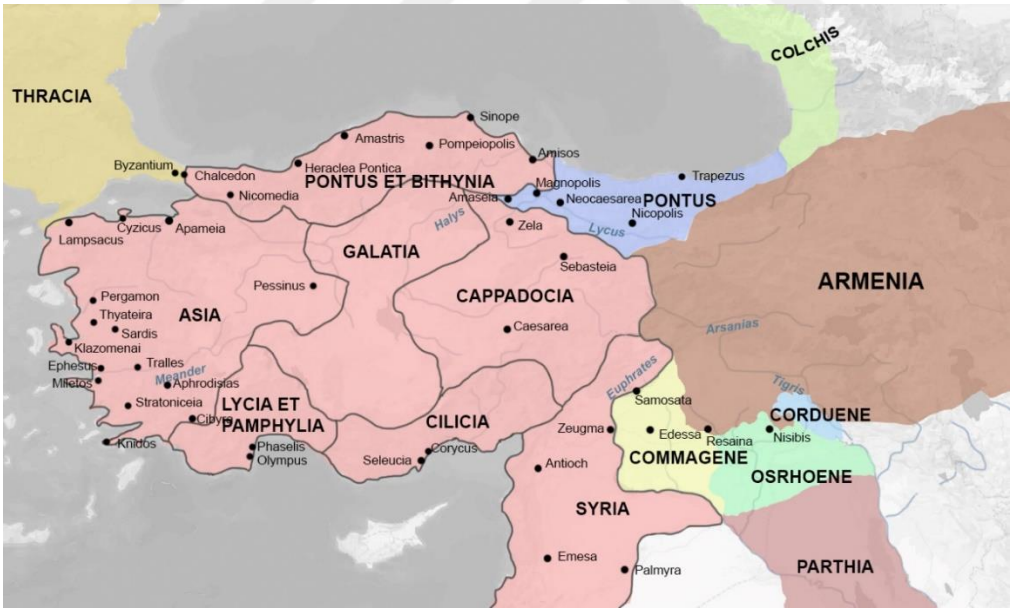

Figure 3.2. Mithridatic Wars (89- 63 BC) and the second Roman provinces in Anatolia

[285] Magie, *Roman Rule in Asia Minor/ I,* 440; Taşdöner, "Romalı Triumvir Marcus Antonius'un Anadolu'da Siyasi Düzenlemeleri," 229-230.
[286] Magie, *Roman Rule in Asia Minor/ I,* 440.
[287] Magie, *Roman Rule in Asia Minor/ I,* 445.
[288] Christian Marek, *Pontus et Bithynia. Die römischen Provinzen im Norden Kleinasiens* (Mainz am Rhein: Verlag Philipp von Zabern, 2003), 44; Kaya, "Anadolu'da Roma Eyaletleri: Sınırlar ve Roma Yönetimi," 25; Magie, *Roman Rule in Asia Minor/ I,* 446, 453.

3.2. Establishment of the Eastern Frontier of the Roman Empire in Anatolia

3.2.1. From Sulla to the death of Nero (~90 BC to 68 AD)

Although the creation of the eastern frontier of the Roman Empire is primarily attributed to the Vespasian period in the literature, there are arguments that the idea of the creation of the frontier went back to Nero, and the beginning of an eastern border policy much earlier to Sulla.[289] Rome's relationship with the Euphrates, Armenia and Parthians beyond it began during the Mithridatic Wars. The strategic location of the river crossing at Tomisa highlights the importance of Cappadocia and Rome's desire for control here.[290]

Approximately in 120 BC, the Parthian king Mithridates II attacked Armenia and captured Tigranes II, the son of King Artavasdes, and when the King of Armenia died in 94 BC, he enthroned Tigranes II to Armenia. In return, Tigranes II gave the Parthians 70 valleys to settle in, and some of the Parthians also settled in the lands of Armenia. Armenia started to become a problem between the Parthians, that were getting stronger for the rule of Armenia, and the Romans who did not want to leave Armenia to the Parthians. In the meantime, Mithridates VI made an alliance by marrying his daughter to Tigranes II, and they attacked Cappadocia together and dethroned Ariobarzanes I of Cappadocia. Thereupon, the Roman Senate commissioned the consul Sulla to bring

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289 For Vespasian frontier see: C.R. Whittaker, "Frontiers," in *Cambridge Ancient History (2) XI: The High Empire, AD 70–192*, eds. Alan K. Bowman, Peter Garnsey, Dominic Rathbone (Cambridge: Cambridge University Press, 2000), 305-311; Fergus Millar, *The Roman Near East 31 BC-AD 337*, (Cambridge and London: Harvard University Press, 1993), 80-90; John Wilkes, "Provinces and Frontiers," in *Cambridge Ancient History (2) XII: The Crisis of Empire, AD 193-337*, eds. Alan Bowman, Averil Cameron, Peter Garnsey (Cambridge: Cambridge University Press Cambridge, 2005), 254-263; Miriam Griffin, "The Flavians," in *Cambridge Ancient History (2) XI: The High Empire, AD 70–192*, eds. Alan K. Bowman, Peter Garnsey, Dominic Rathbone (Cambridge: Cambridge University Press, 2000), 38-41.
For opposite opinion argues that, Nero and Corbulo should be credited for permanent frontier in the Euphrates-Trapezus line: Julian Bennett, "The Cappadocian Frontier: From the Julio-Claudians to Hadrian," in *Limes XVIII: proceedings of the XVIIIth International Congress of Roman Frontier Studies, held in Amman, Jordan (September 2000)*, eds. Philip Freeman, Julian Bennett, Zbigniew T. Fiema, Birgitta Hoffmann. BAR International Series 1084 (II) (Oxford, England: Archaeopress, 2002), 302; Julian Bennett, "The Origins and Early History of the Pontic-Cappadocian Frontier: In Memoriam Charles Manser Daniels (10 August 1932-1 September 1996)," *Anatolian Studies* 56 (2006): 77–93.

290 Mitford, *East of Asia Minor/ I*, 22.

Ariobarzanes I back to his throne. Meanwhile, Sulla met with the ambassador of the Parthian king, who was disturbed by the cooperation of Mithridates VI and Tigranes II, and as a result of this meeting, it is thought that the **Euphrates River was accepted as the border** between the Romans and the Parthians.[291] Thus, the Euphrates River was determined as the eastern border of the Romans.

During the Mithridatic Wars, Lucius Licinius Lucullus, the proconsul of Asia, who was assigned to fight against Mithridates VI, organized two expeditions to the lands of Tigranes II, the king of Armenia and Mithridates' son-in-law. Lucullus, with the army he gathered, entered the territory of Armenia by **crossing the Euphrates River at Tomisa (Baskil/ Elazığ)**, at a point where the waters were low, and then the Tigris River. Because of his help, the control of this crossing point was given to Ariobarzanes I of Cappadocia, and it remained in the hands of the kings of Cappadocia until the annexation of Cappadocia to the Roman Empire.[292] Lucullus besieged the new capital city, **Tigranocerta (probably Bozhüyük/ Kurtalan/ Siirt[293])**, and captured it in 69 BC. Meanwhile, Tigranes II fled to the inner parts of his kingdom. When Tigranocerta was captured, local kingdoms such as Antiochus I of Commagene, the leaders of Sophene and Corduene regions, also recognized Roman supremacy and left their lands. With this success, Lucullus set out to seize the Artaxata (Armenia) in the Aras River valley in 68 BC in order to obtain more land and treasury. However, with the worsening of the winter conditions, he could not succeed in the campaign, and he withdrew from the lands of Armenia and captured **Nisibis (Nusaybin/ Mardin)**. Thus, during this long expedition, the governorship of Lucullus was taken back by the Roman Senate. As a result of the rebellion initiated by the soldiers under his command, Mithridates VI and Tigranes II allied and attacked the Lucullus forces; thus, Rome retreated from the Armenian lands to the back of the Halys River, and Mithridates VI and Tigranes II occupied the Cappadocian lands.[294]

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[291] Mehmet Ali Kaya, "Romalılar, Parthlar ve Armenia Krallığı (İ.Ö. 92-İ.S.4)," *Tarih İncelemeleri Dergisi* XIX, no:1 July 2004): 74; Neilson C. Debevoise, *A Political History of Parthia* (Chicago and Illinois: The University of Chicago Press, 1938), 46.

[292] Magie, *Roman Rule in Asia Minor/ I,* 375; Mitford, *East of Asia Minor/ I,* 23.

[293] Muzaffer Demir, "Tigranokerta Savaşı (MÖ 69): Yeni Bir Gözden Geçirme," *Anadolu Araştırmaları* 24 (2021): 145-176; Tom Sinclair, "The site of Tigranocerta, I," *Revue des Études Arméniennes* 25 (1995): 183-254; Tom Sinclair, "The site of Tigranocerta, II," *Revue des Études Arméniennes* 26 (1997): 51-118.

[294] Arslan, *Mithradates VI Eupator. Roma'nın Büyük Düşmanı,* 388-434; Magie, *Roman Rule in Asia Minor/ I,* 342-349.

Due to his successes against pirates in the eastern Mediterranean, Pompeius was appointed by the Senate to organize a campaign against Mithridates VI and Tigranes II. After defeating them, Pompeius made some administrative arrangements in Anatolia. The Pontus Kingdom was included in the province of Bithynia; thus, Provincia Pontus et Bithynia was created. The Armenia region was given to Tigranes II, while the Cappadocia region was given to Ariobarzanes I. In order to protect eastern Anatolia, allied kings of Rome were assigned to the client kingdoms of Colchis, Commagene, and Osrhoene in the north-eastern and eastern Anatolia, and the province of Syria was established.[295] Important control points such as the **Euphrates crossing at Samosata (Samsat/ Adıyaman)** were given to control of Antiochus I of Commagene, while **Cilician Gates (Gülek Pass/ Taurus Mountains/ Mersin**) and **Euphrates crossing at Tomisa** were given to Ariobarzanes I of Cappadocia.[296] Pompeius continued Rome's eastern expedition and appointed client kings here after his victories in Iberia and Albania.[297] It can be said that Pompeius's eastern policy continued this way for a long time.

Meanwhile, Marcus Licinius Crassus, who was in the first Triumvirate established in Rome in 60 BC, was appointed as the proconsul of Syria and organized an eastern expedition. It is thought that during the expedition, the Roman army crossed the Euphrates by a **bridge of boats in Zeugma (Nizip/ Gaziantep)** in 54/53 BC.[298] With the death of Crassus in the Battle of Carrhae (Harran/ Şanlıurfa) in 53 BC, the Triumvirate deteriorated, and the Parthians supported Pompeius in the civil war between Pompeius and Caesar. Although the Parthians, who changed sides after Caesar's assassination, invaded the Roman lands in 40 BC, this time, Marcus Antonius intervened in the situation. In Cappadocia and Commagene, Quintius Labienus Parthicus and the royal members who

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[295] Eutropius, *Breviarium Historiae Romanae. Roma Tarihinin Özeti,* 151; Kaya, "Anadolu'da Roma Egemenliği (İÖ 205–25)," 220-222; Marek, *Geschichte Kleinasiens in der Antike,* 368-372; Kaya, "Anadolu'da Roma Egemenliği ve Pompeius"un Siyasi Düzenlemeleri," 165, 173; Strabon, *Geographika XII-XIII- XIV,* 11; Magie, *Roman Rule in Asia Minor/ I,* 369–370, 374-378.

[296] Magie, *Roman Rule in Asia Minor/ I,* 374-377; Mitford, *East of Asia Minor/ I,* 25.

[297] Magie, *Roman Rule in Asia Minor/ I,* 359; Mitford, *East of Asia Minor/ I,* 24.

[298] Plutarch, "Crassus," in *Lives, Volume III: Pericles and Fabius Maximus. Nicias and Crassus,* trans. Bernadotte Perrin. Loeb Classical Library 65. (Cambridge, MA: Harvard University Press, 1916), XIX (373). For safety passage see: Bruce A. Marshall, *Crassus: A Political Biography* (Amsterdam: Hakkert, Amsterdam, 1976), 151-153; Peter M. Edwell, *Between Rome and Persia. The Middle Euphrates, Mesopotamia and Palmyra under Roman Control* (London and New York: Routledge, 2008), 9-11; Plutarch, "Lucullus," in *Lives, Volume II: Themistocles and Camillus. Aristides and Cato the Elder. Cimon and Lucullus,* trans. Bernadotte Perrin. Loeb Classical Library 47 (Cambridge, MA: Harvard University Press, 1914), XXIV (545-547); William Francis Ainsworth, *A Personal Narrative of the Euphrates Expedition,* Vol 1 (London: K. Paul, Trench & co, 1888), 191, 217, 280.

supported the Parthians were replaced by Roman supporters; Archelaus was appointed as the king of the Cappadocia; Pontus came under the rule of Polemon I. While the Parthians retreated, **the Euphrates River was once again accepted as a border**.[299]

As a result of the activities of Marcus Antonius beyond the Euphrates, Rome advanced toward the interior of Armenia. In 37 BC, general Publius Canidius Crassus defeated the Armenian king and then captured Iberia and Albania. In 34 BC, Antonius accused the Artavasdes III of Armenia of treason, invaded all of Armenia within a year, and deployed all of his 16 legions here. However, due to the conflict of interest between Octavius and Antonius and the impending civil war, Antonius withdrew all his legions and left the defence of the east to the kings of Media and Polemon I.[300]

During the period of Augustus, the client kingdoms policy of Pompeius was continued.[301] When Augustus turned his attention to Armenia, he had completed the arrangements in Galatia and Cappadocia. His policy here was Romanization, rather than direct annexation, by placing family members of Armenia and neighbouring kingdoms in the region. For this, some hostages belonging to the Parthian royal family were taken to Rome.[302] Augustus' general Gaius Caesar and Phraates V of Parthia came together to meet on **an island in the Euphrates River** in 1 AD. With the agreement made in this meeting, the Parthian King will no longer interfere in Armenia's internal affairs, and Rome would have a say in this matter.[303] After the death of Augustus in 14 AD, control over Armenia was lost, but the policy he followed was continued by his successors.[304]

In Augustus' stepson Tiberius period, when Antiochus III of Commagene and Archelaus of Cappadocia died in 17 AD, their kingdoms were annexed. The Commagene Kingdom was annexed to provincial Syria, and the new province of Cappadocia's borders

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299 Freya Stark, *Rome on the Euphrates. The Story of a Frontier* (New York: Tauris Parke Paperbacks, 2012), 110-119; Kaya, "Romalılar, Parthlar ve Armenia Krallığı (İ.Ö. 92-İ.S.4)," 78.

300 Christopher Pelling, "The Triumviral Period," in *Cambridge Ancient History X: The Augustan Empire, 43 BC–AD 69,* eds. Alan K. Bowman, Edward Champlin, Andrew Lintott (Cambridge: Cambridge University Press, 1996), 28-29, 39-40, 48; Kaya, "Romalılar, Parthlar ve Armenia Krallığı (İ.Ö. 92-İ.S.4)," 80.

301 David Kennedy, "Syria," in *The Cambridge Ancient History X: The Augustan Empire, 43 BC–AD 69,* eds. Alan K. Bowman, Edward Champlin, Andrew Lintott (Cambridge: Cambridge University Press, 1996), 709-711; John Cecil Mann, "The Frontiers of the Principate," in *Aufstieg und Niedergang der römischen Welt. Geschichte und Kultur Roms im Spiegel der neueren Forschung,* II.1, ed. Hildegard Temporini, (Berlin and New York: Walter de Gruyter & Co., 1974), 522.

302 Edward N. Luttwak, *The Grand Strategy of the Roman Empire From the First Century CE to the Third,* rev. ed. (Baltimore: Johns Hopkins University Press, 2016), 38-39; Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1172-1173.

303 Kaya, "Romalılar, Parthlar ve Armenia Krallığı (İ.Ö. 92-İ.S.4)," 84.

304 Magie, *Roman Rule in Asia Minor/ I,* 466, 475-476, 486.

were stretched, including the Armenia Minor region with the plain of Erzincan and the southern flanks of the Pontic mountains. Only Pontus Kingdom remained as a client kingdom.[305] With the expansion of the borders of the Roman Empire to include Cappadocia, **the Euphrates River was again accepted as the border** with the Parthians. To secure the eastern border, Tiberius chose the king of Armenia from among Roman allies.

In the period of Caligula after Tiberius (37-41 AD), contrary to the annexation policy of Tiberius, Caligula turned the border region to the administration of the previous dynasties.[306] Kingdom of Commagene was given to Antiochus IV, Armenia Minor was given to the Pythodoris' grandson Cotys III; and the other grandson Polemon II was placed in Pontus. Caligula sent Mithridates of Armenia to Rome but appointed no successor for his place.[307] After Caligula, in the Claudius period (41-54 AD), Caligula's policy was followed. As a development, on the upper Euphrates, the cities of **Claudiopolis (Pütürge- Kerar Kale/ Malatya) in the Taurus gorge** (if it wasn't established in the Tiberius period) and **Juliopolis were established** in order to consolidate Roman influence at the furthest corner of Cappadocia. Besides, **a fort at Dascusa (Ağın- Pağnik/ Elazığ)** might be built in order to use for expeditions to Armenia. When Mithridates took over the administration of Armenia, the auxiliary cohort was established for the first time in Armenia at the records in 51 AD at **Gorneae** (Garni/ Armenia), except for the short-term dispositions at Artaxata in the time of Pompeius and Marcus Antonius. Although a legion was sent from Syria to Armenia to ensure security, it was recalled not to provoke the Parthian Kingdom. These developments showed the distance of the legions in Syria and the inadequacy of the auxiliary forces in Armenia. Armenia was invaded by the Parthian Kingdom, and thus the border system based on the treaties established by Augustus collapsed around 50 AD.[308]

When came to power in 54 AD, Nero aimed to regain Roman domination over Armenia. For the campaign to Armenia, **bridges** may have been built over the Euphrates. For the expedition task, general Gnaeus Domitius Corbulo was appointed; additional legions from Germania were reinforced, additional troops from the Commagene

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[305] Marek, *Pontus et Bithynia*, 45; Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1173-1174; Mitford, *East of Asia Minor/ I*, 28.

[306] Bennett, "The Origins and Early History of the Pontic-Cappadocian Frontier," 81-82.

[307] Luttwak, *The Grand Strategy of the Roman Empire*, 62; Marek, *Pontus et Bithynia*, 45.

[308] Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1174-1175; Mitford, *East of Asia Minor/ I*, 30.

Kingdom, legions, and auxiliary forces brought from Syria and deployed in Cappadocia, and he was given a special command authority to manage these integrated legions. Since the security of the frontier region was very important as it contained both the river crossing at Tomisa and the **Ergani pass (Diyarbakır?)** across the Taurus mountains into Mesopotamia, the Armenia Minor king, whom Rome did not trust, was also replaced. Provinces of Galatia and Cappadocia were combined. Some **forts** may have been built against Armenia attacks in **Dascusa, Ciaca (Kilisilik), and Melitene (Battalgazi/ Malatya)**.[309]

For about three years, Corbulo deployed his legions near **Satala (Sadak/ Kelkit/ Gümüşhane)**, which would later become the legion headquarters. He received supplies through the path from **Trapezus (Trabzon)** and prepared his forces during this time. Corbulo's strengthening of the route from **Trapezus to Eriza** (Erzincan) and the surrounding land with fortifications is the first step taken in forming the **Pontus-Cappadocia border**. Furthermore, it should have been planned to implement this border system in the interior of Armenia Minor and on the route that followed the Euphrates Valley and reached Commagene.[310] After the war that lasted for six years, in 58 AD, Corbulo captured Armenia. However, the border policy of Augustus was abandoned. In this way, a candidate of Parthian origin would rule Armenia, and Rome would not be directly involved in the administration.[311]

However, the agreement could not be lasted, and the eastern expedition of the Romans continued. Corbulo captured Artaxata and Tigranocerta in 58 AD. The struggle between the Parthians and the Romans over the Armenia king candidate continued. As a result of the defeat of the Cappadocia, legatus Lucius Caesenius Paetus against the Parthians in 62 AD, the **newly built forts in Osrhoene** (vicinity Şanlıurfa) and **Sophene** (vicinity Diyarbakır) beyond the Euphrates were evacuated. **The Euphrates became the border again**, the Parthian garrisons withdrew from Armenia, and the throne was left empty. The Parthians offered a deal in exchange for the accession of their candidate, Tiridates, to the throne, but Nero refused to accept a dishonourable victory and began a campaign to the east again, and Corbulo was again given a superior command. Legions

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309 Bennett, "The Origins and Early History of the Pontic-Cappadocian Frontier," 83-84; Magie, *Roman Rule in Asia Minor/ I*, 554; Mitford, *East of Asia Minor/ I*, 31-32.

310 Bennett, "The Origins and Early History of the Pontic-Cappadocian Frontier," 84; Bryer and Winfield, *The Byzantine Monuments and Topography of the Pontos*, 180.

311 Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1176; Mitford, *East of Asia Minor/ I*, 32.

from Syria, Moesia (vicinity Serbia, Romania, and Bulgaria), Pannonia (Hungary), Aegyptus (Egypt) were reinforced, and an agreement was reached in **Rhandeia** (vicinity Murat Su) in 63 AD that Armenia would be ruled by the Parthian candidate, but would be treated as if it was a part of the imperium of Rome.[312]

In 64 AD, the Kingdom of Polemon, located in the northeast of Galatia, was joined with the province of Galatia-Cappadocia under the name Pontus Polemoniacus.[313] With this arrangement, Rome took direct control of the **supply route through Trapezus to Armenia Minor and the Caucasus**. However, the new province was not part of a defence system against Armenia, since Armenia Minor and Commagene were controlled by client kings. This province was probably intended as a base for Nero's expedition to the Caucasus. It is thought that the reason for the planned expedition of Iberia and Albania was to control the main road connecting Pontus Euxinus (Black Sea) to Caucasus and to prevent dangers that might occur on this invasion route by Sarmatians. The solutions planned in the period of Nero concerning this route, which were also noticed by the Parthians, were left unfinished after Nero's death.[314]

Meanwhile, in 66 AD, Tiridates was recognized as the king of Armenia and was given the authority to rebuild Artaxata. A large amount of money and builders were provided for the rebuilding of the city, which will be known as **Neroneia** for a while. Contrary to the policy of Augustus, a Parthian candidate approved by the Romans ascended to the throne of Armenia and brought with it a peace process that would last for almost half a century.[315] Rome's domain was **limited to the Euphrates**. Although there were **forts on the Pontus Euxinus coast** (Apsarus (Gonio/ Adjara/ Georgia) and Sebastapolis (Sukhumi/ Georgia)) for the invasion route from the Caucasus and for the

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312 Magie, *Roman Rule in Asia Minor/ I,* 556-561; Mason Hammond, "Corbulo and Nero's Eastern Policy," *Harvard Studies in Classical Philology* 45, (1934): 100-101; Mitford, *East of Asia Minor/ I,* 34-36; Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1177-1178.

313 Bryer and Winfield, *The Byzantine Monuments and Topography of the Pontos,* 180; Marek, *Pontus et Bithynia*, 45.

314 Edward Dabrowa, "Roman Policy in Transcaucasia from Pompey to Domitian," in *The Eastern Frontier of the Roman Empire. Proceedings of a colloquium held at Ankara in September 1988,* eds. David H. French and C.S. Lightfoot. British Institute at Ankara: Monograph No. 11 (Oxford, England: BAR International Series 553(I), 1989), 71; Eva Matthews Sanford, "Nero and the East," *Harvard Studies in Classical Philology* 48 (1937): 94,95; Magie, *Roman Rule in Asia Minor/ I,* 561-562, 575; Michael P. Speidel, "The Caucasus Frontier. Second Century Garrisons at Apsaris, Petra, and Phasis," in *Studien zu den Militargrenzen Roms III. 13. Internationaler Limeskongreß Aalen 1983 Vorträge,* (ed.) Christoph Unz, (Stuttgart: Kommissionsverlag Konrad Theiss Verlag, 1986), 658; Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1178; Mitford, *East of Asia Minor/ I,* 37-38.

315 Hammond, "Corbulo and Nero's Eastern Policy," 103; Magie, *Roman Rule in Asia Minor/ I,* 561; Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1179.

control of the coast, there were **no such forts in Armenia Minor and Commagene** against the attacks that might come from the south. In the period of turmoil that arose after the death of Nero in 69 AD, the Eastern provinces were unarmed when they supported Vespasian as emperor, and legions had not yet been located in Cappadocia[316] (Figure 3.3).

Figure 3.3. Establishment of the eastern frontier in Anatolia from Sulla to the death of Nero (~90 BC to 68 AD)

3.2.2. The Flavian Period (68 AD-96 AD)

After Nero's assassination in 69 AD, during the civil war and the struggle for the throne, Vitellius' supporters seized Trapezus against Vespasian; thus, the supply route of Rome to Armenia Minor and the Caucasus was cut off. To suppress the rebellion, Syrian legions were brought from Zeugma and Raphaneae. The sending of legions from Syria

316 Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1179; Mitford, *East of Asia Minor/ I*, 38-39.

for a problem in the Pontus shows that there was no legion station in Anatolia and that there was an insufficient solution to send legions to the region with a march that lasted possibly six weeks. However, the fact that legions could be sent to the region from Syria suggests that there was **a route from Zeugma through Cappadocia and Armenia Minor**, which was perhaps used by Corbulo in the time of Nero, consolidated **with roads, bridges, some stations, and maybe forts**.[317] Yet, this route was passing through client kingdoms, and after Nero's Armenia policy, it was necessary to take action to make new arrangements on the frontier both physically and administratively. According to the new frontier system was determined in 71 AD;

- Kingdoms of Armenia Minor and Commagene were annexed. **A chain of forts from Syria to Trapezus at the Black Sea and additional forts on the coast to Sebastopolis** began to be built.
- Provinces of Galatia and Cappadocia were combined under a consular legate. **A network of roads** for the legions and supplies through and up to the eastern frontier from inner regions began to be built.
- Two legions were moved from Syria to be located in garrisons in the new province of Galatia-Cappadocia for the defence.
- For further defences, fortifications at **Darial Pass (between Russia and Georgia)** and a fort at Gorneae (Garni/ Armenia) were built beyond the frontier.[318]

Armenia Minor and Commagene Kingdoms were annexed in the Tiberius period, but in the periods of Gaius and Claudius, they were disannexed.[319] By Vespasian's arrangements, they were annexed to Galatia-Cappadocia and Syria provinces, respectively.[320] Although the information on this subject can be obtained from coins, it is thought that Armenia Minor was annexed in 71 AD, as its metropolis was Nicopolis (Bayramköy/ Şebinkarahisar/ Giresun)[321], and **a legionary fortress** was built in **Satala**.

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317 Margot Klee, *Grenzen des Imperiums. Leben am römischen Limes* (Stuttgart: Konrad Theiss Verlag, 2006), 90-91; Mitford, *East of Asia Minor/ I,* 39; Timothy Bruce Mitford. "The Inscriptions of Satala (Armenia Minor)," *Zeitschrift Für Papyrologie Und Epigraphik* 115 (1997): 141.

318 Marek, *Pontus et Bithynia,* 45; Mitford, *East of Asia Minor/ I,* 40.

319 Christian Marek, *In the Land of a Thousand Gods: A History of Asia Minor in the Ancient World,* trans. Steven Randall (Princeton and Oxford: Princeton University Press, 2016), 329; Magie, *Roman Rule in Asia Minor/ I,* 512-515.

320 A. B. Bosworth, "Vespasian's Reorganization of the North-East Frontier," *Antichthon* 10 (1976): 63, 78.

321 Magie, *Roman Rule in Asia Minor/ I,* 574, 1435.

Legio XVI Flavia was sent here.[322] The construction of the military fort in Satala as well as the placement of auxiliary headquarters along the border line, might have begun at this time.[323] Probably in the same year, Legio XII Fulminata **was positioned at Melitene**.[324] Following the annexation, in 76 AD, military infrastructures were created, especially a section of the **frontier road from Refahiye valley over the Çimen dağları to Satala** was completed.[325]

In 71/72 AD, the Commagene Kingdom, which had been loyal to Rome for many years, was annexed. Syria governor Lucius Caesennius Paetus accused Antiochus IV of Commagene of collaborating with the Parthians and endangering the capital Samosata (Samsat/ Adıyaman) and the crossing point on the Euphrates located here, thus invaded Commagene.[326] After its capture, **a legion was sent to Samosata**, possibly Legio VI Ferrata. However, the crossing point at Samosata was deprived of a serious defence until the arrival of Legio XVI Flavia Firma during Trajan's Parthian campaign.[327]

The provinces of Galatia and Cappadocia were combined to defend the eastern frontier against invasions from the north and to administer it from one hand under a consular legate instead of a praetorian procurator. Thus, the large geographical area north of the Taurus mountains became a single province. The provinces would remain as a combined new province until they would be separated in the period of Trajan[328] (Figure 3.4).

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322 Although it is debated which legion was sent to Satala first, it is thought that Legio XVI Flavia was sent obtained the information on the milestone found vicinity of Satala. Mitford, "The Inscriptions of Satala (Armenia Minor)," 141.

323 Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1180-1181.

324 Edward Dabrowa, "The Commanders of Syrian Legions, 1st-3rd c. A.D.," in *The Roman Army in the East. Journal of Roman Archaeology Supplementary series* 18, ed. David. L. Kennedy (Ann Arbor: Journal of Roman Archaeology, 1996), 289; Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1186.

325 Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1181; Mitford, *East of Asia Minor/ I*, 41.

326 Klee, *Grenzen des Imperiums*, 90; Michael Alexander Speidel, "Early Roman Rule in Commagene," in *Heer und Herrschaft im Römischen Reich der Hohen Kaiserzeit*, ed. Michael Alexander Speidel (Stuttgart: Franz Steiner Verlag, 2009), 563.

327 Magie, *Roman Rule in Asia Minor/ I*, 574, 607; Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1181; Mitford, *East of Asia Minor/ I*, 42; Timothy Bruce Mitford, "Some Inscriptions from the Cappadocian Limes," *Journal of Roman Studies* 64 (1974): 166.

328 Klee, *Grenzen des Imperiums*, 90; Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1182; Mitford, *East of Asia Minor/ I*, 42.

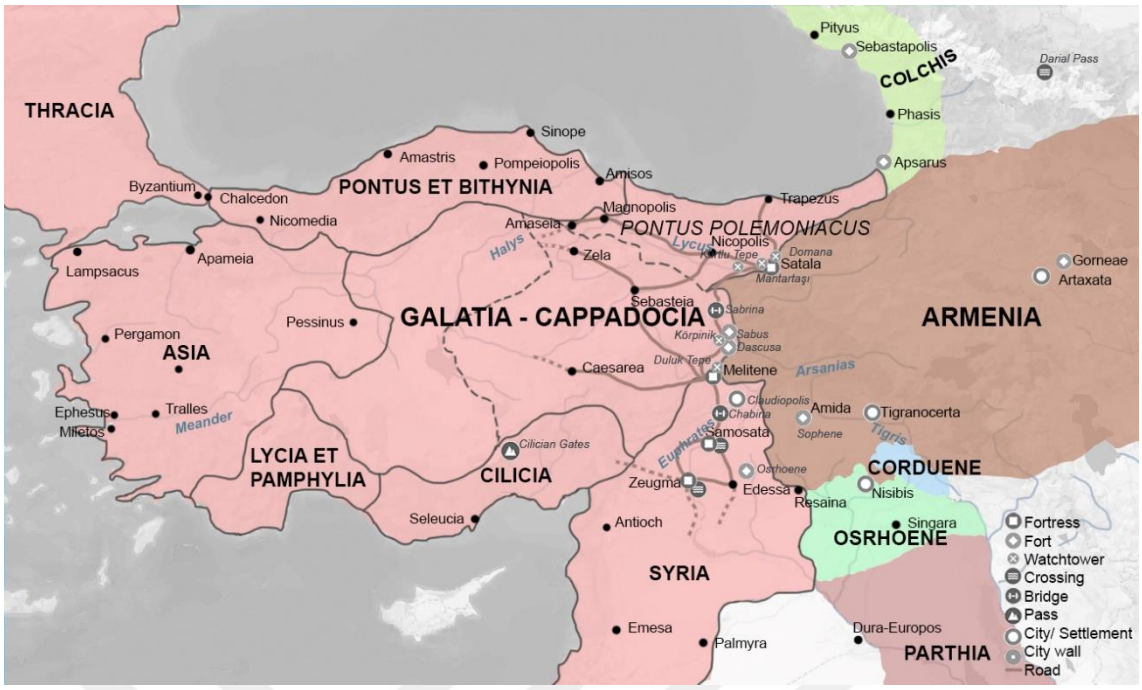

Figure 3.4. Anatolian frontier in the Flavian period (68 AD-96 AD)

3.2.3. From Trajan to Caracalla (98 AD- 198 AD)

Before the Trajan's eastern campaign in 114 AD, the combined province of Galatia-Cappadocia was separated temporarily in 94 AD with the death of governor Lucius Antistius Rusticus of the province. In this period, the management of Cappadocia was left to the legatus of Legio XII Fulminata. This arrangement ended in a short time in 95 AD, and the provinces of Galatia and Cappadocia were combined again during the period of governor Titus Pomponius Bassus. This temporary separation is thought to have been related to the preparations for Trajan's eastern campaign.[329] The administrative disorder in Armenia in 113 AD seems to have given Trajan an excuse to invade Armenia. During the period of Trajan, the policy of Augustus to appoint client kings and absorb them when the appropriate time came was replaced by a more aggressive expansionist

[329] Magie, *Roman Rule in Asia Minor/ I,* 605-606; Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1194-1195; Mitford, *East of Asia Minor/ I,* 59-61.

policy. Successful conquests in Dacia and Arabia Petraea may also have reinforced the expansionist understanding also in the east, where there was a constant trouble.[330]

Trajan advanced to Armenia in 114 AD, by passing through the Taurus Mountains by following the frontier road to Melitene and Satala, and took the legions XII Fulminata and XVI Flavia here with him. It is also known that many of the legions and auxiliaries in Dacia, Pannonia, Moesia, Germania, and Syria were called for the campaign. By giving gifts to the local kingdoms in the eastern Black Sea, their loyalty to Rome and the security of the supply route from Trapezus were ensured; Roman-friendly kings were appointed to Iberia and Albania, which would later surround Armenia Major.[331] As a result of these plans and the campaign, Armenia was annexed as a province in 114 AD, and a Roman governor was brought under its administration. After the annexation, besides Artaxata, the **highlands between Lake Van and Gordyene**, and **Marcomedi towards Media Atropatene (Iran)** were occupied. The occupation of this territory was probably to secure the highlands between the Araxes (Aras) and the Tigris, and routes from Artaxata to **Zabdicene (Hakkari)** and Mesopotamia.[332]

Armenia Major combined with Cappadocia and Armenia Minor; Galatia and the western parts of the united province were given to a separate praetorian governor. However, apart from this, the political structure of Armenia had not changed. Garrisons were placed at the **same strategic points previously chosen by Corbulo**; other than that, no new colonies were established. Although it is not known whether the eastern border line was advanced **between the Araxes in Mesopotamia and the eastern borders of Armenia** to prevent dangers from Mesopotamia and the Caucasus; instead of abandoning the frontier in the upper Euphrates, it was strengthened by the governor of Armenia Major by building military constructions at **Zimara (Pingan/ Adatepe/Divriği/ Sivas)**. This suggests that Trajan had already planned the retreat to the Euphrates border long before Hadrian.[333]

Trajan reached Dura-Europos (Salhiyah/ Syria) by following the Euphrates 115-116 AD. Thus, the Romans dominated all of lower Mesopotamia, and the Parthian capital Ctesiphon (Salman Pak/ Iraq), was captured. However, in the meantime, uprisings started

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330 Magie, *Roman Rule in Asia Minor/ I,* 593, 606-608; Mitford, *East of Asia Minor/ I,* 61.
331 Mitford, *East of Asia Minor/ I,* 63-64.
332 Mitford, *East of Asia Minor/ I,* 65
333 Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1199-1200; Mitford, *East of Asia Minor/ I,* 67; Mitford, "Some Inscriptions from the Cappadocian Limes," 171-172.

in the new provinces of Mesopotamia and Assyria. As a result of the struggle against Parthians, a Parthian client was accepted as the ruler of Armenia[334] (Figure 3.5).

Figure 3.5. Anatolian frontier during the Trajan's expansion (114 AD- 117 AD)

When Trajan died in 117 AD, Hadrian became the emperor. He immediately decided to withdraw from the lands east of the Euphrates and appointed client kings to Armenia, Osrhoene, and Mesopotamia and Assyria. The expansionist policy was abandoned, and a policy of consolidation and defence was started behind the frontiers built. Thus, **the Euphrates became its eastern border** again, and the legions at Melitene and Satala were given control of the routes from Armenia.[335] During this period, Legio XII Fulminata was stationed at Melitene, while Legio XVI Flavia at Satala was sent to Samosata and replaced by XV Apollinaris from Carnuntum.[336] In this period, a new administrative arrangement was made in the middle Anatolian provinces. Armenia Minor

334 C.S. Lightfoot, "Trajan's Parthian War and the Fourth-Century Perspective," *Journal of Roman Studies 80* (1990): 120-121; Magie, *Roman Rule in Asia Minor/ I,* 608-610; Mitford, *East of Asia Minor/ I,* 67.

335 Magie, *Roman Rule in Asia Minor/ I,* 610; Mitford, "Some Inscriptions from the Cappadocian Limes," 172; Mitford, *East of Asia Minor/ I,* 67-68.

336 Mitford, "The Inscriptions of Satala (Armenia Minor)," 141, 143.

and Cappadocia were not reunified with the province of Galatia; it was left to the administration of the consular command, including the Pontus Cappadocicus (in the east), which extended to Sebastopolis. In 137, Cappadocia included the support roads to Satala and the rich cities of Amaseia, Zela, Sebastopolis, Comana, Neocaesarea, and Sebasteia. Pontus Galaticus (in the west) and Pontus Polemoniacus (in the centre) would include Pontus Mediterraneus[337] in the middle of the 2nd century.[338]

Hadrian traveled from Caesarea to Cappadocia and Armenia Minor, and from Satala to Trapezus by following the frontier road in 129 AD and made some investigations. As a result of this visit, he made strategic and physical moves to strengthen the eastern frontier of the empire. Firstly, he recruited soldiers in Cappadocia and placed them in the legion at Melitene, probably to increase the military strength against the Alani attacks from Caucasia. Secondly and as strategically, the rulers of tribes on the Pontic coast and Colchis were summoned to establish an alliance, and although the kings of Iberia and Albania refused this call, the rulers of some local tribes joined the invitation. In this way, Armenia was again surrounded by Rome's allies.[339] Hadrian also returned the daughter of Chosroes, who had been taken prisoner previously by Trajan, to establish good relations with the Parthians.[340] Thirdly, continuing to the cities in the north after Satala, Hadrian had built **a port at Trapezus**, the **Temple** of Hermes, **altars** and an **imperial statue**.[341] A **stoa** was built at **Sebastopolis**, one of the cities he passed during the visit. It is known that the emperor returned to Satala from Trapezus and followed the Lycus Valley from there. The fact that these **roads were repaired** in 129 AD shows that the visit was planned.[342]

Probably in 131 AD, Flavius Arrianus, the governor of Cappadocia, visited Pontus by following the same route as Hadrian in order to supervise the arrangements of the emperor. During this visit, he inspected the military bases in Pontus. Trapezus, where the

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337 Christian Marek, "Pontus et Bithynia, Paphlagonia, Pontus Galaticus, Pontus Polemonianus, Ora Ponti Polemoniani, Pontus Mediterraneus," in *Hellenistik ve Roma Dönemlerinde Anadolu. Krallar, İmparatorlar, Kent Devletleri,* ed. Oğuz Tekin (İstanbul: Yapı Kredi Yayınları, 2021), 256-258.

338 Mitford, *East of Asia Minor/ I,* 68.

339 Bryer and Winfield, *The Byzantine Monuments and Topography of the Pontos,* 180; Ronald Syme, "Journeys of Hadrian," *Zeitschrift Für Papyrologie Und Epigraphik* 73 (1988): 159–70.

340 Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1201.

341 Bryer and Winfield, *The Byzantine Monuments and Topography of the Pontos,* 180; Magie, *Roman Rule in Asia Minor/ I,* 621-622; Mitford, "Some Inscriptions from the Cappadocian Limes," 162-163.

342 Magie, *Roman Rule in Asia Minor/ I,* 621-622; Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1201-1202; Mitford, *East of Asia Minor/ I,* 68-69.

provincial militias were located, **the coastal forts at Hyssou Limen (Araklı/ Trabzon), Phasis (Poti/ Georgia), and Sebastopolis**, where cohorts were stationed, and **Apsarus**, where five cohorts were stationed, show that the garrisons were satisfactory in terms of defence. Apsarus neighbouring **Zydreitae (Southwest Georgia)**, in particular, was a militarily important spot as it is very conveniently located to monitor king Pharasmanes II of Iberia.[343] In 135 AD, by the instigation of Pharasmanes II, a raid of plunder was made by the Alani towards the northern part of the frontier. Alani crossed Iberia and Albania, then entered Media Atropatene, and became a threat to Armenia and Cappadocia. This attack was repelled in the south by Vologaeses III of Parthia, and in the north by Arrianus[344] (Figure 3.6).

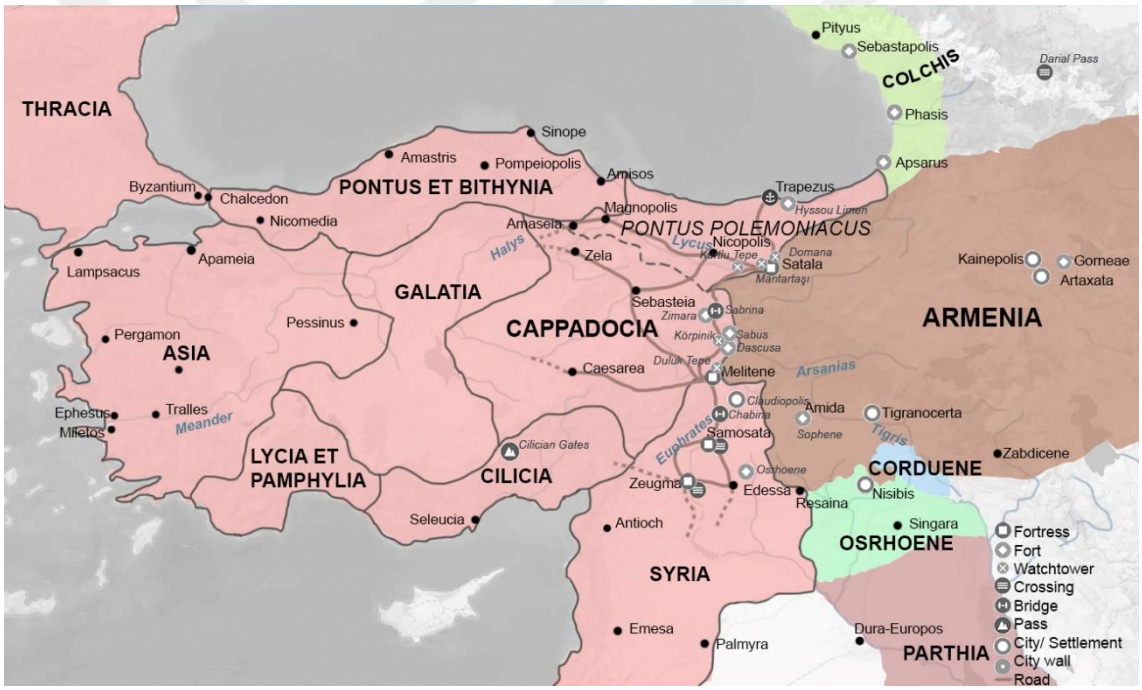

Figure 3.6. Anatolian frontier after Trajan's death, in the Hadrian's period (117 AD-138 AD)

[343] Emzar Kakhidze, "Apsaros: A Roman Fort in Southwestern Georgia," in *Meetings of Cultures in the Black Sea Region: Between Conflict and Coexistence*, eds. Pia Guldager Bilde, Jane Hjarl Petersen (Aarhus: Aarhus University Press, 2008), 313; Michael Alexander Speidel, "The Development Of The Roman Forces in Northeastern Anatolia," in *Heer und Herrschaft im Römischen Reich der Hohen Kaiserzeit*, ed. Michael Alexander Speidel (Stuttgart: Franz Steiner Verlag, 2009): 602-603; Mitford, *East of Asia Minor/ I,* 70-71; Mitford, "Some Inscriptions from the Cappadocian Limes," 163-164.

[344] Magie, *Roman Rule in Asia Minor/ I,* 659; Mitford, *East of Asia Minor/ I,* 71.

In the period of Antoninus Pius in 139 AD, Vologaeses III of Parthia, who was recognized by Hadrian previously, threatened Rome to invade Armenia. Vologaeses III gave up on this conquest, with Antoninus' proposal for placing a candidate on the Armenian throne, which was suitable for both sides; also, Antoninus organized legionary movements in Syria. In 141 AD, Pacorus ascended the throne of Armenia as a client king. His task was not only to rule Lazica (Western Georgia) but also to monitor the Zydreitae on its southern border.[345]

Although a 20-year peace was achieved in the frontier region through these practices of Antoninus, after his death in 161 AD, the Vologaeses IV started a war. The Parthians invaded Armenia, dethroned the king, and replaced him with Pacorus III, who was a member of the Parthian royal family. The Parthian army advanced towards Elegeia (Ilıca?/ Erzurum). After a vexillation was completely destroyed in Elegeia and the army under the command of Cappadocia Governor Sedatius Severianus was disintegrated as a result of the collision with Vologaeses IV, it was decided that Lucius Verus would go east with extraordinary authority.[346] In 162 AD, Lucius Verus came to Antioch (Antakya) to war with Parthians, who had invaded Syria. Unable to reach an agreement as a result of negotiations with Vologaeses IV, Rome started preparations for war. As in the eastern campaign of Trajan, many legions were brought from other European provinces such as Germania Inferior, Moesia Inferior, and Pannonia Superior.[347] Statius Priscus, the new governor of Cappadocia, entered Armenia with his army in 163 AD, and destroyed Artaxata. At the end of the campaign, Lucius Verus took the title "Armeniacus", and a member of the Parthian royal family was enthroned as king of Armenia.[348]

Statius Priscus founded a new city **Kainepolis (Vagharshapat (Etchmiadzin)/ Armenia)** in order to replace Artaxata as a new capital, which reached Iberia and Albania with a road from Satala. Legions were placed here. Preator Cladius Fronto, who was appointed in 163 AD after Priscus, occupied Osrhoene. The Roman client was reassigned

[345] Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1202-1203; Mitford, *East of Asia Minor/ I,* 71; Mitford, "Some Inscriptions from the Cappadocian Limes," 164.

[346] Magie, *Roman Rule in Asia Minor/ I,* 660; Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1203; Mitford, *East of Asia Minor/ I,* 72.

[347] Magie, *Roman Rule in Asia Minor/ I,* 661; Mitford, East of Asia Minor/ I, 73.

[348] Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1204; Mitford, *East of Asia Minor/ I,* 73.

in Edessa (Şanlıurfa), and Nisibis was captured. From here, the Roman army advanced in Mesopotamia to seize Parthia and plundered Seleuceia and the capital Ctesiphon.[349]

Despite the success of the Parthian expedition, Emperor Marcus Aurelius refused the policy of annexation and withdrew to the Hadrianic frontier along the Euphrates by leaving a garrison in Kainepolis. Other legions returned to Rhine and Danube. Sohaemus was dethroned by a Parthian group in 172 AD, despite the military force at Kainepolis, but Rome returned the throne to Sohaemus immediately. The need for a serious military force to protect Sohaemus had increased the permanence of the military force here. With the establishment of strategic roads in eastern Anatolia, Trapezus lost its importance and became a supply base and road head. The fleet here was shifted to Cyzicus (Erdek/ Balıkesir) in the west in 175 AD.[350]

With the murder of Emperor Commodus in 192 AD, Rome entered a period of internal turmoil again. With his victory in Cyzicus in 194 AD, Septimius Severus became the emperor, entered northern Mesopotamia, and annexed Osrhoene as a minor province in 197 AD.[351] A part of Osrhoene remained as a client kingdom. Septimius Severus invaded Parthia and captured Ctesiphon in 197/198 AD, and reached Adiabene (a region between the Zab rivers with the capital Arbela (Erbil/ Iraq)). Mesopotamia was annexed as a major province in 199 AD, and two legions were positioned there, probably at **Resaina (Al-Hasakah Governorate/ Syria). Nisibis and Carrhae** were returned to Roman colonies, and **veterans were settled** there and also in **Singara (Sinjar/ Iraq)** and Resaina. The annexation of the lands beyond the Euphrates, despite still having a client king in Armenia, once again demonstrates the rejection of the policy of Augustus, lastly followed by Hadrian. The short-term provinces of Trajan were now organized methodically.[352] All these colonies, new garrisons, and the construction of the **road and the bridges on the Tigris and Batman Su** indicates Severus' decision to control the area reaching Armenia from the south. The new provinces put an end to the one hundred and thirty years of direct Parthian influence that had lasted since Tiridates in 66 AD and was only briefly divided during the campaigns of Trajan and Verus. Until the Sasanian

[349] Magie, *Roman Rule in Asia Minor/ I,* 661-662; Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1205; Mitford, *East of Asia Minor/ I,* 74.
[350] Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1205-1206; Mitford, *East of Asia Minor/ I,* 74.
[351] Magie, *Roman Rule in Asia Minor/ I,* 672-675.
[352] Mitford, *East of Asia Minor/ I,* 75.

ascension in the middle of the 3rd century, the defence on the eastern border shifted to Mesopotamia.[353]

Towards the end of the second century, new constructions were made on the eastern frontier. In 198 AD, the part of the **support road** from Caesarea to Melitene between **Comana (Şar/ Tufanbeyli/ Adana) and Elbistan (Kahramanmaraş)** was rebuilt.[354] Renovation works on military buildings in **Haris (Melik Şerif?/ Yurtbaşı/ Refahiye/ Erzincan)** in Armenia Minor and road works in western Pontus continued simultaneously with these. **The Chabina bridge (Cendere Su/ Kahta/ Adıyaman)**, which was built by Vespasian at the end of the 1st century, and possibly **the road to Melitene**, through the Taurus Mountains, were also repaired in 200 AD.[355] It is seen that there were construction activities dating back to this period in **Lacotena (Direk or Derek or Derik Kale?/ Adıyaman)**, the sanctuary area to the 15 km northwest of Chabina bridge. The dedications to Julia Domna and renewals in Satala and Nicopolis should be an indication that territorial control was taken seriously.[356] It is thought that the eastern frontier was re-organized with the repair of the road to Melitene, and the Chabina bridge. It is associated with the Parthian campaigns that the new provinces were created and the road through Samosata became the most convenient and most important route for the legions transferred from the Danube. However, the construction activities in Armenia Minor and the roads heading east from Ancyra also show that the central and northern parts of the Euphrates frontier maintained their importance.[357]

Severus' eastern policy was continued by Caracalla, who wanted direct control over Osrhoene and Armenia. The kingdom of Osrhoene was annexed into the province of Osrhoene in 212/213 AD.[358] The Parthian king was invited to Rome and was taken prisoner there, thereupon probably the king's son started a rebellion. Although troops from Cappadocia were sent to invade Armenia, Rome was repulsed, but after the death of

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353 Magie, *Roman Rule in Asia Minor/ I,* 675; *Mitford, East of Asia Minor/ I,* 76.

354 Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1206; Mitford, *East of Asia Minor/ I,* 76.

355 J. B. Leaning, "The Date of the Repair of the Bridge over the River Chabina: L. Alfenus Senecio and L. Marius Perpetuus in Syria Coele," *Latomus* 30, no. 2 (1971): 386–389; Magie, *Roman Rule in Asia Minor/ I,* 677; Mitford, *East of Asia Minor/ I,* 76.

356 Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1207; Mitford, *East of Asia Minor/ I,* 76; Mitford, "Some Inscriptions from the Cappadocian Limes," 173.

357 Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1207; Mitford, *East of Asia Minor/ I,* 76.

358 Magie, *Roman Rule in Asia Minor/ I,* 683-690.

Caracalla, the new emperor Macrinus continued the client policy by sending back the king's diadem to his son in 217/218 AD[359] (Figure 3.7).

Figure 3.7. Anatolian frontier during the Severan Period (193 AD- 211 AD)

3.2.4. Collapse of the Frontier (198 AD- ~660 AD)

Although there is no architectural evidence of any construction activity on the Euphrates frontier in the first half of the 3rd century AD, it is understood from the coins minted in Caesarea and milestones that the support road of the frontier between Comana and Melitene was constantly restored during this period. On the other hand, there is no evidence that the support road passing through the Lycus valley in the north was restored.[360] This continuous repair and restoration process can be associated with the Sasanians, who caused the collapse of the Parthian Empire and were also descended from

[359] Magie, *Roman Rule in Asia Minor/ I,* 689-690; Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1207; Mitford, *East of Asia Minor/ I,* 77.
[360] Mitford, "Some Inscriptions from the Cappadocian Limes," 175.

Persia and gradually rose. The Parthian emperor, Artabanus IV, was killed in 224 AD by Ardashir I. Thus, the Sasanian dynasty came to power. In 230 AD, the Sasanians captured Mesopotamia and began to threaten Armenia and Cappadocia. In response, emperor Severus Alexander attacked the Sasanians through the fronts in Mesopotamia and Armenia. Although this expedition was not a complete success, it stopped the Sasanians for a while.[361]

After Severus Alexander was killed in 235 AD, the Roman Empire entered a period of turmoil and civil war named the "Third Century Crisis" that lasted for 50 years and almost destroyed it, in which the emperors who came to power were killed in a very short time. This turmoil continued until Diocletian became emperor in 284 AD and made some changes in the administration, including the tetrarchy system. Taking advantage of the turmoil in Rome, Ardashir I attacked Mesopotamia and Syria again in 238 AD. Although Mesopotamia was taken back in 242 AD, Sapor I, son of Ardashir, captured Antioch. When Armenia was also occupied by Sapor I in 250 AD, a strong enemy threat emerged rather than the client king in the upper Euphrates, and the need for defence of northern and central parts of the frontier arose. The restoration of the **Sabrina bridge (Karabudak/ İliç/ Erzincan) east of Zimara** in 249-251 AD is evidence of the effort spent to defend the eastern frontier.[362]

In the second half of the 3rd century, another dangerous enemy appeared in northern Anatolia. Goth tribes increased their attacks in the period of Valerian. Thereupon, the forts on the eastern shores of Pontus Euxinus began to be used as garrisons again, and the Pontic fleet was deployed here again. Despite these, Pityus (Pitsunda/ Georgia) was besieged by the Borani tribe, who were allies of the Goths in 256 AD, and Trapezus was plundered despite the presence of the military unit there.[363]

The lack of effective defence against the Goths may be due to Sapor I's attacks further south. Sapor I, who conquered Armenia and brought his son Ardashir to the throne of Armenia, advanced to Armenia Minor and Cappadocia, and captured Satala, **Suisa (Erzincan),** and **Domana (Köse/ Gümüşhane)** around it, the stations, and the frontier

[361] Magie, *Roman Rule in Asia Minor/ I,* 695-696; Mann, "The Frontiers of the Principate," 524; Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1208; Mitford, *East of Asia Minor/ I,* 77-78.

[362] Magie, *Roman Rule in Asia Minor/ I,* 696-698; Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1208; Mitford, *East of Asia Minor/ I,* 78; Mitford, "The Inscriptions of Satala (Armenia Minor)," 138.

[363] Magie, *Roman Rule in Asia Minor/ I,* 702-706; Mitford, *East of Asia Minor/ I,* 78; Mitford, "The Inscriptions of Satala (Armenia Minor)," 138.

road advancing to the north and south. For the defence of the frontier, Valerian came to Samosata around 255 AD and established his headquarters there to defend the river crossing and the road to Edessa. This invasion of Sapor I suggests that the legion in Satala was previously destroyed or absent since it was at the defence of Trapezus. However, as it can be understood from a reconstruction program in a Gallienus inscription dated to 262 AD and an Aurelian inscription dated to 272 AD, the garrison in Satala retained its presence for one and a half century more; Satala was not held by Sapor I. Although Sapor I, organized raids to Cappadocia, including Caesarea, the fortress in Melitene was not destroyed either; it was either bypassed or defended by Legio XII Fulminata.[364]

Sapor I, who brought his son to the throne of Armenia and took control of Iberia and Albania, thus secured the northern side. In his next expedition in 260 AD, he captured Nisibis and Edessa, crossed the Euphrates, and captured Antioch, Tarsus, Zeugma, Samosata, and Caesarea. He even took emperor Valerian as a prisoner. However, Macrianus and Callistus, who were with Valerian during the expedition, gathered the army back and pushed the Sapor I forces back to Osrhoene beyond the Euphrates.[365] After this point, the defence of Syria was left to Septimius Odenathus from Palmyra. However, after the death of Odenathus in 267/268 AD, his wife Zenobia occupied Syria and raided Cappadocia and Galatia. In 271 AD, Aurelian passed through the Cilician Gates and won victories in Antioch and Emesa; Zenobia was captured, and the city of Palmyra was destroyed despite the surrender. Thus, the southern part of the empire was secured during the period of Aurelian.[366]

After Diocletian became emperor in 284 AD, he enabled a Roman vassal Tiridates III to ascend to the throne of Armenia. In order to strengthen Trapezus, a new legion, Legio I Pontica was positioned here. The roads between Caesarea to Melitene, and Zela to Sebastopolis were repaired. Although it is known that garrisons were placed in cities, forts and towers in order to protect frontiers, there is little evidence about it. In addition to the military arrangement, administrative adjustments were also made in the period of Diocletian. Eastern provinces were grouped under three dioceses:

- Asiana: including Asia, Pisidia, the western part of Galatia

[364] Mann, "The Frontiers of the Principate," 524-525; Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1209; Mitford, *East of Asia Minor/ I,* 78.

[365] Magie, *Roman Rule in Asia Minor/ I,* 707-708; Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1209; Mitford, *East of Asia Minor/ I,* 79.

[366] Magie, *Roman Rule in Asia Minor/ I,* 709, 716-718; Mitford, "The Inscriptions of Satala (Armenia Minor)," 139; Mitford, *East of Asia Minor/ I,* 79.

- Pontica: including eastern part of Galatia, Cappadocia, Armenia Minor, Pontus Polemoniacus
- Oriens: including Syria, Osrhoene, Mesopotamia, Arabia, Egypt.[367]

Roman authority was recognized in Armenia and Caucasia with Tiridates III, who was enthroned in Armenia by Diocletian. However, after a while, Narses, son of Sapor I, did not accept the Roman authority and attacked Mesopotamia and Armenia in 297 AD. Rome seized Nisibis and Ctesiphon by repelling Narses. With the treaty of Nisibis in 298 AD, Narses accepted Roman authority in Armenia and Iberia. Tiridates III was put on the Armenian throne by Diocletian again. Seven satrapies beyond the Euphrates and Tigris, including Ingilene, Sophanene, Arzanene, Gordyene, and Zabdicene were also surrendered to Rome, and the **Tigris River was accepted as the border**. **The bridge over Great Zab in Hakkari**, and the **fortress in Eski Hizan (Bitlis)** controlling the route passing through the south-west of the Van Lake, may belong to the period of Diocletian[368] (Figure 3.8).

Figure 3.8. Anatolian frontier during the Diocletian's Period (284 AD- 305 AD) and Diocletian's organization of eastern provinces

[367] Magie, *Roman Rule in Asia Minor/ I*, 723; Mitford, *East of Asia Minor/ I*, 79; Stephen Mitchell, *Anatolia. Land, Men and Gods in Asia Minor II: The Rise of the Church* (Oxford: Clarendon Press, 1993), 158-163.

[368] Mitford, *East of Asia Minor/ I*, 79-80.

Although the eastern frontier survived for another 300 years after Diocletian, this period is not mentioned much in the sources, and material evidence is scarce. However, there are sources and remains about the situation and decline of the frontier in the period of Justinian. In 314 AD, Tiridates III and Armenia accepted Christianity; meanwhile, Christianity became the dominant religion in Rome. With their conversion to Christianity, the son and grandchildren of Tiridates III were recognized by emperor Constantine I as the heirs to the throne. Although Sapor II captured Armenia, this time Caesar Hannibalianus from the Constantine dynasty was put at the head of the reclaimed kingdom.[369] It is thought that Constantine I weakened Diocletian's defences by withdrawing the garrisons into the cities. However, he made some changes in the military organization, a field army was developed, and new auxiliary and cavalry units were established. From the coins found in the vicinity of Dascusa, dating to the Constantine I period, it is seen that military activities were still continuing in the upper Euphrates at the beginning of the 4th century. It is understood that the road from Melitene to the north was repaired between 337-340 AD during the Constantine II period.[370]

During the Constantius II period, Sapor II captured Amida and Bezabde (Hendekköy/ İdil/ Şırnak) in 359/360 AD, and then Artaxata and most of Armenia. Emperor Jovian surrendered five provinces and fifteen fortresses beyond Tigris, including Nisibis, Singara, and Castra Maurorum. In response to the enthronement of Sasanian candidates to Armenia and Iberia, emperor Valens came to Antioch in 370 AD and organized expeditions to Armenia and Iberia. Repair of the road to the east of Nicopolis can be associated with these activities.[371]

Administrative changes made in the northeast of the frontier in the 4th century AD show that this region still maintained its importance. In 387 AD, Armenia Minor was divided by the emperor Theodosius into two provinces, Armenia I and II. Satala remained in the first province; the governor of the province was a consul, and the metropolis was Caesarea. Armenia Major was peacefully divided between the Romans and Sasanians, and annexed.[372] Although the border of Armenia continued to be protected by legions and

[369] Mann, "The Frontiers of the Principate," 525; Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1209; Mitford, *East of Asia Minor/ I,* 81.

[370] Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1209; Mitford, *East of Asia Minor/ I,* 81.

[371] Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1210; Mitford, *East of Asia Minor/ I,* 81.

[372] Mitford, *East of Asia Minor/ I,* 81; Roger C. Blockley, "The Division of Armenia between the Romans and the Persians at the End of the Fourth Century A.D.," *Historia: Zeitschrift Für Alte Geschichte* 36, no. 2 (1987): 222–234.

auxiliaries, in the period of Theodosius, the Huns crossed the Caucasus through the Darial Pass and invaded Armenia, attacked Melitene, and advanced as far as Cilicia. Caesarea, Cocusus (Göksun/ Kahramanmaraş), and Arabissos (Afşin/ Kahramanmaraş) on the support road to Melitene were besieged. In return, many cities were garrisoned.[373]

In 441 AD, the Sasanians attacked the eastern frontier again. In the treaty signed in 442 AD, Theodosius II agreed to pay for the defence of the passes in the Caucasus by the Sasanian king. This payment was rejected by Zeno in 483 AD and later by Anastasius. In 502 AD, Cavades of the Sasanians attacked Armenia and captured Theodosiopolis (Erzurum), Martyropolis (Silvan), and Amida. Thereupon, Anastasius started the construction of **the walls to enclose the city of Melitene and fortress**. Amida was taken back in 504 AD, and a **fortress was built in Dara (Mardin**?). **Walls were also rebuilt in Edessa and Batnae (Suruç/ Şanlıurfa)**, and **baths and two aqueducts** were built in Batnae.[374]

In the period of Justinian, the Armenia region was re-organized again in 535/536 AD. A new province, Armenia Magna, was formed by taking the northern part of Armenia I, including Satala, Nicopolis, and Colonia; and some part of Pontus Polemoniacus. Armenia I and Armenia II were renamed as Armenia II and Armenia III, respectively. The region where the Armenian satraps were located, became Armenia IV. The defence of the frontier was not in a good situation when Chosroes I of Sasanians attacked the eastern frontier in 540 AD. The forts on the Pontic coast had long been abandoned. The **forts at Sebastopolis and Pityus** were destroyed in order not to give them Chosroes I. The Sasanians invaded Mesopotamia and Syria and plundered Antioch. They captured Lazica in 541 AD, Nicopolis in 543 AD, and Edessa in 544 AD. With the truces, the war continued for 20 years, and peace was achieved in 561 AD. Chosroes I withdrew from Lazica in exchange for receiving payment to guard the Caucasian passes, and both sides agreed not to build new forts near the frontier[375] (Figure 3.9).

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[373] Benjamin Isaac, *The Limits of the Empire: The Roman Army in the East*, rev. ed. (Oxford: Clarendon Press, 1992), 230; Mitford, *East of Asia Minor/ I*, 81.

[374] Frank R. Trombley and John W. Watt, *The Chronicle of Pseudo-Joshua the Stylite*, Translated Texts for Historians, Volume 32 (Liverpool: Liverpool University Press, 2000), 48-100; Mitford, *East of Asia Minor/ I*, 82.

[375] Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1210; Mitford, *East of Asia Minor/ I*, 82; Peter Sarris, *Empires of Faith: The Fall of Rome to the Rise of Islam 500-700*. The Oxford History of Medieval Europe (Oxford: Oxford University Press, 2011), 155.

Figure 3.9. Organization of Armenia (387 AD- 540 AD)

During this period, Justinian decided to rebuild the neglected fortifications along the frontier. He completed the walls around Melitene, which were started to be built by Anastasius; also **built a new outer wall at Satala**. On the coast, **Sebastapolis and Pityus forts** were strengthened. Justinian's construction program also included **Trapezus and Nicopolis**, which were damaged by the earthquake in 499 AD. The workmanship in the **forts at Sabus (Çit Harabe/ Kemaliye/ Erzincan) and Sis Kale** above the Tomisa crossing, similar to that in Melitene, suggests that these forts were also rebuilt.[376]

After Justinian died, emperor Justin II broke the treaty with the Chosroes I made in 561 AD, refusing to pay a fee for the defence of the Caucasus passes. Thus, the war with the Sasanians, which would continue for 20 years, started, and the collapse of the eastern frontier began. In 573 AD, the Chosroes captured and plundered Dara, Syria, and Apamea. In 575 AD, Melitene was captured and burned. The war continued towards the east, Satala fell in 607/608 AD, and Nicopolis fell in 610 AD. In the time of Heraclius, around 641 AD, Syria was lost to the newly rising danger: Arabs. During the time of

[376] Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1210; Mitford, *East of Asia Minor/ I*, 83; Sarris, *Empires of Faith*, 135, 143.

Contans II, the Arabs advanced in Anatolia, and in the time of Constantine IV, in 673-677, Constantinople (İstanbul) was under siege for five years[377] (Figure 3.10, 3.11).

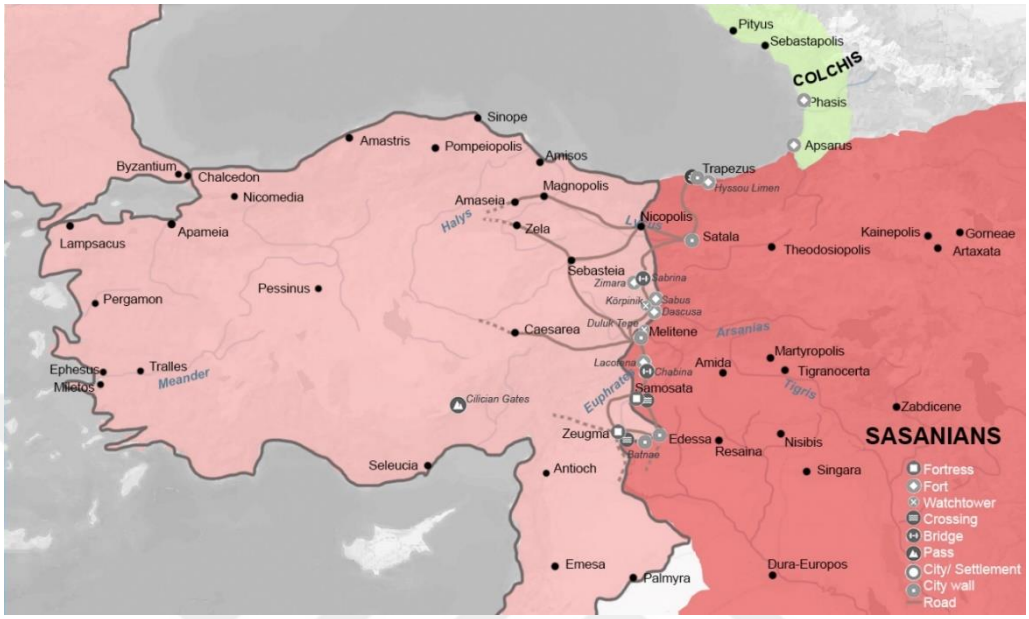

Figure 3.10. Rise of Sasanians (541 AD- 641 AD)

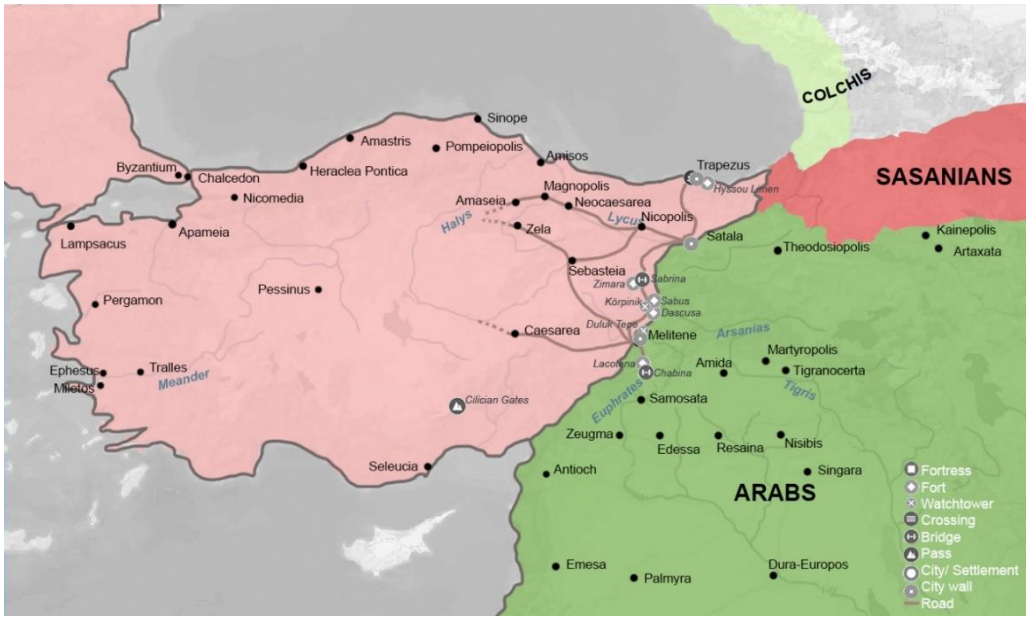

Figure 3.11. Rise of Arabs (641 AD)

[377] Mitford, *East of Asia Minor/ I*, 83.

In this way, after the eastern frontier collapsed, Melitene was built and demolished many times. Similarly, Caesarea, Sebasteia, and Trapezus, which are on the essential road axes, were rebuilt and demolished; and the traces of the Roman period deteriorated. Unlike these cities, it is known that the existence of Satala lasted at least until the end of the 6th century. The fact that the name of Satala is not mentioned by Arab geographers suggests that this place was missed during the invasion. However, of course, since the frontier chain was broken and the Byzantine defence was shifted, the military importance of the Satala no longer continued.[378]

[378] Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1211; Mitford, *East of Asia Minor/ I*, 83.

CHAPTER 4

DEVELOPING A FRAMEWORK TO UNDERSTAND THE CHARACTERISTICS OF THE ROMAN FRONTIERS IN ANATOLIA

In this chapter, a methodological framework was formed to understand the Anatolian frontier. For this purpose, firstly, other frontier sections were examined in terms of historical, socio-political, and spatial aspects, as well as conservation. While all frontier sections in Europe, the Near East and Africa are discussed to be considered in historical, socio-political and spatial aspects, the European frontier sections included in the WHL were chosen in terms of accessibility to resources for conservation aspect. In the second part of the chapter, the Anatolian frontier was investigated. The Anatolian frontier was divided into four historical regions as Pontus + Armenia Minor, Cappadocia, Commagene + North Syria, and Mesopotamia, and a catalogue listing of all frontier components obtained from the literature review was made.

4.1. Characteristics of the Roman Frontiers in Anatolia and the Other Frontier Sections

The Frontiers of the Roman Empire, which is an empire that includes the entire Mediterranean basin, pass through three continents, Europe, Asia, and Africa in 20 modern countries (from west to east as a circle: The United Kingdom, the Netherlands, Germany, Austria, Slovakia, Hungary, Croatia, Serbia, Romania, Bulgaria, Turkey, Syria, Jordan, Egypt, Libya, Tunisia, Algeria, and Morocco). The borders of the Empire reached the Atlantic Ocean in the west, the Caspian Sea in the east, the Red Sea in the southeast, the Sahara Desert in Africa in the south, and the Black Sea in the northeast. This great Empire dominated many different geographies and contained many different ethnicities.

Roman Frontiers were constructed to mark the boundaries of the Empire, to separate it from the peoples beyond, and to keep its communities under control. Of course, the construction period, technique, architecture, and topographical solutions of this frontier, which passes through different geographies, were different, as well as the purpose of construction or the threats against it. First of all, the frontiers were not built by a single emperor, but these frontiers were gone beyond by different emperors, or they were withdrawn behind the frontiers. Moreover, these frontier lines have rarely remained stable; many crises and wars in the frontier region caused situations to which the Romans had to react.

The first to determine the border policy of Rome was emperor Augustus (27 BC–14 AD), who transferred the state from the Roman Republic to the Empire. Augustus crossed the Alps in Italy and expanded the northern border to the Danube by including modern Switzerland, Bavaria, Austria, Slovenia, Albania, Croatia, Hungary, and Serbia, conquered northern Spain and Egypt, and established new imperial provinces in Anatolia. Although he recommended that the borders of the Empire should stay within these limits, his border policy was not always adopted, and conquests were made beyond these borders in later periods (i.e., during the periods of Trajan (98-117 AD), and Septimius Severus (193-211 AD)). The Empire reached its greatest extent during the period of Trajan. Dacia in the Balkans, Mesopotamia and Armenia in the east, and the Arabia Petraea in the Arabian Peninsula were included in the Empire. However, it is not possible to say that this expansion continued for a long time in all regions. Mesopotamia, Armenia, and Arabia Petraea, the conflicted regions that were difficult to control, were withdrawn to more stable borders after Trajan's death, but the prosperous period of the Romans still continued.

Roman frontiers included Hadrian's Wall, which was built in 122 AD in northern England. It passes from the Atlantic Ocean to the North Sea thus, divides Britain Island in half. The borders of the Empire were expanded to the north to Scotland, Hadrian's Wall was abandoned for a time, and the Antonine Wall was built in 142 AD. Antonine Wall, like Hadrian's Wall, divides the island into two, starting from Old Kilpatrick in the west and ending at Carriden in the east. Both Hadrian's Wall and Antonine Wall are artificial borders built in a straight-line neglecting topography. In continental Europe, it was benefitted from the rivers Rhine and the Danube since they are natural borders, and the border was determined as the banks of these rivers. While the Rhine formed the border in modern the Netherlands and Germany, the border was determined as the Danube from

Bavaria to Romania's Black Sea coast. There was the Dacian frontier in Romania, which included the modern Transylvania region which was conquered during the Trajan period in 106 AD. In the east, the Euphrates River in Anatolia and the Arabian desert in the Arabian Peninsula in the south became the natural frontiers of the Empire. Here it was bordered by the Parthians, which gave Rome frequent struggles. A defensive wall was not built on the Euphrates; although control forts were built by taking advantage of the impermeability of the mountains, trade routes were also allowed. Although it was passed to the east of the Euphrates during the period of Trajan in 114 AD, this conquest was not permanent, and the Euphrates, which provided a stable border, was preferred again. As in the southeast, the Sahara Desert determined the frontier of the Empire in Africa in the south. Forts were built here, especially on the desert frontier, which protected the prosperous trade cities in Egypt. The border here was not impermeable, allowing commercial relations with the nomads.

According to the Thematic Study[379] prepared by the Bratislava Group (advisory commission for the World Heritage nominations of the FRE), Roman Frontiers were classified as artificial, river, mountain, desert, sea, and mix frontiers which occur a combination of some of them. Hadrian's Wall, Antonine Wall (the UK), and Upper German – Raetian Limes (Germany) in Europe were described as artificial barriers against the "barbarians". Lower German (the Netherlands and Germany) and Danube Limes (Germany, Austria, Slovakia, Hungary, Croatia, Serbia, Romania, and Bulgaria) were river frontiers, as can be understood from their names, and where a large army was positioned against "barbarians". Dacia frontier in Romania, which formed a circle rather than a line, was a mixed border utilizing the mountains and artificial barriers against the "barbarians". When considered Anatolia, the policy of the Empire, which was defended against the "barbarians", changed. This time, there were the Parthians, who were an equal power against the Empire. Against the Parthian danger in the east, the Euphrates River between mountains was accepted as a defensible border, and the large army was stationed in garrisons along it. Contrary to the border against the "barbarians" in Europe; in South Syria and Arabia (Syria and Jordan), Egypt (Egypt), Cyrenae and Africa Proconsularis

[379] Rene Ployer, Marinus Polak, and Ricarda Schmidt, *The Frontiers of the Roman Empire: A Thematic Study and Proposed World Heritage Nomination Strategy. Advised by Icomos-International and commissioned by the Intergovernmental Committee of the 'Frontiers of the Roman Empire' World Heritage Site (UK, DE) and the Bratislava Group* (Bundesdenkmalamt Österreich/ Radboud Universiteit Nijmegen/ Bayerisches Landesamt für Denkmalpflege: Vienna/ Nijmegen/ Munich, 2017).

(Libya and Tunusia), and Numidia and Mauretania (Algeria and Morocco), which form the desert frontiers, a controlled border policy was adopted in which commercial relations were carried out with the nomads here, and a small army was positioned. In Cyrenae and Africa Proconsularis, and Numidia and Mauretania, in addition to deserts and mountains, artificial borders were also benefited. Also, the quarries in Egypt played an important role in trade with the nomads.

In order to determine the architectural and topographic features of the Anatolian frontier and to discuss its distinctive aspects from the other sections, all of other frontier sections were examined in this direction. Frontier sections in this thesis were adopted from the Thematic Study (which are Hadrian's Wall, the Antonine Wall, Upper German-Raetian Limes, Lower German Limes, Danube Limes, Dacia Limes, Near Eastern Limes, and African Limes, respectively) (Figure 4.1), and since more research was needed on the frontiers of the Near East and Africa, although the characteristics of their sub-regions are mentioned, they are not divided into groups as much as the European parts. When further research is done on these sections, it would be possible to divide them into different parts according to their characteristics. Since the Anatolia frontier is the subject of this thesis and has been examined in detail, it has been separated from the Near Eastern frontier. Thus, the Near Eastern frontier includes the Caucasus, Syria, Arabia and Egypt parts. In order to be able to discuss the conservation and management approaches of other frontier sections, sections inscribed in the UNESCO WHL (Hadrian's Wall, the Antonine Wall, Upper German-Raetian Limes, Lower German Limes, Danube Limes- western segment) were chosen because one of the prerequisites for nomination is to prepare conservation and management plans. For this reason, conservation and management plans of these sections and documents on their characteristics are accessible.

Figure 4.1. Map of the Roman Empire frontier sections[380]

4.1.1. Chronological, Socio-Political and Spatial Characteristics

4.1.1.1. Hadrian's Wall

During the period of Claudius in 43 AD, the Britain island was invaded by the Romans and the Celtic tribes there were incorporated into the empire, thus a new province of Britannia was established. During the period of Vespasian, the Brigantes kingdom in the north joined the empire and the borders of the province were expanded towards the

[380] Redrawn from Ployer, Polak, and Schmidt, *A Thematic Study*, 100-101; and "Moderne Staatsgrenzen Map."

north. However, due to the war with the Dacians in Transylvania, the troops in the newly established province were sent to Dacia and the forts in the north of Tyne- Solway isthmus were abandoned. During his visit to the province in 122 AD, Hadrian ordered the construction of a wall in order to control the Welsh tribes' movement in the north of the island. Hadrian's Wall starts at Bowness-on-Solway at Solway Firth Bay and ends to the west at the North Sea, Wallsend at the mouth of Tyne River in the UK (England). The frontier continues until Maryport at the southwest, by following the Cumbria coast. Beyond these west and east ends where the Wall ends, there are forts, milefortlets, and towers without a linear barrier. There were also at least three forts to the north of the Wall, and a network of forts with legions to the south of the Wall. Hadrian's Wall remained in military use until the Roman withdrawal from Britain 410 AD[381] (Figure 4.2).

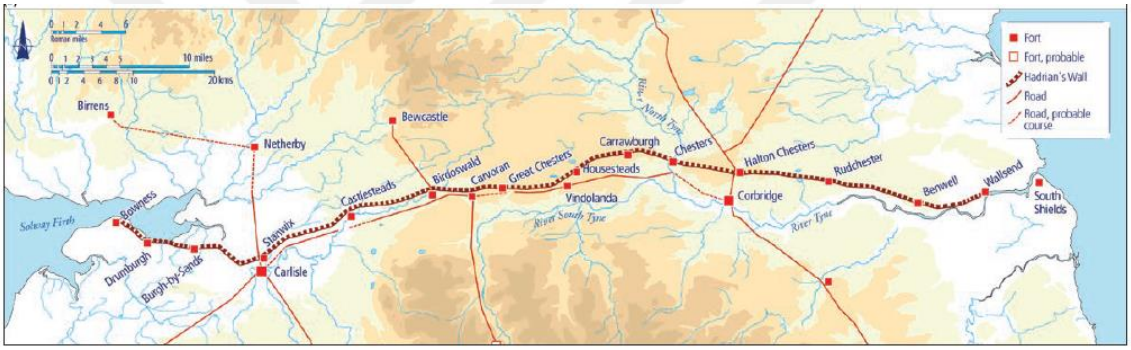

Figure 4.2. Map of Hadrian's Wall[382]

The construction of the Wall began in 122 AD. This wall complex, where many military structures are located, is 117 kilometres long from one end to the other, 74 kilometres of it is a stone wall. It was extended approximately 40 kilometres to the south at its western end. The Wall was not only made of stone; besides the stone wall, it contains 43 kilometres of turf rampart. There are a total of 200 towers, 100 fortlets, 20 forts (Figure 4.3, 4.4), and seven castles along the wall. The construction of such a complex was not

[381] David J. Breeze, *Frontiers of the Roman Empire: Hadrian's Wall* (Hexham: Hussar Books, 2011), 48-59, 68; Ployer, Polak, and Schmidt, *A Thematic Study*, 28-29.
[382] Breeze, *Frontiers of the Roman Empire: Hadrian's Wall,* 50.

completed in a short time. It was understood that some alterations were made to the original plan during the construction of the Wall.

Figure 4.3. Housesteads Fort with the ideal "playing-card" plan scheme[383]

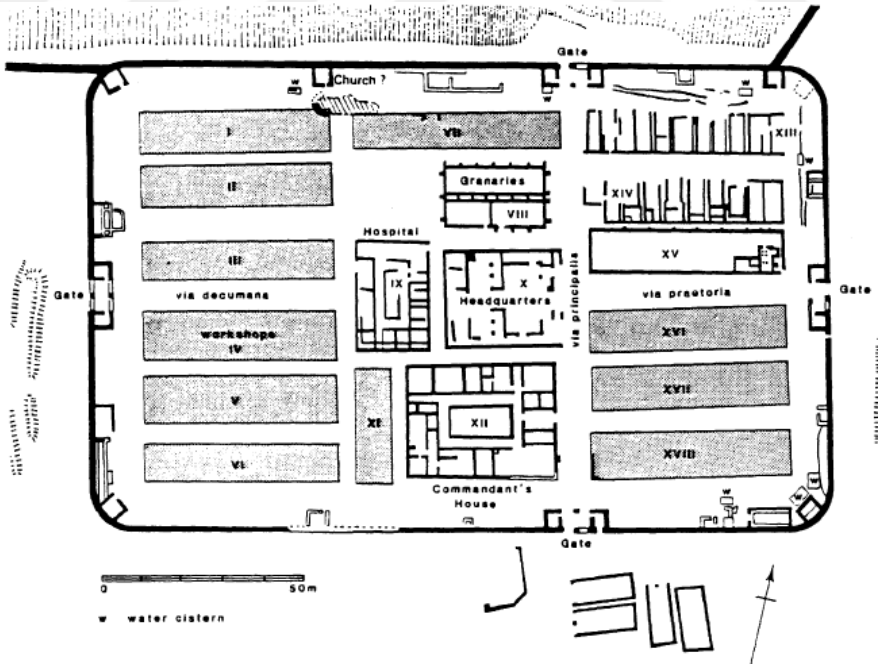

Figure 4.4. Plan of Housesteads Fort[384]

383 Breeze, *Frontiers of the Roman Empire: Hadrian's Wall,* 57.

384 James Crow, "Survey and Excavations on Hadrian's Wall, 1989-1999. Housesteads-Vercovicium," in *Hadrian's Wall 1989-1999. A Summary of Recent Excavations and Research*

According to the first scheme of the Wall, it was planned to be 72 kilometres long, 4.4 metres high, and 3 metres wide stone wall from the Tyne River to the Irthing River, and 45 kilometres long and 6 metres wide turf rampart for the rest from the Irthing River to the Solway Estuary. Although this region of Britain lacked natural boundaries such as great rivers or mountain ranges, it was planned to benefit from natural features wherever possible. For this reason, in the central part of the Wall, it was aimed to run along to crags about 20 kilometres while the eastern part would be placed on a long ridge and the west part on shorter ridges. It was considered that the stone wall part had facing stones with earth or clay with stones core, and probably walkable on top it. Since pits have been found on the berm of the Wall, it was thought that there would be three rows of pits with two substantial posts whose edges were sharpened. After the bern, there was a ditch running the whole length of the Wall unless where can benefitted from crags. The ditch was planned to be 9 metres wide. The soil that came out from the excavation of the ditch was piled up to form a low mound towards the north. Apart from these defensive measures, it was placed little fortlets called milecastles to protect the gates at every mile (Figure 4.5). There were built of stone on the stone wall parts and turf and timber on the turf section. Most of the milecastles contain a barrack-block for probably eight men, while double-sized barrack building found in two of them shows a larger garrison, besides some of them had hearths, an oven, and a staircase leading to the top, as understood from the excavations. There were two towers called turrets built of stone between each milecastles (Figure 4.6). Probably it was also possible to climb over them with ladders. It was considered that the primary aim of the turrets was observation with soldiers serving short periods rather than defence since some objects were lacking, such as furniture found in forts. The fact that the turret gate is on the ground floor also indicates that there was no significant security gap, and the soldiers serving here were probably recruited from the forts behind the Wall. However, this first plan scheme could not be realized since it required a lot of time, material, and workmanship.

prepared for the Twelfth Pilgrimage of Hadrian's Wall, 14-21 August 1999, ed. Paul Bidwell (Kendal: Titus Wilson & Son, 1999), 124.

Figure 4.5. A milecastle at Cawfields[385]

Figure 4.6. A turret at Denton[386]

[385] Breeze, *Frontiers of the Roman Empire: Hadrian's Wall,* 35.
[386] Breeze, *Frontiers of the Roman Empire: Hadrian's Wall,* 54.

Instead of this scheme, it was planned to place forts at the Wall approximately 11 kilometres intermittingly, with three gates in the north and one in the south. Thus, the military units could easily pass from the south to the north of the Wall. However, this plan also required giving up the built turrets and milecastles and re-filling the ditch. In addition, behind the Wall, a massive ditch with mounds set back on each side called the vallum was built from Newcastle to Bowness-on-Solway (Figure 4.7, 4.8). In this way, this obstacle blocked the movement and passage; crossing the Wall was only possible with the gates descending from about 80 to 16 at the points where the forts were located. Moreover, the width of the Wall was reduced from 3 metres to even 1.8 metres in some places and its height to 2.4 metres. Some forts, such as the Carvoran, had to be rebuilt or repaired within ten years as the workmanship also deteriorated. Although it was desired to replace the turf rampart with a stone wall, this was only achieved in 8 metres.[387]

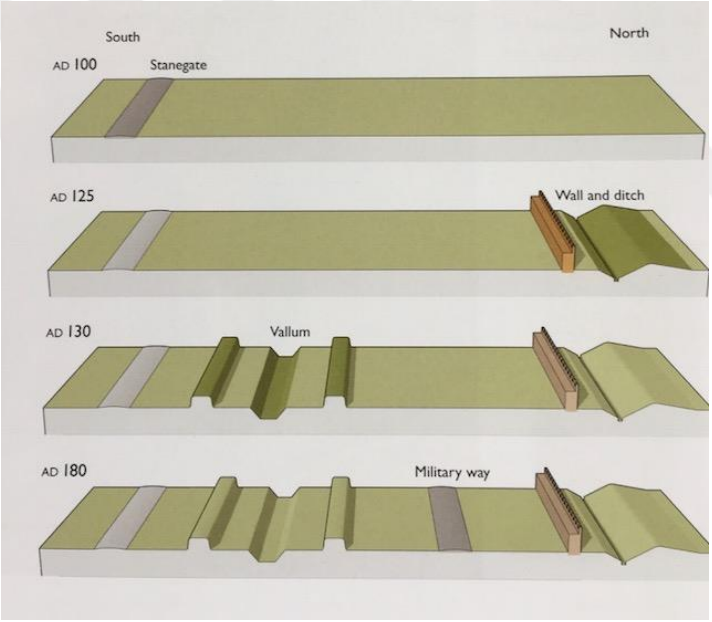

Figure 4.7. Defence system of Hadrian's Wall[388]

[387] Breeze, *Frontiers of the Roman Empire: Hadrian's Wall*, 48-59; David J. Breeze, *Hadrian's Wall. A study in archaeological exploration and interpretation* (Oxford: Archaeopress, 2019): 61-92; Julian Bennett, "A revised programme and chronology for the building of Hadrian's Wall," in *Limes XVIII Proceedings of the XVIIIth International Congress of Roman Frontier Studies held in Amman, Jordan (September 2000)*, ed. Philip Freeman, Julian Bennett, Zbigniew T. Fiema, and Birgitta Hoffmann. BAR International Series 1084 (Oxford: Archaeopress, 2002), 825-834; Nick Hodgson, *Hadrian's Wall. Archaeology and History at the Limit of Rome's Empire* (Wiltshire: Robert Hale, 2017), 71-90.

[388] "Hadrian's Wall: Roman Britain's Lasting Imprint on History," Historydrjc.com, accessed June 11, 2023, http://www.historydrjc.com/blog-1/2017/8/5/new-one-starts-here.

Figure 4.8. Vallum and the vallum crossing at Benwell[389]

4.1.1.2. The Antonine Wall

After the short-term conquest of Britain, Hadrian withdrew to the borders of today's Hadrian's Wall and had a wall built there. After Hadrian's death in 138 AD, Antoninus Pius decided to reconquer Scotland again. Thus, he left Hadrian's Wall and moved towards the north. Although the reasons for this decision are discussed, it is thought that the reason could be to control the movements of the Welsh tribes in the north or to be military propaganda of the new empire. The Antonine Wall, which was started to be built in the period of Antoninus Pius in 142 AD, was kept for only one generation, and in 158 AD it was withdrawn to the previous border, Hadrian's Wall.[390]

[389] "Description of Benwell Vallum Crossing," English Heritage, accessed June 11, 2023, https://www.english-heritage.org.uk/visit/places/benwell-vallum-crossing/history/description/.

[390] David J. Breeze, *Edge of Empire. Rome's Scottish Frontier. The Antonine Wall* (Edinburg: Birlinn, 2008), 13-15; David. J. Breeze, *Frontiers of the Roman Empire: The Antonine Wall* (Edinburgh: The House, Print and Design Management, 2009), 39-48; Lawrence Keppie, "The Antonine Wall 1960-1980," *Britannia* 13 (1982): 91-111. https://www.jstor.org/stable/526490; Ployer, Polak, and Schmidt, *A Thematic Study*, 28-29.

The Antonine Wall, which is approximately 60 kilometres long, lies on the Forth-Clyde isthmus, and starts at Old Kilpatrick at the mouth of the Clyde River and ends to the west at Carriden at Firth of Forth in the UK (Scotland). The Wall crosses the high ground in the central valley of Scotland, formed by the Kelvin River, tributary of the Clyde, to the west, and the Carron River to the east (Figure 4.9). Because of these rivers, the land of the Wall is swampy. Although the endpoint of the Wall could not be determined in the east in the excavations, it leaves its convenient topography and forms a zigzag by following the high points from Balmuildy to Old Kilpatrick at the west end. The construction of the Wall started in 142 AD, and completed in 144 AD. The main construction material of the Wall is turf (Figure 4.10). The turf rampart was placed on a stone foundation and was planned to be probably 4.3 metres wide. In addition, the turf wall may have been covered with timber breastwork. The eastern 10 kilometres portion of the Wall is not turf and was built of clay or clay-covered earth blocks. It was understood from the fort ruins in Balmuildy, that the Wall was actually intended to be built of stone.[391] There was a deep ditch in front of the rampart; the soil coming out of the pit was piled up to form a mound towards the north (Figure 4.11). In addition, small pits thought to have been built for safety were found on the berm between the rampart and the ditch at many points during the excavations.[392]

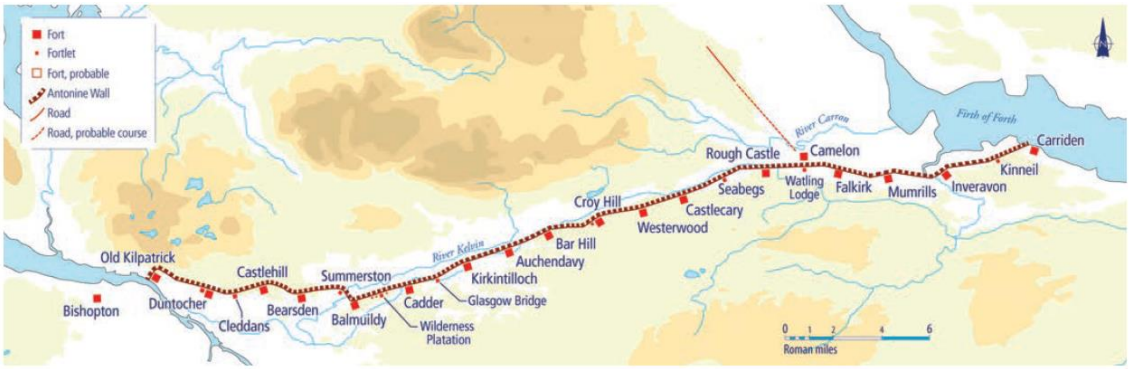

Figure 4.9. Map of the Antonine Wall[393]

391 Nick Hodgson, "Why was the Antonine Wall made of turf rather than stone?," in *The Antonine Wall. Papers in honour of Professor Lawrence Keppie,* ed. David J. Breeze and William S. Hanson (Oxford: Archaeopress, 2020), 301-312.

392 Erik Graafstal, "Wing-walls and waterworks. On the planning and purpose of the Antonine Wall," in *The Antonine Wall. Papers in honour of Professor Lawrence Keppie,* ed. David J. Breeze and William S. Hanson (Oxford: Archaeopress, 2020), 142-185.

393 Breeze, *Frontiers of the Roman Empire: The Antonine Wall,* 42.

Figure 4.10. Turf wall of the Antonine Wall[394]

Figure 4.11. The ditch at Watling Lodge[395]

394 Breeze, *Frontiers of the Roman Empire: The Antonine Wall*, 28.
395 Breeze, *Frontiers of the Roman Empire: The Antonine Wall*, 6.

According to the first scheme of the Antonine Wall, it was to have six forts, one at every 12 kilometres, to house the auxiliary units, and fortlets between them at every 2 kilometres. However, after most of this plan was built, it was changed and the number of forts was increased. They were placed at 3 kilometres between them. 17 of the forts, which are estimated to be 19 today, have been discovered. Principal structures such as the head-quarters, granary, commander's house at the centre of the forts were built of stone, but the barrack-blocks, where the soldiers were accommodated, stables and storehouses were made of timber. Although the Balmuildy and Castlecary forts, which were built according to the first plan, had stone walls, other forts had turf ramparts. The fact that a turf barrier was built indicates the existence of agricultural lands here before the Romans. Except for Carriden and Barhill forts, other forts were built adjacent to the back of the rampart. As an uncommon feature of Roman frontiers, many forts had adjoining structures to accommodate additional supplies and soldiers. In addition, there were bathhouses where soldiers could take a bath in the main fort or in these annex structures. Both the fort and the annexes were protected by at least two rows of ditches, and the forts and fortresses were connected by a 5.5 metres wide road called the Military Road. As another unique feature, expansions that were considered to be beacon-platforms were found in pairs attached to the back of the Wall at three forts[396] (Figure 4.12).

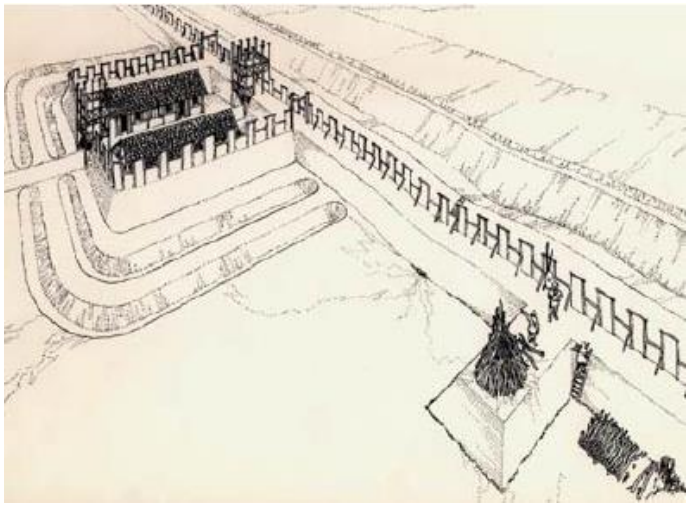

Figure 4.12. Hypothetical drawing of the fort and beacon-platform "expansion"[397]

[396] Breeze, *Frontiers of the Roman Empire: The Antonine Wall*, 39-48.
[397] Breeze, *Frontiers of the Roman Empire: The Antonine Wall*, 47.

4.1.1.3. Upper German- Raetian Limes

At the end of Caesar's Gallic War, the Roman Republic had reached the Rhine River, and from the time of Emperor Augustus large troops were stationed around Mogontiacum (Mainz) in Germany around 15 BC. Although when the Empire's attempt to invade all of Germania failed, the Lower Rhine remained the frontier until the Late Antiquity. On the other hand, the territories of Romans at the Middle and Upper Rhine were advanced several times over a period of 200 years, and the construction of the artificial frontier at the Upper Rhine started in 90 AD. When the progress of the Romans stopped around 160 AD, the Upper Rhine frontier at the farthest point of the Romans here was secured until the middle of the 3rd century. No Celtic remains were found south of Mainz in archaeological excavations; the Celts seemed to have abandoned these lands before the Romans arrived. Except for a few conflicts in the north of Mainz, it can be considered that the Roman occupation was mostly peaceful in southern Germany. While it is not possible to suggest that the Romans advance the Upper Rhine was for goods, it could be suggested that it was to secure the Roman power in the Mainz and to create a new trade route. At the beginning of the 1st century, military and commercial centres were established on the Rhine River and the Danube River, and goods and troops between Germania and the Balkans were transported by a route of 640 kilometres across the Rhine near Basel. During the Flavians period, a direct route was established between Mainz and Augusta Vindelicorum (Augsburg), the capital of the province of Raetia, with the shifting of the frontier to the Upper Rhine; thus the previous route was shortened. During the period of Vespasian, around 74 AD, the construction of a fortified road from Strasbourg to the Danube River was started by crossing the Black Forest. In 90 AD, the formerly military Germania Superior (Upper Germania) region was elevated to the province level. During the period of Trajan, around 100 AD, the route from Mainz to Augsburg was arranged, and the route was shortened to 360 kilometres. With the occupation of the regions between the Neckar and the Swabian-Franconian Forest during the period of Antoninus Pius, in 155-160 AD, the province of Upper Germania reached its greatest extent. With the crisis of the 3rd century and the attacks of Alamanni and Franks tribes,

the dominance of the Romans in the east of the Rhine ended, and the Late Roman Empire withdrew to the Rhine border.[398]

The Upper German-Raetian Limes is 507 kilometres long, passing between Rheinbrohl on the Rhine River and Eining on the Danube River in Germany. Only a 43 kilometres part passing through the Main River does not have linear barrier installations. During the initial construction phase of the Upper Germanic frontier, large auxiliary forts were built at strategically important places such as Butzbach or Echzell in the Wetterau, while smaller forts with smaller units were deployed in other areas (Figure 4.13, 4.14). Among the advanced forts, there were probably timber watchtowers in the wooded areas. Depending on the region, these towers could be built entirely of timber or with timber-beam stone foundations. The number of towers was initially small, as the purpose was not to transmit signals or to monitor the frontier continuously. Additional precautions were taken in areas where probable threats could exist; for example, there was a ditch between Zugmantel and Heftrich, through the entire Idsteiner Senke to control passage across the Taunus, and in the eastern Wetterau. As a second phase, probably 120 AD, a timber palisade was erected, which is probably 2.5-3 metres high and unique compared to other sections, which can be explained by the abundance of timber in the region (Figure 4.15). The palisade did not have a single design, it was erected adjacent or spaced, and round logs or halved logs were used. They aimed to provide long-term durability by charring the ends of the palisade buried in the ground and making white-washing with lime. During the construction of the palisade, they took advantage of the topography when they could, taking into account the topographic features. If the mountain ridges were available, the palisade was passed through there, and in the valley, the palisade followed a straight line. In the third phase, probably around 145 AD, the watchtowers were rebuilt of stone. This time, the number of watchtowers was increased, and their spacings were compressed. The watchtowers were built to have three floors, with storage on the ground floor, accommodation on the middle floor, and a guardroom on the upper floor. Around 160 AD, the palisade, watchtowers and forts were rebuilt when the frontier line was shifted from the Odenwald and Swabian-Franconian Forest to between the forts of

[398] Andreas Thiel, Sarah Roth, and Thomas Becker, *Frontiers of the Roman Empire: The Upper Germanic Limes* (Oxford: Archaeopress Publishing Ltd, 2022), 43-69; Nick Hodgson, "Relationship Between Roman River Frontiers and Artificial Frontiers," in *Roman Frontier Studies 1995. Proceedings of the XVIth International Congress of Roman Frontier Studies*, ed. W. Groenman- van Waateringe, B. L. Van Beek, W. J. H. Willems, and S. L. Wynia. Oxbow Monograph 91 (Oxford: Oxbow Books, 1997), 61-66; Ployer, Polak, and Schmidt, *A Thematic Study*, 28-29.

Miltenberg and Lorch. The new 80 kilometres frontier course was designed as a straight line. In the fourth phase, during the Severan period, a 3 metres wide ditch was dug on the Upper Germanic frontier, and the soils were made rampart (Figure 4.16). While approaching the end of the Roman rise, the number of soldiers in the troops was reduced, and the sections used in the forts were limited.

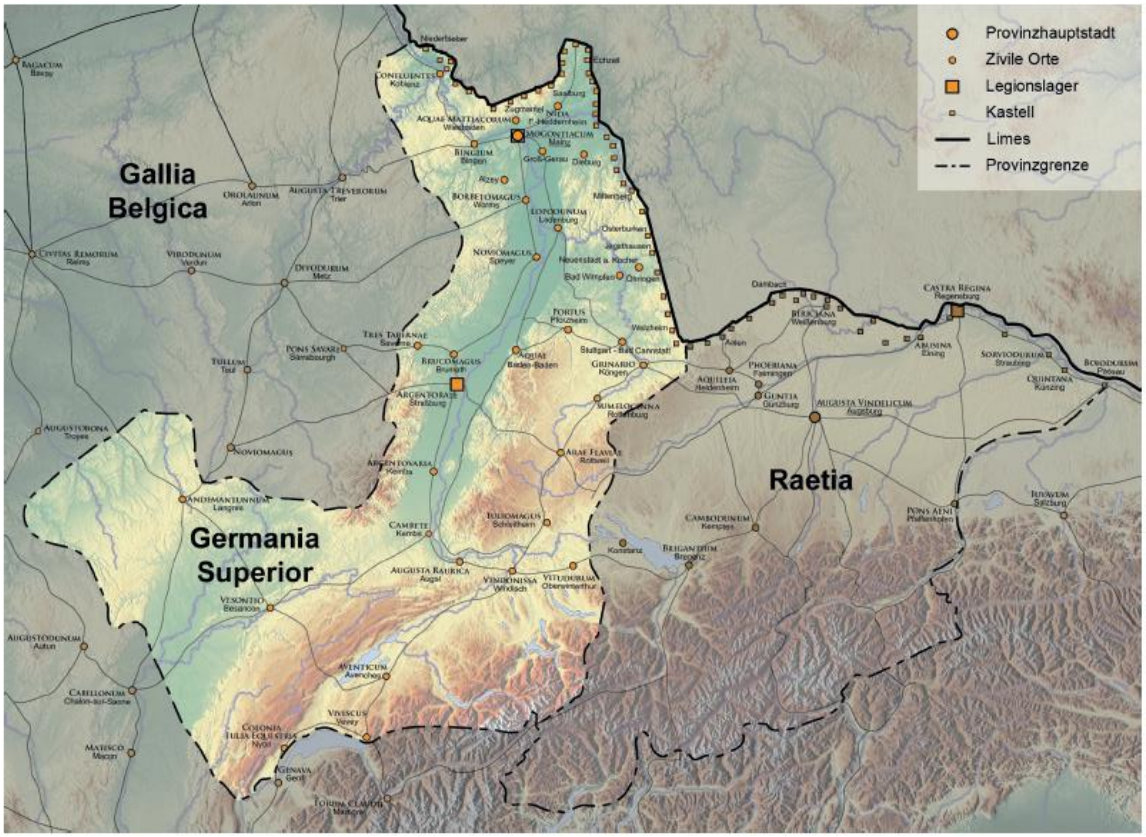

Figure 4.13. Map of Upper German- Raetian Limes in Germania Superior and Raetia provinces[399]

[399] Thiel, Roth, and Becker, *Frontiers of the Roman Empire: The Upper Germanic Limes*, 93.

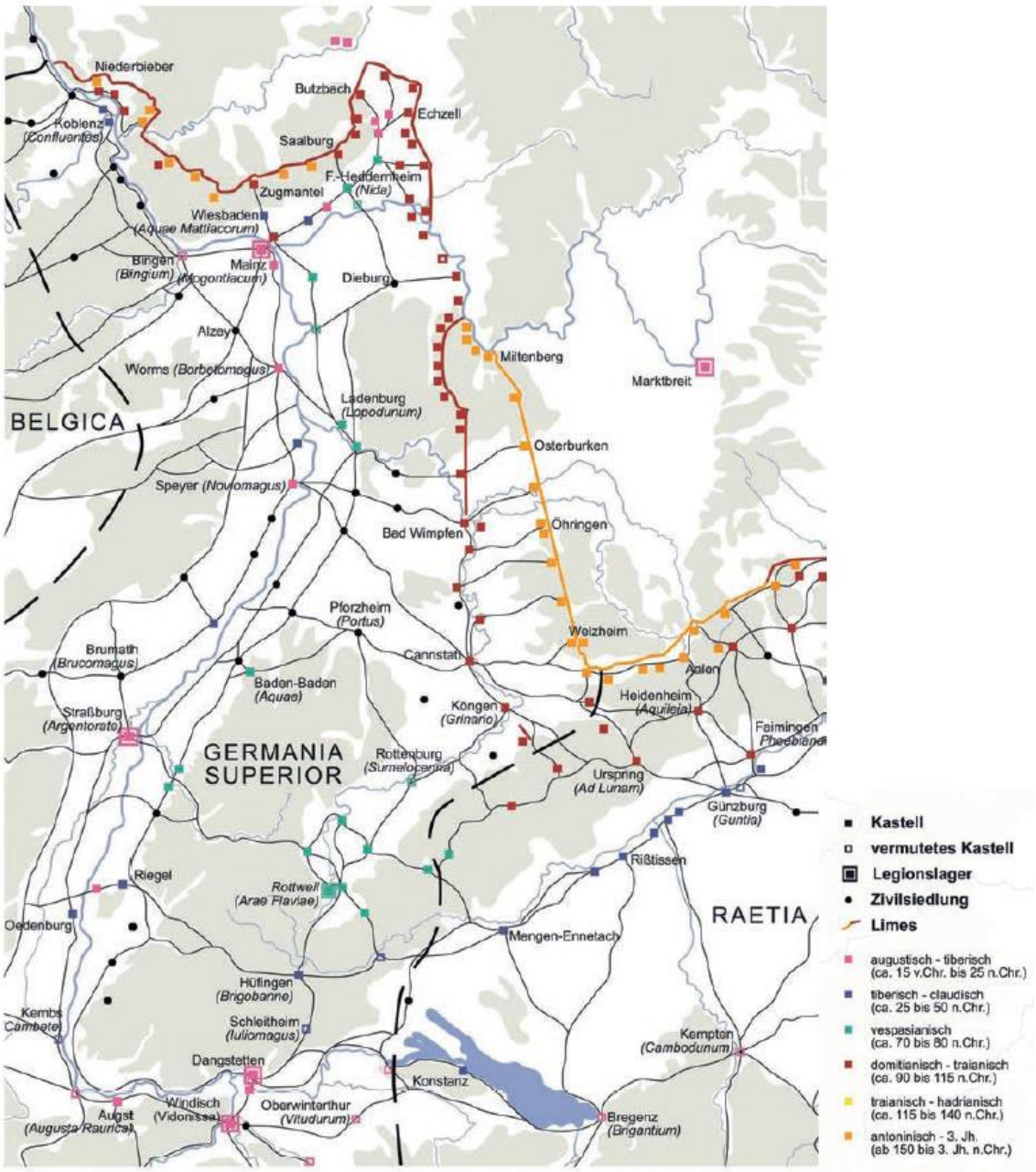

Figure 4.14. Chronological map of Upper German- Raetian Limes[400]

[400] Thiel, Roth, and Becker, *Frontiers of the Roman Empire: The Upper Germanic Limes*, 42.

Figure 4.15. Original remains of the timber palisade unearthed during the excavations[401]

Figure 4.16. The ditch on the Taunus Mountains[402]

[401] Thiel, Roth, and Becker, *Frontiers of the Roman Empire: The Upper Germanic Limes*, 38.
[402] Thiel, Roth, and Becker, *Frontiers of the Roman Empire: The Upper Germanic Limes*, 17.

The forts were rectangular in plan and had rounded corners. There were ditches of one or more rows with up to 9 metres wide and 4 metres deep around them. The rampart behind the ditches consisted of a timber plank wall around an earthen body, with multi-storied timber towers at the corners and sides. In the forts, at the central point where the four gates met, there were headquarters structures (*principia*) consisting of administrative units, the command office and the treasury building. Around the administrative units were the commander's house and soldiers' barracks with a long, thin rectangular plan. Where there were mounted units, the barracks were larger to provide space for the horses in the front. Food was kept in the warehouse building. Civil settlements consisting of relatives of soldiers, merchants, craftsmen, etc., were established on the main roads outside the forts as close as possible to the forts. The structures in this settlement faced the road and were simple structures made of wattle and daub, which combined residential and commercial functions.[403]

4.1.1.4. Lower German Limes

Julius Caesar reached Gaul in the middle of the 1st century BC; however, the Roman incorporation of the region was at the time of Augustus's empire. After Rome reached the Rhine River, it began to place military units there in the 1st century AD. Although it was not possible to advance further into Germania, the Rhine River was accepted as a border by establishing the Upper and Lower Germania provinces in the 80s AD. Roman domination in the Rhine corridor and river traffic also enabled it to be used as a supply line during the conquest of Britannia. With the establishment of Lower Germania as a province in 85 AD, the forts on the Rhine frontier were completed. During the period of Trajan, new infrastructures and new structures, such as temples were built on the frontier. During the crisis of the 3rd century, the frontier region supported the junior emperors who claimed to rule. In the late Roman period of the 4th century, some

[403] Matthew Symonds, *Protecting the Roman Empire. Fortlets, Frontiers, and the Quest for Post-Conquest Security* (UK: Cambridge University Press, 2018), 152-175; Thiel, Roth, and Becker, *Frontiers of the Roman Empire: The Upper Germanic Limes*, 43-69.

reconstructions and divisions, and reductions in the sizes of the structures are observed. With the rise of the Franks in the 5th century, the Lower German Limes collapsed.[404]

On the southern bank of the Rhine, military installations were built from Remagen in Germany down to Katwijk in the Netherlands on the North Sea coast. The Lower German Limes consists of 30 forts and watchtowers between them, with the Rhine as a natural barrier. The Lower German Limes is separated from the Upper German Limes by Rhenish Massif mountain ranges. Three geographical subregions of the Lower German Limes also correspond to today's administrative boundaries: states of Rhineland-Palatinate, and North Rhine-Westphalia, and the Netherlands (Figure 4.17, 4.18). While the Middle Rhine had a steep-sided valley that prevented river traffic until modern times, this situation changed in Lower Rhine; thus, the river allowed traffic. Although the Rhine existed in the Roman period, it followed a different course than today's view because the river was rehabilitated during the river arrangements in the Netherlands in the 19th and 20th centuries. However, similar to today, the Rhine had a system in which beds, canals, shelters, and harbourage were constantly arranged in the Roman period. In addition to river control, the location of the forts was also important to prevent flooding. Forts in Lower Germany had timber quays and revetments.

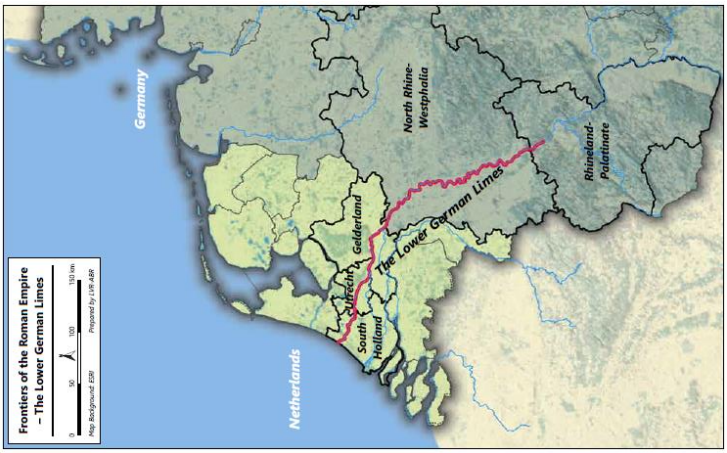

Figure 4.17. Map of Lower German Limes according to states[405]

[404] Erik P. Graafstal, Willem J.H. Willems, and Steve Bödecker, *Frontiers of the Roman Empire: The Lower German Limes* (Leiden: Sidestone Press, 2018), 52-89; Ployer, Polak, and Schmidt, *A Thematic Study*, 28-29.

[405] UNESCO, *Frontiers of the Roman Empire – The Lower German Limes. Part I – Nomination file*, 20.

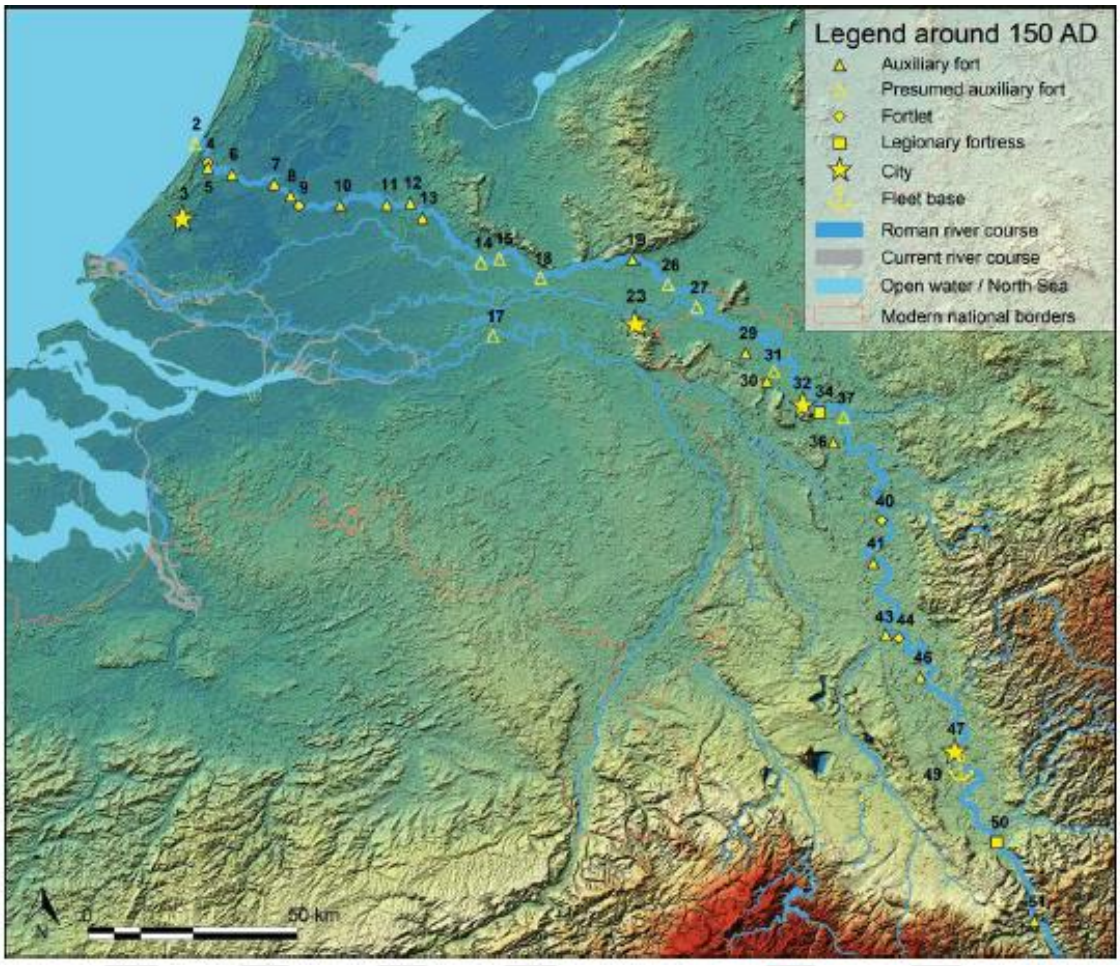

Figure 4.18. Map of Lower German Limes around 150 AD[406]

The legionary fortresses in Lower German Limes were positioned to control the natural transition points of Lower Germany in and out. The fortress at Xanten controlled the main contact axis over the Lippe valley (Figure 4.19), while the bridgehead fort at Büderich protected the river crossing; the fort at Bonn protected the middle Rhine valley and the passage to free Germany at the Sieg valley. During the period of Augustus, there was a double legionary fortress at Hunerberg near Nijmegen. It is thought that this centre was deployed at this point to support Batavian urban development and to provide infrastructure, as well as to control the Batavi riots. The deployment of auxiliary units reflected the topographical features. In the river delta to the west of Utrecht, more infantry units were positioned since the range of movement of the cavalry was limited, while in

[406] Graafstal, Willems, and Bödecker, *Frontiers of the Roman Empire: The Lower German Limes,* 76.

the German Rhineland, where the plain area was large, more cavalry units were deployed for trans-Rhenish operations. Besides the land fortresses and forts, the important feature of the Lower German Limes was that it had a fleet with its principal base at Cologne-Marienburg (Figure 4.20). In addition to transportation ships of various sizes, there were also oared warcrafts in the fleet. With the support of the fleet, the army could use pontoon bridges to cross the Rhine. The military road connecting all these units was built gradually, starting from the German Rhineland and towards the western Netherlands during the 1st century AD (Figure 4.21). Unlike Hadrian's Wall, the Antonine Wall and Upper German- Raetian Limes, the Lower German Limes was the base of the Germany campaigns, so the legions were stationed in legionary fortresses directly on the frontier rather than in a safe remote area behind the frontier.

Figure 4.19. Legionary fortress at Xanten on the Rhine[407]

[407] Graafstal, Willems, and Bödecker, *Frontiers of the Roman Empire: The Lower German Limes,* 58.

Figure 4.20. Quays of the port at Xanten[408]

Figure 4.21. Double row of oak posts of the limes road in Leidsche Rijn near Utrecht[409]

[408] Graafstal, Willems, and Bödecker, *Frontiers of the Roman Empire: The Lower German Limes,* 106.

[409] Graafstal, Willems, and Bödecker, *Frontiers of the Roman Empire: The Lower German Limes,* 117.

The chronological development of the frontier system can be traced in the Lower German Limes. The frontier first began with the deployment of bases at Nijmegen and Neuss in 19/6 BC and went through many changes until its collapse in 450 AD. While campaign bases followed the natural terrain during the Augustus period, the playing card plan scheme was started to be implemented in the following periods. An improvement is also observed in the defensive measures around the forts. At first, earth ramparts with timber revetments or turf cheeks were driven around them, and later stone walls built on rafts of driven piles were built. Developments can also be observed in the accommodation units. As campaign bases became permanent strongholds, a transition was made from tents to barracks with kitchen/sleeping rooms as shelter for soldiers. In the 4th century AD, the size of the forts was reduced for security reasons.

In the Lower German Limes, there were large fortresses inhabited by legions up to 16 ha, and sometimes big enough to include units of auxiliary troops. There was a headquarters building (*principia*) with 7000 m^2 in the centre of the legionary fortress at Koenenlager at Neuss, which is an example where all the principal units of the fortress can be observed. The headquarters consisted of a commander house (*praetorium*), the mansions of six highest ranking staff officers (*tribuni*), a large bath-house and hospital, several granaries and other storage buildings (*horrea*). Around them, there were barracks with a rectangular plan for the soldiers. While auxiliary troops were deployed near the main legions in the early Roman period, with the linear extension of the frontier from the end of the 1st century, auxiliary troops were placed at the perimeter of the frontier in the forts suitable for their size, which allowed them operational independence. These forts could be built of timber and wattle-and-daub panels. The timber fort at Valkenburg had similar principal elements as Neuss, but was smaller in size and had a different plan scheme. There were headquarters building, a commander's house, a hospital, and a number of bi-partite barracks each accommodating a century (80 men) in 13 sleeping-room/storage units for an average of six men. When a comparison is made in terms of floor areas, it was 3 / 80 / 1400 m^2 for the ordinary soldier, centurion and commander (*praefectus*), respectively. The difference in the plan scheme of the forts in Valkenburg and other forts in the Dutch river delta is that there is no row of buildings behind the headquarters building, and this is probably preferable due to the limited space. On the other hand, forts in the German Rhineland are much closer to the ideal central plan scheme. As smaller military units, there were three early timber watchtowers survived in the town of Leidsche Rijn near Utrecht, built to patrol the frontier, as well as examples of

stone watchtowers with a plan of 4.9 x 4.9 metres in Reckberg at Neuss and Xanten-Lüttingen.[410]

4.1.1.5. Danube Limes

During the Augustus period, the Danubian communities in eastern Europe were annexed to the Roman Empire and acted as clients, even though they were not directly ruled by the Empire. From 40 AD, legions were deployed in the forts along the Danube in the established provinces of Raetia, Noricum, Pannonia, and Moesia, adopting an open frontier policy protected by the tribes there. It is considered that a closed frontier policy was preferred to open one with client kingdoms during the Flavians period, and the existing fortifications were strengthened with new forts and fortresses. During the Marcomannic Wars in 166–183 AD, traces of destruction were discovered on frontier structures and civilian settlements in its hinterland.[411]

In Trajan's Dacian campaigns (as was done in Anatolia in preparation for the Armenian invasion), new provinces were created by dividing Pannonia and Moesia in 105/6 AD. After the occupation of Dacia and the establishment of the new province, the part of the Danube frontier between Viminacium and Belene in the west of Novae became dysfunctional. However, when the Romans withdrew from Dacia in 270/75 AD, the frontier in this section was restructured. Traces of the 3rd century crisis can also be seen on the Danube frontier. In addition to the internal conflicts of the Empire, the frontier was constantly in danger of the Danube tribes. As a solution, the provinces were re-organized, and the linear frontier line protection spread by including heavy armoured mobile troops that garrisoned in the new fortresses and fortified towns in the hinterland. In the 4th century, many forts were strengthened and supported by fan-shaped towers. In addition, tower-like fortifications were built during the Valentinian period. Walls were built at the corners of previous forts in order to reduce the size of the forts due to the shrinking garrisons. The frontier in Noricum and Pannonia was disrupted by the invasion of the Huns in 487/88 AD; however, the Lower Danube frontier managed to last until the end

[410] Graafstal, Willems, and Bödecker, *Frontiers of the Roman Empire: The Lower German Limes,* 52-89.
[411] Schmitz, *Roman Conquests: The Danube Frontier*, 65-83.

of the 6th century, but it was eventually crossed by the capture of provinces Moesia and Scythia by the Awars and Slavic tribes.[412]

The Danube Limes forming the northern boundary of the Roman Empire and is approximately 2400 kilometres long, starts in Eining in Bavaria in the modern country of Germany and passes through Austria, Slovakia, Hungary, Croatia, Serbia, Bulgaria, and ends in the river delta in Romania, from west to east (Figure 4.22). The Roman provinces it passes through are Raetia, Noricum, Pannonia Superior, Pannonia Inferior, Moesia Superior, Moesia Inferior, respectively (Figure 4.23). The forts on the Danube were located at the main points where the trade routes were. Alongside legionary bases at Regensburg (Germany), Enns, Vienna and Carnuntum (Austria), Komárom and Budapest (Hungary), Belgrade and Viminacium (Serbia), and Gigen, Novae and Silistra (Bulgaria), and Troesmis (Romania); more than 200 auxiliary forts, temporary camps, several late Roman fortresses and bridgeheads and hundreds of watchtowers were survived in the lands of eight modern countries. The forts were located at intervals of 10-30 kilometres from each other, while the signal and watchtowers built to watch over both the river and the limes road connecting the forts had no definite spacing and varied according to the topography. The late period towers found in Hungary were 1-2 kilometres apart from each other. Since the river itself was an obstacle, there was no need for elements such as a ditch or rampart as in artificial frontiers. River transport was used for the shipment of soldiers and supplies, so the fleet was an important part of the army. Although there were harbours and shipyards at many points along the river, most of them have been lost over time due to river floods. Boats were used to cross the river, and the Danube River was left unbridged purposely until the period of Trajan. Bridges were only built for the invasion of a new place that would later become Dacia province.[413]

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412 Andras Mocsy, *Pannonia and Upper Moesia. A History of the Middle Danube Provinces of the Roman Empire* (London & Boston: Routledge & Kegan Paul, 1974), 31-52; Miroslava Mirkovic, "Deserted fort- the Moesian limes after the conquiest of Dacia," in *Limes XVIII Proceedings of the XVIIIth International Congress of Roman Frontier Studies held in Amman, Jordan (September 2000),* ed. Philip Freeman, Julian Bennett, Zbigniew T. Fiema, and Birgitta Hoffmann. BAR International Series 1084 (Oxford: Archaeopress, 2002), 757-764; Ployer, Polak, and Schmidt, *A Thematic Study,* 28-29; Sonja Jilek, *Frontiers of the Roman Empire: The Danube Limes* (Warsaw: Hussar Books, 2009), 41-60; Sven Conrad, and Dimitar Stancev, "Archaeological survey on the Roman frontier on the lower Danube between Novae and Sexaginta Prista. Preliminary report (1997-2000)," in *Limes XVIII Proceedings of the XVIIIth International Congress of Roman Frontier Studies held in Amman, Jordan (September 2000),* ed. Philip Freeman, Julian Bennett, Zbigniew T. Fiema, and Birgitta Hoffmann. BAR International Series 1084 (Oxford: Archaeopress, 2002), 673-684.

413 Jilek, *Frontiers of the Roman Empire: The Danube Limes,* 41-60.

Figure 4.22. Map of Danube Limes according to modern countries[414]

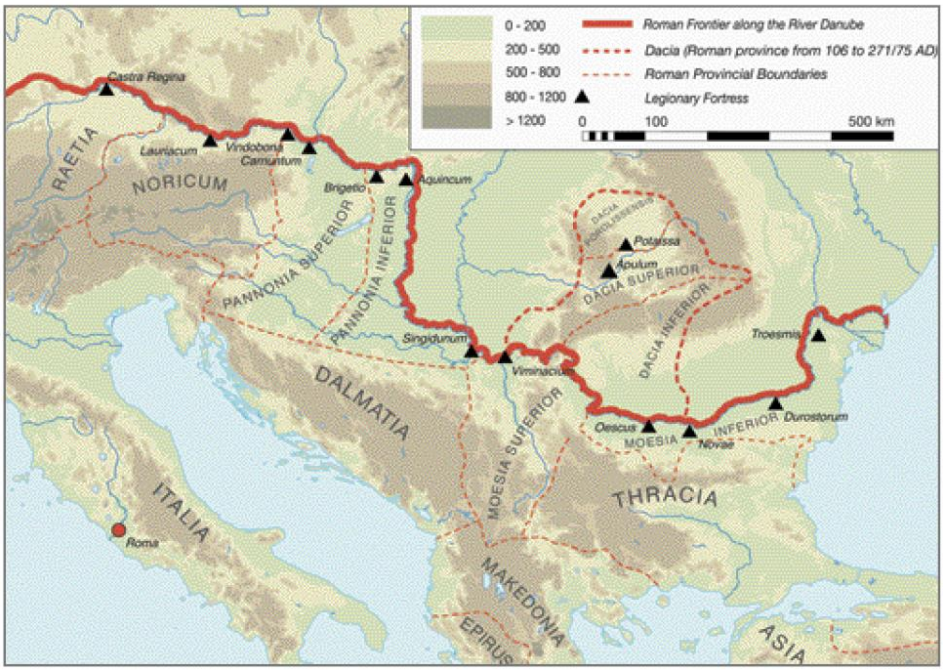

Figure 4.23. Map of Danube Limes according to Roman provinces[415]

[414] Jilek, *Frontiers of the Roman Empire: The Danube Limes*, 49.
[415] Jilek, *Frontiers of the Roman Empire: The Danube Limes*, 40.

The Germany section of the Limes, corresponding to the province of Reatia, was approximately 150 kilometres from Eining to Passau-Beiderwies (Figure 4.24). There were a legionary fortress Castra Regina (Regensburg) and river crossing forts at Eining, Regensburg-Kumpfmühl, Straubing, Künzing, and Passau in order to trade routes of the river (Figure 4.25). Since the landscape is flat, the military road was protected by ditches around them, and cavalry or mixed units were located in large forts. In Straubing, a harbour was detected.[416]

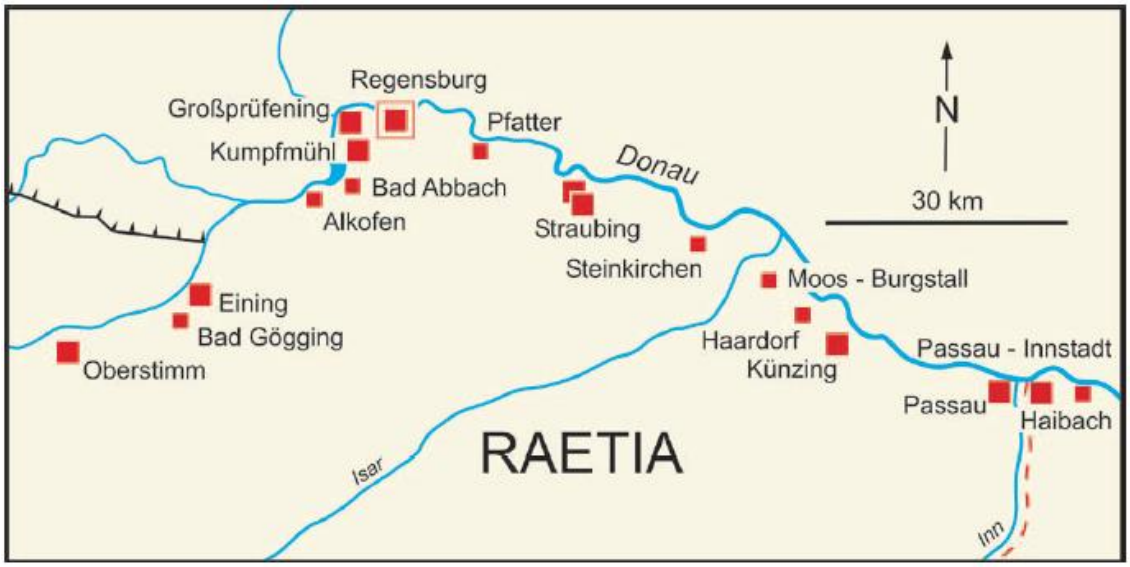

Figure 4.24. Map of Danube Limes in Germany[417]

[416] Jilek, *Frontiers of the Roman Empire: The Danube Limes*, 67-69; Peter S. Wells, "Creating an Imperial Frontier: Archaeology of the Formation of Rome's Danube Borderland," *Journal of Archaeological Research* 13, no. 1 (2005): 49-88. https://www.jstor.org/stable/41053216?seq=1&cid=pdf.

[417] Wolfgang Czysz, Andrea Faber, Christof Flügel, and Sebastian Sommer, *Frontiers of the Roman Empire: The Danube-Limes in Bavaria* (2006), 1.

Figure 4.25. Late Roman fort and museum at Boiotro[418]

The Austria section of the Limes corresponds to the province of Noricum, and the western part of Pannonia Superior was approximately 350 kilometres (Figure 4.26). In this part, besides the river, narrow gorges and side plains were also effective in shaping the frontier. The places of the fortifications were determined according to trade routes crossing the Alps and coming from the Mediterranean Sea. After the annexation of Noricum, the first forts were built at river crossings at Linz, Enns, and in the area of Carnuntum. There were legionary fortresses at Lauriacum (Enns), Vindobona (Wien), and Carnuntum (Bad Deutsch Altenburg)[419] (Figure 4.27, 4.28).

[418] Czysz et al., *Frontiers of the Roman Empire: The Danube-Limes in Bavaria,* 24.
[419] Jilek, *Frontiers of the Roman Empire: The Danube Limes,* 70-75.

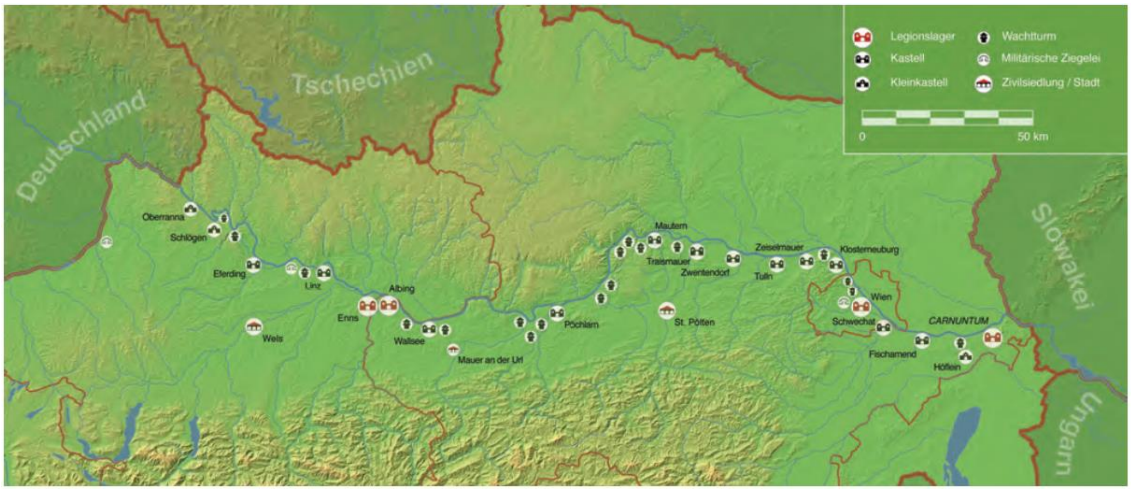

Figure 4.26. Map of Danube Limes in Austria[420]

Figure 4.27. The east-gate of the Roman fort at Traismauer[421]

[420] Sonja Jilek, Eva Kuttner, and Andreas Schwarcz, *Frontiers of the Roman Empire: The Danube Limes in Austria* (Wien: Hussar Books, 2011), 38.

[421] Graafstal, Willems, and Bödecker, *Frontiers of the Roman Empire: The Lower German Limes*, 22.

Figure 4.28. Consolidated fan-shaped tower at Zeiselmauer[422]

The Slovakia section of the Limes corresponds to the eastern part of the province Pannonia Superior, and is comparatively very short with a length 70 kilometres featuring two forts at Rusovce (Gerulata) to the south of Bratislava and Iza (Kelemantia) as a bridgehead on the left bank of the river, and several temporary camps[423] (Figure 4.29).

[422] Jilek, Kuttner, and Schwarcz, *Frontiers of the Roman Empire: The Danube Limes in Austria*, 79.

[423] Jilek, *Frontiers of the Roman Empire: The Danube Limes*, 76-77.

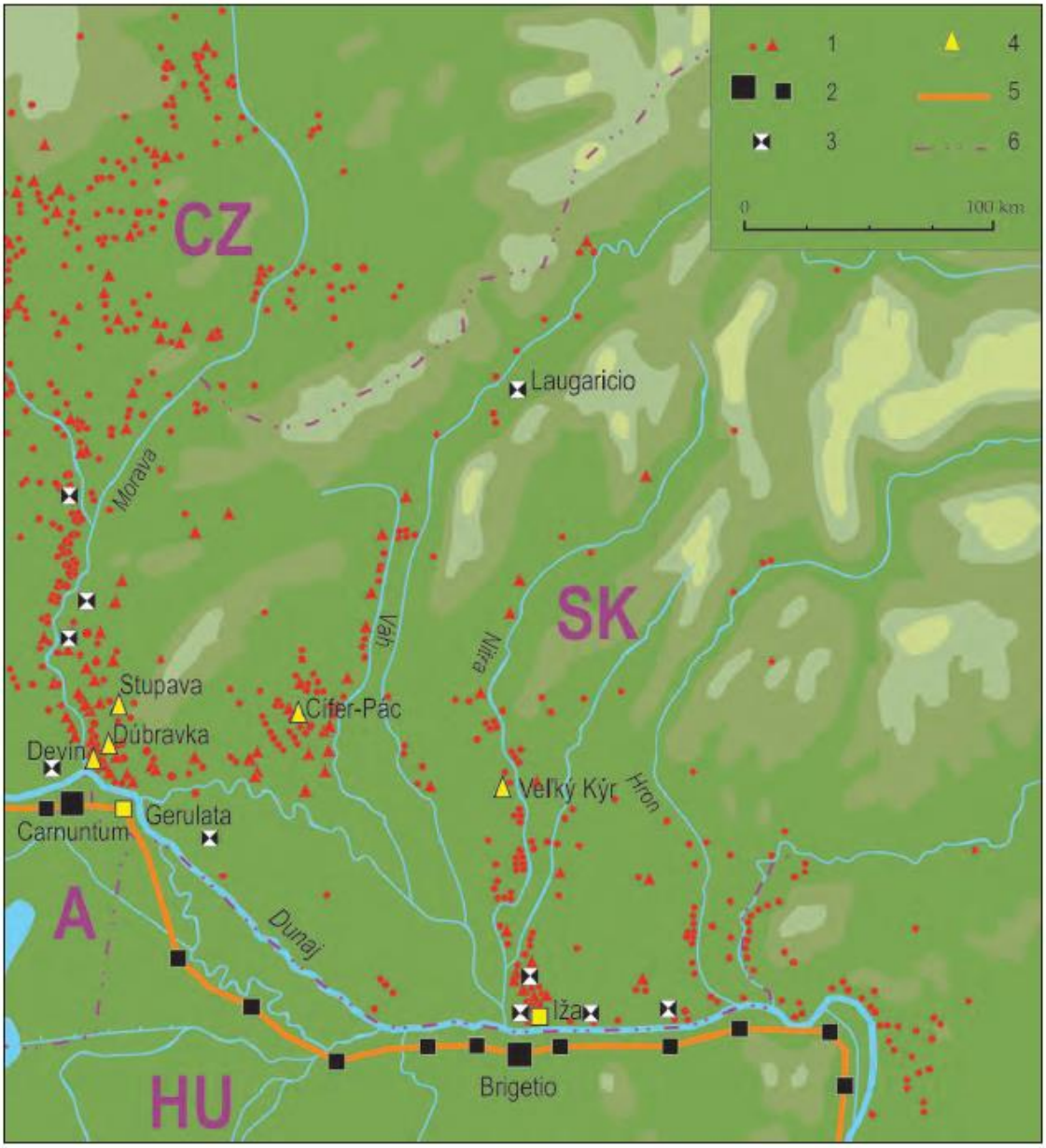

Figure 4.29. Map of Danube Limes in Slovakia[424]

The Hungary section of the Limes, corresponding to the northern part of the province Pannonia Inferior, was approximately 400 kilometres long with two legionary fortresses at Brigetio (Komárom) and Aquincum (Budapest), 25 auxiliary forts,

[424] Katarina Harmadyova, Jan Rajtar, and Jaroslava Schmidtova, *Frontiers of the Roman Empire: Slovakia* (Nitra: Tlaciaren Michel Angelo, 2008), 48.

temporary camps, several late Roman fortresses and approximately 200 watch and signal towers and bridgehead fortifications[425] (Figure 4.30).

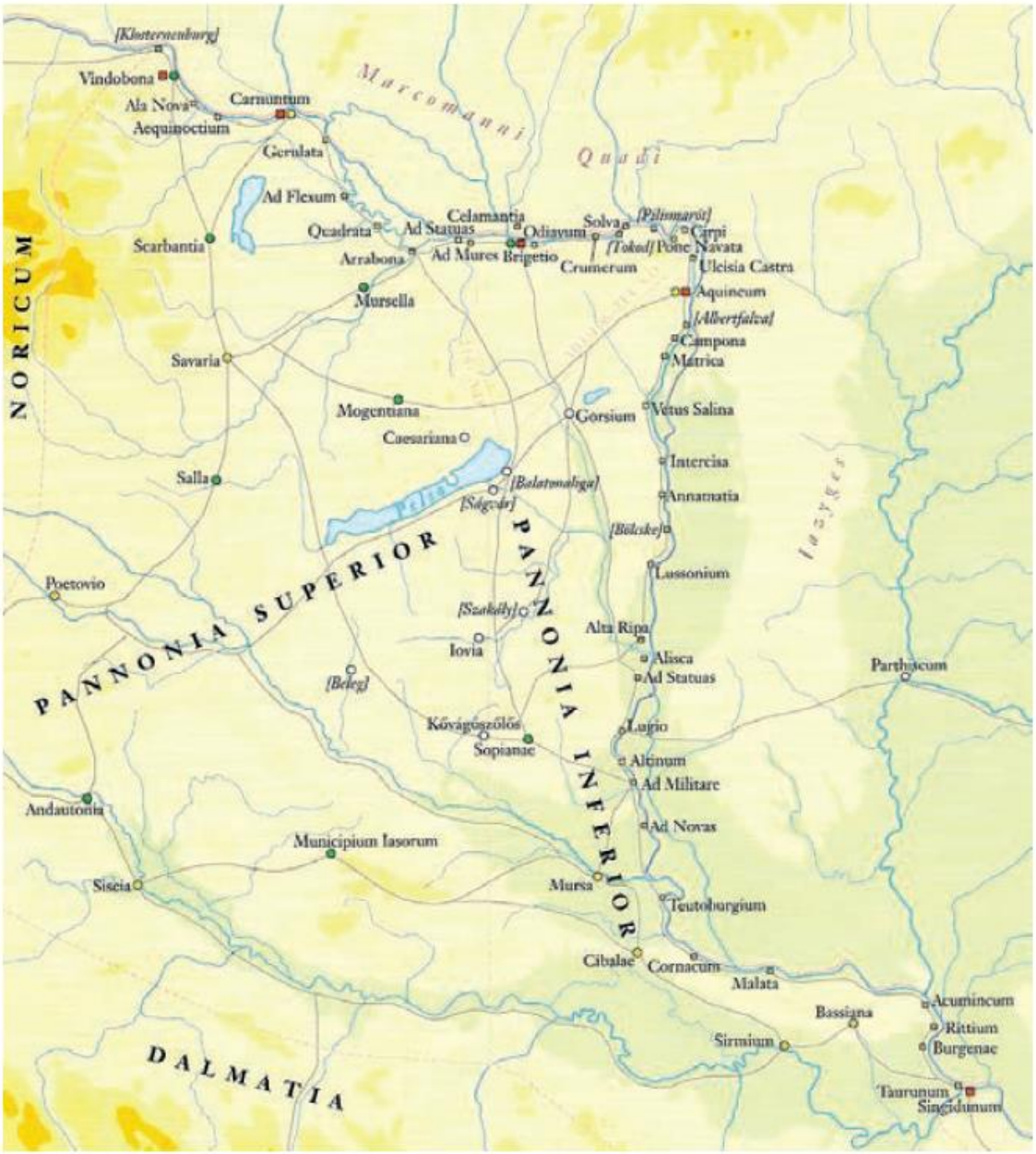

Figure 4.30. Map of Danube Limes in Hungary[426]

[425] Jilek, *Frontiers of the Roman Empire: The Danube Limes*, 78-83.

[426] Zsolt Visy, *Frontiers of the Roman Empire: The Roman Limes in Hungary* (Pecs: Bornus, 2009), 56.

The Croatia section of the Limes corresponds to the southern part of the province Pannonia Inferior, and was approximately 188 kilometres from Batina skela to Ilok along the Danube. While in the Baranja region the Limes passes through flat countryside and moody ground closer to the Danube, in the Slavonia region it passes a high cliff and a narrow river bank. Although there were forts at Teutoburgium (Dalj), several forts mentioned in ancient maps could not be identified at present, such as Ad Novas et Aureo Monte, Antianis, Donatiana, and Albano[427] (Figure 4.31).

Figure 4.31. Late Roman fortification at Siscia[428]

The Serbia section of the Limes, corresponding to the southern part of the province Pannonia Inferior and the province of Moesia Superior, was approximately 580 kilometres from the fort at Ilok at the border to Croatia to the mouth of the river Timok

[427] Jilek, *Frontiers of the Roman Empire: The Danube Limes,* 84-86.
[428] Visy, *Frontiers of the Roman Empire: The Roman Limes in Hungary,* 30.

(Figure 4.32, 4.33). There were legionary fortresses at Singidunum (Belgrade) and Viminacium (Kostolac) along the Danube with bathhouse (thermae) and an amphitheatre, and forts and fortlets along the river line, such as Taliata (Donji Milanovce), Dorticum (Vrav) Pontes or Diana.[429]

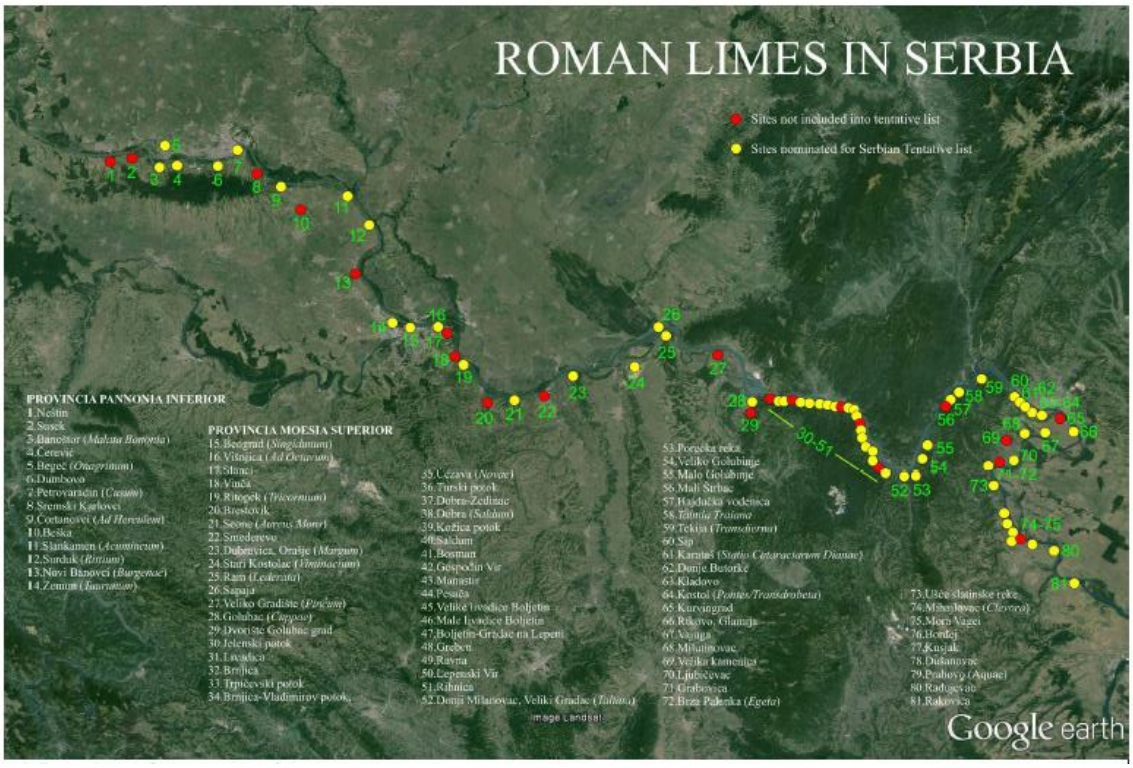

Figure 4.32. Map of Danube Limes in Serbia[430]

[429] Jilek, *Frontiers of the Roman Empire: The Danube Limes*, 87-90.

[430] Miomir Korać, Snežana Golubović, Nemanja Mrđić, Gordana Jeremić, and Stefan Pop-Lazić, *Frontiers of the Roman Empire: Roman Limes in Serbia* (Belgrade: DigitalArt, 2014), 100.

Figure 4.33. Iron Gates Gorge[431]

The Bulgaria section of the Limes corresponds to the western part of the province Moesia Inferior approximately 470 kilometres from the confluence of the Danube and Timok to the town of Silistra, and mostly forms the border of modern Bulgaria and Romania (Figure 4.34). There were legionary fortresses at Oescus (Gigen), Novae (Svistov), and Durostorum (Silistra), and auxiliary forts were built in Appiaria (Ryahovo) and Sexaginta Prista (Rusé).[432]

The Romania section of the Limes corresponds to the eastern part of the province Moesia Inferior approximately 600 kilometres (longest part) from Durostorum (Silistra) to the river delta at the Black Sea. There was a legionary fortress near Danube at Troesmis and forts along the Danube at Capidava, Dinogetia, Halmyris, Noviodunum, Drobeta, and Scaidava[433] (Figure 4.35).

[431] Korać et al., *Frontiers of the Roman Empire: Roman Limes in Serbia,* 51.
[432] Jilek, *Frontiers of the Roman Empire: The Danube Limes,* 91-95.
[433] Jilek, *Frontiers of the Roman Empire: The Danube Limes,* 97-99.

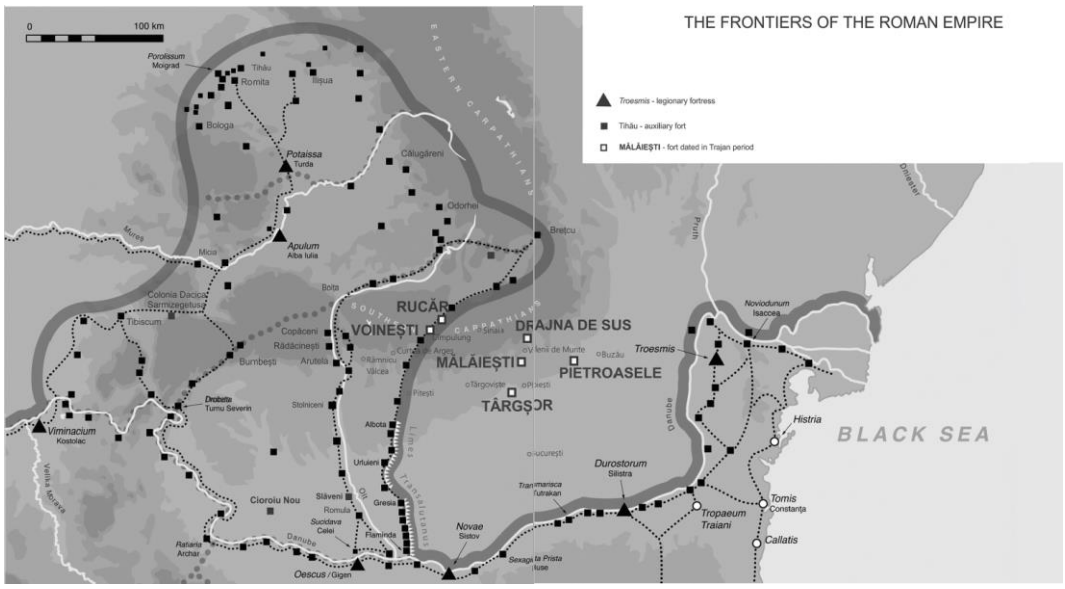

Figure 4.34. Map of Danube Limes in Bulgaria and Romania (highlighted part in Romania is Dacia Frontier)[434]

Figure 4.35. The fort of Drobeta[435]

[434] Ovidiu Tentea and Florian Matei-Popescu, *Frontiers of the Roman Empire: Between Dacia and Moesia Inferior. The Roman forts in Muntenia under Trajan* (Bucharest: Mega Publishing House, 2016), 44-45.

[435] Felix Marcu and George Cupcea, *Frontiers of the Roman Empire: The Roman frontiers of Dacia* (Oxford: Archaeopress, 2021), 50; Ployer, Polak, and Schmidt, *A Thematic Study*, 28-29.

4.1.1.6. Dacia Limes

The conquest of Dacia (Figure 4.36) during the period of Trajan is considered one of the greatest successes of the Roman army. Because the Dacians, along with the Parthians in the east, were the greatest enemies of the Romans. Since the Dacians did not comply with the requirements of the agreement signed during the period of Domitian and did not fulfil their payment, and because they became a gradually growing power, Trajan organized an expedition to the north of the Danube in 101 AD. It is thought that the roads the Romans followed in this invasion were the paths that were later developed as the limes route. There are also fortifications in southwest Dacia and in northwest Wallachia dated to this time but they were abandoned in the late Trajanic period or under Hadrian. The Romans advanced through Dacia by using mountain ridges and passes instead of valleys by marching their camps (Figure 4.37), and then captured some Dacian fortresses. Between the First and Second Dacia Wars in 102-105 AD, some of the Dacian citadels, such as Grădiștea Muncelului and Căpâlna, were also occupied. The Dacians responded and attacked the Romans in 105 AD thus, the Second Dacian War took place. Although the Dacians captured the southwestern lands for a short time, the fortresses here were taken by the Romans again in 105-106 AD and the new Roman province of Dacia was established in 108 AD. During the Hadrian period, the province was divided into three parts, Dacia Porolissensis, Dacia Superior, and Dacia Inferior, with separate commands. However, three provinces were united again by Marcus Aurelius under one governor. During the Severan dynasty, the province saw maximum development by upgrading the settlements' status. The province had a relatively short life, and was abandoned in the 260s.[436] The Trajan's column, which narrates the conquest of Dacia and thus provides information about the Roman military organization and structure via its reliefs, was erected in Rome in memory of Trajan's conquests of Dacia.

[436] Marcu and Cupcea, *Frontiers of the Roman Empire: The Roman frontiers of Dacia*, 39-45, 70-78; Schmitz, *Roman Conquests: The Danube Frontier*, 131-153.

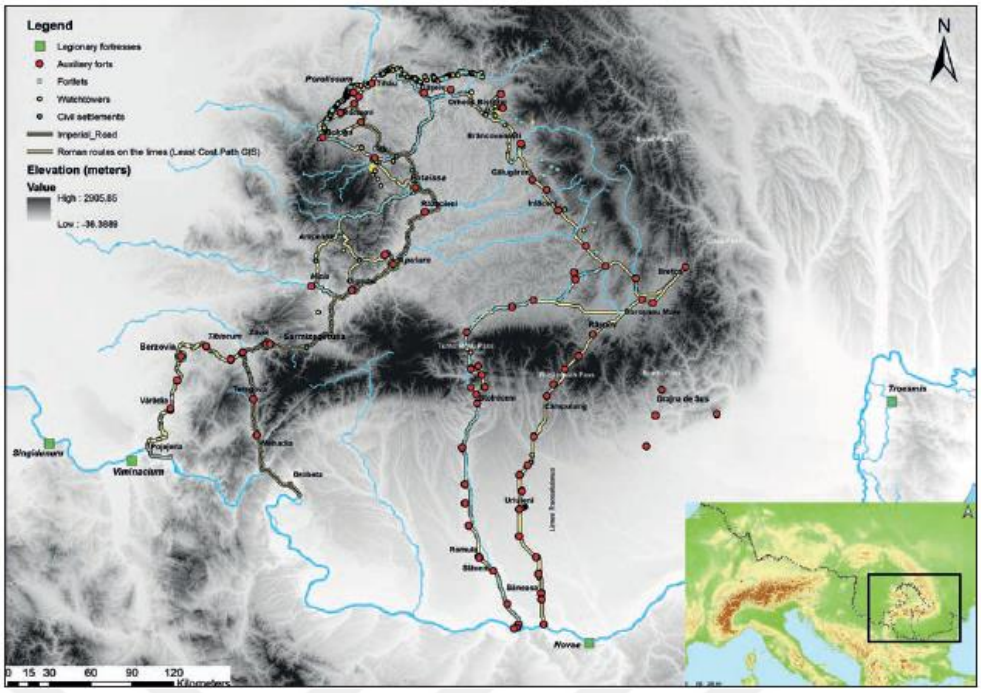

Figure 4.36. Map of Dacia Frontier[437]

Figure 4.37. Marching camps in the Șureanu Mountains[438]

[437] Marcu and Cupcea, *Frontiers of the Roman Empire: The Roman frontiers of Dacia*, 95.
[438] Marcu and Cupcea, *Frontiers of the Roman Empire: The Roman frontiers of Dacia*, 45.

The Dacia frontier consists of both natural features using mountains and rivers, and artificial barriers such as linear barriers that built when necessary. The complex system of the frontier is a network of small and large forts, watchtowers, artificial earthen ramparts or stone walls, and a frontier road connecting them. The main purpose of the frontier was to control population movements. The frontier passed through lands rich in minerals and mines, such as surface saline and gold at Apuseni Carpathians, as well as fertile lands in terms of agriculture. Forts were positioned at important trade routes. In the northern and southern Transylvania, they were organized according to salt quarries. In western Dacia, the forts on the main road have a less dense distribution. There were legionary fortresses at Berzovia and Zavoi, which were used only in the period of Trajan, i.e. Apulum and Potaissa. There were also civil settlements on which the frontier road passed at Apulum, Potaissa and Napoca, and other important forts at Tibiscum, Micia, and Drobeta. After the period of Trajan, the forts and roads in southwestern Dacia were abandoned; however, the main communication route remained from Dierna/Drobeta on the Timiș – Cerna corridor to Tibiscum. The Mureş Valley was an important trade route of the region, and there was a fort and a harbour in Micia in this region. Starting from Micia, the distance between the forts increased from 25-30 to 40 kilometres, and the important forts in the region were Apulum/Alba-Iulia and Potaissa/Turda. After Potassia, the road forked into two and both routes headed to north. Starting from Bologa, the forts and auxiliary forts reached the highest density, and it is also the region with the highest number of watchtowers, fortlets and linear barriers. It was thought that the main road was possibly on the Tibiscum- Micia- Porolissum route, and several civil settlements were along this route, such as Ampelum/ Zlatna, due to gold mining. To the east of Porolissum, auxiliary forts were placed approximately 10 kilometres behind the watchtowers. In the high-hilled terrain of the norther Dacia, these watchtowers were placed on strategic peaks, and the forts were placed in the valleys. Fortlets were sometimes connected to linear barriers on this route along the frontier. In eastern Transylvania, there are wider spacings between the watchtowers due to the mountainous topography. Since it was unnecessary to build them in the volcanic massifs of the eastern Carpathian Mountains, forts were located to the west of the Subcarpathian hills. Forts in the region are located at approximately 30 kilometres intervals, except for three forts 15 kilometres apart, which protected two important mountain passes, the Bicaz Gorge and Oituz Pass (Figure 4.38). It is thought that there were two parallel fort lines on the Brâncovenești – Călugăreni part, consisting of fortlets on the outside and auxiliary forts on the inside. Known fortlets in

this section were located at intervals of 8-25 kilometres. There were also watchtowers of about 20 square metres, which were protected by an earthen rampart and ditch, or had an annexe. In southeastern Transylvania there were forts, but no watchtowers or fortlets are known. There was an outpost fort at Brețcu, which controlled the entrance of the mountain pass in the Eastern Carpathians. Two routes led to this fort and continued towards to Moldova, one from Transylvania and the Olt Valley and the other from the Danube through the Rucăr- Bran Pass. The connection provided by the road between Rucăr-Bran Pass and the Danube was protected by an earthen rampart and a palisade, along with forts and some towers on the road, so-called Limes Transalutanus. It is thought that most of the forts here were built in the 3rd century. It is also thought that the route along the river Olt through the Turnu- Roșu Pass was not used at the beginning due to smaller size forts that can be characterized with the Hadrian period.[439]

Figure 4.38. The fort, settlement and amphitheatre at Porolissum[440]

[439] Marcu and Cupcea, *Frontiers of the Roman Empire: The Roman frontiers of Dacia*, 47-59.
[440] Marcu and Cupcea, *Frontiers of the Roman Empire: The Roman frontiers of Dacia*, 52.

Temporary camps used during the occupation of Dacia, were established within a day's walking distance to each other, approximately 25-30 kilometres away. These camps were generally protected by an earthen rampart and one or more ditches around them, and were 6-7 hectares in size due to the mountainous structure of Dacia. They were the first Roman fortifications in Dacia. Auxiliary forts were the common component of the Dacia frontier. They were generally occupied by a single auxiliary unit that consisted of either 500 or 1000 infantrymen or cavalry, but cavalries were usually in the interior regions, and were 1.30 and 3 hectares in size. Starting from the middle of the 2nd century, forts, which were previously earth and timber, were rebuilt with stone. Two fortresses out of four, the ones at Berzovia and Zavoi, the latter was approximately 22 hectares, were used only during the Trajan period. While the fortress at Apulum was the longest live and continued to be used throughout the province's existence, the fortress at Potaissa was built around 170 AD during the Marcomannic wars. Apulum was the administrative capital of the province, and Legio XIII Gemina was deployed here and affected the development of the civil settlements nearby. Fortlets were built where larger forts were not needed. They were placed at crossing point and communicated with watchtowers. The two fortlets at Brebi in Sălaj County are adjacent to the artificial border, in the western frontier, they are monitoring over roads and quarries, and in the eastern, they are close to auxiliary forts. Approximately 300 watchtowers have survived on the Dacia frontier, mostly clustered in the northwest and northern parts. In the watchtower network, visibility of the towers and their location on high hills were taken into account. It is thought that the early watchtowers were probably built of timber, while the later ones had timber roofs on stone walls. The watchtowers were about 5 square metres and might have been protected by a ditch or palisade around them. They probably had three floors: the ground floor was probably used for storage, the middle floor for living, and the last for observation. There were also earthen ramparts, probably with a ditch in front, and sometimes fortified with a timber palisade as an artificial fortification in the northwest.[441]

[441] Marcu and Cupcea, *Frontiers of the Roman Empire: The Roman frontiers of Dacia,* 60-69.

4.1.1.7. The Near Eastern Limes

The eastern border can be divided into five parts. The northernmost sea frontier is Caucasus (in the Black Sea part of modern Georgia and Turkey), the Euphrates frontier (in modern Turkey), the Syrian frontier (the Euphrates and desert frontier in modern Syria), Arabia (the desert frontier in modern Jordan) and Aegyptus (modern Egypt). Thus, the eastern frontier starts from the Black Sea coast, passes the Red Sea and the Sinai Peninsula, and ends in southern Egypt by passing through geographies with different characteristics.

The Caucasus frontier was protected by the client kingdom of Colchis. There are records that fortifications and forts (such as the fort at Cumania and the fort of Armazi) were built by the Iberian kings to protect the mountain passes in the Caucasus Mountains during the period of Vespasian. These were made to prevent invasions from northern steppes. Apsarus and Dioscurias (Sukhumi) became fleet bases in 77 AD. Arrian mentioned a chain of forts along the Black Sea coast in 132 AD. Also, the Romans established principal settlements in rather flat and wet interiors towards Iberia. These were Archaeopolis in the centre and Sarapanis (modern Shorapani) on the eastern limits of the Phasis river-system and the Roman supply-lines. Thus, rather than annexation, the Roman policy here was to make agreements with local kings to ensure that they would protect the frontiers against mountain tribes on the Caucasus and piracy threat in the Black Sea, to provide infrastructure for this, and to send legions here, whenever necessary, rather than permanent legionary headquarters[442] (Figure 4.39).

[442] Fawzi Abudanah, David Braund, Mark Driessen, Simon James, Michaela Konrad, and Marinus Polak, *Frontiers of the Roman Empire: The Eastern Frontiers* (Oxford: Archaeopress Publishing Ltd, 2022), 83-93; Ployer, Polak, and Schmidt, *A Thematic Study*, 26-28.

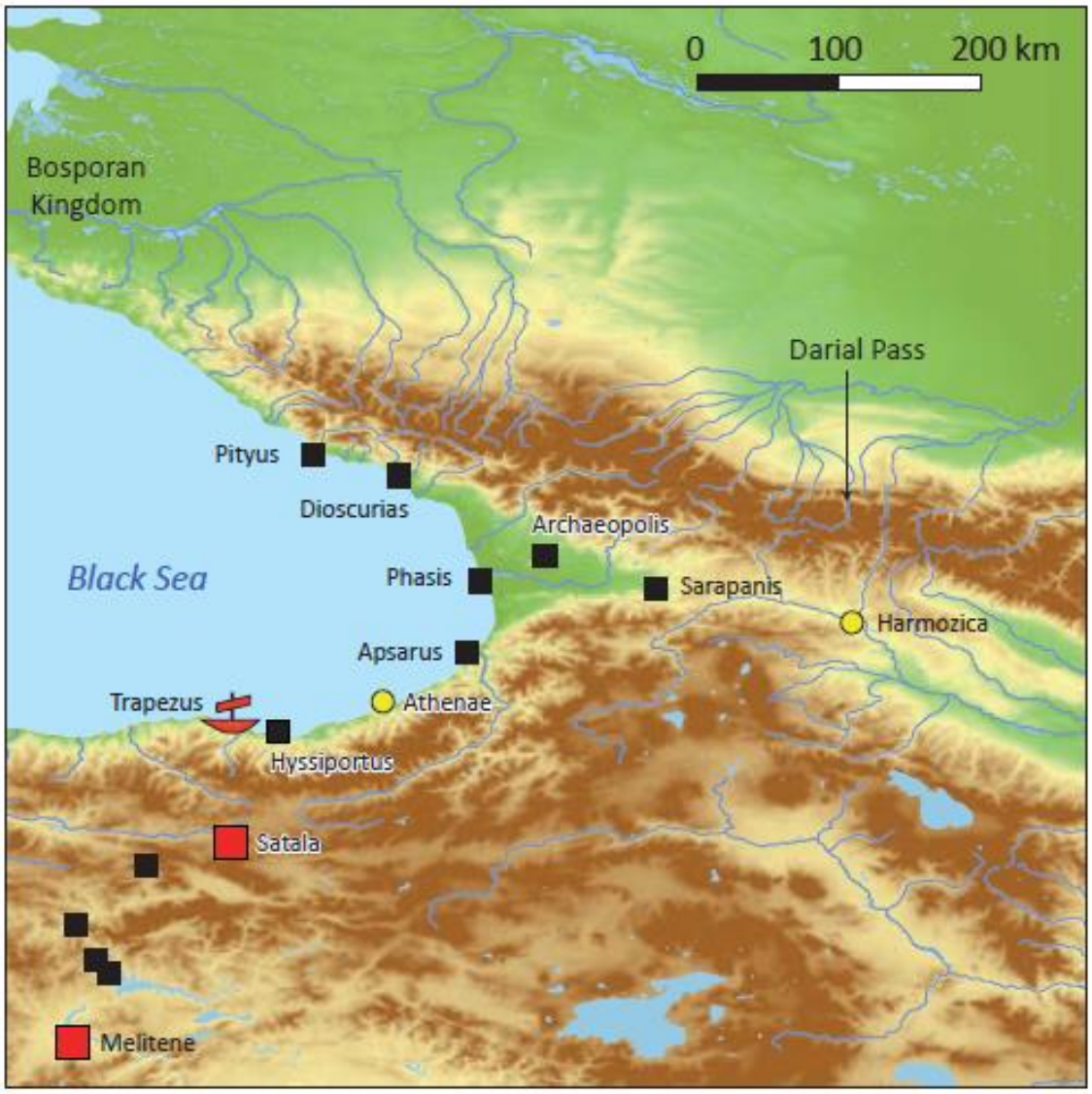

Figure 4.39. Roman Frontiers in Caucasians[443]

The province of Syria was created firstly in 64 BC. After its creation, for a period of time, no military units were garrisoned here. It is thought that the first military presence in the province began during the Augustus period. However, in this first period, the legions, which numbered 3 and later 4, were placed near the coast, not on the frontier. The lack of military presence can be explained by the fact that the frontier and the trade routes in the desert region were protected not only by the Roman army but also by the manpower provided by the client kingdoms. However, this policy was changed during

[443] Abudanah et al., *Frontiers of the Roman Empire: The Eastern Frontiers,* 83.

the period of Nero. After the Roman-Parthian war in this period, the frontier road and Roman structures began to be built on the eastern frontier, starting from the Euphrates and going south to the Pass of Tayybe. During M. Ulpius Traianus' governorship, frontier installations and road networks were expanded. It is thought that many auxiliary troops were stationed in the province beginning from the period of Vespasian. During the period of Domitian, the upper and lower river curators were established, with an emphasis on transportation and logistics, and a fleet (Classis Syriaca) was installed in Seleucia.[444] After a short conquest of Trajan in 114-117 AD, Roman frontiers began to expand beyond the Euphrates in Syria again, and the provinces of Mesopotamia and Osroene were re-established by Septimius Severus and Caracalla. Also, a permanent garrison was established in Dura-Europos, and the troops were stationed on the Khabur River. Many Roman military ruins in Syria are dated to the Late Roman period, although they are thought to be a continuation of those built in the early period. The tower at Apamea was built by reusing the tombstones of Legio II Parthica and various auxiliary units, which were based here during Caracalla's campaigns of the 210s AD. The auxiliary fort at Qreiyye-Ayyash, to the east of the province, was occupied in 229/30 AD. Wars with the Parthians continued in the 3rd century, but peace and security were achieved in 298 AD, during the period of Galerius. In this, the forts extending like a chain are of great importance. Only between Palmyra and Euphrates 3 legions were deployed on the frontier at Palmyra, Oriza/Tayybe, and Sura, and was reinforced with dense forts, fortlets, and guarding posts between them. The river frontiers of Euphrates, Khabur and Tigris were also protected by forts. Collaborations with local tribal leaders in the region continued in the late period. In the 6th century, the Ghassanids became Roman allies against the Sassanians, and preserved their reinforced defensive structures. After 634, when the Romans withdrew from the region during the early Islamic period, the Umayyads settled in some fortifications. Resafa, an important centre of pilgrimage, and Cholle/al-Hulla, which has hydraulic infrastructure, were resettled by the Umayyads.[445]

As Syria, Arabia, most of which is located in modern Jordan today, was a region with client kingdoms consisting mostly of Nabataeans in the 1st century AD. The Nabataeans were responsible for protecting their territory. During the period of Trajan, Nabataea became the Roman province of Arabia in 107 AD, and its capital was Petra,

[444] Abudanah et al., *Frontiers of the Roman Empire: The Eastern Frontiers,* 36-46.
[445] Abudanah et al., *Frontiers of the Roman Empire: The Eastern Frontiers,* 48-60; Ployer, Polak, and Schmidt, *A Thematic Study,* 26-28.

which is at the intersection of caravan routes and has water resources. After the annexation, Legio III Cyrenaica was located at Bostra/Busra. It is thought that the rectangular planned fort at Hawara/Humayma was built in this period. Although there is no information yet about the presence of auxiliary troops here, it is known that troops were placed in the forts further to the north, at Deir el-Kahf, Umm el-Jimal, Umm el-Quttein, Qaṣr el-Uweinid, and Qaṣr el-Hallabat in the 2nd century AD. However, it is not clear whether these forts were newly built or re-used Nabataean structures, which is thought to be the reason why typical Roman architecture was not seen in the region for this century. A communication chain of Nabataean watchtowers and fortlets, which were used for protecting the caravan route, and newly established agricultural field systems were used for subsequent centuries in the Petra-Udhruḥ region. To control trade, there were also further Roman military installations at Hegra/Madāʾin Ṣāliḥ and Dumata/Jauf in modern Saudi Arabia beyond the frontier. In the 3rd century AD, with the re-organization of provinces under *dioceses* by Diocletian, modern southern Jordan, the Sinai, and the Negev were taken from Arabia Petraea and included in Palestina Salutaris (Palestina Tertia). As Diocletian increased military activities, many forts were built or repaired in northern Jordan and north of Wādī Sirḥān.[446] The frontier here was not under attack in the 5th century AD. However, in the 6th century, the frontiers in Arabia Petraea and Palestina Salutaris lost their importance, and they began to be abandoned or turned into civilian settlements[447] (Figure 4.40).

[446] Ariel Lewin, "Diocletian: Politics and limites in the Near East," in *Limes XVIII Proceedings of the XVIIIth International Congress of Roman Frontier Studies held in Amman, Jordan (September 2000),* ed. Philip Freeman, Julian Bennett, Zbigniew T. Fiema, and Birgitta Hoffmann. BAR International Series 1084 (Oxford: Archaeopress, 2002), 91-101; Ariel S. Lewin, "The New Frontiers of Late Antiquity in the Near East. From Diocletian to Justinian," in *Frontiers in the Roman World. Proceedings of the Ninth Workshop of the International Network Impact of Empire (Durham, 16–19 April 2009),* ed. Olivier Hekster and Ted Kaizer (Leiden & Boston: Brill, 2011), 233-263.

[447] Abudanah et al., *Frontiers of the Roman Empire: The Eastern Frontiers,* 69-81; Ployer, Polak, and Schmidt, *A Thematic Study,* 26-28.

Figure 4.40. Roman Frontiers in Syria and Arabia in 1st- 3rd centuries AD[448]

[448] Abudanah et al., *Frontiers of the Roman Empire: The Eastern Frontiers*, 40.

Egypt was conquered in 31 BC by Augustus after the civil war against the alliance of Marcus Antonius and Cleopatra, and the Ptolemaic Kingdom was annexed. Since Egypt was the main source of grain besides mines and quarries for the Roman Empire, it was important to protect it. A mixed population in terms of religion and ethnicity lived in its capital, Alexandria. It was surrounded by a desert to the west but was open to dangers from the Nile to the south and the sea to the east. In order to protect the trade routes with the Red Sea against these dangers in Egypt, forts, fortlets and watchtowers were built around the wells dug in the desert. This area was where local workers and soldiers lived together. The three legions in the period of Augustus were reduced to two as of 23 AD, Legio XXII Deiotariana and Legio III Cyrenaica, then reduced to one during the period of Hadrian, and Legio III Cyrenaica was changed with Legio II Traiana Fortis during the period of Trajan while Legio XXII Deiotariana vanished. With the capture of Egypt by Palmyrenians in 270 AD, Roman military control in the desert was interrupted, but it was reestablished by Diocletian at the end of the century with new settlements in the valley, and defensive works for the oases. Two new legions were deployed: Legio I Maximiana was probably responsible for the southern frontier, and Legio III Diocletiana for the valley, especially at Luxor. Although the Egyptian lands lost to the Sassanians in the early 7th century were taken back by the Byzantine Empire a short time later, they were later lost to the Arabs[449] (Figure 4.41).

[449] Michel Redde, *Frontiers of the Roman Empire: The Roman Frontier in Egypt* (Oxford: Archaeopress Publishing Ltd, 2021), 37-93; Ployer, Polak, and Schmidt, *A Thematic Study*, 26-28; Steven E. Sidebotham, "The Roman empire's southeastern-most frontier; recent discoveries at Berenike and environs (Eastern Desert of Egypt) 1998-2000," in *Limes XVIII Proceedings of the XVIIIth International Congress of Roman Frontier Studies held in Amman, Jordan (September 2000)*, ed. Philip Freeman, Julian Bennett, Zbigniew T. Fiema, and Birgitta Hoffmann. BAR International Series 1084 (Oxford: Archaeopress, 2002), 361-378.

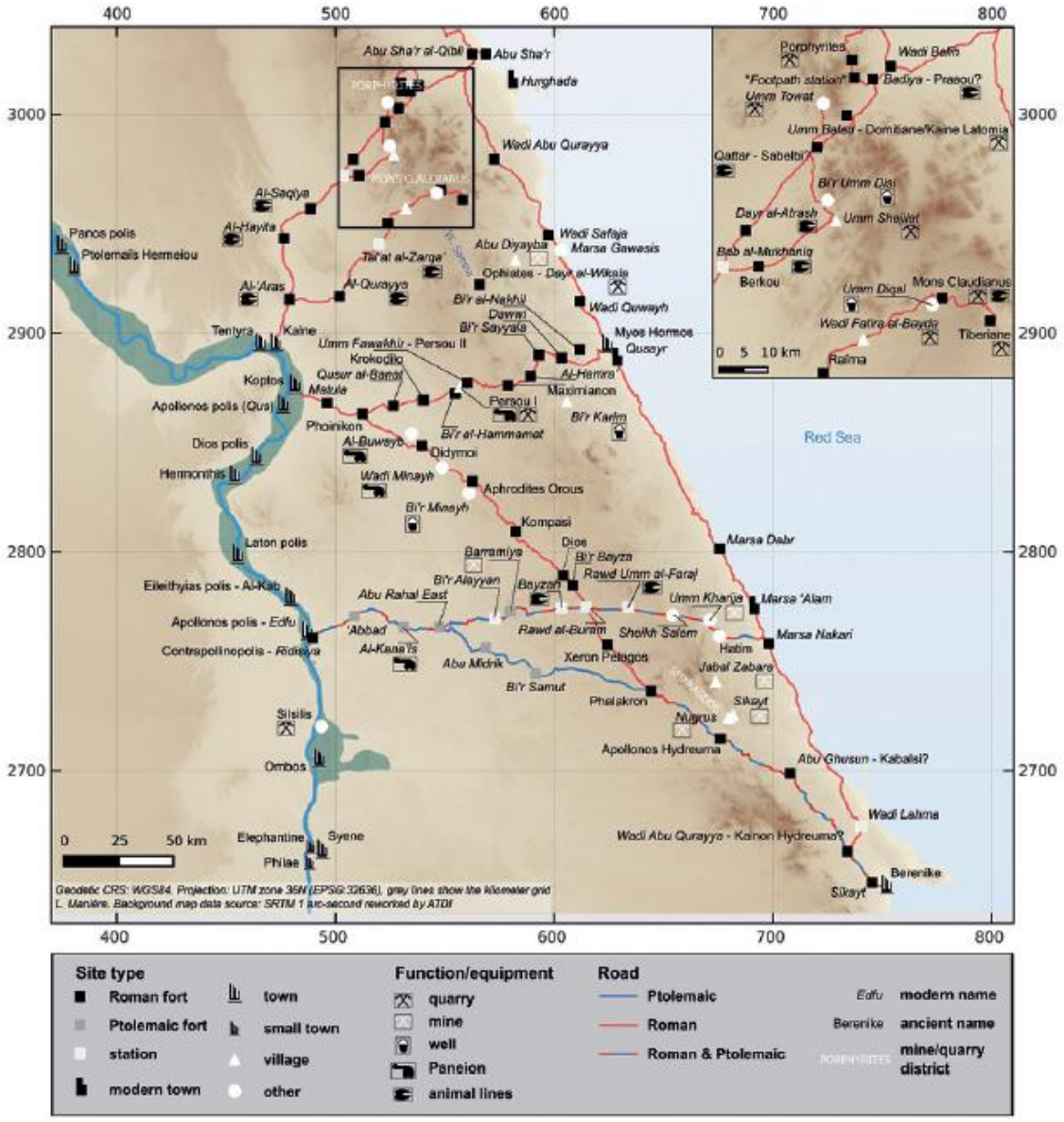

Figure 4.41. Roman Frontiers in southern Egypt[450]

There is no known legionary fortress in the Caucasus region. Rather than a permanent legionary centre, legionnaires were transferred to the region from Anatolia when necessary. Instead, there was a chain of forts along the Black Sea coast at Apsarus, Petra, Phasis, Dioscurias, and Pityus, and forts that controled the passage to the inner region at Archaeopolis and Sarapanis. The chain of forts on the coast continued in Anatolian lands. The fort at Apsarus is located in a flat area close to the sea and has a

[450] Redde, *Frontiers of the Roman Empire: The Roman Frontier in Egypt*, 48.

rectangular plan scheme (Figure 4.42). It was used extensively during the period of Hadrian. It has towers on the corners and along the walls. The fort at Petra is located on a sloping hill overlooking the sea and has an irregular plan. It is thought that it was built in the Late Roman period. Although it is known that the fort at Phasis is located on the coast, its exact location has not been determined yet.[451]

Figure 4.42. Apsarus fort at Georgia[452]

The Euphrates is the frontier for about 180 kilometres on the south of the modern Turkey- Syria border. From Sura fort on the banks of the Euphrates, the frontier is divided into two branches, one of which follows the Euphrates towards Dura- Europos (Figure 4.43) and beyond, while the other advances through desert steppes and the mountain massif of Jebel Bishri towards Palmyra for 200 kilometres. Then, from the south of Palmyra, the frontier passes through the basalt desert of el-Leja and the fertile Hauran plateau, and reaches the Arabia Province. The Via Nova Traiana can be considered as the line of demarcation between the cultivated river valleys in the west and the desert and semi-desert areas in the east. The desert frontier in Arabia forked in the north towards Bostra legionary base near the Azraq Oasis, a major water source, and continued in the

[451] Abudanah et al., *Frontiers of the Roman Empire: The Eastern Frontiers,* 48-60.
[452] Abudanah et al., *Frontiers of the Roman Empire: The Eastern Frontiers,* 88.

southwest for 400 kilometres into Jordan's highlands of plains, plateaus, steppes, deep wadi valleys, and ended at the Gulf of Aqaba at the Red Sea. Semi-nomadic people, skilled in finding water and controlling the cross-desert caravan trade routes towards the Arabian Peninsula, the Persian Gulf and the Silk Road to China, lived on the desert frontier in pre-Roman times. Since it was difficult to find water in the desert frontier, except for the fertile banks of the rivers, Roman military structures were built in places where there were springs or oases (Figure 4.44). This is why the layout of the land plan in Syria and Arabia seems random at a first glance. Forts built in the desert were also important as points of contact with nomadic people and collection of taxes. In addition to natural water sources, water disposal was also very important, and water structures were built to both collect and distribute water, such as cisterns, dams, and irrigation systems. Forts and fortresses, which appeared to be in the middle of nowhere, controlled the trade routes, and many of them, such as Qasr Bshir in Jordan, Nedwiyat al-Qdeir, Raphanea, Qreyye, and Resafa, could be visually understood as having a square or rectangular "play-card" plan scheme (Figure 4.45). This was possible since the geography was flat that was suitable for building symmetrically planned structures. Uneven plan schemes are also seen when the geography is not suitable or in late period construction, such as the Byzantine fortification at Hallabiya. A new fort plan type, quadriburgium, with a square plan scheme, four towers on the corners, and with a wall thickness of approximately 4 metres, was developed around 300 AD (Figure 4.46). In late period forts, mudbrick walls on rubble stone bases are encountered, such as the auxiliary fort at Qreiyye-Ayyash. In the Syria Euphratensis province, military bases were combined with civilian settlements such as Sura, Dura- Europos, and Cholle. This complex type of fortification is also found in the fort settlements to the east of Khabur, where forts were attached to civilian settlements that had existed for a long time, including tells (Figure 4.47). In the case of Dura- Europos, due to the merging of the military settlement with the pre-existing Greek civilian settlement, instead of the structures consisting of regular barracks in the play-card plan of the Romans, there were roughly converted civil housing and some new military structures such as bathhouses. The Roman headquarters building and amphitheatre on the boundary of the civil quarter were later added. In the hilly areas at Jebel Sinjar, linear barriers were built to control the passages. There are also river

crossings, such as bridgeheads at Sura and Hallabiya-Zenobia (the latter is a twin fortification built on both sides of the Euphrates).[453]

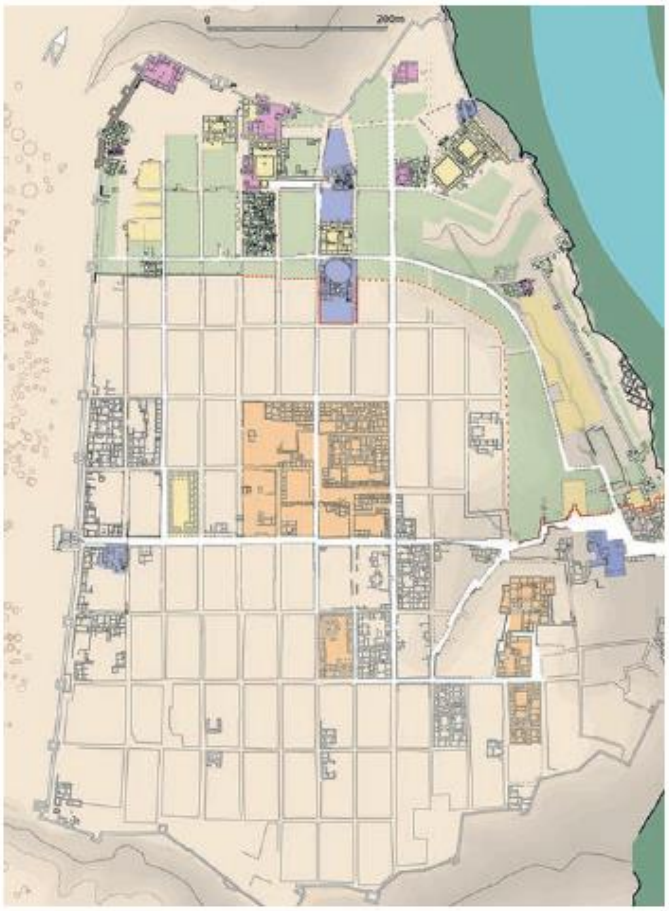

Figure 4.43. Plan of Dura-Europos. The military base area in the northern, outlined in red; green areas are soldiers' accommodation; yellow areas are administrative areas; blue areas are common structures of baths and the amphitheatre; pink areas are temples inside the military base[454]

[453] Abudanah et al., *Frontiers of the Roman Empire: The Eastern Frontiers*, 41-44, 48, 50, 52, 62-63; Anne Kolb and Michael A. Speidel, "Perceptions from Beyond: Some Observations on Non-Roman Assessments of the Roman Empire from the Great Eastern Trade Routes," in *Rome and the Worlds Beyond Its Frontiers,* ed. Danielle Slootjes and Michael Peachin (Leiden & Boston: Brill, 2016), 152-179; Edward Dabrowa, "The Rivers in the Defensive System of Roman Syria (From Augustus to Septimius Severus)," in *Roman Frontier Studies 1995. Proceedings of the XVIth International Congress of Roman Frontier Studies,* ed. W. Groenman- van Waateringe, B. L. Van Beek, W. J. H. Willems, and S. L. Wynia. Oxbow Monograph 91 (Oxford: Oxbow Books, 1997), 109-111.

[454] Abudanah et al., *Frontiers of the Roman Empire: The Eastern Frontiers,* 63.

Figure 4.44. Probable Roman dam at Harbaqa in South Syria[455]

Figure 4.45. Fort of Resafa. The Byzantine pilgrimage site in the walls, Umayyad residential area is outside the walls[456]

[455] Abudanah et al., *Frontiers of the Roman Empire: The Eastern Frontiers,* 43.
[456] Abudanah et al., *Frontiers of the Roman Empire: The Eastern Frontiers,* 58.

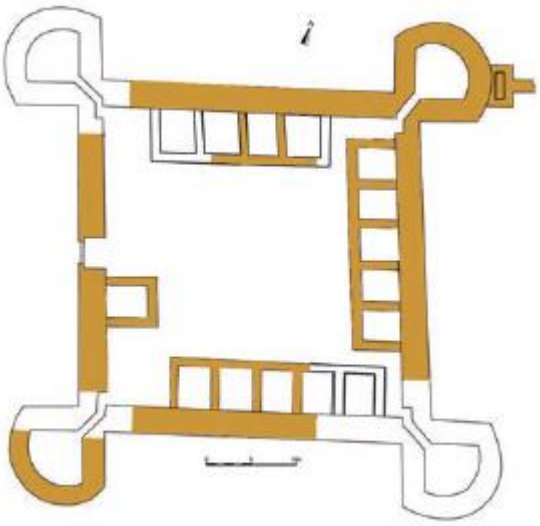

Figure 4.46. Plan of quadriburgium at Qusair as-Saila[457]

Figure 4.47. Principia of the Late Roman fortress in the former temple of the goddess Allat at Palmyra[458]

[457] Abudanah et al., *Frontiers of the Roman Empire: The Eastern Frontiers,* 51.
[458] Abudanah et al., *Frontiers of the Roman Empire: The Eastern Frontiers,* 56.

The legionary bases in Egypt, which were three in the time of Augustus at Alexandria, Babylon (Old Cairo), and Thebes (Luxor), were gradually reduced to one in the time of Hadrian. Apart from legionary bases, there were forts of many smaller units scattered throughout the region. In the east, these forts protected stone quarries and mines, and monitored the interior along the Nile (Figure 4.48). These forts were not permanent places of a specific military unit, but they were guarded by detachments of soldiers who came out from the valley for a given time. There were several river crossings at Talmis (Kalabsha), Pselkis (Dakka), Hiera Sykaminos (Maharaqqa), and bridgeheads at Contra Pselcis, Contra Talmis, and Contra Tafis. Besides the land forces, there was a fleet base of Classis Alexandrina at Alexandria. Workers, not soldiers, worked in the extraction and processing of stones and minerals, and the soldiers were responsible for maintaining control. A new city, Kainèpolis, was established for these workers to stay with their families near the quarry at Mons Claudianus. The fortlet at Umm Balad, which is an example of the outpost fortlets in the eastern desert, has a rectangular plan and a single gate in the east. Inside, there were small barrack cells arranged irregularly along all the interior walls and around the courtyard, as well as granary, baths, a forge and stables. At the western end, there was a temple in the headquarters building. The workers were as likely to live here with the soldiers since there were lots of cells as they were in the villages near the quarry (Figure 4.49). There were three known trail routes with toll control; Koptos- Berenike, shorter Koptos- Myos Hormos, and Edfu- Berenike. Since the winds in the Red Sea were harsh for navigation, these routes through the Nile and then overland were used to distribute goods to Arabia and India. Along the route, way stations with rainwater collection systems were established in the desert region. These way stations, fortlets such as at Maximianon/al-Zarqa, Didymoi, Xeron, and Iovis, have common standards. They were built around a well, enclosed with a wall of square plan, have a single gate, a bathhouse, and semi-circular towers on the corners. There have been some changes in architecture since the 3rd century. The entrances of the fortlets were reinforced, and their widths were narrowed. The barracks were abandoned and turned into dumps, and the spaces within the fortlets were subdivided into smaller spaces. In the period of Diocletian, some pharaonic monuments were re-used as military structures. The great temple of Ammon at Luxor was fortified with a mudbrick enclosure and horseshoe towers, and the gates were duplicated. The temple of Khnum on the Elephantine Island was also fortified and re-used. An example of a newly developed plan type was found in Nagg El-Haggar. This “tetrarchic” fort has a square plan, built of mudbricks, and is

flanked by a square tower at each corner and a series of U-shaped towers along the curtain wall. Three walls have gates with roads which intersect at the centre. There was a palace probably belonging to a senior officer or the emperor on the river side[459] (Figure 4.50).

Figure 4.48. The fort of Deir Atrash in the eastern desert[460]

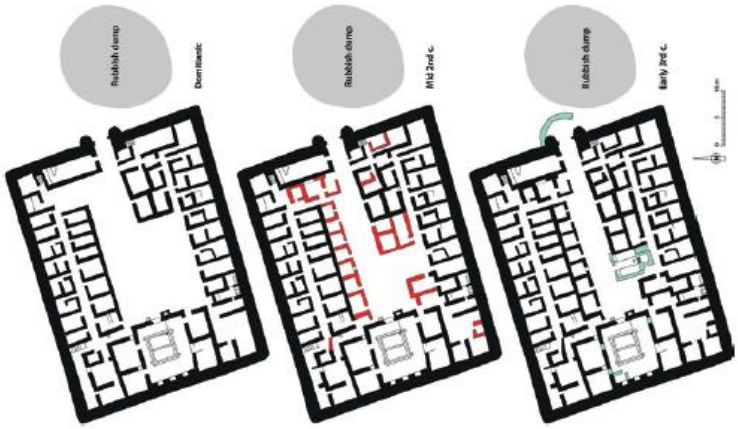

Figure 4.49. Periods of the praesidium at Umm Balad[461]

[459] Redde, *Frontiers of the Roman Empire: The Roman Frontier in Egypt*, 37-93; Steven E. Sidebotham, "The Roman Frontier in the Eastern Desert of Egypt," in *Roman Frontier Studies 1995. Proceedings of the XVIth International Congress of Roman Frontier Studies*, ed. W. Groenman- van Waateringe, B. L. Van Beek, W. J. H. Willems, and S. L. Wynia. Oxbow Monograph 91 (Oxford: Oxbow Books, 1997), 503-509.

[460] Redde, *Frontiers of the Roman Empire: The Roman Frontier in Egypt*, 41.

[461] Redde, *Frontiers of the Roman Empire: The Roman Frontier in Egypt*, 54.

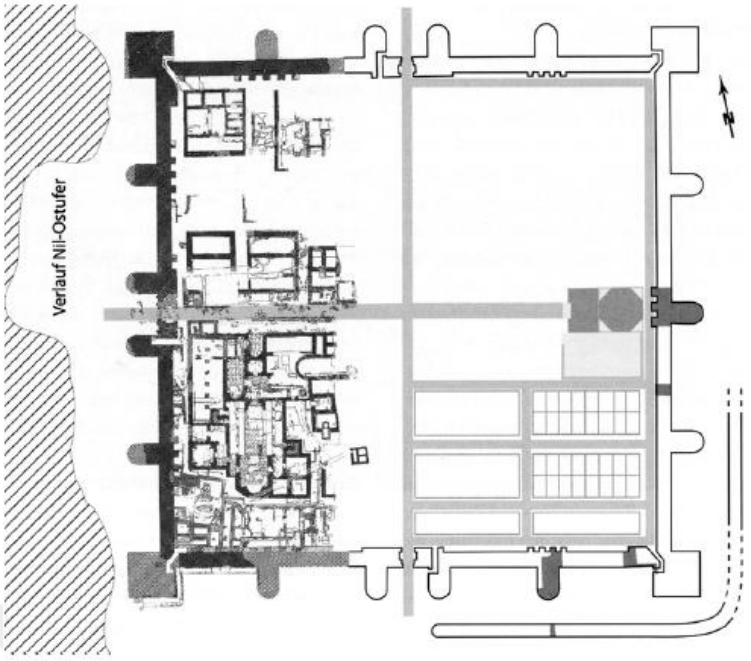

Figure 4.50. Plan of the tetrarchic fort at Nagg el Haggar[462]

4.1.1.8. The African Limes

The province of Africa Proconsularis was founded at the end of the 3rd Punic War in 146 BC on Carthage's territory. In 46 BC, Tripolitania to the south-east was added to its territory by Caesar. The client kingdom of Mauretania on the west was annexed in 39 AD by Caligula. The problematic annexation of Mauretania was secured in the period of Claudius, and the province was divided into two: Mauretania Caesariensis in the east and Mauretania Tingitana in the west. With the change of the status of Africa from a proconsulate to an imperial legate in 39 AD, Numidia was recognised as a separate province. The client kingdom of Cyrenaica was annexed in 96 BC, and was later administratively combined with Crete in 27 BC. In the period of Diocletian, while Cyrenaica remained in the Eastern Dioceses, Mauretania Tingitana was attached to Hispana. The other African provinces were included in an African Diocese. With the Vandal invasion in 429 AD, a Germanic kingdom was established in the region, and the

[462] Redde, *Frontiers of the Roman Empire: The Roman Frontier in Egypt*, 84.

Romans' effective frontier control weakened. Berber kingdoms settled in the old frontier areas and garrison settlements of the Romans.[463] In 533 AD, during the period of Justinian, the Roman rule was re-established in Carthage by General Belisarius. The strengthened Roman administration managed to evade the attacks of the Amazigh desert tribes. During the period of Maurice, the North African provinces were grouped together with the Roman possessions in Spain as the Exarchate of Africa. Although the Exarchate resisted the Arab raids in 640 AD, Carthage was plundered by the Arab raids in 698 AD, and the Exarchate was conquered by ending Roman rule in North Africa.[464]

The frontiers of the Roman Empire in Africa passed through Libya, Tunisia, Algeria, and Morocco from east to west. The provinces of Numidia and Mauretania correspond to the territory of modern Morocco and Algeria, while the provinces of Cyrenaica and Africa Proconsularis correspond to Tunisia and Libya (Figure 4.51). There were never large legion units in northern Africa. Only auxiliary units were stationed in Mauretania Tingitana and Caesariensis, but in times of crisis, they were reinforced by legionnaires from other provinces (Figure 4.52). Legio III Augusta was placed and responsible for Africa Proconsularis, Numidia and Tripolitana with small auxiliary units by the late 1st century AD. In Mauretania Tingitana, military units were settled on the plain between the ranges of the Rif Mountains in the northeast and the Atlas Mountains in the south. Forts are lined up in two lines coming from the provincial capital, Tingi (Tangiers). The first one followed the coastline of the Atlantic Ocean through the ancient Punic town of Lixus and the Augustan colonia of Banasa, to Sala (Rabat), and the second headed southwards inland to Volubilis. The first route included a short stretch of ditched linear barrier, extending from the coast to the banks of the Oued Bou Regreg, and the second was a network of small forts, fortlets and watchtowers. Instead of permanent garrisons, control over here was maintained through agreements with the local confederations such as Baquates and Macennites. Since Mauretania Tingitana is surrounded by mountain ranges in the west, it is thought to be unconnected to the military structure in the province of Mauretania Caesariensis. Although it is possible to pass between the regions through the Taza gap, it is not yet known whether this pass was used in Roman times. Thus, the military settlement in Mauretania Caesariensis is different than

[463] David Mattingly, Alan Rushworth, Martin Sterry, and Victoria Leitch, *Frontiers of the Roman Empire: The African Frontiers* (Oxford: Archaeopress Publishing Ltd, 2021), 56.
[464] Ployer, Polak, and Schmidt, *A Thematic Study*, 24-26.

in Mauretania Tingitana.[465] In Mauretania Caesariensis, the forts are clustered on the frontier road lines between two mountain ranges parallel to the coast, on the coast, and behind them. It is thought that the army in this province was concentrated in the capital Iol Caesarea (Cherchel) in the 1st century but was distributed to forts and fortlets along the east-west road from the 2nd century onwards. There are examples such as Rapidum where there was development alongside the fort, of a town of veterans and local migrants (Figure 4.53). Watchtowers were placed between the forts for communication rather than monitoring the movement on the road line. Around 200 AD, a new frontier road was built, new towns were established along the frontier, and local people were settled here to reinforce the frontier system.[466]

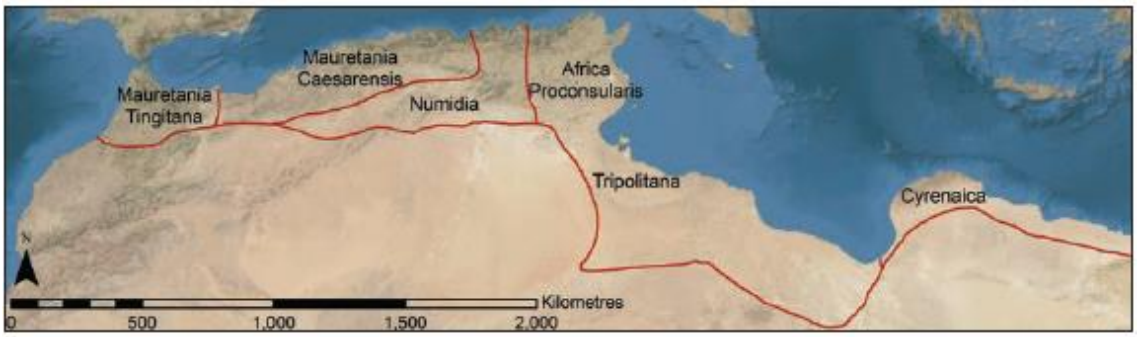

Figure 4.51. Map of African provinces[467]

[465] Mattingly et al., *Frontiers of the Roman Empire: The African Frontiers*, 58-62.
[466] Mattingly et al., *Frontiers of the Roman Empire: The African Frontiers*, 62-66.
[467] Mattingly et al., *Frontiers of the Roman Empire: The African Frontiers*, 41.

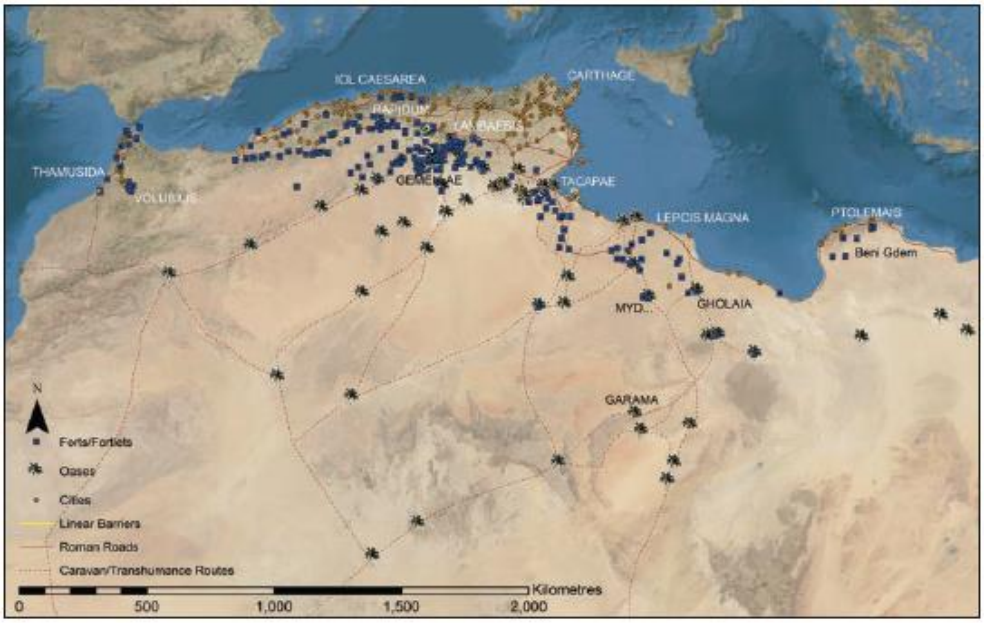

Figure 4.52. Map of African frontiers[468]

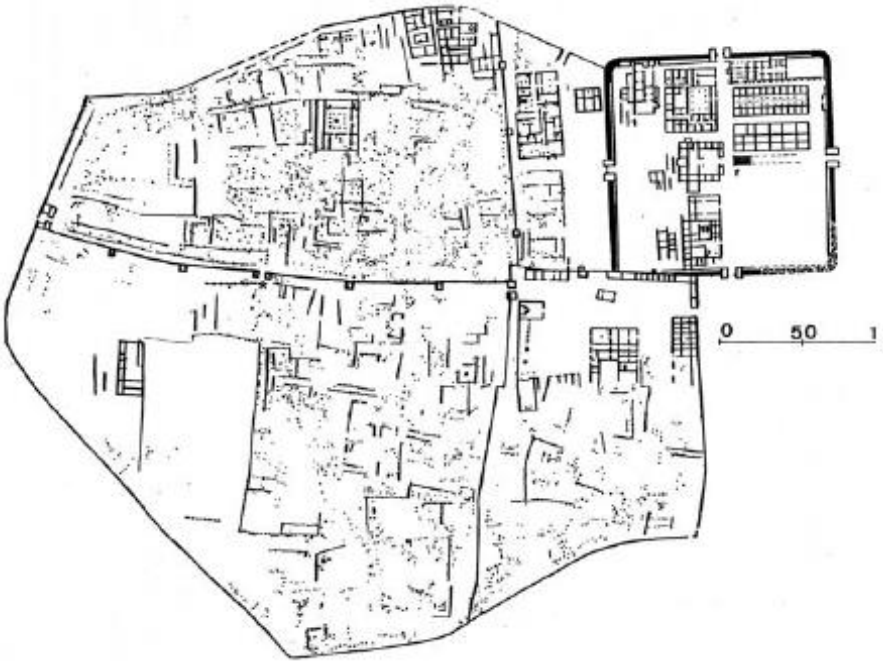

Figure 4.53. Plan of Rapidum at Algeria and its garrison settlement[469]

[468] Mattingly et al., *Frontiers of the Roman Empire: The African Frontiers*, 40.
[469] Mattingly et al., *Frontiers of the Roman Empire: The African Frontiers*, 66.

There were outpost forts in Numidia such as at Gemellae for the purpose of controlling both fixed (oasis cultivators) and mobile (transhumant and trading) people living across the frontier. In Numidia, there are also several examples of Late Roman quadriburgus.[470] In Africa Proconsularis, Legio III Augusta was stationed at Ammaedara (Haidra) in the Augustus period. The road between the oasis of Capsa (Gafsa) and the coastal site of Tacapae (Gabes) was also built in this period, but rather than being a full legionary base, it is thought that Legio III Augusta was divided into several vexillations and placed in Capsa, Tacapae, and Ammaedara to control the groups of oases and transhumant movement. It the late 1st century AD, it is considered that the legion was united at Theveste (Tebessa) and smaller forts into the Aures mountains. In the periods of Trajan and Hadrian, a new legionary fortress was established at Lambaesis in the Aures mountains, with the forts on the desert edge (Figure 4.54). Probably in the Hadrian period, the frontier system was supported with linear barriers and associated gates and towers, "the fossatum Africae". In the fossatum Africae example of Gemellae, a fort with a 60 kilometre east-west running ditch and embankment, had numerous gates and towers attached to it. Since the placement of gates is not as regular as in Hadrian's Wall, it is thought that the fossatum is for control rather than defence. There is a group of forts and fortlets that controlled the oasis towards the Tripolitana region in the east of the province. These forts were strengthened with short earth works and walls in natural corridors such as at Bir Oum Ali with a 4 metres wall height. Passage through the linear barriers was again controlled by towers and gates. There are more than 20 known examples of these short barriers in the natural corridors of Tripolitana (Figure 4.55). Roman frontier measures in the region can also be considered in the context of the taxes imposed on transhumant groups and customs dues on trans-Saharan trade.[471] In the province of Cyrenaica, several auxiliary units are thought to have been deployed along the main rivers and water points around the Syrtic gulf. In the late Roman period, new forts were built as the oasis communities at Marmarica and Syrtica became a threat. As military units decreased in size and efficiency, many rural communities began to build fort-like structures for their self-defence, although a regular garrison remained until the Arab conquests.[472]

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[470] Mattingly et al., *Frontiers of the Roman Empire: The African Frontiers*, 76.

[471] Broekaert and Vanacker, "Raiders to Traders? Economics of Integration among Nomadic Communities in North Africa," 96-122; Mattingly et al., *Frontiers of the Roman Empire: The African Frontiers*, 70-78.

[472] Mattingly et al., *Frontiers of the Roman Empire: The African Frontiers*, 82.

Figure 4.54. Headquarters building at Lambaesis in Algeria[473]

Figure 4.55. Linear barrier at the pass of Bir Oum Ali in southern Tunisia[474]

[473] Mattingly et al., *Frontiers of the Roman Empire: The African Frontiers*, 84.
[474] Mattingly et al., *Frontiers of the Roman Empire: The African Frontiers*, 77.

4.1.2. Conservation Level, Regulations, Problems, Implementations, Ownership and Community Engagement/ Adoption

Research on the Frontiers of the Roman Empire began in the 19th century. It is possible to say that through this deep-rooted research that took 150 years and sometimes more, more information was collected on the Roman Frontiers in Europe than the frontiers on other continents, and it continues to be collected. However, the destruction during the World War II unfortunately affected the Roman Frontiers negatively. With the post-war resurgence of cities gaining momentum, some of the frontier heritage has also fallen victim to extreme reconstruction. A section of the heritage remaining in the city centres is under the threat of reconstruction. In addition, since most of the frontier is in rural areas, agricultural activities may also pose a threat to its existence. Also, components on the Rhine and Danube banks are under the threat of dams in some places.

Despite all these threats, the Frontiers of the Roman Empire were taken under protection relatively early as it is one of the earliest heritage sites included in the World Heritage List which was started in 1978 and Hadrian's Wall was included in 1987. Later, with the inscription of the Upper German – Raetian Limes (Germany) in 2005 and the Antonine Wall (the UK) in 2008, the previously inscribed property was expanded and renamed as "Frontiers of the Roman Empire". It is obvious that there will be problems of conservation and management as the property, which has many components in itself and passes through different countries, is being planned to extend gradually through the addition of new sections. For this reason, in the above-mentioned Thematic Study prepared by the ICOMOS or subsequent nominations, it was adopted the view that future nominations should be included in the List separately over time, but that they should form a cluster together. In 2021, two more FREs were separately inscribed as transnational serial nominations. These were the "Frontiers of the Roman Empire – The Lower German Limes" (transnational serial property by the Netherlands and Germany), "Frontiers of the Roman Empire – The Danube Limes (Western Segment)" (transnational serial property prepared by Austria, Germany, Slovakia, and Hungary but Hungary withdrew at the last minute, and the property was inscribed with the half of the proposed components with three countries). So, there are three Frontiers of the Roman Empire properties with the five sections of the frontiers (Hadrian's Wall, Upper German – Raetian Limes, Antonine

Wall, The Lower German Limes, and The Danube Limes (Western Segment)) as of 2021. At the time of writing this thesis, "Frontiers of the Roman Empire- Dacia" serial nomination by Romania is pending for the decision of the 46th World Heritage Committee Session to be held in New Delhi later in July 2024. It is aimed to inscribe the eastern part of the Danube Limes in the upcoming sessions and to determine the roadmap for the Near Eastern and African sections.

Properties on the World Heritage List are registered and protected by national legislations. However, it is possible to say that the reconstructed components were not included in the List, but are still under protection because they are located in the buffer zone. The dimensions of conservation implementations are very diverse. The frontiers in the UK were left as they were in the landscape with mostly minor repairs or reconstructions at the plan level, while the number of full reconstructions is quite high in Germany and Austria. Unfortunately, the authenticity of the remains was sacrificed during these reconstructions, and these components were not included in the List due to reconstructions. Towards Eastern Europe, it can be considered that the excavated sites are barely under protection, while reconstruction is rarely encountered due to limited financial resources. The same is true for museum activities. In Germany, museums or Limes information centres operate at very close distances in order to spread information about the frontier heritage as much as possible. Apart from these, there are also archaeopark arrangements in which reconstruction trials are presented together with the original remains and findings.

Strategies adopted in the management of the Frontiers of the Roman Empire heritage vary depending on the management policy of the countries (federal, county or central government). Most of the components in the UK are owned by individuals or counties in rural areas. However, in order to provide holistic conservation management, heritage agencies are intermediary advisory authorities responsible for heritage management. In Germany, on the other hand, the protection status varies according to the states, and most of the components are under state care. The fact that the Frontiers of the Roman Empire is spread across ten country stakeholders in Europe and is a very long and multi-component entity poses the greatest challenge in its holistic conservation and management.

4.1.2.1. Hadrian’s Wall

- **Conservation Level and Regulations**

Hadrian’s Wall is the first section of Frontiers of the Roman Empire that was inscribed on the UNESCO World Heritage List in 1987. When Hadrian’s Wall was inscribed, there was no requirement to prepare a management plan for the properties nominated for the WHL. This requirement was made with a Planning Policy Guidance Note in 1994, so there was no management plan when the property was inscribed. The first management plan for Hadrian’s Wall was prepared in 1996.

While the first management plan was being prepared, only ten percent of Hadrian's Wall was under protection and managed by eight bodies for conservation and public access, while the remaining ninety percent was within the ownership of some public and private bodies. Most of these areas, apart from urban lands, were rural and used for agricultural activities. In Northumberland and eastern Cumbria tenants of large estates farm most of the land, and in west of Brampton there are a great number of owner-occupied farms. There were other bodies besides the owners to affect the decision-making process, e.g. The Ministry of Agriculture, Fisheries and Food and the Forestry Authority, city and district councils, local planning agencies, highway authorities, Government Regional Offices, trusts and funders, and specialist government agencies such as English Heritage, English Nature, and the Countryside Commission. The spread of the Wall over a very large area and the large number of ownerships and decision-making authorities, and their conflicting expectations was a challenge in preparing the management plan. After intense reactions to the first management plan, especially from landowners, farmers, and local communities, a Management Plan Committee was established with representatives of each stakeholder. After much discussion and exchange of ideas, the first management plan was prepared in 1996 with the aim to conserve the archaeological remains of Hadrian's Wall within the landscape, take care of the interests of the local communities, provide accessibility to the Wall, and contribute to the regional and national economy as a result of the property’s being a World Heritage Site. The management plan prepared in this direction included policy recommendations and guiding principles that predicted 5-year and 30-year projections. For the implementation of the plan, a Coordination Unit provided by the English Heritage was established. Although the

English Heritage is the driving force for the implementation of the plan, it only has five percent of the Wall. In this section, it is aimed to set an example for other stakeholders with its limited conservation and protection practices, and management and financial advice were also given to other owners from time to time.[475]

The registered sites of Hadrian's Wall are protected by the Ancient Monuments and Archaeological Areas Act of 1979. There are, however, some unregistered sites, but they are also protected by remaining within the buffer zone preserving the monument within the Town and Country Planning system. The buffer zone is an important measure in the protection of assets, which is created between 1-6 kilometres around the assets, and has some protection and construction limitations through the planning system, although not as strict as the WHS status. Therefore, in the preservation of Hadrian's Wall, which has parts formed by shaping the landscape itself, the archaeological remains were considered together with the setting where they were located.[476] Besides the archaeological heritage of the Wall and its landscape, two sections of the Wall are National Parks: the Lake District and Northumberland National Parks; and one Area of Outstanding Natural Beauty: the Solway Coast. The National Park Authorities are the Local Planning Authorities for these areas. Also, Natural England also contributes to land management along Hadrian's Wall. In order to understand landscape characteristics and make decisions for its management, a Historic Landscape Characterisation was completed for Northumberland and Cumbria at the county level.[477]

The representatives of the Management Plan Committee and the Hadrian's Wall Tourism Partnership established in 1995 came together for the second 5-year version of the management plan. In the second management plan, besides conservation, the promotion of the heritage property and tourism facilities, and inclusion of local communities were focused.[478]

In 2006, a change was made in the execution of the management plan, and Hadrian's Wall Heritage Ltd was established in which a single body would be responsible for the management of the Wall. Thus, institutions such as the Hadrian's Wall

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[475] Breeze, *Frontiers of the Roman Empire: Hadrian's Wall,* 84-87; C. J. Young, "The Management of Hadrian's Wall, 1989-99," in *Hadrian's Wall 1989-1999. A Summary of Recent Excavations and Research prepared for the Twelfth Pilgrimage of Hadrian's Wall, 14-21 August 1999,* ed. Paul Bidwell (Kendal: Titus Wilson & Son, 1999), 65-72.

[476] Breeze, *Frontiers of the Roman Empire: Hadrian's Wall,* 80-82.

[477] Hadrian's Wall Country, *Hadrian's Wall Management Plan 2008-2014* (UK: Hadrian's Wall Heritage Ltd, n.d.), 7-8, 21, 24, 58.

[478] Breeze, *Frontiers of the Roman Empire: Hadrian's Wall,* 84-87.

coordination unit of English Heritage, the Hadrian's Wall Tourism Partnership, National Trail, and the Hadrian's Wall Bus and volunteer team were combined into a single body.[479] With the contributions of the two main supporters, English Heritage and Natural England, this new formation focused on sustainable tourism planning and the contribution of the Wall to local and national communities as a World Heritage Site. In this context, works have been started to improve the tourist facilities and to make the Wall accessible for all tourists. For this purpose, National Trail initiative was previously started in 2003 and managed by Hadrian's Wall Heritage Ltd. In order to sustain such an initiative, firstly surveys were made on all parts of the Wall, and then regular continuing monitoring was made to measure the potential damage to the heritage site by intense touristic activities. As a result of regular monitoring, unfortunately, visible damage was detected in the Wall due to intense walking. It was noted that the access to the site was not restricted in any way, and that when the walks were realized in wet weather, the grass cover was damaged by walking on or very close to the Wall.[480]

From 2006 to 2011, Hadrian's Wall Heritage Ltd, and then until 2015, Hadrian's Wall Trust were the main coordinating bodies in the management of the Wall, including management of National Trail (formed now coordination of Natural England, the Highway Authorities, and Historic England) and applying Management Plan Coordinator. With the closure of the Regional Development Agencies, the functioning of the Trust ended, so a new system was designed where in the WHS Management Plan Committee would advise as a Partnership Board. Representatives of the Board consisted of Local Authorities, Historic England, and Natural England, and the Chairs of five specialists from Delivery Groups, covering Conservation and Planning; Archaeological Research; Farming and Land Management; Marketing and Tourism; and Learning and Interpretation. In 2015, two key aspects of Historic Buildings and Monuments Commission for England, also known as English Heritage, were legally separated. The governmental advisory body was named Historic England, and the curation of assets for the benefit of society is left to the English Heritage Trust. Thus, the enforcement part,

[479] Breeze, *Frontiers of the Roman Empire: Hadrian's Wall,* 84-87.

[480] Jacqui Huntley, Alan Whitworth, Rob Collins, and David Breeze, "A round-up of other developments since 1999," in *Hadrian's Wall* 1999-2009. *A Summary of Excavation and Research prepared for The Thirteenth Pilgrimage of Hadrian's Wall, 8-14 August 2009*, ed. N. Hodgson (Kendal: Titus Wilson & Son, 2009), 53-60.

where decisions and recommendations are determined, and the interpretation part of assets are operationally separated.[481]

The expectation of UNESCO for World Heritage Sites to contribute to the economic and social welfare of local communities, and the impact of Hadrian's Wall Heritage Ltd in this regard were reflected in the 3rd management plan. At the centre of the 3rd management plan, there was sustainable tourism and the protection of the interests of local communities, their participation and interaction with heritage. In this direction, six interest groups were formed in the 3rd plan, taking into account the interests of the stakeholders, communicating the operability of the plan regarding the relevant areas and reporting to the Management Plan Committee.[482] With the inscription of other sections (Upper German- Raetian Limes and the Antonine Wall), the Inter-Governmental Committee (IGC) was formed with the delegations from the State Parties. IGC is responsible for the co-ordination of the joint international management of the FREWHS.[483]

- **Conservation Problems**

The main conservation problems are that the multi-ownership structure of the Wall causes the decision-making and conservation processes to take longer, and that the Wall is mostly in rural areas open to farming activities. Rather than banning agricultural activities, which is one of the major threats to Hadrian's Wall (which would be impractical given that most of the Wall is in rural areas), traditional animal husbandry and farming are promoted along the frontier. Since farmers who carry out farming activities are also owners of Hadrian's Wall, they are directly responsible for the maintenance and protection of the property. Power lines, telecommunication lines, and nuclear power plants in the region where the frontier passes also pose a threat. However, the nuclear power plant on the west Cumbrian coast was demolished in 2007, and the power lines were reduced as renewable energy systems were preferred. However, the wind turbines that have just begun to spread affect the visual integrity of the area. Apart from this, in

[481] Rob Collins, Matthew Symonds, and Bill Griffiths, "A Round-Up of Developments Since 2009," in *Hadrian's Wall 2009-2019. A Summary of Excavation and Research prepared for The Fourteenth Pilgrimage of Hadrian's Wall, 20-28 July 2019,* ed. Rob Collins and Matthew Symonds (Kendal: Titus Wilson & Son, 2019), 5-14.

[482] Breeze, *Frontiers of the Roman Empire: Hadrian's Wall,* 84-87.

[483] Historic Scotland, *The Antonine Wall Management Plan 2014-19* (UK: Historic Scotland, n.d.), 10.

some places, there are problems such as torrential rain, fluvial erosion, coastal erosion, infectious diseases in animals, and the searching with metal detectors.[484]

- **Conservation Implementations**

Almost the entire length of Hadrian's Wall has survived to the present day at the plan level, although not in elevation. Not all parts, especially civilian settlements, have been uncovered, but they are thought to be preserved underground. It was stated that the loss in the Wall was very small and partial. These are; where the frontier line has been crossed by new roads; Benwell reservoir; quarrying at Walltown and Cawfields, where the coastal erosion in Cumbrian coast, Allonby Bay, Beckfoot, the western part of the fort at Ravenglass; a former mineral railway line bisected the fort of Burrow Walls and the coastal railway from Carlisle to Barrow-in-Furness; the 18th century canal from Carlisle to Port Carlisle. It was also stated that 108,210 metres (91%) of the curtain wall is either not visible or survives as buried remains, while the 19th century Clayton reconstruction was realized in 2,416 metres (2.04%) part of the Wall.[485]

The best-preserved part of Hadrian's Wall is its central part, which is in the highland where farming is not easily possible. The remaining rural parts of the Wall are under the influence of intensive agricultural activities. In the urban part, although some parts of the Wall remained under the settlements, a part of it managed to survive.[486]

Most of the components of the Hadrian's Wall were registered by the Ancient Monuments and Archaeological Areas Act of 1979. As a result of long years of research and monitoring, the maintenance of the Wall was provided. In addition to this, there are also components that have been preserved by being buried under the ground. Some parts of the Wall and forts have been consolidated to make them both visible and protected (Figure 4.56). In order to provide a better understanding for the visitors, the gate and house at South Shields (Figure 4.57), the wall and bath-house at Wallsend, the wall and turret, the turf wall and milecastle gate at Vindolanda were reconstructed. There are also museums at Newcastle (Great North Museum), Chesters, Carlisle (Tullie House Museum), Roman Army Museum (Carvoran) where the artefacts are held; and open-site

[484] Hadrian's Wall Country, *Hadrian's Wall Management Plan 2008-2014,* 11, 22.
[485] Hadrian's Wall Country, *Hadrian's Wall Management Plan 2008-2014,* 14-15.
[486] Breeze, *Frontiers of the Roman Empire: Hadrian's Wall,* 80-82.

museums at South Shields, Wallsend, Corbridge, Housesteads, Maryport, and Vindolanda.[487]

Figure 4.56. A section of the consolidated stone wall at Housesteads[488]

Figure 4.57. Reconstructed west gate at South Shields[489]

[487] Breeze, *Frontiers of the Roman Empire: Hadrian's Wall*, 78-79; Randall Mason, Margaret G. H. MacLean, and Marta de la Torre, *Hadrian's Wall World Heritage Site* (Los Angeles: The Getty Conservation Institute, 2003), 13-16.

[488] Breeze, *Frontiers of the Roman Empire: Hadrian's Wall,* 8.

[489] Breeze, *Frontiers of the Roman Empire: Hadrian's Wall,* 88.

For the tourist who wishes to visit the Wall, a 135 kilometres National Trail route was organized which includes remains, museums and towns along the Wall. Also, since 1849, conferences called "pilgrimages", aimed at both visiting the Wall and sharing recent research, have been organized by academics. Additionally, to strengthen the community's ties with the frontier, the National Trail has launched a warden program, whereby volunteers can patrol along the frontier and inform visitors. With Hadrian Arts Trust's Singing in the Bath project, choirs from communities perform simultaneously in the baths along the frontier. With the Writing on the Wall project, writers and poets are brought to the Wall and by interacting with the Wall they can contribute to literature. The legionary reenactment team recreates life on the frontiers. In addition to the education given in schools and museums, it is aimed to raise wide-scale awareness through documentaries, series and films about the Roman period in the UK prepared and broadcast on TV.[490]

4.1.2.2. The Antonine Wall

- **Conservation Level and Regulations**

Antonine Wall is the third section of Frontiers of the Roman Empire that was inscribed on the UNESCO World Heritage List in 2008. No more properties were inscribed in the trans-national serial property after this inscription; new properties were planned to be included as a cluster. The surviving parts of the Wall were previously listed under the Ancient Monuments and Archaeological Areas Act of 1979. Besides legislative regulations and governmental policy, also local plans were adopted to protect the Wall in the frame of the planning and development system. Historic Scotland is responsible for

[490] Hadrian's Wall Country, *Hadrian's Wall Management Plan 2008-2014,* 75-80; M. C. Bishop, "Re-enactment and Living History – Issues about Authenticity," in *Presenting the Romans. Interpreting the Frontiers of the Roman Empire World Heritage Site,* ed. Nigel Mills (Woodbridge: The Boydell Press, 2013), 23-30; Nigel Mills, Tim Padley, John Scott, Lucie Branczik, and Genevieve Adkins, "Applying the Hadrian's Wall. Interpretation Framework," in *Presenting the Romans. Interpreting the Frontiers of the Roman Empire World Heritage Site,* ed. Nigel Mills (Woodbridge: The Boydell Press, 2013), 181-192; Richard Hingley, "Hadrian's Wall as Artscape," *Journal of Borderlands Studies* (2023): 1-20. https://doi.org/10.1080/08865655.2023.2292117; Robert Witcher, Divya P. Tolia-Kelly, Richard Hingley, "Archaeologies of Landscape: Excavating the Materialities of Hadrian's Wall," *Journal of Material Culture* 15, no. 1 (2010): 105-128. https://doi.org/10.1177/13591835103552.

the 12 kilometres of the Wall on behalf of the state. This part includes a section of the rampart and ditch which can be seen at Rough Castle, Croy Hill and Bar Hill; whole or part of five forts at Rough Castle, Castlecary, Croy Hill, Bar Hill, and Bearsden, including two bath-houses, a fortlet at Croy Hill, all three visible "expansions", and two stretches of the Military Way. Except Historic Scotland, other sections of the Wall are in the ownership of Falkirk Council, North Lanarkshire Council, East Dunbartonshire Council (which also owns Kirkintilloch Fort), West Dunbartonshire Council (which cares for Duntocher Fort), and Glasgow City Council. Apart from these six signatory Partners, there are also parts of the Wall owned by individuals and organizations such as public and private landowners, tenants and land managers that play a role in the management of the Wall. The fact that the Wall has less shareholding than the Hadrian's Wall has ensured that uniform protection decisions were taken by the local authorities.[491] With the inscription of other sections (Upper German- Raetian Limes and the Antonine Wall), the Inter-Governmental Committee (IGC) was formed with the delegations from the State Parties. IGC is responsible for the co-ordination of the joint international management of the FREWHS.[492]

The Antonine Wall is legally protected by the Ancient Monuments and Archaeological Areas Act in 1979 and the Town and Country Planning (Scotland) Act in 1997. For the 60 kilometres long Wall, the 50 metres corridor created along the wall line, 5 metres behind the rampart and 50 metres ahead of this rampart south line, the wall elements and the yet unknown ruins that might be located in this area were defined as a World Heritage Site. This corridor was planned to be expanded to include more volumetric structures such as forts and fortlets. In addition, buffer zones were created around the Wall itself, which expanded in rural areas and narrowed in urban areas and are subject to special protection plans. The protection of the surviving parts by two laws and the inclusion of the destroyed part, which is 2 kilometres section out of the 60 kilometres, in the buffer zone provided continuous protection for the Wall. In order to preserve the Antonine Wall's setting and understand why it was built in that particular area, the landscape was taken into account when creating the buffer zone. While creating the buffer zone, the visibility of the property was taken into account, and the buffer zone strip was determined for an average of 2.5 kilometres. Among the factors within this strip that affect

[491] Breeze, *Frontiers of the Roman Empire: The Antonine Wall,* 50-68; Historic Scotland, *The Antonine Wall Management Plan 2014-19,* 11-14.

[492] Historic Scotland, *The Antonine Wall Management Plan 2014-19,* 10.

the landscape, it was discussed whether urban areas, mineral and landfill sites, small settlements, industrial sites, farmsteads, woodlands, and roads, railways and canals should be included in the buffer zone or not, by taking into account their impact on the visibility of the property. A landscape characterization assessment around the property was conducted by Scottish Natural Heritage, and the Historic Landuse Assessment was conducted by Historic Scotland and the Royal Commission on the Ancient and Historical Monuments of Scotland.[493]

- **Conservation Problems**

17 kilometres out of the total length of 60 kilometres of the Antonine Wall is in the public ownership by central or local government bodies. The remaining 44 kilometres are in private ownership.[494] When compared to Hadrian's Wall, the number of owners is relatively low, and since the length of the property is smaller, the conservation actions can proceed faster. However, problems similar to those in Hadrian's Wall also threaten the existence of the Antonine Wall. The main problem is agricultural activities, especially ploughing, since the property consists mostly of turf, and is mostly located in rural areas. Besides agricultural activities, urban growth, erosion, and dense visitor numbers pose threats. An old mining collapse in the North Lanarkshire area recently affected the Wall.[495]

- **Conservation Implementations**

The Wall is visible at a quarter of its original length. The best preserved and visible feature of the Wall is the ditch, also the rampart is visible in some places with its stone base. Several fort remains, including Rough Castle, Bar Hill, Castlecary, and Bearsden are survived; however, the only visible fortlet is at Kinneil. Bathhouses built in the forts or annexes can be seen at Bearsden, Rough Castle, and Bar Hill (Figure 4.58). Also, the Military Way survived at the east and west of Rough Castle and in Seabegs Wood. However, not much has been reached about the cemeteries and civil settlements that are considered to be outside the forts. Among findings, twenty ornamented

[493] David J. Breeze, "The Antonine Wall – The Making of a World Heritage Site," *Scottish Geographical Journal* 127, no.2 (2011): 87-93. https://doi.org/10.1080/14702541.2011.586645; UNESCO, *Nomination 430ter: The Antonine Wall Volume I* (1987, 2005, 2008), 15, 20-21, 79, 101-103.

[494] UNESCO, *Nomination 430ter: The Antonine Wall Volume I,* 86.

[495] Historic Scotland, *The Antonine Wall Management Plan 2014-19,* 24; UNESCO, *Nomination 430ter: The Antonine Wall Volume I,* 82-83.

inscriptions called “distance slabs” which records of which part of the Wall was built by which legion or auxiliary, give information on the construction of the Wall.[496] Different trail routes along the Wall were organized for hikers.

Figure 4.58. Consolidated bathhouse at Bearsden[497]

There are museums at Glasgow (the Hunterian Museum), where most of the Distance Slabs were held; Edinburg (The National Museums of Scotland), where The Bridgeness Distance Slab is on display; Kinneil (Kinneil Museum), Falkirk (Callendar House), and Kirkintilloch (Auld Kirk Museum). To strengthen local communities' ties to

[496] Breeze, *Frontiers of the Roman Empire: The Antonine Wall*, 50-68.
[497] Breeze, *Frontiers of the Roman Empire: The Antonine Wall*, 55.

the Roman frontier heritage, many archaeological and historical societies organize events along the Wall, such as lectures, visits and publications. Education on Roman heritage is provided to school children through museums. Additionally, many schools located near the Wall include the frontier in their curriculum. In addition, with the projects developed, copies of distance slabs were erected in 5 local authority areas along the Wall, 5 Roman-themed parks were arranged, a reenactment legion of volunteers was established, and Roman gardens, sculpture, theatre and workshop projects undertaken by the community were realized. In addition, ancient place names related to the frontier are kept alive today with street or regional names. Some parts of the Wall are also used for recreation purposes and included in life. Also, it was stated that the homeowners living near the wall were proud to display the ruins in their gardens.[498]

4.1.2.3. Upper German- Raetian Limes

- **Conservation Level and Regulations**

Upper German- Raetian Limes is the second section of the Frontiers of the Roman Empire that was inscribed on the UNESCO World Heritage List in 2005. With its inscription as an extension, the property became a trans-national serial property, and was named as FRE.

The research on German Limes has been going on for a long time, since the 19th century. In 1892, the Reichs-Limeskommission was established with the representatives of the German states bordering the limes (Baden-Württemberg, Bavaria, Hesse, and Rhineland-Palatinate), and this commission undertook a systematic recording of the limes in order to increase the state of knowledge. Until the 1960s, the Roman-Germanic Commission (Römisch-Germanische Kommission) that was established later undertook the research work. Forts within the urban surroundings of Upper German Limes were under threat of urban over-planning of renewal and reconstruction in the post-World War II era. In this period, although some of the forts were excavated by the State Monument

[498] Breeze, *Frontiers of the Roman Empire: The Antonine Wall*, 69; Patricia Weeks, "The Antonine Wall as a World Heritage Site: People, priorities and playparks," in *The Antonine Wall. Papers in honour of Professor Lawrence Keppie,* ed. David J. Breeze and William S. Hanson (Oxford: Archaeopress, 2020), 456-462; UNESCO, *Nomination 430ter: The Antonine Wall Volume I,* 62-64.

Preservation Service and research institutions such as the Roman-Germanic Commission, some sites were unfortunately destroyed. With the foundation of the German Limes Commission (Deutschen Limeskommission) in 2003 and the inscription of the Upper German Limes as a UNESCO World Heritage Site in 2005, research has shifted to documentation and mapping rather than archaeological excavation. At present, local protection authorities with the state offices for heritage preservation and German Limes Commission are responsible for the protection measures, monitoring and management of the Upper German Limes. Management plans were developed by The Limes Commissioners of the State of Hesse and the Free State of Bavaria, the Limes Information Centre Baden-Württemberg and the General Directorate of Cultural Heritage in Rhineland-Palatinate for the limes sections of Rhineland-Palatinate, Hesse, and Baden-Württemberg. Where the Limes pass through forest areas in the Westerwald and Taunus or in the Swabian-Franconian Forest, forestry authorities are involved in the protection and presentation of the Limes components. In these areas, it was preferred to exhibit the remains as they are, without touching the natural landscape.[499]

Of the 507 kilometres long frontier, 43 kilometres have no linear elements; there are 896 (25 of them were reconstructed, 28 were destroyed, 235 have remains, 214 are not visible, 394 suspected) watchtowers at or slightly behind the frontier line, and also 58 forts (5 of them were partially or completely reconstructed). All areas where the frontier passes were included in the WHS, and while determining the buffer zone, visibility, landscape and the possibility of archaeological remains under the ground in the immediate vicinity of the property were taken into account[500]. It was stated that 27 % of the Upper German- Raetian Limes are visibly on the surface, 21 % are in modern border lines and road courses, and 43 % are underground, invisibly. Most of the visible part belongs to state authorities, and some parts belong to private individuals, but more expropriations are planned in the future. While the land owned by private individuals is generally agricultural land, the great part of the land used for forestry is in state or local authorities' ownership. The primary responsibility for the preservation of the frotnier lies with the owners. Due to the way Germany is governed as federal constitution, cultural heritage and therefore frontiers are governed by the states' own conservation regulations rather than a single central law, but these regulations of Baden- Wüttemberg, Bavaria, Hesse,

[499] Thiel, Roth, and Becker, *Frontiers of the Roman Empire: The Upper Germanic Limes*, 70-89.
[500] UNESCO, *Nomination 430ter: Upper German- Raetian Limes Volume I*, 3-5.

and Rhineland- Palatinate have similar approaches.[501] WHS and its surroundings are preserved not only by states' regulations but also by private owners; and not only by conservation laws, but also planning legislation, land use laws and nature conservation laws.[502] With the inscription of other sections (Upper German- Raetian Limes and the Antonine Wall), the Inter-Governmental Committee (IGC) was formed with the delegations from the State Parties. IGC is responsible for the co-ordination of the joint international management of the FRE WHS.[503]

- **Conservation problems**

The main factors that threaten the existence of the Upper German- Raetian are new buildings in the countryside, industrial structures and roads. Secondly, agricultural activities in rural areas and existing forest areas affect the property. Although the visitors are not concentrated in one place and do not pose a threat due to the great linearity of the property, some of the walking paths passing over the earthworks have negatively affected its existence. Apart from these, in the singular case base, the original material was damaged in the parts where the reconstruction was made.[504]

- **Conservation Implementations**

As an example of protection from built over, the eastern fort of Welzheim was arranged as an archaeopark with its ruins at the plan level. In the 1970s and 1980s, reconstructions began to be built to convey information of the limes and raise awareness about them. However, since the reconstructions were built on the original remains, unfortunately, some of the original material was lost. In the 1980s and 1990s, the number of rescue excavations carried out by the state heritage management increased.[505] 25 watchtowers and some parts of the artificial barriers (at Rheinbrohl, Oberbieber, Bendorf, Hillscheid, ARzbach, Bad Ems, Taunusstein-Orlen, Ober-Mörien, Butzbach, Pohlheim-Güningen,Limeshain-Rommelshausen, Walldürn, Geisselhardt, Grosserlach-Grab, Murrhardt, Lorch, Buch, Mönchsroth, Grüb-Dühren, Dennenlohe, Rittern, Burgsalach, Erkertshofen, Kipfenberg, Hienheim) were reconstructed sometimes on top of the original

501 UNESCO, *Nomination 430ter: Upper German- Raetian Limes Volume I,* 23-26.
502 Deutsche Limeskommission, *Upper German-Raetian Limes. Management-Plan 2019 – 2023* (Germany: Deutsche Limeskommission, 2019), 39.
503 Historic Scotland, *The Antonine Wall Management Plan 2014-19,* 10.
504 UNESCO, *Nomination 430ter: Upper German- Raetian Limes Volume I,* 36-37.
505 Thiel, Roth, and Becker, *Frontiers of the Roman Empire: The Upper Germanic Limes,* 70-89.

remains between 1912-1996, and forts (at Saalburg, Welzheim, Ellingen, Weissenburg, Pfünz) were reconstructed on top of the original remains between 1907-2005[506] (Figure 4.59, 4.60, 4.61, 4.62).

Figure 4.59. Replicas of a timber watchtower at Rheinbrohl and a stone watchtower at Limeshain[507]

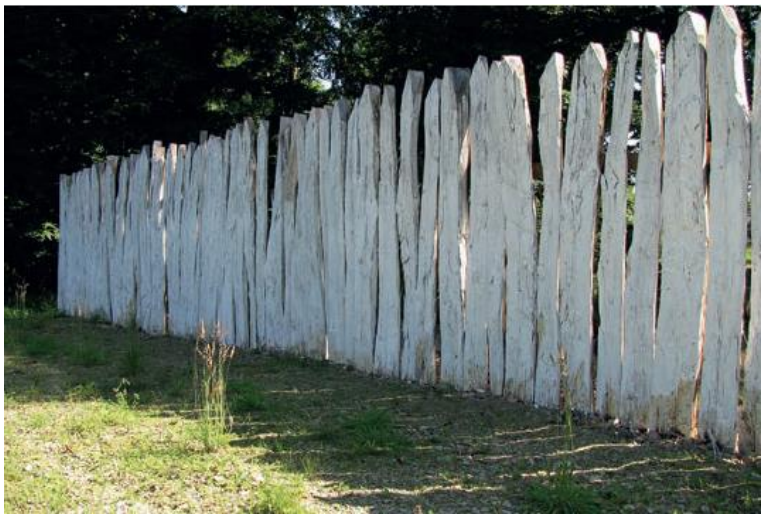

Figure 4.60. Reconstruction of a limed palisade at Heidenrod-Huppert[508]

[506] UNESCO, *Nomination 430ter: Upper German- Raetian Limes, Attachment 2,* 5-8.
[507] Thiel, Roth, and Becker, *Frontiers of the Roman Empire: The Upper Germanic Limes*, 52, 54.
[508] Thiel, Roth, and Becker, *Frontiers of the Roman Empire: The Upper Germanic Limes*, 53.

Figure 4.61. Reconstruction of the fort at Pohl[509]

Figure 4.62. Reconstructed gate in the archaeopark at Saalburg[510]

[509] Thiel, Roth, and Becker, *Frontiers of the Roman Empire: The Upper Germanic Limes*, 82.
[510] Thiel, Roth, and Becker, *Frontiers of the Roman Empire: The Upper Germanic Limes*, 28.

There are museums at Rheinbrohl (RömerWelt am Caput Limitis), Pohl (Limeskastell), Saalburg (Römerkastell), Obernburg am Main (Römermuseum), Miltenberg (Museum der Stadt), Walldürn (Stadt- und Wallfahrtsmuseum), Osterburken (Römermuseum und Kastell), Jagsthausen (Friedrich-Krapf-Museum und konserviertes Römerbad), Öhringen (Weygang-Museum), Mainhardt (Römermuseum), Murrhardt (Carl-Schweizer-Museum), Welzheim (Museum Welzheim) und Archäologischer Park Ostkastell Welzheim, Bonn (LVR-Landes Museum), Gießen (The Oberhessisches Museum), Darmstadt (the Landesmuseum), Karlsruhe (the Badisches Landesmuseum), Stuttgart (the Württembergisches Landesmuseum), Aalen (the Limesmuseum), München (the Archäologische Staatssammlung). Besides museums, there are also regional Limes information centres at Rheingau-Taunus-Kreis/ Hofgut Georgenthal/ Hohenstein, Hessen, Wetteraukreis West/ Museum Butzbach, Wetteraukreis Mitte/ Wetterau-Museum Friedberg, Wetteraukreis Ost/ Museum Echzell, Landkreis Gießen/ Hof Grass/ Hungen, Main-Kinzig-Kreis/ Museum Großkrotzenburg, Landkreis Offenbach/ Landschaftsmuseum Seligenstadt (Figure 4.63). In addition to the museums, "German Limes Road" route was created, and paths were created for hikers, motorists and cyclists. Instead of physical reconstruction, limes apps, which provide on-site visual animation, have started to be preferred. In order to increase community engagement, trips to the frontiers are organized through museums and educational events are organized for school-age children. A team of volunteers has been established with the Association of Limes Cicerones, and this team is trained to inform tourists throughout the Limes. In addition, reenactments of the Roman period are made.[511]

[511] Thiel, Roth, and Becker, *Frontiers of the Roman Empire: The Upper Germanic Limes,* 74, 82-92.

Figure 4.63. Museums on the German Limes (Upper and Lower) in the Germany section[512]

4.1.2.4. Lower German Limes

- **Conservation Level and Regulations**

Lower German Limes is the fourth section of the Frontiers of the Roman Empire that was inscribed on the UNESCO World Heritage List in 2021. Lower German Limes is a trans-national serial property itself that consisted of components from the Netherlands and Germany.

Lower German Limes is approximately 400 kilometres along the river Rhine. The component parts are located in the modern countries of Germany and the Netherlands. The Rhine River is not part of the WHL property because it was suggested that it had changed its course many times, and its current state did not represent its state in the Roman period.[513] While determining a buffer zone for the WHS, areas containing archaeological remains expected to carry WHS values, areas containing archaeological

[512] "Limes- Road,",Deutsche Limes- Strabe, accessed June 11, 2023, https://www.limesstrasse.de/en/deutsche-limes-strasse/limes-road.

[513] UNESCO, *Frontiers of the Roman Empire – The Lower German Limes. Part I – Nomination file*, 77.

remains that have not been fully preserved or destroyed and areas that are included in the views and elements of the setting were taken into account.[514]

It has been stated that the state of preservation of the components included in WHL is between good and very good, and the three-quarter components of the property consist of nearly or largely completed elements. This was achieved through the timber structures being buried in the ground or deliberately soaked in Roman times in order to build harbours and quays, and later covered with silt. However, the later period stone structures that were not included in the WHL were robbed and used as quarries in the Middle Ages. Reconstruction was carried out in all 5 sites.[515]

The ownership of parts of Lower German Limes in Germany in urban and rural areas is mixed, with a predominance of private ownership. Significant sites such as Xanten are in public ownership, or in ecclesiastical ownership. Forest areas are mostly publicly owned and managed by the State Forest Management Service. The parts of Limes in the Netherlands are under mixed public and private ownership. Public ownership includes ownership by the State, provinces, municipalities and water boards, and is sometimes related to infrastructure and public space. Private ownership includes ownership by private citizens, and also by churches and other legal bodies such as associations for nature management, foundations, and museums.[516]

The protection of the Lower German Limes is provided by two countries' conservation regulations; national conservation law of the Netherlands and state's conservation laws of North Rhine-Westphalia and Rhineland-Palatinate in Germany. Management of the nominated property is coordinated by a joint Dutch-German Management Group (MGLGL), which is overseen by an Intergovernmental Committee (IGC-LGL). The conservation laws in the Netherlands were introduced in 1961, in Rhineland-Palatinate in 1978, and in North Rhine-Westphalia in 1980. Roman military sites were started to be protected since 1969 in the Netherlands and since the 1980s in Germany. Properties are protected by not only conservation laws but their settings are also protected by Natural Protection Acts, Water Act, Forest Preservation Act, Environmental Impact Assessment Act, Environmental Planning Act for both countries.

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514 UNESCO, *Frontiers of the Roman Empire – The Lower German Limes. Part I – Nomination file*, 11.

515 UNESCO, *Frontiers of the Roman Empire – The Lower German Limes. Part I – Nomination file*, 13, 126.

516 UNESCO, *Frontiers of the Roman Empire – The Lower German Limes. Part I – Nomination file*, 156.

Even not listed sites are under protection in North Rhine-Westphalia by specific properties suspected of containing archaeological monuments regulation. Besides these laws, balanced development plans that meet social and economic requirements with ecological requirements are prepared through The State Development Plan for North Rhine-Westphalia and Rhineland-Palatinate. In the Netherlands an overall policy regarding space and mobility based on national planning law is prepared by the Ministry of Infrastructure and Water Management. Detailed planning is realised by the municipalities through zoning plans.[517]

- **Conservation problems**

The main conservation problems of Lower German Limes are urban and rural development and infrastructure, agricultural activities, forestry, flooding and groundwater level reduction. Although there are no large-scale housing projects that threaten the property, small housing projects in the areas adjacent to the property threaten its existence. However, attempts are being made to prevent this by making elevated structures or shallow foundations with planning agents. Industrial construction poses a threat in one area. Constructions for transportation and infrastructure are threats that are difficult to avoid. Wind turbines also affect the visuality of the setting. In agriculture, the main threats are ploughing and the conversion of grasslands into arable areas. Authorities in both countries have been taken to acquire arable fields and convert these into grassland. Remains in forest areas are under threat from forestry and accidental uprooting. However, trees provide protection against erosion. In areas where flooding is a threat, risks are tried to be reduced with artificial protective structures. The reduction of the groundwater level for agricultural lands in the Netherlands after World War II led to the rapid decay of timber and organic materials that protected under the soil.[518]

- **Conservation Implementations**

Remains of the Lower German Limes can be little observable on the surface. This is due to the use of the remains as a stone source; the river delta has been filled over time,

[517] UNESCO, *Frontiers of the Roman Empire – The Lower German Limes. Part I – Nomination file*, 14, 92, 145, 159-171.

[518] UNESCO, *Frontiers of the Roman Empire – The Lower German Limes. Part I – Nomination file*, 133-134; UNESCO, *Frontiers of the Roman Empire – The Lower German Limes. Nomination File for Inscription on the UNESCO World Heritage List. Part III – Annex 2: Management Plan 2021-2027* (Netherlands, Germany: LVR-Druckerei, 2021), 28-31.

and the extensive use of the landscape as the Rhine continued the focus for trade. After World War II, the acceleration of revival and rebuilding in both Germany and the Netherlands endangered the remains, as a result of which research and documentation efforts gained momentum.[519]

In-situ remains of the Roman fort are presented in the cellar of the Römisches Museum at Remagen. A watchtower near Rheinbrohl was reconstructed in order to provide a better understanding for the German Limes for the visitors with its museum. The layout of the fortress with its main roads (*principalis* and *decumana*) at Bonn-Castel can be traced within the present streets. Several well-preserved manoeuvre camps are presented at Bonn-Kottenforst and Hochwald, at Uedem. Also, there are well-preserved remains of the late Roman fort at Haus Bürgel in Monheim. Besides an amphitheatre, the layout of the legionary fortress *Vetera castra* can be followed through the landscape at Xanten-Birten (Figure 4.64). The headquarters building and ramparts of the fort at Meinerswijk were made visible with gabions that referring to Roman building techniques (Figure 4.65). A part of the Limes Road south of Driel, from Elst up to the Limes was re-organized in order to increase visibility. At Nijmegen, a "time path" starting from Valkhof Museum and continuing to Hunerberg and Kops with military installations, and civil settlement and late Roman fortification was designed to provide a Roman period experience. In Museumpark Orientalis at Groesbeek, a street of Roman town, and a late Roman light warcraft (liburna) were reconstructed (Figure 4.66). The remains of the large Roman temple can be seen in the Kerkmuseum at Elst. In the Waterliniemuseum at Bunnik, besides a collection of adjacent Roman fort Fectio, the plan scheme of the defences of the fort was elevated (Figure 4.67). A timber watchtower was reconstructed at Marsdijk. With the light arrangement "intelligent flash-lights" in the DOMunder at Utrecht, an installation was made in which information about the Roman period, as well as Romanesque and Gothic periods of the region is presented (Figure 4.68). In the Castellum Hoge Woerd at De Meern, an exhibition and interpretation centre was built on top of the Roman fort remains (Figure 4.69). There are partial reconstruction of the earth and timber rampart of the local fort in Museumpark Archeon at Alphen aan den Rijn; reconstruction of ramparts and gate buildings of the local fort in earth and steel in Park Matilo at Roomburg (Figure 4.70); reconstruction of the Roman road, which its cross-

[519] Graafstal, Willems, and Bödecker, *Frontiers of the Roman Empire: The Lower German Limes,* 118-122.

section can be seen with its timbers at Valkenburg; reconstruction of five beacons in Park Arentsburgh at Leidschendam-Voorburg.[520]

Figure 4.64. Amphitheatre and LVR-RömerMuseum at the Archaeological Park Xanten[521]

[520] Graafstal, Willems, and Bödecker, *Frontiers of the Roman Empire: The Lower German Limes*, 128-136; Renger de Bruin, Astrid Hertog, and Roeland Paardekooper, "The Roman Limes on the Lower Rhine: A European Border's Visibility in Landscape and Museums," *Museum International* 69, no. 1-2 (2017): 114-125. https://doi.org/10.1111/muse.12155.

[521] Graafstal, Willems, and Bödecker, *Frontiers of the Roman Empire: The Lower German Limes*, 124.

Figure 4.65. Reconstruction of the headquarters building and ramparts of the fort at Meinerswijk[522]

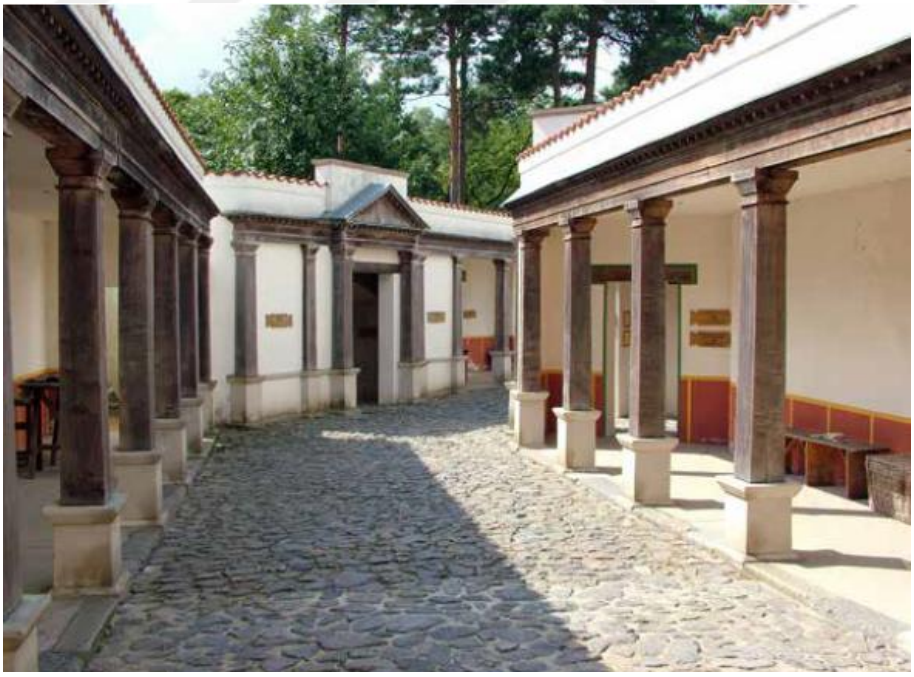

Figure 4.66. Reconstructed street in Museumpark Orientalis at Groesbeek [523]

[522] Graafstal, Willems, and Bödecker, *Frontiers of the Roman Empire: The Lower German Limes,* 130.

[523] Graafstal, Willems, and Bödecker, *Frontiers of the Roman Empire: The Lower German Limes,* 132.

Figure 4.67. Reconstruction at the plan level of Fectio Fort in the Waterliniemuseum at Bunnik[524]

Figure 4.68. Light arrangement “intelligent flash-lights” in the DOMunder at Utrecht[525]

[524] Graafstal, Willems, and Bödecker, *Frontiers of the Roman Empire: The Lower German Limes,* 132.

[525] Graafstal, Willems, and Bödecker, *Frontiers of the Roman Empire: The Lower German Limes,* 132.

Figure 4.69. Exhibition and interpretation centre on top of the Roman fort remains at Castellum Hoge Woerd at De Meern[526]

Figure 4.70. Reconstruction of gate building of the local fort in Park Matilo at Roomburg[527]

[526] Graafstal, Willems, and Bödecker, *Frontiers of the Roman Empire: The Lower German Limes,* 133.

[527] Graafstal, Willems, and Bödecker, *Frontiers of the Roman Empire: The Lower German Limes,* 136.

There are also museums at Bonn (LVR-LandesMuseum), Cologne (Römisch-Germanisches Museum and MiQua), Dormagen (St. Michael and Old Town Hall: in-situ fort remains), Neuss (Clemens-Sels-Museum), Krefeld (Burg Linn), Nijmegen (Valkhof museum), Utrecht (Castellum Hoge Woerd), Leiden (Rijksmuseum van Oudheden), Den Haag (Museon), Zevenaar (Liemers Museum), Houten (Het Oude Station), Bunnik (Waterliniemuseum), Utrecht (DomUnder), Woerden (Stadsmuseum), Valkenburg (Torenmuseum), Leidschendam-Voorburg (Museum Swaensteijn). LVR-Jüdisches Museum im Archäologischen Quartier Köln hosts the remains of Governor's palace. Also, there are LVR-RömerMuseum at Xanten Archaeopark, and Museumpark Archeon at Alphen aan den Rijn that enable to experience Roman military life through replicas and reconstructions.[528] To strengthen local communities' ties to the Roman frontier heritage, Roman frontiers subject was included primary and secondary schools' curriculum in the Netherlands. Also, there is an educational portal that provide education material to support schools. Museums also support the Various educational programmes. For the adult education in Germany, the Limes cicerones programme was developed. Public Awareness working group studied for raising of public awareness for different target groups.[529]

4.1.2.5. Danube Limes

- **Conservation Level and Regulations**

Danube Limes (Western Segment) is the fifth section of the Frontiers of the Roman Empire that was inscribed on the UNESCO World Heritage List in 2021. Danube Limes (western segment) is a trans-national serial property itself that consists of components from Germany, Austria, Slovakia (Hungary withdrew during the nomination session). It was planned that the parts in Croatia, Serbia, Bulgaria and Romania would be the eastern segment as an extension of the inscribed western segment for future period

[528] Graafstal, Willems, and Bödecker, *Frontiers of the Roman Empire: The Lower German Limes,* 124-126.

[529] UNESCO, *The Lower German Limes. Part III – Annex 2: Management Plan 2021-2027,* 47-50.

nominations.[530] The components in Danube Limes show usage in different periods from the 1st century to the 5th century, and some of them were re-used in the post-Roman period, also. In determining the buffer zones, the visual relationship of the component parts to each other was taken into consideration. Also, the areas where archaeological remains are presumed to be found were included in the buffer zone. Buffer zones are subject to the existing land use plans.[531]

8,1 % of Danube Limes (western segment) are still visible on the surface in a ruinous state; 12,4 % have been (partially) excavated; 41,4 % were robbed of stones, eroded and in agricultural use; 5,6 % are in forest areas; 13,7 % are partially built over by new infrastructure; 10 % are built over by medieval and modern buildings, 6,9 % of the component parts are under protective buildings; 1,9 % are overbuilt with "explanatory" structures. It was stated that the level of preservation in Austria is good, in Germany is very good, and in Slovakia is good.[532]

Most sites of Danube Limes- western segment in the Austria countryside are privately owned, consisting of small plots of land. Most agricultural land is owned by farmers or farmer associations. In addition, there are also sites owned by churches or local communities. Most areas in the built environment are municipally or privately owned, often owned by families who have lived in these areas for generations. There is also a mixed ownership situation in Germany. While most of the sites are owned by the relevant community, private, or church, there is very little sites in state ownership. However, in the future, it is aimed to transfer more sites to public ownership in order to reduce management problems. In Slovakia, frontier components are in state and municipality ownership.[533]

Danube Limes- western segment is protected by the national conservation laws of three countries, Germany, Austria and Slovakia. According to the Austrian Constitution, the protection of historical monuments is a federal responsibility, and its legislation is regulated by the Austrian Parliament. Therefore, although it consists of federal states, there are no federal state protection laws regarding historical monuments. All component

[530] Although Danube Limes is a holistic frontier in itself, due to management problems, it was decided to advance the inscription process by dividing it into two as western and eastern segments.

[531] UNESCO, *Frontiers of the Roman Empire – The Danube Limes. Volume I: Nomination File (Austria, Germany, Slovakia, Hungary, 2021),* 171-172, 178, 180.

[532] UNESCO, *Frontiers of the Roman Empire – The Danube Limes. Volume I: Nomination File,* 395-397.

[533] UNESCO, *Frontiers of the Roman Empire – The Danube Limes. Volume I: Nomination File,* 499-507.

parts in Austria are under monument protection. However, in Austria, "archaeological zones" are not under protection; only defined monuments can be protected by the Monument Protection Act. In the registered WHS, also Building Law, Regional Development and Nature Protection regulations are taken into consideration. In Germany, the preservation of heritage sites is the responsibility of the individual states due to its federal structure. Since the Danube Limes in Germany is in Bavaria, the Bavarian Constitution and its legal systems set the framework. In the enforcement, both federal and regional state regulations are respected. As federal regulations, Building Code, Spatial Planning Act, Federal Nature Conservation Act, Federal Water Act, and The Act to Protect German Cultural Property Against Removal are taken into consideration. At the federal state level, Bavarian Monument Protection Law, Bavarian State Planning Act, Bavarian Nature Conservation Act, Bavarian Building Code, and Bavarian Water Act are mandatory regulations. For Slovakia, Protection of Monuments and Historic Sites Act is the basic legal document for the conservation of heritage sites. Also, Building Act, Museums and Galleries and on the Protection of Items of Cultural Value Act, Conservation of Nature and Landscape Act, and Water Act are the other legislative measures. For an integrated management system, the State Parties have agreed on a management system consisting of two integrated bodies: The Intergovernmental Committee for the Frontiers of the Roman Empire – Danube Limes (IGC DL), which is responsible for field management to oversee and organize overall management, and the Management Group for the Frontiers of the Roman Empire – Danube Limes (MG DL) which brings together those directly responsible for management.[534]

- **Conservation problems**

The main conservation problems are that the area is under the threat of intense urbanization and construction, extreme floods of the Danube, vegetation and erosion, and the high number of visitors. In addition, reconstructions were made on some components, although in small numbers. Protective measures are being taken against dense construction through planning and development projects. Danube floods are mostly prevented by river regulations made in the 19th and 20th centuries, when necessary additional protective measures were benefited. Vegetation and erosion are under control with strict monitoring. The number of visitors is tried to be distributed equally among the

[534] UNESCO, *Frontiers of the Roman Empire – The Danube Limes. Volume I: Nomination File,* 512-524, 275.

sites. Although archaeological excavations help to increase knowledge, they were limited because they cause a loss of historical substance, and research-based activities are encouraged instead.[535]

- **Conservation Implementations**

Most of the extensively long Danube Limes is in used areas and are discovered through excavations. Roman period remains are reached under the buildings during excavations in urban areas; the rest of the frontier is under the threat of agricultural use. Components in the Lower Danube are embedded in the landscape. Despite these, many components of the frontier have managed to survive visible until the present day. Some of the gates and towers in the Austrian part of the frontier, still stand up to the second storey and are in use. Other large sites such as Regensburg (Germany), Carnuntum (Austria), Aquincum (Budapest, Hungary), Viminacium (Serbia) or Novae (Bulgaria), were revealed by excavation and provided valuable information on Roman frontiers.[536]

In the Germany section, the remains of the *vicus* building of the cohort fort at Eining, fortifications walls, towers and gates of Regensburg legionary fortress, Straubing fort were preserved (Figure 4.71). Remains of the bath at Bad Gögging at Neustadt a. d. Donau were preserved and presented under the St. Andreas church (Figure 4.72). In Römermuseum Boiotro at Passau, the remains of the late Roman fort can be seen beside the artefacts in the museum. There are also museums at Bad Abbach, Regensburg (Historisches Museum), Straubing (Gäubodenmuseum), and Künzing (Archäologisches Museum Quintana).[537]

[535] UNESCO, *Frontiers of the Roman Empire – The Danube Limes. Volume I: Nomination File,* 179.
[536] Jilek, *Frontiers of the Roman Empire: The Danube Limes,* 61-65.
[537] Czysz et al., *Frontiers of the Roman Empire: The Danube-Limes in Bavaria,* 26-32.

Figure 4.71. Porta praetoria of the legionary fortress at Regensburg[538]

Figure 4.72. The bath at Bad Gögging at Neustadt a. d. Donau the St. Andreas church[539]

[538] Czysz et al., *Frontiers of the Roman Empire: The Danube-Limes in Bavaria,* 9.
[539] Czysz et al., *Frontiers of the Roman Empire: The Danube-Limes in Bavaria,* 12.

In the Austria section, late Roman period military architecture with towers and gates, which often survived up to the second storey, are well-preserved due to their integration into medieval fortifications. The best-preserved part of the Limes Road is east of Wien to the Slovakian border. The fortification wall of the fort with a U-shaped tower at Mautern; the late Roman watchtower at Bacharnsdorf; the east gate of the fort at Traismauer; U-shaped intermediate tower of the fort at Tulln; the fan-shaped tower of the fort and the late Roman gate at Zeiselmauer are very well-preserved (Figure 4.73). In addition to many towns and villages that have preserved the Roman period texture in Austria, there are nearly 20 museums and exhibition arrangements for ruins. There are museums at Lauriacum in Enns; in Wallsee, Mautern, Tulln, at the Hoher Markt in Vienna; and Carnuntinum at Bad Deutsch-Altenburg. In Hoher Markt Museum, there are preserved masonry walls which consist of a floor heating system of officers' houses of the legionary fortress of Vindobona. Inside the churches of Traismauer, Zeiselmauer, and St. Laurenz at Enns, the Roman remains are preserved and can be seen. The fort (civil town part) at Carnuntum Petronell was reconstructed and arranged as an archaeological park (Figure 4.74). The Amphitheatre of the civil town, palace baths, and a late Roman triumphal monument were preserved and presented within the archaeological park. Also, one of the small settlements of Germanic tribes beyond the Danube was reconstructed at Elsarn (Figure 4.75). The east gate of the Roman fort at Tulln was protected at the plan level under a protective shelter (Figure 4.76). The western gate of the fort at Schlögen was preserved close to a hotel entrance. In order to better present the Roman military heritage, temporary exhibitions consisting of maps, pictures, finds, and digital reconstruction were organized in Tulln and Pöchlarn. Besides, Danube Bicycle Route running along the line of the Limes was designed for bicycles and pedestrians[540] (Figure 4.77).

[540] Jilek, Kuttner, and Schwarcz, *Frontiers of the Roman Empire: The Danube Limes in Austria,* 76-83.

Figure 4.73. U-shape tower at the north front at the late Roman fort at Zeiselmauer[541]

Figure 4.74. Reconstruction of the settlement of a Germanic tribe at Elsarn [542]

[541] Jilek, Kuttner, and Schwarcz, *Frontiers of the Roman Empire: The Danube Limes in Austria*, 6.
[542] Jilek, Kuttner, and Schwarcz, *Frontiers of the Roman Empire: The Danube Limes in Austria*, 51.

Figure 4.75. Reconstruction of the houses in the civil town in the Archaeological Park in Carnuntum[543]

Figure 4.76. Protective shelter on the east gate of the Roman fort at Tulln[544]

[543] Jilek, Kuttner, and Schwarcz, *Frontiers of the Roman Empire: The Danube Limes in Austria,* 47.

[544] Jilek, Kuttner, and Schwarcz, *Frontiers of the Roman Empire: The Danube Limes in Austria,* 44.

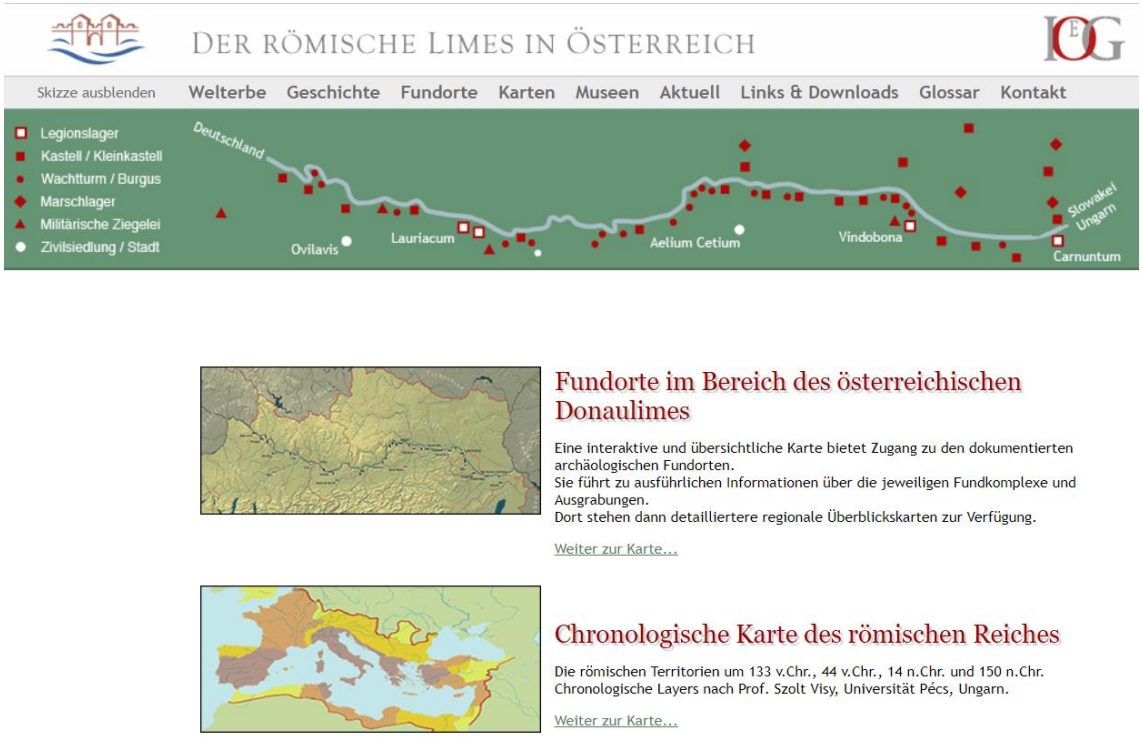

Figure 4.77. Website of Danube Limes in the Austria section[545]

In the Slovakia section, the remains of the Late Roman Devin castle are very well-preserved (Figure 4.78). *Vicus* building, a Late Roman fort and part of a V-sectioned ditch can be seen at the Gerulata *castellum* at Rusovce. The plan scheme of the fort at Iza can be understood through the landscape; also, an abstract reconstruction with timber was made on top of the remains of the south gate (Figure 4.79). There are museums with Roman findings collections at Bratislava (Archaeology Museum and Museum Mesta Bratislavy).[546]

[545] "Der Römische Limes in Österreich," Limes.univie, accessed June 11, 2023, https://limes.univie.ac.at/html/maps.php.

[546] Harmadyova, Rajtar, and Schmidtova, *Frontiers of the Roman Empire: Slovakia*, 52-81.

Figure 4.78. Devin Castle[547]

Figure 4.79. Abstract reconstruction with timber structure of the south gate of the fort at Iza[548]

In the Hungary section, counter Danube fort of Contra Aquincum, fort at Dunakömlőd/ Lussonium, fort at Visegrád Sibrik Hill, and the military amphitheatre at Aquincum are well-preserved at the plan level (Figure 4.80). The southern gate of the

[547] Harmadyova, Rajtar, and Schmidtova, *Frontiers of the Roman Empire: Slovakia*, 52.
[548] Harmadyova, Rajtar, and Schmidtova, *Frontiers of the Roman Empire: Slovakia*, 44.

legionary fort at Aquincum was reconstructed. Also, some inner buildings of the fort at Dunaújváros were reconstructed. The remains of the fort at Tokod were reconstructed on the plan level in order to provide a better understanding of the plan scheme of the fort (Figure 4.81). There are museums with Roman findings collections at Dunaújváros (Intercisa Museum), Pécs (Janus Pannonius Museum), and Budapest (Hungarian National Museum).[549]

Figure 4.80. The military amphitheatre at Aquincum[550]

[549] Visy, *Frontiers of the Roman Empire: The Roman Limes in Hungary*, 41-57.
[550] Visy, *Frontiers of the Roman Empire: The Roman Limes in Hungary*, 86.

Figure 4.81. Remains of the fort at Tokod[551]

In the Serbia section, the fort at Boljetin, and the remains of the northeast wall of the Roman legionary fortress at Singidunum were well-preserved since they were incorporated into later fortification. Also, some parts of the Singidunum fortress were preserved and represented in the basement of the Belgrade City Library. The legionary fortress at Viminacium was organized as an archeopark with its remains and museum. While the amphitheatre of Viminacium was partially reconstructed with a timber structure (Figure 4.82), the bath and Mausoleum at the east cemetery were preserved under protective shelters (Figure 4.83). The remains of the auxiliary fort at Diana were consolidated and reconstructed at the plan level (Figure 4.84). The abutments of the bridge between Pontes and Drobeta were vell-preserved on both banks, and they were consolidated and presented with the fort protecting access to the bridge[552] (Figure 4.85).

[551] Visy, *Frontiers of the Roman Empire: The Roman Limes in Hungary,* 76.
[552] Korać et al., *Frontiers of the Roman Empire: Roman Limes in Serbia,* 58-87.

Figure 4.82. Reconstruction with timber structure of the Viminacium amphitheatre[553]

Figure 4.83. Protective shelter on the Mausoleum at East Cemetery at Viminacium[554]

[553] Korać et al., *Frontiers of the Roman Empire: Roman Limes in Serbia*, 54.
[554] Korać et al., *Frontiers of the Roman Empire: Roman Limes in Serbia*, 64.

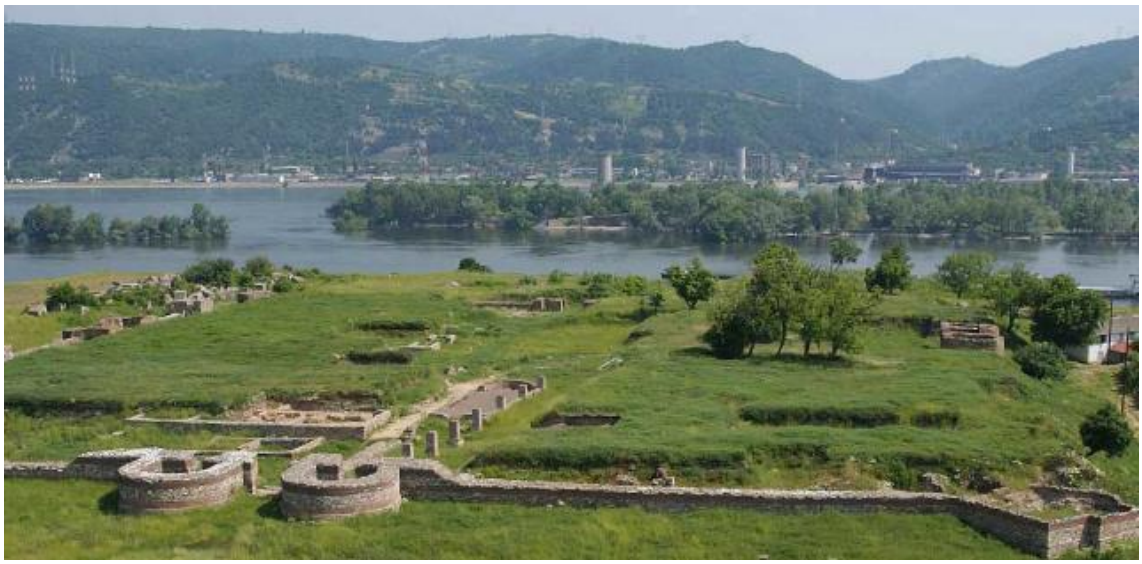

Figure 4.84. Reconstruction at the plan level of Diana Fort[555]

Figure 4.85. The abutments of the bridge between Pontes and Drobeta[556]

In the Bulgaria section, the remains of Late Roman fort Castra Martis at Kula near Vidin, and the legionary base and town of Ratiaria at Arčar are well-preserved. The

[555] Korać et al., *Frontiers of the Roman Empire: Roman Limes in Serbia,* 75.
[556] Visy, *Frontiers of the Roman Empire: The Roman Limes in Hungary,* 43.

remains of the fort of Tutrakan were consolidated (Figure 4.86). The fort, Roman basilica, and Jupiter Temple within the town of Oescus also are well-preserved at the plan level, and some consolidation and conservation works were done (Figure 4.87). The legionary fortress of Novae is the most researched legionary fortress in Bulgaria with the collaboration of Warsaw University. Consolidation and reconstruction at the plan level of the legionary hospital (*valetudinarium*), bath, and Bishop's palace; abstract reconstruction with steel structure of legionary fortress headquarters (*principia*) were done. Also, there are site museum at Novae, and museums at Vidin, Lom, Ruse, and Silistra.[557]

Figure 4.86. Consolidation of the remains of the fort of Tutrakan[558]

[557] Piotr Dyczek, *Frontiers of the Roman Empire: The Lower Danube Limes in Bulgaria* (Warsaw & Wien: Drukarnia Janusz Bieszczad, 2008), 52-95.

[558] Dyczek, *Frontiers of the Roman Empire: The Lower Danube Limes in Bulgaria*, 87.

Figure 4.87. A partially reconstructed bastion at Oescus[559]

In the Romania section, the remains of the fortress at Troesmis are well-preserved. Some of the remains of the fort at Noviodunum are protected under a protective shelter. The fort at Sucidava was consolidated. The remains of the fort at Drobeta are well-preserved, and the site was organized as archaeopark, and there is also a site museum[560] (Figure 4.88).

Figure 4.88. The remains of the fort at Drobeta in the archaeopark[561]

[559] Dyczek, *Frontiers of the Roman Empire: The Lower Danube Limes in Bulgaria*, 59.
[560] Marcu and Cupcea, *Frontiers of the Roman Empire: The Roman frontiers of Dacia*, 84-93; Tentea and Matei-Popescu, *Frontiers of the Roman Empire: Between Dacia and Moesia Inferior. The Roman forts in Muntenia under Trajan*, 19-53.
[561] Marcu and Cupcea, *Frontiers of the Roman Empire: The Roman frontiers of Dacia*, 84.

For the community involvement for Danube Limes, museums in Austria, Germany and Slovakia organize courses and events for young and adults about life in the Roman period. Reenactment groups are organized in Austria and Germany, special events such as "Long Night of the Museums", "Monument Day", or "Roman Delicacies Day" are implemented, also special programmes for schoolchildren are organized. Museums in Slovakia are also actively involved in education, interpretation and promotion activities such as "Roman Games", and "the Limes Day". Additionally, with the project of "Community Initiative Programme Interreg IIIA Austria – Slovak Republic –Rusovce Gerulata – Petronell Carnuntum", the presentation of the Roman fort in Rusovce to the community was aimed. With the Roman theme promotional materials, Roman games and renovation of the monument, a marketing trademark of the Roman monument was created and it continues to be used in promotional materials. Also, within the scope of the "The Frontiers of the Roman Empire" project, the streets in Rusovce were named with Roman names and the names of the archaeologists working there, and those living in the region were informed about the origin and historical context of the name of the street.[562]

4.2. Components of the Anatolian Frontier and their Characteristics

Names of the forts, fortresses, and crossings are known from the primary ancient geographical sources such as the "Antonine Itinerary", the "Peutinger Table" (ancient maps showing Roman roads), and the *Notitia Dignitatum* (ancient lists showing roman army units). From these sources, it is possible to obtain information about how long the defence centres existed, and especially about their situation in the first and second centuries.[563] However, where the ancient locations correspond to today is controversial. These places are tried to be determined by discussing the continuity of the settlement names, the geographical descriptions in the ancient texts, maps, and the remains. The names of the settlements have changed from the Ottoman Empire to the present for different reasons, and since the former names are frequently encountered in the literature,

[562] Jilek, Kuttner, and Schwarcz, *Frontiers of the Roman Empire: The Danube Limes in Austria,* 85-87; UNESCO, *Frontiers of the Roman Empire – The Danube Limes. Volume I: Nomination File,* 645-665.

[563] Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1188.

the settlements are given with their former names in the thesis. Nişanyan Index Anatolicus was benefitted to determine the former names of places. Especially in foreign sources, differences are observed in the spelling of place names converted from Turkish, or Ottoman to Latin letters. These names were given in parentheses in the titles so that they can be found in the literature. If the names in parentheses in the title are not included in the former names determined from the index in the relevant paragraph, these are the forms commonly used in the literature. Names as they occur in the literature were underlined. Additionally, the ancient names of the places are given in italics. Cases where there is uncertainty about ancient place names or whether the ruins are from the Roman period are emphasized with a question mark.

Since the roads are continuous by nature, Roman roads are catalogued separately and not in parts among other components. However, in the centres where the road diverges at crossroads, the road is separated. The basis for the road component was three long-term projects, which are the works of French, Mitford and Comfort. In these studies, the general condition of the road, which by its nature is many kilometres long, is stated instead of the condition of each metre. A large part of the route of the roads is known through ancient texts, but currently most of them are under modern settlements or partially under dams or are unprotected. The observable parts of the roads are indicated in the maps in the above-mentioned studies.

4.2.1. Northern Part (Pontus + Armenia Minor)

Pazar (*Athenai*) | Fort | Roman ?

Pazar (former name: Atina (tr), Athenai (el))[564] district is located in Rize. It is on the Black Sea coast, and approximately 35 kilometres northeast of the Rize city centre (Figure 4.89). Pazar was the Greek city of Athenai, which Arrian reached after his visit to Hyssou Limen. Although the fort on the shore has medieval features, it may be from the Roman period or Greek, which is the same period as the earlier Athena shrine mentioned by Arrian. The fort may have been included in the coastal chain during the

[564] "Pazar," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=35545&haritasi=pazar.

Flavian period. The fort does not have a suitable location for defence purposes and is not suitable for the harbour. It was probably a station between other forts.[565] The walls of the fort have been moderately preserved and were partially reconstructed in missing places in 2014[566] (Figure 4.90).

Figure 4.89. Satellite image of Pazar fort[567]

Figure 4.90. Pazar Fort before partial reconstruction and consolidation, and after partial reconstruction and consolidation in 2014[568]

565 Bryer and Winfield, *The Byzantine Monuments and Topography of the Pontos,* 11, 339; Mitford, *East of Asia Minor/ I*, 409.

566 "Pazar Kız Kulesi aslına uygun onarılıyor," Pazar 53, accessed December 20, 2023, https://www.pazar53.com/pazar-kiz-kulesi-aslina-uygun-onariliyor-25961h.htm.

567 Google Earth, accessed December 20, 2023.

568 "Pazar Kız Kulesi aslına uygun onarılıyor,"; Kız Kalesi- Rize," Türkiye Kültür Portalı, accessed December 20, 2023, https://www.kulturportali.gov.tr/turkiye/rize/gezilecekyer/kiz-kalesi.

Rize *(Rhizaion)* | Fortified town with citadel | Late Roman

Rize is located on the Black Sea coast, approximately 67 kilometres east of Trabzon (Figure 4.91). The fort is located on a hilltop in the western part of the city centre. In the *Notitia Dignitatum,* ala Rizena was recorded at Aladaleariza. Bryer and Winfield suggested that the 6th century name of the city, Rhizaion, might be Lazic. As in Trabzon, there was a fortified town with a citadel in Rize. It is thought that the inner citadel was built during the period of Justinian I or maybe earlier[569], and the lower town, located on the northern and eastern skirts of the hill, was built in the 13th century (Figure 4.92). The complex has approximately 300 x 250 metres in dimensions. The inner citadel with a trapezoid plan was built of cut stone and rubble stone, and its entrance was provided from the east. It has five semicircular towers. The lower town has rounded and square towers. The inner citadel and part of the western walls of the lower town, and some of the towers have survived.[570] In moderately preserved citadel walls, missing members were completed and cleaned in 2019[571] (Figure 4.93).

Figure 4.91. Satellite image of Rize Citadel[572]

[569] Bryer and Winfield, *The Byzantine Monuments and Topography of the Pontos,* 331-334; Gregory, *Roman Military Architecture on the Eastern Frontier/ II,* 26-27; Mitford, *East of Asia Minor/ I,* 409.

[570] Bryer and Winfield, *The Byzantine Monuments and Topography of the Pontos,* 331-334.

[571] "Rize Kalesi'nde Restorasyon Tamamlandı," Çay TV haber, accessed December 20, 2023, https://www.caytvhaber.com/rize/rize-kalesinde-restorasyon-tamamlandi-33957h.

[572] Google Earth, accessed December 20, 2023.

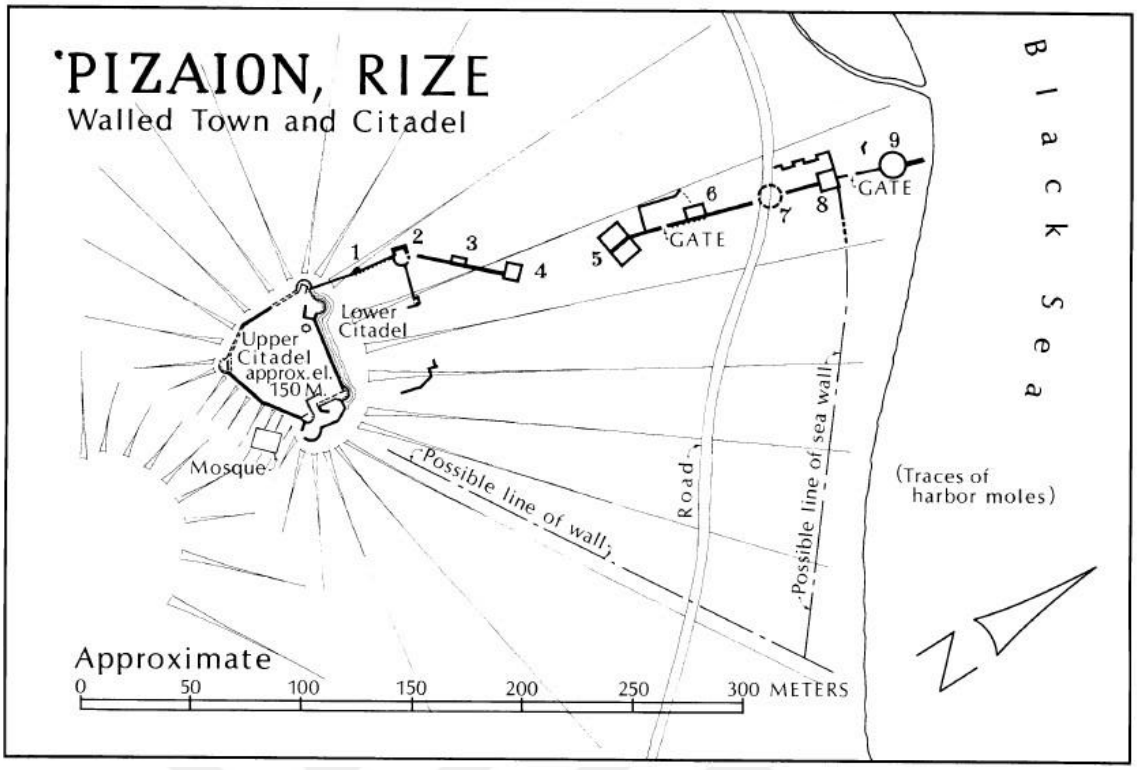

Figure 4.92. Rize Citadel plan[573]

Figure 4.93. Rize citadel before restoration, and after completion and cleaning in 2019[574]

[573] Bryer and Winfield, *The Byzantine Monuments and Topography of the Pontos*, Figure 118.

[574] "Rize Kalesi – Rize," Türkiye Kültür Portalı, accessed December 20, 2023, https://www.kulturportali.gov.tr/turkiye/rize/gezilecekyer/rize-kalesi.; Rize Kalesi Yapılan Restorasyon Çalışmalarının Ardından Yeni Yüzüyle Hizmet Veriyor," Rize Belediyesi, accessed December 20, 2023, https://www.rize.bel.tr/haber/rize-kalesi-yapilan-restorasyon-calismalarinin-ardindan-yeni-yuzuyle-hizmet-veriyor.

Araklı *(Hyssou Limen ?)* | Fort | Late Roman

Araklı Fort is located between Sürmene and Araklı/ Trabzon. Flavius Arrianus visited the Pontus region in 131 AD, in order to supervise the arrangements of Hadrian and inspected Araklı Kale where the provincial militias were located.[575] The fort is on the plateau overlooking Hyssou Limen, which is located at the point where Kara Dere (Hyssos River) flows into the Black Sea between Sürmene and Araklı districts. According to a survey conducted by James Crow from the University of Newcastle upon Tyne in 1992-1994, the fort which is on the route from Kara Dere to inland[576], has a rectangular plan that measures 138 by 130 metres (Figure 4.94). Its curtain walls only survived as rubble core reached 2.5 metres high. Any traces belonging to towers or gates couldn't be detected on the north, south, and east sides. Only on the west wall, traces of entrances and stairs of the towers were observed. There is an angle tower at the northwest corner, and three interval towers located at about 30 metres apart from each other. It was suggested that the site has a similar form with coastal Roman forts at Pithyus and Apsarus in Georgia and can be dated to the Late Roman period. Hyssou Limen Fort, which protected the Hyssou Limen, is thought to be the Araklı Fort due to its position overlooking the port and very close to the Kara Dere River.[577] During the field trip realized by Kaya in 2016, it was observed that a modern building was built on the eastern wall. The aforementioned western towers could not be identified because their stones were removed and used to build a garden wall in the adjacent hazelnut orchard. A watchtower built adjacent to the outer wall was discovered near the western edge of the south wall. The workmanship of the tower, which has been preserved up to 2 metres, is the same as the outer wall.[578] Traces of the fort have been preserved at the plan level, and no intervention has been realized in the fort.

[575] Mitford, *East of Asia Minor/ I,* 70-71; Mitford, "Some Inscriptions from the Cappadocian Limes," 163-164; Speidel, "The Development Of The Roman Forces in Northeastern Anatolia," 602-603.

[576] Crow, "The Year's Work: Trabzon and Gümüşhane," 17-18.

[577] Crow and Bryer, "Survey in Trabzon and Gümüşhane Vilayets, Turkey, 1992-1994," 283–89; Mitford, *East of Asia Minor/ I,* 406-408.

[578] Kaya, "Roma'nın Anadolu'daki Doğu Sınırı: Karargâhlar, Köprüler ve Yol Ağlarının Arkeolojik Açıdan İncelenmesi," 89-90.

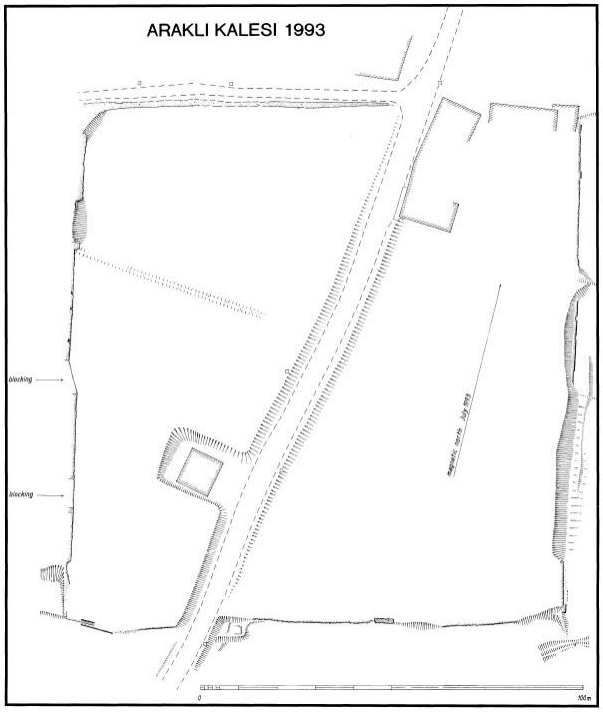

Figure 4.94. Araklı Fort[579]

Buzluca (Canayer- *Hyssou Limen ?*) | Fort | Late Roman

There is a defence structure built in Buzluca (former name: Canayer (el))[580] neighbourhood in Araklı/ Trabzon, approximately 1.5 kilometres inland from the coastline, and 30 kilometres east of Trabzon city centre (Figure 4.95). It was suggested by Bryer and Winfield[581] that the settlement, connected to the Araklı cape by a valley, might be Hyssou Limen/ Sousourmaina, a Roman and Byzantine military settlement from the 2nd to the 7th century AD. James Crow from the University of Newcastle upon Tyne conducted a topographical survey in the settlement between 1992-1994 and, as a result, suggested that the fort ruins were not dated before the 6th or 7th century AD, and it is possible that Araklı Kale south of Araklı, might be Hyssou Limen.[582]

According to the remains that can be traced on the surface during the 1992 survey, the entrance to the settlement, which lies on a spur, is provided from the south. The length

579 Crow and Bryer, "Survey in Trabzon and Gümüşhane Vilayets, Turkey, 1992-1994," 283–89.
580 "Canayer," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?y=canayer&lv=&t=&cry=TR&ua=10.
581 Bryer and Winfield, *The Byzantine Monuments and Topography of the Pontos,* 328-329.
582 Crow, "Survey at Buzluca, Trabzon Vilayet, Turkey 1992 [1992 Yılı Buzluca Araştırması, Trabzon]," 73-84.

of the trapezoidal settlement is 220 metres in the north-south direction and 200 metres in the east-west direction (Figure 4.96). An outer wall and the height of the towers attached to it have been preserved up to 40 metres in some points.[583] Gregory suggested that the shape and size of the site could represent a "playing-card" fort for an early Roman defensive structure, but considering the long-life span of the structure, remains of this early period may located under the survived walls, and the outline was preserved.[584] Architectural traces on the southwest tower indicate that this tower was built earlier than the curtain wall. Mortared rubble walls faced with uncoursed basalt rubble blocks up to the cornice level of the tower, and then the walls faced with thin limestone slabs both inside and outside were observed. A similar construction technique was seen at the west and north gates. There are two small churches at the west end and southwest corner of the south curtain wall and, their semi-circular apses are visible. On the western side of the settlement, three towers adjacent to the western curtain wall and the remains of the western gate can be observed. The western gate constitutes an internal tower gate with a barrel vault, and there are remains of an apse on the first floor. The north gate, like the west gate, has an apse on the upper floor but has a transverse barrel vault. There is a structure with a width of 15.5 metres by 8.3 metres on the inside of the eastern curtain wall. Towards the west, at the highest point within these walls, there is a structure known locally as a pool or an open cistern. All structure remains are dated to a single main period, including the additional structures on the south and west walls. Except for the remains of the structure in the centre, there are five churches along the outer curtain wall and two possible apsidal structures. In the gates and towers, it is observed that religious architecture takes precedence over defensive architecture. It is suggested that when considered forts generally were located on isolated hilltops, such as Hamurgan Fort behind Sürmene or rocky coastal promontories like Kalecik Fort to the west of Araklı Cape; Buzluca Fort on a spur shows different characteristics, especially with a lack of additional defence at the southern side.[585] For this reason and as a result of more detailed research on central structure, it was suggested that the religious settlement at the Buzluca

[583] Crow, "Survey at Buzluca, Trabzon Vilayet, Turkey 1992 [1992 Yılı Buzluca Araştırması, Trabzon]," 73-84.

[584] Gregory, *Roman Military Architecture on the Eastern Frontier/ II*, 28-30.

[585] Crow, "Survey at Buzluca, Trabzon Vilayet, Turkey 1992 [1992 Yılı Buzluca Araştırması, Trabzon]," 73-84; Crow, "The Years's Work: Buzluca, Trabzon Vilayet," 6-8; Crow, "The Year's Work: Trabzon Vilayet Survey 1993," 16-18.

Fort might be the middle Byzantine monastery of Christ the Savior.[586] Traces of the fort have been preserved at the plan level, and no intervention has been realized in the fort.

Figure 4.95. Satellite image of Buzluca Fort[587]

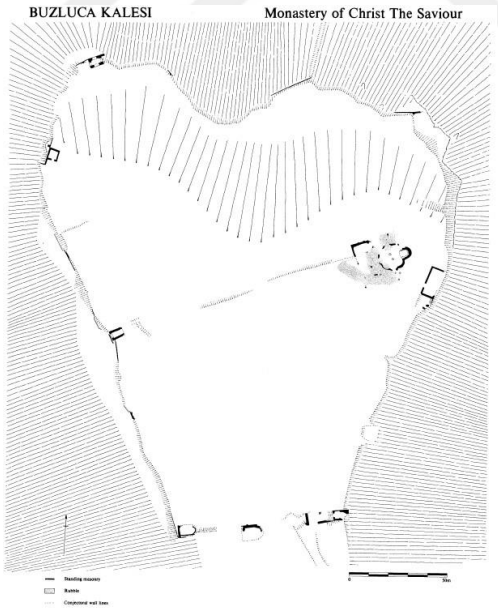

Figure 4.96. Buzluca fort[588]

586 Crow and Bryer, "Survey in Trabzon and Gümüşhane Vilayets, Turkey, 1992-1994," 283–89.
587 Google Earth, accessed December 20, 2023.
588 Crow and Bryer, "Survey in Trabzon and Gümüşhane Vilayets, Turkey, 1992-1994," 283–89.

Trabzon *(Trapezus)* | Garrison town with citadel/ legionary base (later) | Roman, Late Roman

Trabzon, located in the east of the Black Sea, where the eastern Black Sea mountains lie behind a narrow coastline, was an essential point as it controlled both the route to Satala and Armenia Minor, and the sea route to the Caucasus, as well as the route to Colchis (Figure 4.97). In the period of Corbulo, due to the strategic importance of this place, it became the nodal point of these routes.[589] For this reason, it turned into a centre where the supply line was provided with the rest of the empire through the Black Sea. During the period of Vespasian, several coastal forts began to be built on the Black Sea coast, where Trapezus as the starting point, in order to keep these routes under control.[590] When the Romans determined this strategic point on the eastern frontier, the city was a Greek city that had already been settled, and the connection of Pontus to Rome in 64 AD revealed the strategic importance of this place.[591] It is known that Hadrian came to Trapezus during his visit to the frontier in 129 AD and had a port built here. It was probably garrisoned by vexillations of Legio XII Fulminata and XV Apollinaris; later, Legio I Pontica was garrisoned here in the period of Diocletian. It was also the fleet base of Classis Pontica.[592]

Located at the highest point of the city, the complex is bordered by İskeleboz in the west and Kuzgun creek in the east, and consists of three parts: the lower city at the bottom, the middle city in the middle, and the citadel at the innermost peak (Figure 4.98). Zağnos and Tabakhane bridges are located on these streams, respectively. The three parts of the complex are separated from each other by fortification walls. Hadrian's harbour is thought to be in the northward extension of the lower city. Although the remains of Hadrian's harbour were traceable under the water before the coastline changed, which was built during Hadrian's visit here, the location of the Diocletian's legionary fortress is unidentified. It is thought that it might be in the core of modern Trabzon in the east rather than in the citadel or in the lower city.[593]

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589 Bryer and Winfield, *The Byzantine Monuments and Topography of the Pontos,* 180.

590 Marek, *Pontus et Bithynia,* 45; Mitford, *East of Asia Minor/ I,* 40.

591 Everett L. Wheeler, "Roman Fleets in the Black Sea: Mysteries of the 'Classis Pontica'," *Acta Classica* 55 (2012): 141-143; Mitford, *East of Asia Minor/ I,* 54.

592 Bryer and Winfield, *The Byzantine Monuments and Topography of the Pontos,* 180; Gregory, *Roman Military Architecture on the Eastern Frontier/ II,* 31-34; Magie, *Roman Rule in Asia Minor/ I,* 621-622; Mitford, "Some Inscriptions from the Cappadocian Limes," 162-163.

593 Gregory, *Roman Military Architecture on the Eastern Frontier/ II,* 31-34; Mitford, *East of Asia Minor/ I,* 54; Wheeler, "Mysteries of the 'Classis Pontica'," 141-143.

No excavation work has been carried out in the complex; however, there are surveys carried out by Anthony Bryer and David Winfield, and Prof. Dr. Haşim Karpuz from Selçuk University to determine the construction features of the complex. The earlier citadel and the middle city have a trapezoid plan, while the lower city walls built later, spread over a wider area. The citadel and the middle city walls have layers dating back to the 3rd century AD, while the lower city is thought to have been completed in the period of Alexios II in 1324. The eastern and northern parts of the lower city walls which are within the urban fabric, have largely disappeared. New houses were also built on the eastern part of the middle city walls. Ottoman fortification walls were identified on the repaired Byzantine walls in the northeast corner of the middle city walls, where the Tabakhane Bridge joins the walls, and in the eastern part of the lower city walls. Moloz Gate, which was thought to open to Hadrian's Harbour, is northwest of the lower city walls. Zağnos Bastion, located on the western walls of the lower city walls, was used as a dungeon during the Ottoman period. Sotka Gate is between the Zağnos Bastion and the coast. It is known that an existing gate here was enlarged during the Russian occupation. The Middle city is reached by two gates from the citadel. There are parts of the middle city and citadel fortification walls dating to the Roman period, which were built of large cut stones without mortar. The arched part, which is located in the northwest corner of the middle city walls and consists entirely of bricks, is thought to have been built in the Middle Byzantine period. The construction technique in which bricks, tile fragments, and stone pieces placed in the mortar between the stone rows dated to the period of Alexios II. It is thought that the parts where similar material was used without bricks date to the Ottoman period repairs. One of the piers of the Zağnos Bridge and the foundation stones of the Tabakhane Bridge show the characteristics of the Roman period. Other parts were renovated with repairs in various times of the Byzantine and Ottoman periods.[594]

In 1997, after some remains were found during the foundation excavation of a construction in Cumhuriyet neighbourhood, a rescue excavation was carried out by the Trabzon Museum. Column fragments, column bases, capital, architrave and frieze fragments, and fragments of a male statue were found during the excavation. Although the fragments found are thought to belong to the classical period temple, it is thought that the remains are not in situ since their foundations have not been found. Moreover, many

[594] Bryer and Winfield, *The Byzantine Monuments and Topography of the Pontos,* 186-194; Haşim Karpuz, "Trabzon Yüzey Araştırmaları 2010," in *29. Araştırma Sonuçları Toplantısı* 2. Cilt (Ankara: T.C. Kültür ve Turizm Bakanlığı, 2012), 147-170.

parts of the temple are missing, and it has been suggested that there may be a Hermes temple built here during the Hadrian period, based on the features of the statue and ancient texts.[595] In another rescue excavation carried out by the Trabzon Museum in a parking lot in Pazarkapı neighbourhood in 2018, fortifications belonging to the period of Hadrian and later Justinian and a ditch wall dated to 1460 were found.[596] The citadel is in a damaged and neglected state due to the modern constructions inside. Although the walls of the citadel are moderately preserved and can be followed, the walls of the lower town have been lost. No intervention has been realized in the citadel.

Figure 4.97. Satellite image of Trabzon citadel. Zağnos Bridge is on the left and Tabakhane Bridge is on the right[597]

[595] Elmas Kaya, "Trabzon İl Merkezindeki Kurtarma Kazısında Ortaya Çıkan Buluntular," in *IX. Müze Kurtarma Kazıları Semineri,* (Ankara: Kültür Bakanlığı Milli Kütüphane Basımevi, 1999), 321-334.

[596] "Trabzon'da yapılan Arkeolojik kazıda 4 bin yıllık sur ve hendek duvarı kalıntıları ortaya çıkarıldı," Akşam, accessed December 20, 2023, https://www.aksam.com.tr/yasam/trabzonda-4-bin-yillik-tarih-topragin-altindan-cikarildi/haber-1152376.; "Trabzon'un Göbekli Tepesi: Hadrianus Limanı," Yeni Şafak, accessed December 20, 2023, https://www.yenisafak.com/foto-galeri/gundem/trabzonun-gobekli-tepesi-hadrianus-limani-2046556?page=10.

[597] Google Earth, accessed December 20, 2023.

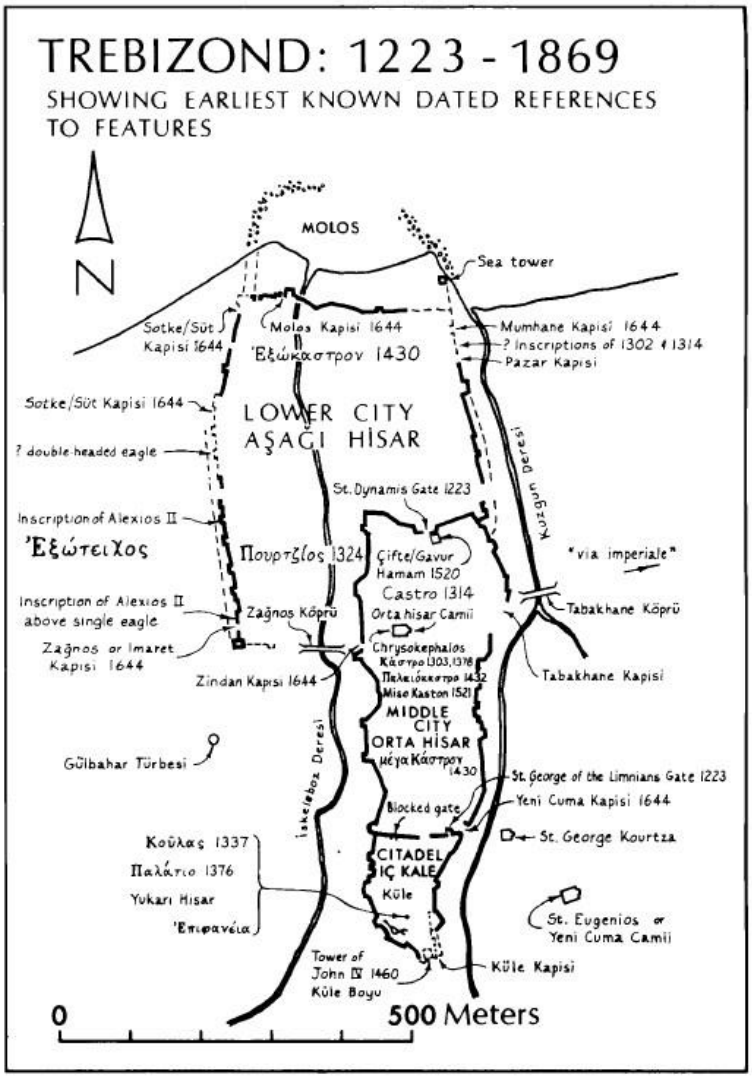

Figure 4.98. Trabzon citadel[598]

Tabakhane | Bridge | Roman

Tabakhane Bridge is located in Trabzon. The middle city is reached by Tabakhane Bridge from the east. The bridge is approximately 58 metres long and originally 3.8 metres wide. Its height from the bed of the ravine is about 12 metres. The bridge had six arches, but five of them, except in the middle one, were closed on one side in later periods. Lower courses of the bridge abutments might be dated to the Roman period, probably the 2nd century.[599] The bridge is well-preserved; however, within the scope of the recreation

[598] Bryer and Winfield, *The Byzantine Monuments and Topography of the Pontos,* 194.

[599] Bryer and Winfield, *The Byzantine Monuments and Topography of the Pontos,* 187; Mitford, *East of Asia Minor/ I,* 397-398.

project completed in 2018, a tunnel was opened for the modern road at the connection point of the bridge with the land on the east side[600] (Figure 4.99).

Figure 4.99. Tabakhane bridge and the opened tunnel[601]

Zağnos | Bridge | Roman

Zağnos Bridge is located in Trabzon. The middle city is reached by Tabakhane Bridge from the west, and is on the counterpart of Tabakhane Bridge. Zağnos Bridge is 88 metres long, 5.2 metres wide, and 16 metres high. The bridge has two central arches on top of each other. The lower courses on the southern side might be even Hellenistic. The lower arch that was built against flash floods might be dated to the Roman period.[602] The bridge is well-preserved. A consolidation implementation was realized in 2011, and its ravine was designed as a public park in the scope of an urban transformation project[603] (Figure 4.100).

600 "Trabzon Tabakhane Köprüsü'ne Zarar Veren Yol İnşaatı Derhal Durdurulmalıdır," Yapı, accessed December 20, 2023, http://www.yapi.com.tr/haberler/trabzon-tabakhane-koprusune-zarar-veren-yol-insaati-derhal-durdurulmalidir_173871.html.

601 Google Earth, accessed December 20, 2023.

602 Bryer and Winfield, *The Byzantine Monuments and Topography of the Pontos,* 187; Mitford, *East of Asia Minor/ I,* 398-399.

603 "Zağnos Köprüsü restore ediliyor," 61 Saat, accessed December 20, 2023, https://www.61saat.com/zagnos-koprusu-restore-ediliyor.

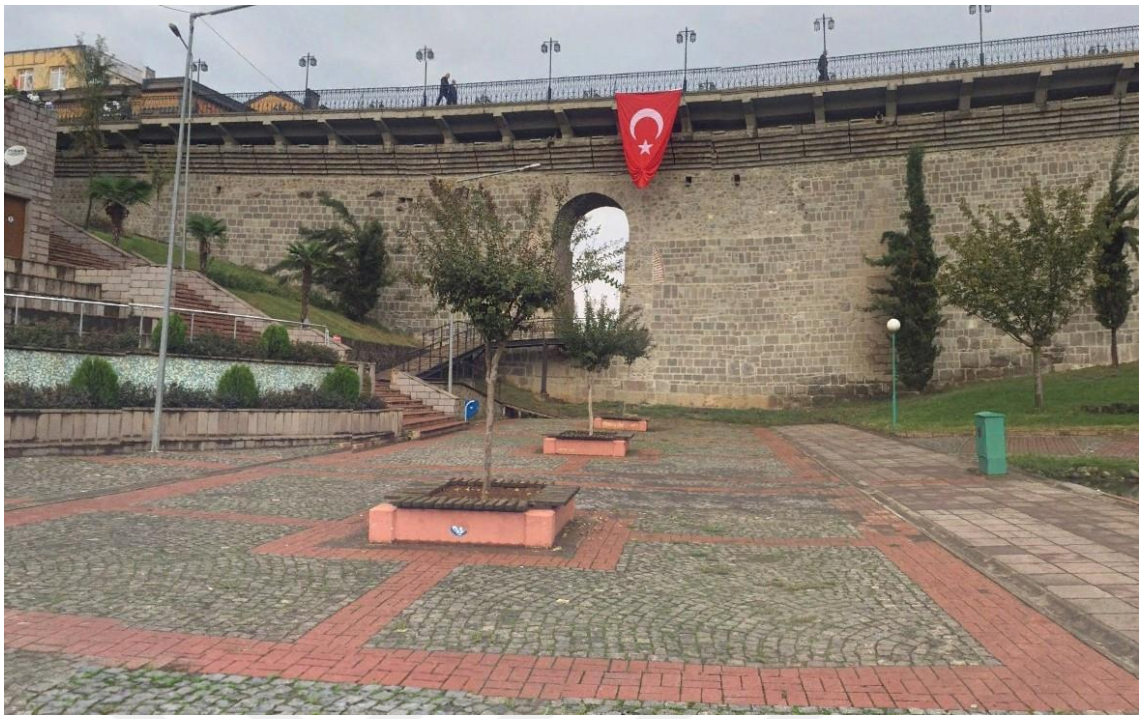

Figure 4.100. Zağnos Bridge and recreational area[604]

Öğütlü (Ğuryeni/ Guryeni) | Bridge | Roman ?

Öğütlü (former name: Ğuryeni (el))[605] neighbourhood is located in Maçka/ Trabzon. It is approximately 8 kilometres to the northeast of Maçka and 15 kilometres to the southwest of the Trabzon city centre (Figure 4.101). Öğütlü or Teraziler Bridge is on Değirmendere Stream. The abutments are bedded on solid rock. It has a single pointed arch (Figure 4.102). Mitford suggested that, although the centre of the arch was altered later, the four lowest courses of the eastern abutment and the five lowest courses of the western abutment belong to the Roman period. The width of the bridge is 2.75 metres.[606] The bridge is in a well-preserved state, only partially weathered. The crossing is provided with a new reinforced concrete bridge next to Öğütlü Bridge (Figure 4.103).

[604] Google Earth, accessed December 20, 2023.
[605] "Öğütlü," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=31825&haritasi=%C3%B6%C4%9F%C3%BCtl%C3%BC.
[606] Mitford, *East of Asia Minor/ I*, 381-382.

Figure 4.101. Satellite image of Öğütlü Bridge. New bridge was built next to it[607]

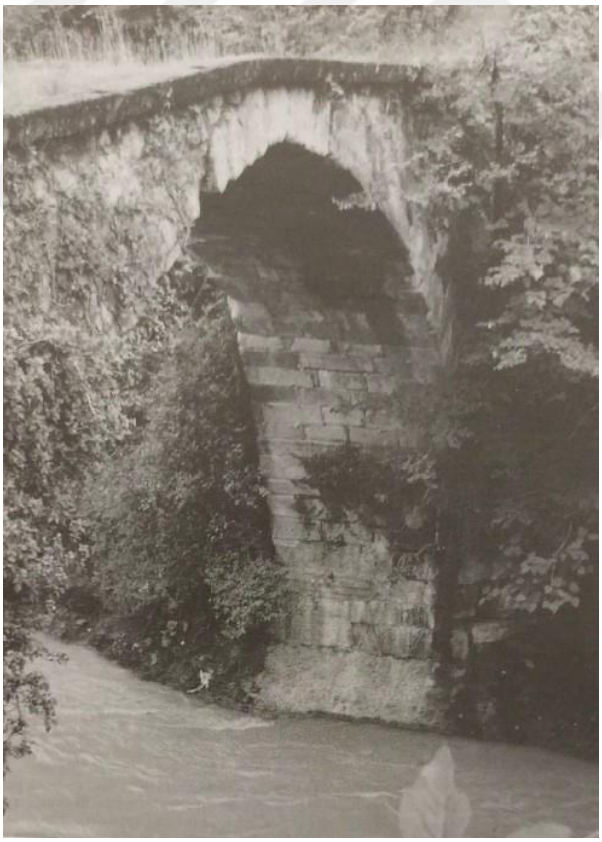

Figure 4.102. Öğütlü Bridge eastern abutment[608]

[607] Google Earth, accessed December 20, 2023.
[608] Mitford, *East of Asia Minor/ I*, 382.

Figure 4.103. Öğütlü (Teraziler) Bridge[609]

Ortaköy (<u>Hortokop</u>- *Chortokopion*) | Fort | Late Roman

Hortokop Fort is located on a spur in Ortaköy (former name: Hortokop or Xortokop (el))[610] neighbourhood above Maçka/ Trabzon and in the valley of Değirmendere, and 35 kilometres distance from Trabzon city centre (Figure 4.104). The name Hortokop derives from the medieval name of Gizenenica, Hortokopion. It is known from the records of *Notitia Dignitatum as Chasdanenica* that an *Ala Prima Iovia Felix* was deployed here. According to James Crow's survey in 1992-1994, the site has a circular plan with 70 metres in diameter. The area is surrounded by a curtain wall with ten semi-circular towers, and the entrance is provided from the east (Figure 4.105). The main construction material is uncoursed rubble stone.[611] However, Gregory stated that the fort has nine towers with 60 metres in diameters and was built from random coursed

609 "Teraziler Köprüsü- Maçka," Flickr, accessed December 20, 2023, https://www.flickr.com/photos/sinandogan/9538099143/in/photostream/.

610 "Ortaköy," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=31865&haritasi=ortak%C3%B6y.

611 Bryer and Winfield, *The Byzantine Monuments and Topography of the Pontos,* 285; Crow, "The Year's Work: Trabzon Vilayet Survey 1993," 16-18; Crow and Bryer, "Survey in Trabzon and Gümüşhane Vilayets, Turkey, 1992-1994," 283–89; Mitford, *East of Asia Minor/ I,* 379-380.

with rough-cut stones.[612] Any internal structure traces couldn't be examined. Due to the difference in plan characteristics of the fort from the other medieval forts in Pontus, and the location of the fort close to the Roman road, the construction date is considered the early 5th century[613], maybe even Roman, but the surviving walls are later.[614] Hortokop Fort lies on a well-preserved Roman road to the Zigana Pass and over the Pontic Alps toward Satala.[615] The structure is in a ruined state, only its plan scheme can be seen among the natural vegetation.

Figure 4.104. Satellite image of Hortokop Fort[616]

612 Gregory, *Roman Military Architecture on the Eastern Frontier/ II*, 35-36.
613 Crow and Bryer, "Survey in Trabzon and Gümüşhane Vilayets, Turkey, 1992-1994," 283–89.
614 Gregory, *Roman Military Architecture on the Eastern Frontier/ II*, 35-36.
615 Crow and Bryer, "Survey in Trabzon and Gümüşhane Vilayets, Turkey, 1992-1994," 283–89.
616 Google Earth, accessed December 20, 2023.

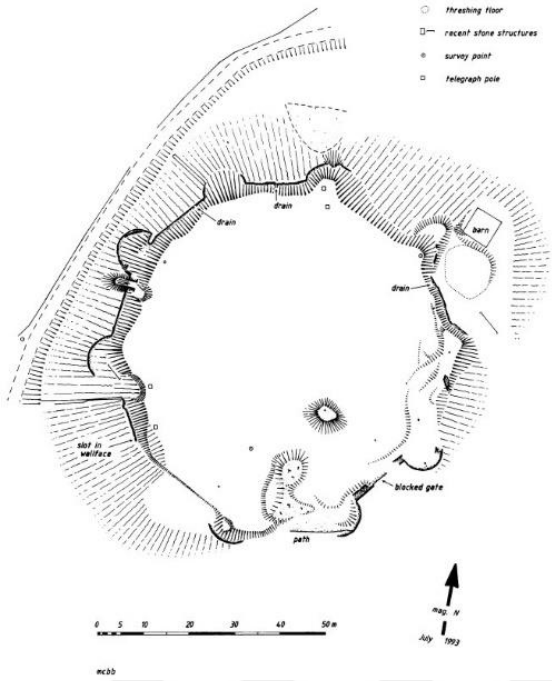

Figure 4.105. Hortokop Fort[617]

Tohumoğlu (Baghdad) | Bridge | Roman ?

Tohumoğlu or Baghdad Bridge is located in Yeniyol (former name: Harapkale, Meyhazar)[618] village of Gümüşhane. It is on the Harşit Stream and approximately 15 kilometres to the southeast of the Gümüşhane city centre (Figure 4.106). The bridge is approximately 74 metres, including its ramparts. It has two pointed arches and survived until today in a good condition. A projection was made in the central abutment of the bridge to control the flow of water. Although the current view of the bridge is Seljuk, built of rubble stone, two lower courses of the central and northern abutments might belong to the Roman period. The predecessor of the bridge might have been built in the 2nd or 3rd century AD.[619] The bridge was partially reconstructed in 2012 where its lost upper rows and projection.[620] Before the implementation, the bridge was still intact, there was loss of stones in the upper structure (Figure 4.107).

617 Crow and Bryer, "Survey in Trabzon and Gümüşhane Vilayets, Turkey, 1992-1994," 283–89.
618 "Yeniyol," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=15671&haritasi=yeniyol.
619 Mitford, *East of Asia Minor/ I,* 358-359.
620 "Tohumoğlu Köprüsü Onarılıyor," Gümüşhanegentr, accessed December 20, 2023, https://www.gumushane.gen.tr/gumushane/tohumoglu-koprusu-onariliyor-h2741.html.

Figure 4.106. Satellite image of Tohumoğlu Bridge[621]

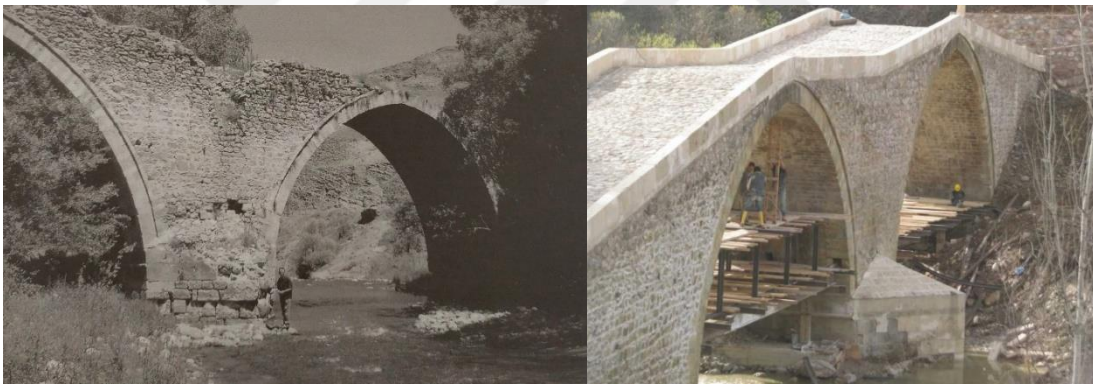

Figure 4.107. Tohumoğlu Bridge before partial reconstruction and consolidation in 2003, and after partial reconstruction and consolidation in 2012[622]

Ağa Kale | Fortlet | Roman ?

Ağa Kale is located approximately 6 kilometres north of Köse/ Gümüşhane, on a spur 36.5 metres above the road. It has a rectangular plan with 25 x 65 metres walls. It was built of river stones without mortar. Only two of its ashlar blocks have survived.

621 Google Earth, accessed December 20, 2023.

622 Mitford, *East of Asia Minor/ I,* 358; "Tohumoğlu Köprüsü," Türkiye Kültür Portalı, accessed December 20, 2023, https://www.kulturportali.gov.tr/medya/fotograf/fotodetay/1568.

Mitford suggested that this structure could be a rebuilding fortlet of the Corbulo period that was built to protect the supply route across the mountains from Trapezus. The structure is almost in a ruined state and no intervention has been realized.[623]

Köse *(Domana ?)* | Watchtower | Late Roman ?

Köse district is located in Gümüşhane. It is approximately 31 kilometres to the southeast of the Gümüşhane city centre, and 22 northeast of Satala. On the northwards of Köse, Mitford mentioned a possible watchtower. The remains are approximately 11 metres x 9 metres with a rectangular plan. The walls of the structure are about 1.5 metres thick, quarried large blocks are on the outside and smaller on the inside, and bonded with mortar. There are also remains of circular enclosing walls. The structure may be dated to the Justinian period. The structure is almost in a ruined state[624] (Figure 4.108).

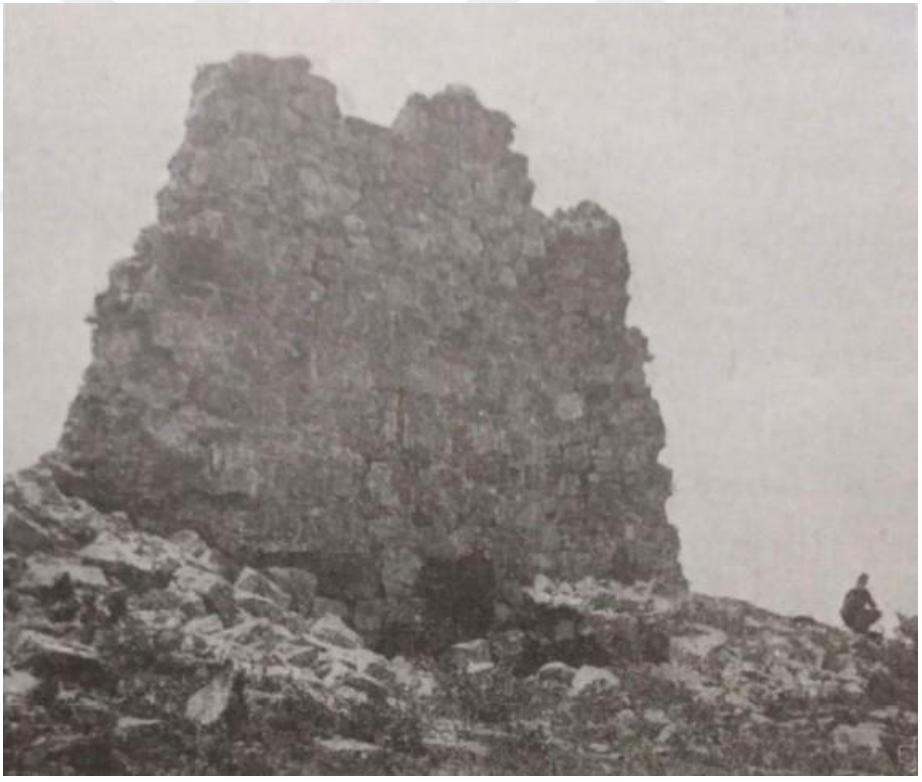

Figure 4.108. Watchtower near Köse[625]

[623] Mitford, *East of Asia Minor/ I,* 354-355.
[624] Mitford, *East of Asia Minor/ I,* 351-352.
[625] Mitford, *East of Asia Minor/ I,* 351.

Sadak *(Satala)* | Legionary fortress/ city (later) | Late Roman

Satala is located in Sadak village in Kelkit/ Gümüşhane (Figure 4.109). Satala Survey was supported by BIAA and carried out under the directorship of Chris S. Lightfoot from BIAA in 1989-90. Lightfoot stated that despite the ruined walls, all four sides of the fortress could be detectable[626] (Figure 4.110). In addition, the square-planned projecting towers on the north wall and the substantial cores of the north-eastern and south-eastern corner towers have survived until the present day. Due to the abundance of ancient pottery, tiles and glass fragments on the surface, it is thought that the civil settlement of Satala was located to the north of the fortress, across the Sadak creek. The structure, was described as a "basilica" by Biliotti who was the British vice-consul at Trabzon and his first excavations at Satala in 1874 reported by Mitford[627], has survived with five rubble stones and cement piers. It is thought that this structure was actually an aqueduct and carried water to the lower city, to the southeast of the fortress. However, no such structure was found at the site in question. A fragment of the aqueduct was not found at any other point. Intensely ridged roof tiles and rubble masonry were found near the "basilica" structure. Based on Biliotti's report, two possible watchtowers were identified near Sadak. The first of these is in the east of the valley, on the road from Sadak to Petekli, 5 kilometres from Sadak. The tower remains on top of a low ridge and has rubble masonry, surrounded by fragments of tiles, eastern sigillata, and late Roman pottery. The second is on the hill overlooking Sadak creek and the old road to Kelkit, north of Sadak and a little far from the civil settlement.[628] In the ongoing research in 1990, it was confirmed that the building that Biliotti thought to be a basilica was not an aqueduct but a basilica; however, it would be more accurate to define it as the church. The plan of the building consisting of a central aisle surrounded by six arched, cruciform piers and a narrow side corridor was uncovered. The traces of the apse seen by Biliotti at the eastern end were found. On the hills south of Sadak, a chapel exceeding 16-17 metres in east-west direction, whose period has not been determined exactly, and a square planned structure on the south-facing slope of the hill in the north of Sadak were found. The second structure measures 33.5 x 34.5 metres and is divided by two cross walls. There is a terrace-like area on the west side. The structure can be interpreted as a block house with

626 Lightfoot, "Roma İmparatorluğu'nun Doğu Sınırı ve Satala," 118-128.
627 Mitford, "Biliotti's Excavations at Satala," 221-244.
628 Lightfoot, "Satala Yüzey Araştırması, 1989," 299-309; Lightfoot, "The Year's Work: Satala Survey 1989," 13-16.

two rows of rooms and a courtyard or fortress. Based on the finds, it was thought that the fortress could be dated to the 6th century. In addition to these, many tiles stamped with the name of Legio XV Apollinaris were found.[629]

A geophysical study was conducted in the area where the fortress is in 2004 under the chairmanship of Prof. Dr. Mahmut Drahor from Dokuz Eylül University, and a survey was carried out under the chairmanship of Prof. Dr. Süleyman Çiğdem from Atatürk University. As a result of the studies, it was determined that the traces of rectangular-planned structure, which can be seen on the surface, cover an area of approximately 16.5 hectares in a smooth geometry under the surface. Today's Sadak village is located on the rock in the east-west direction over half of this area. It is thought that the detected structure is dated to the Justinian period. Also suggested that, although including this rock in the defence system was necessary against the dangers from the southwest, the flat area of the fortress is reduced to 8 hectares in this situation, and it also slopes eastward, which is not enough for a large legionary fortress. The flat area to the east of the fortifications, where the archaeological material is abundant, has been proposed for the location of the 2nd century AD fortress.[630]

The excavations, started at Satala in 2017, were carried out under the direction of Prof. Dr. Şahin Yıldırım from Bartın University. In the archeogeophysics study carried out in the previous area, the main walls of the castrum where the legion was deployed, and the military spaces within the main walls were determined. Expropriation works were carried out in these areas, which were used as fields previously.[631] During the excavations started in three trenches in 2018, a trial trench was opened in order to identify the administrational centre *principia* in the legionary camps at the intersection point of the streets on the north-south and east-west directions, *via praetoria* and *via decumana* (Figure 4.111). In the second trench, a Roman cistern was unearthed. It was thought that this cistern is connected with the village's main water source at Gölbaşı above the village.

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629 Lightfoot, "Satala Yüzey Araştırması, 1990," 289-302; Lightfoot, "Survey Work at Satala: A Roman Legionary Fortress in North-East Turkey," 273–284; Lightfoot, "The Year's Work: Satala Survey," 15-17; Timothy B. Mitford, "Further Inscriptions from the Cappadocian Limes," *Zeitschrift Für Papyrologie Und Epigraphik* 71 (1988): 167–175.

630 Mahmut G. Drahor, T. Ö. Kurtulmuş, M. A. Berge, Martin Hartmann, Michael A. Speidel, "Magnetic Imaging and Electrical Resistivity Tomography Studies in a Roman Military Installation Found in Satala Archaeological Site, Northeastern Anatolia, Turkey," *Journal of Archaeological Science* 35 (2008), 259-271; Martin Hartmann, Mahmut G. Drahor, Michael A. Speidel and Süleyman Çiğdem, "New Research at the Roman Legionary Camp at Satala, Northeast Anatolia; Geophysical and Archeological Survey," in *21. Arkeometri Sonuçları Toplantısı* (Ankara: Kültür Bakanlığı DÖSİMM Basımevi, 2006), 197–204.

631 Yıldırım, "Satala 2017 Yılı Kazı ve Araştırma Çalışmaları," 429-436.

There is also a Roman period pool at this location. On this hill to the west of the pool, there are foundation remains and wall traces, which may be a temple. In the third trench at the fortress, a basilica/ church, which is thought to be dated to 6th century AD, was unearthed. The walls excavated in the fortress were dated to the Justinian period, yet no trace of the 1st century AD legionary fortress has been found. A part of the fortification wall in the north was excavated. The wall, approximately 1.5 metres thick, was built of rubble stone, with a cut stone facing on the outside and an opus incertum pattern on the inside. Towers have thinner walls.[632] It is thought that the plan organization of the early legion fortress was not preserved after the wars, and that the fortifications built in many forts during the Justinian period were also carried out here. The large fire layer detected in the fortress is thought to belong to the Persian destruction, which is known to have been realized by Sapor I in 255/256 AD, and this layer supports the idea of late fortification.[633]

Figure 4.109. Satellite image of Satala Fort. Sadak village is on top of it[634]

[632] Yıldırım, "Satala Antik Kenti 2021 Yılı Kazı, Restorasyon ve Konservasyon Çalışmaları," 165-176.

[633] Yıldırım, "Satala 2018 Yılı Kazı Çalışmaları," 231-242; Yıldırım, "Satala 2019 ve 2020 yılları Kazı ve Restorasyon Çalışmaları," 265-282.

[634] Google Earth, accessed December 20, 2023.

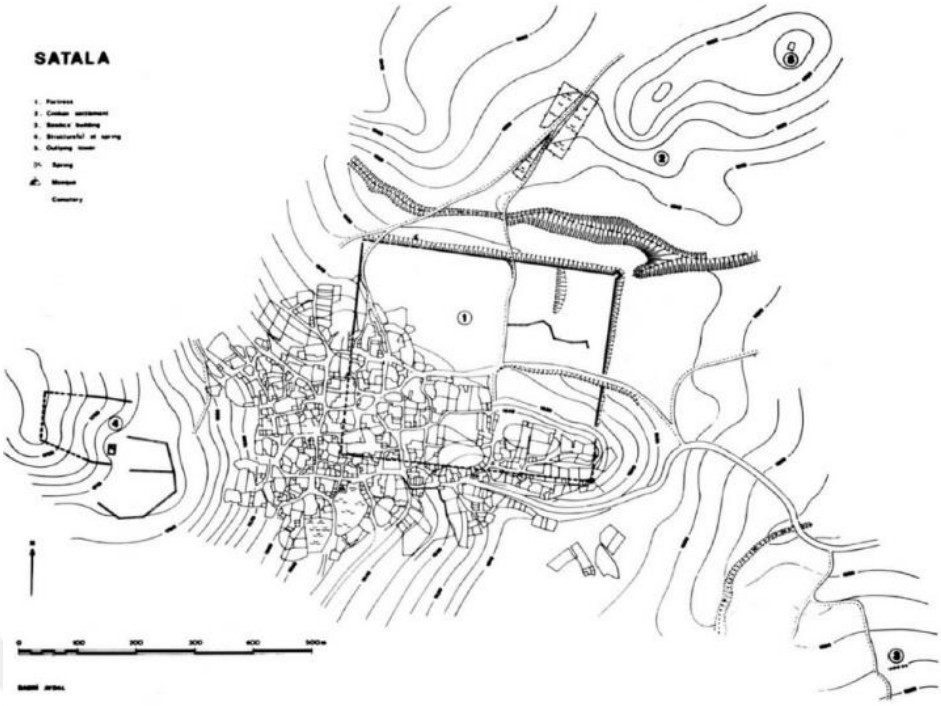

Figure 4.110. Satala plan[635]

Figure 4.111. Trench to identify the administrational centre *principia*[636]

635 Lightfoot, "Survey Work at Satala: A Roman Legionary Fortress in North-East Turkey," 273–284.

636 Yıldırım, "Satala 2019 ve 2020 yılları Kazı ve Restorasyon Çalışmaları," 265-282.

Mantartaşı (Balkayası) | Signalling station | Roman ?

Mantartaşı (Balkayası) summit is located approximately 3 kilometres east of Sadak village of Kelkit/ Gümüşhane. Mitford suggested that Mantartaşı might be used as a signalling station for Satala.[637] No intervention has been realized in a ruined state signalling station.

Kurtlu Tepe | Signalling station | Roman ?

Kurtlu Tepe is a summit located south of Yurtbaşı (former name: Melik Şerif (tr)/ Erzinsi (hy))[638] village of Refahiye/ Erzincan. It is approximately 6,5 southwest of Yurtbaşı, and 10.5 kilometres southeast of Refahiye district centre. Mitford suggested that Kurtlu Tepe might be a Roman signalling station for Yurtbaşı, which he matches with ancient Haris, as being Dulluk Tepe for Melitene.[639] No intervention has been realized in a ruined state signalling station.

Ilgarlı (Poğginer/ Poginer-viran) | Watchtower | Roman ?

Ilgarlı (former name: Poğginer, Poginer-viran)[640] village is located in Kemah/ Erzincan. It is approximately 12 kilometres north of the Kemah district centre. The village is located close to the Kömür Stream, which one of the branches of the Euphrates. The structure here has an oval plan with approximately 10 metres in length and 8 metres in width. Locals visit the structure as a church, but Mitford suggested that it can be a Roman watchtower.[641] The structure is in a ruined state, and no intervention has been realized (Figure 4.112).

637 Mitford, *East of Asia Minor/ I,* 345.

638 "Melikşerif," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?y=melik%C5%9Ferif&lv=&t=&cry=TR&ua=10. "Tarihçemiz," Melikşerif, accessed December 20, 2023, http://www.melikserif.com/?pnum=15&pt=Tarh%C3%A7emiz.

639 Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1190; Mitford, *East of Asia Minor/ I,* 318.

640 "Ilgarlı," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=12364&haritasi=%C4%B1lgarl%C4%B1.

641 Mitford, *East of Asia Minor/ I,* 264.

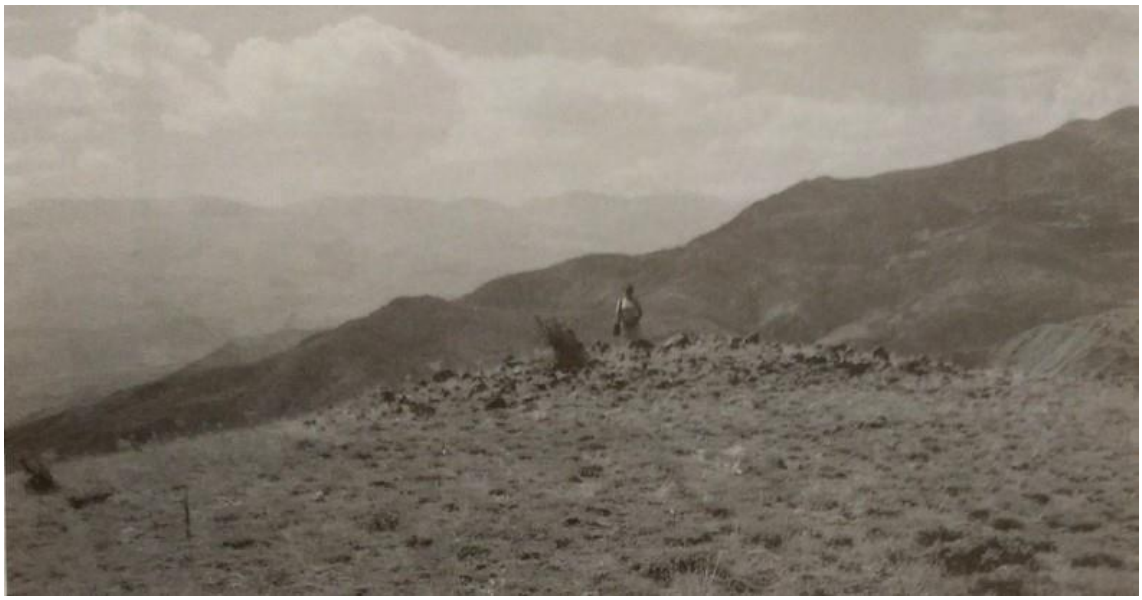

Figure 4.112. Watchtower at Ilgarlı in 2000[642]

Alp (Alpoşi/ Alboşi/ Alpköy) | Bridge | Roman ?

Alp (Alpoşi (hy), Alboşi (tr))[643] village is located in Kemah/ Erzincan. It is on the northern bank of the Euphrates, and approximately 14 kilometres east of the Kemah district centre. There are remains of a bridge over a small stream in the west of the village. The arch of the bridge has not survived. On the eastern bank, an abutment of the bridge with five ashlar courses and a rubble core inside approximately 5.5 metres wide has survived. Mitford suggested that the bridge could be a timber bridge with a central pier, dated to the Roman period and reused in the Seljuk and Ottoman periods.[644] No intervention has been realized in the bridge in a ruined state (Figure 4.113).

642 Mitford, *East of Asia Minor/ I,* 265.
643 "Alpköy," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?y=alpk%C3%B6y&lv=&t=&cry=TR&ua=10.
644 Mitford, *East of Asia Minor/ I,* 266.

Figure 4.113. Abutment of the Bridge in Alpköy in 1989[645]

4.2.2. Central Part (Cappadocia)

Karabudak | Bridge | Roman

Karabudak Bridge is approximately 3.8 kilometres southwest of Çilesiz (former name: Tepta (hy), Tepte/ Depte (tr))[646] village of İliç/ Erzincan. It is on the Karabudak Stream, a close location to its junction with the Euphrates (Figure 4.114). Approximately 6.5 kilometres southeast of the bridge, there is Bağıştaş dam. The form of the bridge is like a natural dam in the stream. The single arch has not survived, was about 30 metres long. Although the valley was submerged by the dam waters, the remains of the bridge were not affected. Karabudak Bridge was restored by Decius in 249-251 AD, as understood from its inscription nearby. Only its abutments have survived until the present day, and they were partially cut into rock[647] (Figure 4.115).

[645] Mitford, *East of Asia Minor/ I,* 266.
[646] "Çilesiz," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=12307&haritasi=%C3%A7ilesiz.
[647] Mitford, *East of Asia Minor/ I,* 249.

Figure 4.114. Satellite image of Karabudak Bridge[648]

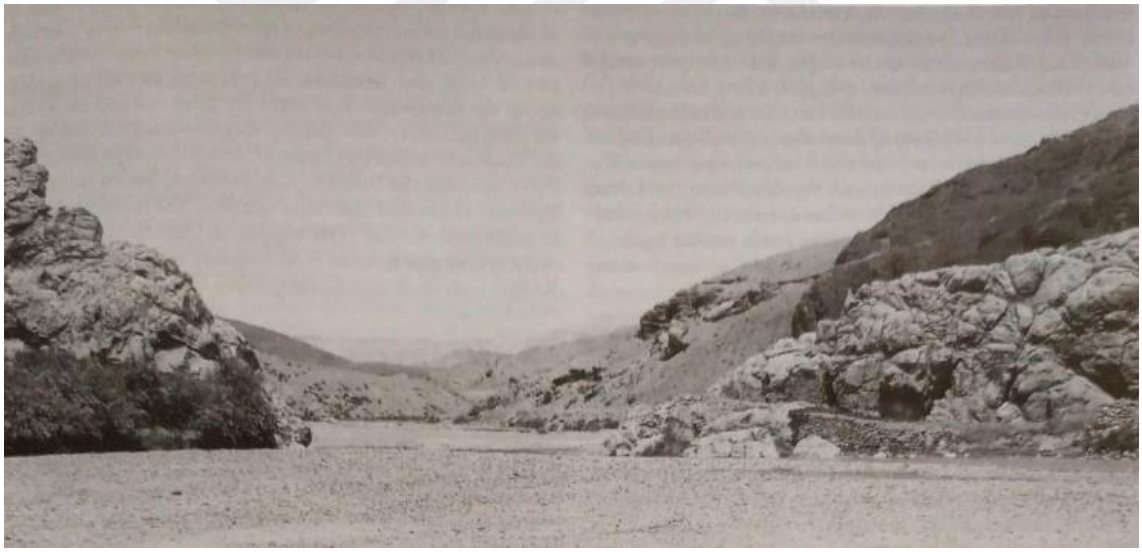

Figure 4.115. Karabudak Bridge[649]

[648] Google Earth, accessed December 20, 2023.
[649] Mitford, *East of Asia Minor/ I*, 249.

Dostal | Signalling station | Roman ?

Dostal (former name: Dostali (hy), Dasteira/ Dastrakos (el))[650] village is located in İliç/ Erzincan. It is on the northern bank of the Euphrates, close position to Bağıştaş dam, and approximately 5.5 kilometres northwest of the İliç district centre. On a ridge above Dostal, there is a stone strewn mound with 20 metres long and 4 metres wide. Mitford suggested that this might be a signalling station.[651] No intervention has been realized in a ruined state signalling station.

Adatepe (Pingan/ Rabat- *Zimara* ?) | Fort | Roman ?

Ancient Zimara is thought to be located in Adatepe (former name: Pingan (hy)/ Rabat (tr))[652] village of Divriği/ Sivas, on the west bank of the Euphrates or Altıntaş (former name: Zımara)[653] village of İliç/ Erzincan which is 8 kilometres north of Adatepe. Zimara was marked in Antonine Itinerary, and the Peutinger Table as a fort on the Roman road that comes from Satala and goes to Melitene. The existence of this place was known from the eastern expeditions of Corbulo.[654] Although Mitford suggested that the fort was built in the Flavian period[655], Edwell argues that it was built in the Trajan period.[656]

There is confusion in the literature about whether Zimara is in Adatepe or Altıntaş. It is understood that the reason for this was due to the relocation of the former Adatepe settlement[657], which is called Pingan and is a hill close to Altıntaş. However, Mitford points to the new settlement, which was moved, as the place where cut stones, inscriptions, and pottery were found, and states that the name Zimara was maintained in the village Altıntaş.[658] Both locations are also close to the Karabudak Bridge over the Karabudak Stream, 15 kilometres to the north.

650 "Dostal," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=12311&haritasi=dostal.
651 Mitford, *East of Asia Minor/ I,* 247.
652 "Pingan," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?y=pingan&lv=&t=&cry=TR&ua=10.
653 "Altıntaş," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=12299&haritasi=alt%C4%B1nta%C5%9F.
654 Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1189.
655 Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1189.
656 Edwell, *Between Rome and Persia,* 22.
657 "Pingan."
658 Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1189; Mitford, *East of Asia Minor/ I,* 240-249; Mitford, "Some Inscriptions from the Cappadocian Limes," 171-172.

On the other hand, French suggested that Zimara Fort could be in Bağlıca (former name: Zineker (tr), Zinikar (hy))[659] village of İliç/ Ezincan where the medieval Zinekar Fort was located. This fort might have been built on top of the ancient Zimara Fort.[660] Here, small-scale tower foundations built in a circular plan around a hill can be observed. The walls were built from local rough limestone; the gaps were filled with small stones and mud mortar.[661] According to another view, this fort should be in Şekerhan, 2.5 kilometres south of Bağlıca. Because here, there are wall remains whose period cannot be determined and rough-worked pottery on the surface.[662] No intervention has been realized in a ruined state fort.

Burmahan | Bridge | Roman ?

Burmahan is located in Divriği/ Sivas. It is on the southern bank of the Çaltı Stream, and approximately 16 kilometres east of the Divriği district centre. The bridge collapsed, but its smaller arch on the southern bank is about 5.2 metres wide. Eight courses of large cut blocks in the arch have survived with rubble core inside. The northern arch has not survived, but its abutment is on the surface. Mitford suggested that there could be three more arches, with overall length of the bridge being about 70 metres. He also suggested that the bridge can be dated to the 2nd or 3rd century due to its large ashlar courses.[663] No intervention has been realized in the bridge in a ruined state (Figure 4.116).

659 "Bağlıca," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=12302&haritasi=ba%C4%9Fl%C4%B1ca.

660 David H. French, "New Research on the Euphrates Frontier: Supplementary Notes 1 and 2," in *Armies and Frontiers in Roman and Byzantine Anatolia: Proceedings of a Colloquium held at University College, Swansea in April 1981*, ed. Stephen Mitchell. British Institute of Archaeology at Ankara Monograph No. 5 (Oxford: BAR International Series 156, 1983), 71-102.

661 Yorke, *A Journey in the Valley of the Upper Euphrates*, 455.

662 Mitford, *East of Asia Minor/ I*, 240-249.

663 Mitford, *East of Asia Minor/ I*, 240.

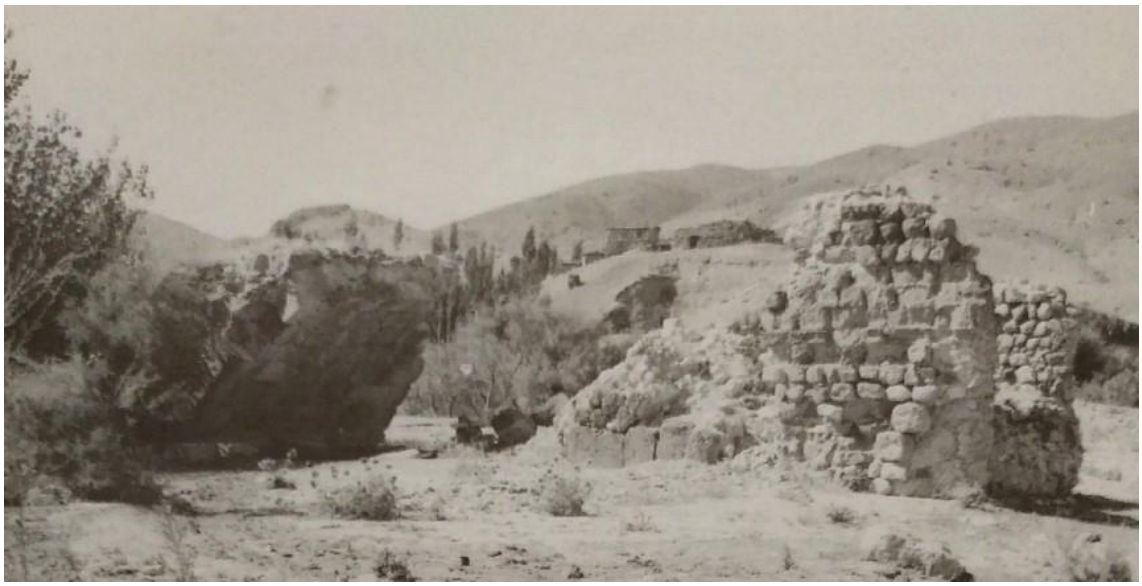

Figure 4.116. Burmahan Bridge[664]

Arege | Signalling station | Roman ?

Arege mound is located between Harmankaya (former name: Abrank/Abarank (hy))[665] village of Kemaliye/ Erzincan, and Duruköy (former name: Araga (hy), Türk Arege (tr))[666] village of Divriği/ Sivas. The mound is 30 metres in diameter and 8 metres high. A probable Roman road runs towards the mound. Due to its position, Mitford suggested that this might be a signalling station.[667] No intervention has been realized in a ruined state signalling station (Figure 4.117).

664 Mitford, *East of Asia Minor/ I,* 242.
665 "Harmankaya," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=12441&haritasi=harmankaya.
666 "Duruköy," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=29477&haritasi=duruk%C3%B6y.
667 Mitford, *East of Asia Minor/ I,* 219-220.

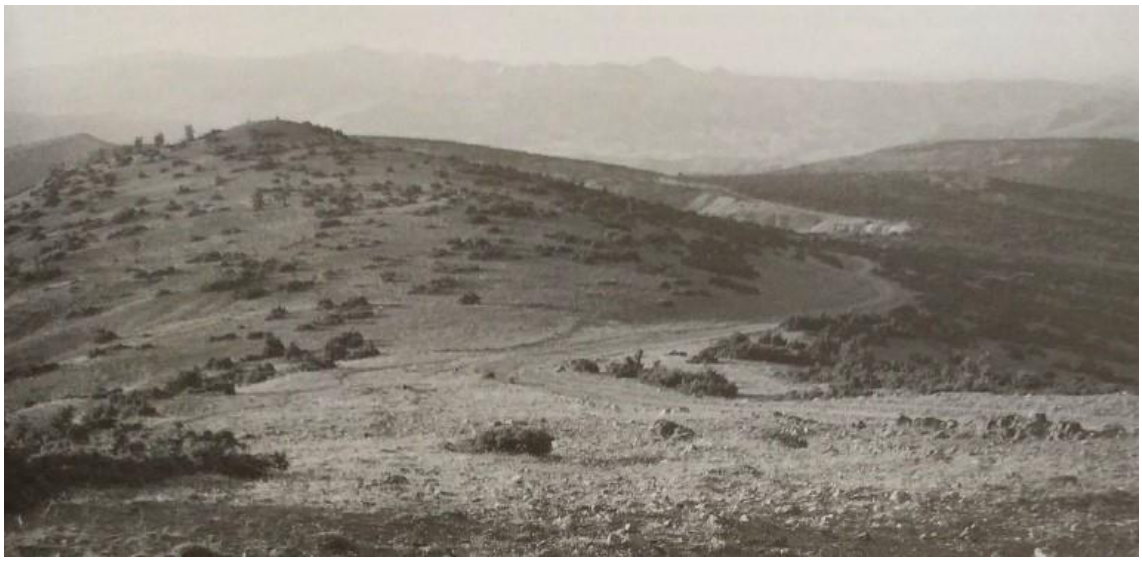

Figure 4.117. Arege mound signalling station[668]

Yaka (Vank/ Vankkeği/ Venk) | Bridge | Roman ?

Yaka (former name: Vank/ Vankkeği (hy))[669] is located in Kemaliye/ Erzincan. It is on the eastern bank of the Euphrates, and approximately 2 kilometres northeast of the Kemaliye district centre. In a drawing from 1847 (Figure 4.118), and photographs from the 1880s (Figure 4.119) and 1963 (Figure 4.120), two different types of wooden bridges that supported by stone abutments can be seen. After an earlier wooden bridge was destroyed about a century ago, a suspended wooden bridge was built in 1935 for pack animals. In the latest photograph, it is also seen that the supporting arch of the western pier collapsed. Although the surviving abutments of the bridge were built of rubble stone, the lower courses of the eastern abutment are ashlar blocks. Mitford suggested that wooden bridges had most probably Roman predecessor wooden bridge, which supported by several stone piers in the middle.[670] No intervention has been realized in the bridge.

668 Mitford, *East of Asia Minor/ I,* 219.
669 "Yaka," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=12451&haritasi=yaka.
670 Mitford, *East of Asia Minor/ I,* 228-234.

Figure 4.118. Drawing of Yaka (Venk) Bridge in 1847[671]

Figure 4.119. Yaka (Venk) Bridge around 1880[672]

671 Mitford, *East of Asia Minor/ I,* 230.
672 Mitford, *East of Asia Minor/ I,* 231.

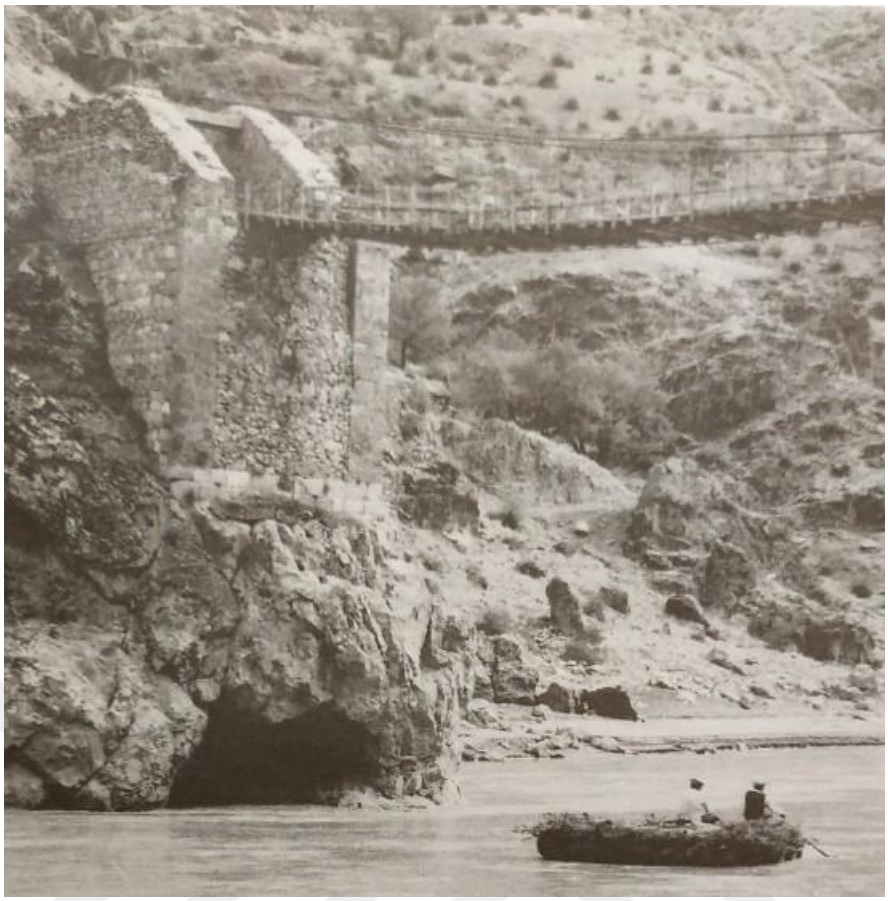

Figure 4.120. Yaka (Venk) Bridge in 1963[673]

Yuva (Garuşla/ Gerüşla/ Geruşla) | Bridge | Roman ?

Yuva (former name: Garuşla/ Gerüşla (hy))[674] is located in Kemaliye/ Erzincan. Yuva is on the western bank of the Euphrates, and approximately 2 kilometres southeast of Kemaliye district centre. The bridge has 6 metres arch and might be dated to the Seljuk period. Although its higher courses were built of small reddish sandstones and are 2.99 metres, its lower two courses on the abutments are ashlar blocks of white limestone without mortar and are 3.13 metres. Thus, the bridge most probably had a Roman predecessor.[675] No intervention has been realized in the bridge (Figure 4.121).

673 Mitford, *East of Asia Minor/ I,* 231.
674 "Yuva," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=12455&haritasi=yuva.
675 Mitford, *East of Asia Minor/ I,* 227-228.

Figure 4.121. Southeastern abutment of Yuva (Geruşla) Bridge[676]

Yuva (Garuşla/ Gerüşla/ Geruşla) | Aqueduct | Roman ?

Yuva (former name: Garuşla/ Gerüşla (hy))[677] is located in Kemaliye/ Erzincan. The aqueduct here has two tunnels with 7 metres long, and still brings water. The channel is 25 centimetres wide and 40 centimetres deep. The aqueduct probably belongs to the Roman period.[678] No intervention has been realized in the aqueduct (Figure 4.122).

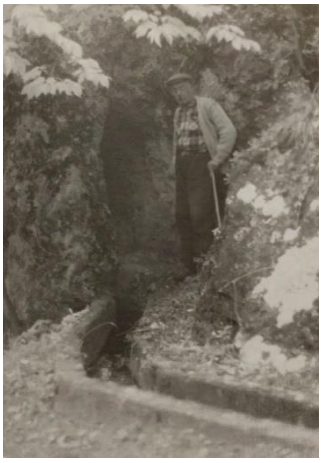

Figure 4.122. Aqueduct at Yaka (Geruşla) village[679]

[676] Mitford, *East of Asia Minor/ I,* 228.
[677] "Yuva."
[678] Mitford, *East of Asia Minor/ I,* 226-227.
[679] Mitford, *East of Asia Minor/ I,* 227.

Hanönü | Bridge | Roman ?

Hanönü Bridge is located in Kozlupınar (former name: Hapeğanots (hy), Hapanos (tr))[680] village of Kemaliye/ Erzincan. Its location is close to Recep Yazıcıoğlu Bridge on the Euphrates, approximately 3 kilometres northwest of it, and it is on the Hapanos Stream. Although the bridge probably belongs to the Seljuk period, it may have a Roman predecessor due to its round arch. The bridge was submerged by Kebam dam waters.[681]

Dutluca (Aşodga/ Aşodka/ Aşutka) | Fortlet | Roman ?

Dutluca (former name: Aşodga (hy), Aşodka/ Aşutka (tr))[682] village is located in Kemaliye/ Erzincan. It is on the western bank of the Euphrates. There is a structure approximately 2.5 kilometres north of the village on the Aşutka col overlooking eastward of the river. The structure has rounded foundations with 8-9 metres in diameter and 1-1.5 metres in height. Mitford suggested due to the observation position of the structure, this might be a small fortlet watch over the bottom of the gorge.[683] No intervention has been realized in the fortlet in a ruined state.

Çit (Çit Harabe- *Sabus ?*) | Fort | Late Roman

Çit village is located in Kemaliye/ Erzincan. It is on the eastern bank of the Kekikpınar (Miran/ Çit/ Çanakçı) Stream, and approximately 19 kilometres southeast of the Kemaliye district centre (Figure 4.123). The settlement is located about 3 kilometres east of the Roman frontier road. The settlement was mentioned as Sabus in the Antonine Itinerary, and Saba in the Peutinger Table. Mitford considers that the fort may have been expanded sometime after it was built. The pentagonal planned fort measures 130 x 160 metres.[684] Walls which at least 2 metres thick, were built from mortared rubble faced with squared stone blocks.[685] The south wall facing the creek has been preserved up to 3.7 metres and is similar in workmanship to the walls of the fort reconstructed during the Justinian period in Melitene. For this reason, it is thought that the fort here was expanded

680 "Hapanos," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?y=hapanos&lv=&t=&cry=TR&ua=10.
681 Mitford, *East of Asia Minor/ I,* 222.
682 "Dutluca," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=12419&haritasi=dutluca.
683 Mitford, *East of Asia Minor/ I,* 221.
684 Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1189; *East of Asia Minor/ I,* 209-212.
685 Gregory, *Roman Military Architecture on the Eastern Frontier/ II,* 43-45.

during the Justinian period.[686] Gregory recorded plenty of Roman tiles during the site visit in 1988; however, she argued that the impossibility of the fort, which continued during the Late Roman not have projecting towers. She also suggested that the possible towers indicated in Mitford's plan could be internal structures.[687] The structure is in an almost ruined state in vegetation, and no intervention has been realized (Figure 4.124).

Figure 4.123. Satellite image of Çit Fort. Çit village is on the east[688]

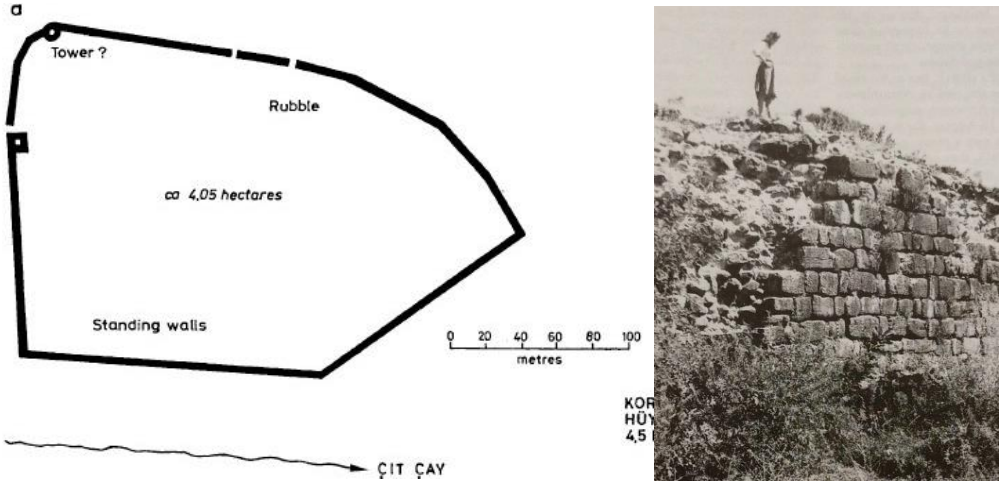

Figure 4.124. Çit harabe[689]

686 Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1189; Mitford, *East of Asia Minor/ I*, 209-212.
687 Gregory, *Roman Military Architecture on the Eastern Frontier/ II*, 43-45.
688 Google Earth, accessed December 20, 2023.
689 Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1225; Mitford, *East of Asia Minor/ I*, 211.

Bahadırlar (Dzabılvar/ Zabılbar / Zalbar/ Zabulbar, Kalecik) | Fortlet | Roman ?

Bahadırlar (former name: Dzabılvar (hy), Zabılbar/ Zalbar (tr))[690] village is located in Ağın/ Elazığ. It is on the western bank of the Euphrates, and approximately 6.5 kilometres northeast of the Ağın district centre. There is a square planned structure called Kalecik east of the village.

After the village was partially submerged, the village was moved to Şenpınar neighbourhood 3 kilometres northeast of Ağın. The northern part of the structure had collapsed into the Euphrates. The other three walls have survived at 23 metres in length and 1.5 metres in height. The end of the eastern wall had survived with facing and a rubble core about 3 metres thick. Due to its size being bigger than a watchtower, Mitford suggested that this structure might be a Roman fortlet.[691] No intervention has been realized in a ruined state (Figure 4.125).

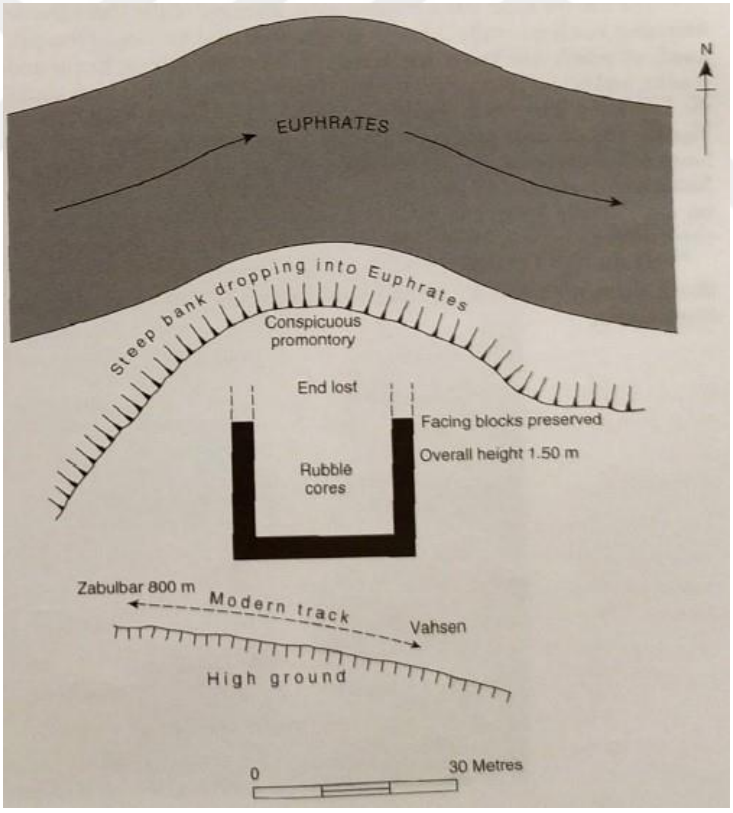

Figure 4.125. Bahadırlar (Zabulbar, Kalecik) Fortlet[692]

690 "Bahadırlar," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=11642&haritasi=bahad%C4%B1rlar.
691 Mitford, *East of Asia Minor/ I,* 205-206.
692 Mitford, *East of Asia Minor/ I,* 205.

Kilise Yazısı | Fort | Roman

Kilise Yazısı mound is located in Ağın/ Elazığ. It is on the west bank of the Karasu Stream, and approximately 50 kilometres northwest of the Elazığ city centre. Rescue excavations were carried out at Kilise Yazısı mound within the scope of the Keban Project under the direction of Prof. Dr. Ümit Serdaroğlu and Prof. Dr. Hayri Ertem from 1969 until 1974 when the mound was submerged by Keban waters. The slope of the land increases from south to north; the defensive walls mostly follow this slope, and there is very little terracing in the western part. The walls are different in the south and east than in the west. There are walls built with large amorphous stones in the south and east, but neatly cut rectangular stones were used in the west.[693] The circular planned fort located on a hill has towers. It is thought that the fort was used between the 1st and 3th century AD, since there are no Islamic finds, and very few finds from the Byzantine period in the fort.[694] The northeast and south towers projecting into the outer line of the curtain wall, but the west and east towers are inside the fort. The fort walls were mostly built with dry technique, but there are also walls using mud mortar. The subdividing walls show that the fort had three building phases[695] (Figure 4.126).

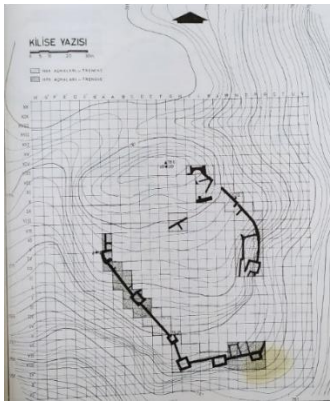

Figure 4.126. Kilise Yazısı Fort[696]

693 Ümit Serdaroğlu, "Ağın ve Kalaycık Kazıları, 1970 [Ağın and Kalaycık Excavations, 1970]," in *Keban Projesi 1970 Çalışmaları [Keban Project 1970 Activities]* (Ankara: ODTÜ Keban Projesi Yayınları, Seri 1, No 3 [METU Keban Project Publications, Series I, No 3], 1972), 7-43.

694 Ümit Serdaroğlu, "Ağın ve Kalaycık Kazıları, 1969 [Ağın and Kalaycık Excavations, 1969]," in *Keban Projesi 1969 Çalışmaları [Keban Project 1969 Activities]* (Ankara: ODTÜ Keban Projesi Yayınları, Seri 1, No 2 [METU Keban Project Publications, Series I, No 2], 1971) 23-33.

695 Serdaroğlu, "Ağın ve Kalaycık Kazıları, 1970 [Ağın and Kalaycık Excavations, 1970]," 7-43.

696 Serdaroğlu, "Ağın ve Kalaycık Kazıları, 1970 [Ağın and Kalaycık Excavations, 1970]," 7-43.

Ağın- Hoşrik | Granarium | Late Roman

Rescue excavations were carried out at Hoşrik at Ağın/ Elazığ within the scope of the Keban Project under the direction of Prof. Dr. Ümit Serdaroğlu in the mound from 1968 until 1974 when the mound was submerged by Keban waters. Due to the coin found in one of the rooms, a mosaic structure or granarium thought to be dated to the end of the 3rd century or the beginning of the 4th century AD was unearthed during the excavations. The width of the structure is 7 metres, and approximately 19 metres of one of its long walls and 16 metres of the other have survived. Three units of the structure have survived, and a passage was provided between these units. The foundation of the structure has survived to the present day, and it consists of channels that cross each other. The channels are 0.25 metres wide maximum, covered with large stones and then a coarse aggregate layer with lime mortar. A mosaic pavement made from nearby rocks was placed on this layer[697] (Figure 4.127).

Figure 4.127. Foundation of the granarium?[698]

[697] Ümit Serdaroğlu, "1968 Ağın ve Kalaycık Kazıları Ön Raporu [Ağın and Kalaycık Excavations 1968, Preliminary Report]," in *Keban Projesi 1968 Yaz Çalışmaları [Keban Project 1968 Summer Work]* (Ankara: ODTÜ Keban Projesi Yayınları, Seri 1, No 1, Cilt 1 [METU Keban Project Publications, Serial I, No 1, Vol 1], 1970), 29-51.

[698] Serdaroğlu, "1968 Ağın ve Kalaycık Kazıları Ön Raporu [Ağın and Kalaycık Excavations 1968, Preliminary Report]," 29-51.

Kalecikler Mound | Fort | Roman, Late Roman

Kalecikler mound is located in Ağın/ Elazığ. It is approximately 51 kilometres northwest of the Elazığ city centre. Rescue excavations were carried out at Kalecikler mound at Ağın/ Elazığ within the scope of the Keban Project under the direction of Prof. Dr. Ümit Serdaroğlu from 1968 until 1974 when the mound was submerged by Keban waters. The mound is at the height of 40 m from the valley foot, controlling the sides of both Ağın and Pağnik. The Byzantine period fort with four towers was unearthed during the excavations. About 1 metre of the fortification wall survived, and its outer surface was built of large cut stones combined with mud mortar, and the space in between was filled with rubble stone. The towers were built with the same technique. Limestone and sandstone obtained from the region were used as construction materials. The width of the wall is 2 metres. A hearing bone style is observed on the partition walls that join with the fortification walls. It is thought that the use of the fort was abandoned due to fire, as traces of fire were seen in many parts of the fort. The houses in the fort were built with mudbrick walls on a stone foundation. Each house has three sections, and there is a buried hearth in the middle section. The part of the fort that can be observed is only half; the other half flowed into the valley.[699] Three Roman building layers were found under the Byzantine fort[700] (Figure 4.128).

[699] Serdaroğlu, "1968 Ağın ve Kalaycık Kazıları Ön Raporu [Ağın and Kalaycık Excavations 1968, Preliminary Report]," 29-51; Serdaroğlu, "Ağın ve Kalaycık Kazıları, 1969 [Ağın and Kalaycık Excavations, 1969]," 23-33.

[700] Serdaroğlu, "Ağın ve Kalaycık Kazıları, 1970 [Ağın and Kalaycık Excavations, 1970]," 7-43; Ümit Serdaroğlu, "Ağın ve Kalaycık Kazıları, 1971 [Ağın and Kalaycık Excavations, 1971]," in *Keban Projesi 1971 Çalışmaları [Keban Project 1971 Activities]* (Ankara: ODTÜ Keban Projesi Yayınları, Seri 1, No 4 [METU Keban Project Publications, Series I, No 4], 1974), 13-24.

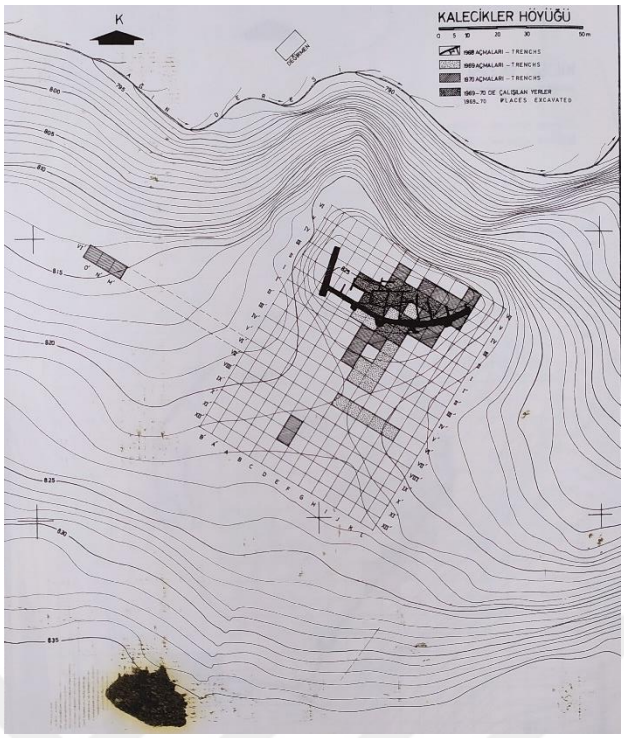

Figure 4.128. Kalecikler Höyüğü Fort[701]

Supağniği (Pağnik- *Dascusa ?*) | Fort | Late Roman

Supağniği (former name: Pağnik (hy))[702] village is located on the western bank of the Euphrates, about 2 kilometres east of the Ağın/ Elazığ. The village was submerged by the Keban dam waters in 1974, and the modern village was relocated to 1.5 kilometres west under the name of Kaşpınar. In the survey conducted by Mitford in the settlement, it was thought that there were two fort structures at first.[703] However, after Harper's excavations in 1968-1971, it was revealed that the ruins formed a single fort plan. Rescue excavations were carried out at Pağnık at Ağın/ Elazığ within the scope of the Keban Project under the direction of Prof. Dr. Richard Harper from 1968 until 1974 when the mound was submerged by Keban waters. Harper suggested that this fort might be ancient Dascusa. The fort has a horseshoe-shaped plan, with 11 semi-circular towers and four gates. It has been observed that the subdividing walls in the biggest towers of tower I and tower II have different workmanship than the curtain walls, so they were added later.

701 Serdaroğlu, "Ağın ve Kalaycık Kazıları, 1970 [Ağın and Kalaycık Excavations, 1970]," 7-43.
702 "Supağniği," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=50275&haritasi=supa%C4%9Fni%C4%9Fi.
703 Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1190.

There are seven structures inside the fort, of which there are rain channels next to the third structure. Since an element similar to a stone manger was found in the seventh structure, it is thought that this could be stable. Coins minted during the Nero period as the oldest, and Constantius II and Arcadius as the newest were found in the fort.[704] Due to the construction technique, it is thought that the fort was built in the 4th century AD[705] (Figure 4.129, 4.130).

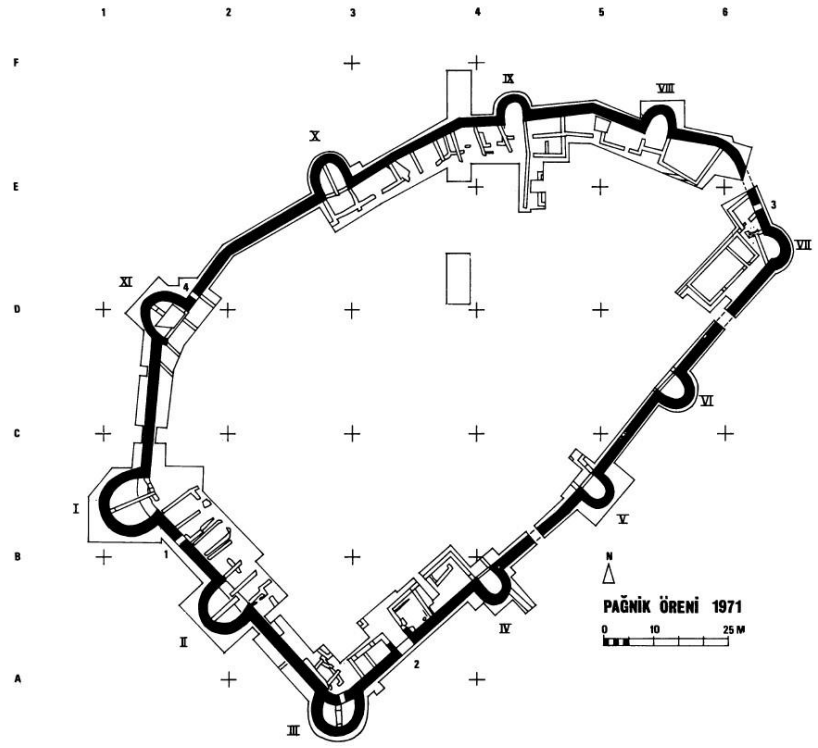

Figure 4.129. Pağnik Fort[706]

[704] Mitford, *East of Asia Minor/ I,* 200-203; Richard P. Harper, "1968 Pağnik Öreni, Kaşpınar Kazısı Ön Raporu [1968 Pağnik Öreni, Kaşpınar Excavations Preliminary Report]," in *Keban Projesi 1968 Yaz Çalışmaları [Keban Project 1968 Summer Work]* (Ankara: ODTÜ Keban Projesi Yayınları, Seri 1, No 1, Cilt 1 [METU Keban Project Publications, Serial I, No 1, Vol 1], 1970), 131-138; Richard P. Harper, "Pağnik Öreni Kazısı, 1969 [Pağnik Öreni Excavations, 1969]," in *Keban Projesi 1969 Çalışmaları [Keban Project 1969 Activities]* (Ankara: ODTÜ Keban Projesi Yayınları, Seri 1, No 2 [METU Keban Project Publications, Series I, No 2], 1971), 91-98; Richard P. Harper, "Pağnik Öreni Kazıları, 1970 [Pağnik Öreni Excavations, 1970]," in *Keban Projesi 1970 Çalışmaları [Keban Project 1970 Activities]* (Ankara: ODTÜ Keban Projesi Yayınları, Seri 1, No 3 [METU Keban Project Publications, Series I, No 3], 1972), 119-125; Harper, "Recent Archaeological Research in Turkey: Pağnik Öreni, 1970," 10-12.

[705] Richard P. Harper, "Pağnik Öreni Kazıları, 1971 [Pağnik Öreni Excavations, 1971]," in *Keban Projesi 1971 Çalışmaları [Keban Project 1971 Activities]* (Ankara: ODTÜ Keban Projesi Yayınları, Seri 1, No 4 [METU Keban Project Publications, Series I, No 4], 1974), 103-108.

[706] Harper, "Recent Archaeological Research in Turkey: Pağnik Öreni Roman Fort, 1971," 27-28.

Figure 4.130. Northern structures from the east of IX tower[707]

Karamağara | Bridge | Late Roman

Old Karamağara Bridge is approximately 1.5 kilometres northwest of the new reinforced concrete suspended Karamağara Bridge. It is on the Kozluk Stream, and approximately 4.5 kilometres southeast of Modanlı village of Ağın/ Elazığ. Documentation and dismantling work were carried out at Karamağara Bridge within the scope of the Keban Project under the direction of İsmet İlter in 1970-1972. The bridge has one pointed arch. It was built of calcareous type stone in cut stones with mortar, and rubble stone was used as filling. There is a Greek inscription on the bridge; however, it does not contain a construction date. It was suggested that the bridge was built in the 5th century AD, and it might be a local Armenian bridge rather than the Empire's. Before the area was submerged by Keban dam waters, the pieces where the inscription on them were removed to the Elazığ Museum, the remaining stones of the bridge were left in place.[708] After the completion of the dam, the inscripted pieces of the bridge were not re-assembled in the vicinity area; they are still waiting at the museum (Figure 4.131, 4.132).

[707] Harper, "Pağnik Öreni Kazıları, 1970 [Pağnik Öreni Excavations, 1970]," 119-125.

[708] İsmet İlter, "Karamağara Köprüsü Sökümü [Dismantling of Karamağara Bridge]," in *Keban Projesi 1972 Çalışmaları [Keban Project 1972 Activities]* (Ankara: ODTÜ Keban Projesi Yayınları, Seri 1, No 5 [METU Keban Project Publications, Series I, No 5], 1976), 195-213.

Figure 4.131. Karamağara Bridge[709]

Figure 4.132. Karamağara Bridge[710]

[709] "Ağın Karamağara Köprüsü," T.C. Ağın Kaymakamlığı, accessed December 20, 2023, http://agin.gov.tr/agin-karamagara-koprusu.

[710] "Ağın Karamağara Köprüsü."

Uzunyol (Bahadin/ Seyellüce/ Bahâdûn/ Bahadın) | Fortlet | Roman ?

Uzunyol (former name: Bahadin, Seyellüce, Bahâdûn)[711] village is located in Ağın/ Elazığ. It is on the eastern bank of the Kozluk (Arapgir) Stream, a very close point to the junction of it with the Euphrates, and approximately 22 kilometres southeast of the Arapgir district centre. There is a structure about 380 metres northeast of the Bahadın Bridge. The structure is on a promontory towards Kozluk (Arapgir) Stream. The promontory is about 300 metres long and 120 metres wide. On the edge, the structure is approximately 40 metres square with the same alignment as the Bahadın Bridge. Its walls have survived up to 2.2 metres. Mitford suggested that, due to its position, it might be a Roman fortlet.[712] The settlement and the fortlet were submerged by Keban dam waters (Figure 4.133).

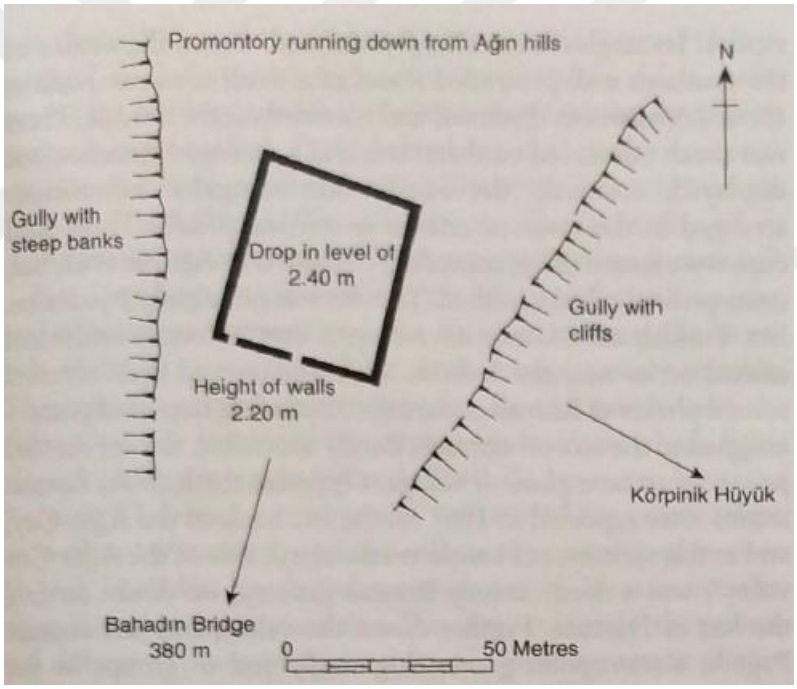

Figure 4.133. Bahadın Fortlet[713]

[711] "Uzunyol," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=37306&haritasi=uzunyol.
[712] Mitford, *East of Asia Minor/ I,* 198-199.
[713] Mitford, *East of Asia Minor/ I,* 199.

Uzunyol (Bahadin/ Seyellüce/ Bahâdûn/ Bahadın) | Bridge | Roman ?

Uzunyol (former name: Bahadin, Seyellüce, Bahâdûn)[714] is located in Ağın/ Elazığ. It is on the eastern bank of the Kozluk (Arapgir) Stream, a very close point to the junction of it with the Euphrates, and approximately 22 kilometres southeast of the Arapgir district centre. Two abutments of the bridge have survived. The eastern abutment has survived up to 6.48 metres, while the western one 3 metres. Their width is about 5,3 metres, and they stand approximately 31 metres apart from each other. They were built of ashlar facings with mortared rubble core inside. It probably had a single arch. Mitford suggested that due to its fine workmanship, the bridge might have been built in the 2nd or even 1st century AD.[715] The settlement and the bridge were submerged by Keban dam waters (Figure 4.134).

Figure 4.134. Bahadın Bridge[716]

[714] "Uzunyol."
[715] Mitford, *East of Asia Minor/ I,* 197-198.
[716] Mitford, *East of Asia Minor/ I,* 198.

Ayvacık (Koxpiniklü/ <u>Körpinik</u>) | Signalling station | Roman ?

Körpinik mound is located in Ayvacık (former name: Koxpiniklü (ku))[717] village of Ağın/ Elazığ. It is on the western bank of the Euphrates, and 5.5 kilometres southwest of Ağın, and 50 kilometres northwest of the Elazığ city centre. The mound has a flat top, and there are traces of a wall built of large cut blocks on the northern edge. There is also a closed tunnel beginning on the north side. Several roman coins and Greek or Latin inscriptions were found on the mound. Mitford suggested that Körpinik mound is too small for a fort, and might be signalling station. The settlement was submerged by Keban dam waters[718] (Figure 4.135).

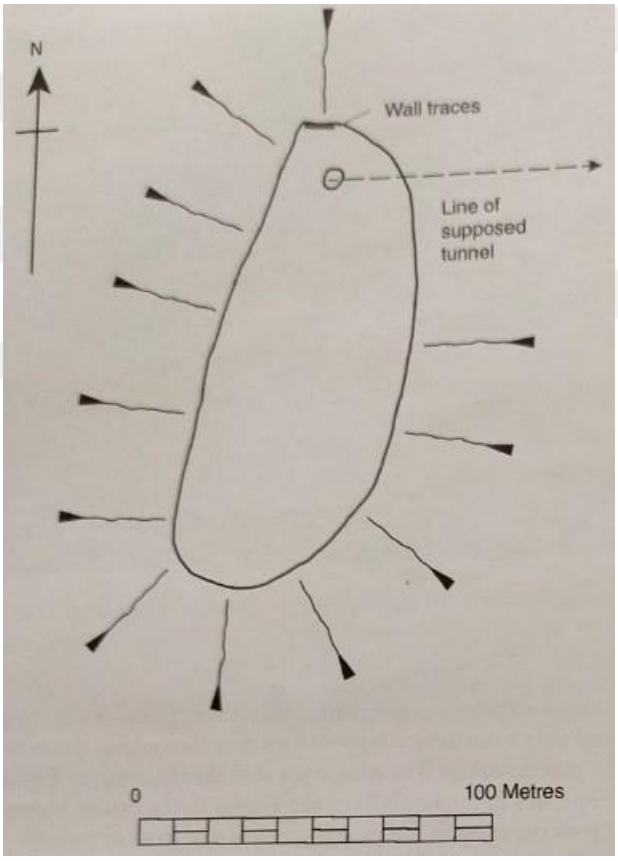

Figure 4.135. Ayvacık (Körpinik) mound[719]

[717] "Ayvacık," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=37305&haritasi=ayvac%C4%B1k.
[718] Mitford, *East of Asia Minor/ I,* 195-197.
[719] Mitford, *East of Asia Minor/ I,* 196.

Muratçık (Aşvan) | Fort ? | Late Roman

Muratçık (former name: Aşvan)[720] village is in Elazığ, and the western bank of the Arsanias (Murat) River. The village is approximately 28 kilometres west of the Elazığ city centre. The ancient ruins of the settlement were submerged by the Keban Dam in 1974, and the village was moved to its present location.

Rescue excavations were carried out at Aşvan within the scope of the Keban Project under the direction of David H. French from 1968 until 1972, when the mound was submerged by Keban waters. Under the medieval fort, a rectangular structure with an outer and an inner wall separated by a corridor measuring 16.5 x 14 metres, thought to have been built for defence purposes, was found. The structure is thought to be dated to the 4th century AD.[721] The entrance is thought to be in the middle of the north façade, opposite the entrance to the inner room. The inner wall of the structure is more massive than the outer wall and probably bears the main structural weight. It was suggested that the outer wall was originally only waist or chest height and supported a row of wooden columns surrounding the central chamber[722] (Figure 4.136).

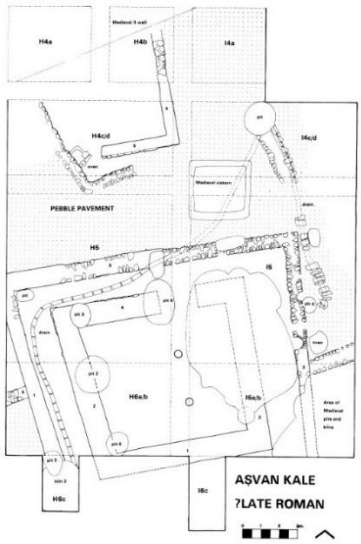

Figure 4.136. Aşvan Kale, Late Roman? period[723]

[720] "Aşvan," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?y=a%C5%9Fvan&lv=&t=&cry=TR&ua=10.

[721] Stephen Mitchell, "Recent Archaeological Research in Turkey: Aşvan, 1971," *Anatolian Studies* 22, Special Number in Honour of the Seventieth Birthday of Professor Seton Lloyd (1972), 11-14.

[722] Stephen Mitchell, "Aşvan Kale," *Anatolian Studies* 23 (1973): 121-151.

[723] Mitchell, "Aşvan Kale," 121-151.

Örencik (Haraba-Şimşat) | Fort ? | Roman

Örencik village in Palu/ Elazığ, which was mentioned as Harabe-Şimşat (known as Xarabe (hy) or Şimşat was considered derived from Arsamosata/ Arşamuşat (fa))[724] in the excavation reports[725], is on the western bank of the Arsanias (Murat) River, 48 kilometres east of the Elazığ city centre. The ancient ruins of the settlement were submerged by the Keban Dam in 1974. The fort here was thought to be a medieval period Seljuk fort.[726] Although Hellenistic and Roman structures were found intertwined in the excavations at the eastern end of the Medieval fort, their clear plans could not be drawn[727] (Figure 4.137).

Figure 4.137. Şimşat Fort a part of a fortification walls[728]

[724] "Şimşat," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?y=%C5%9Fim%C5%9Fat&lv=&t=&cry=TR&ua=10.

[725] Baki Öğün, "Haraba Kazıları, 1969 [Haraba Excavations, 1969]," in *Keban Projesi 1969 Çalışmaları [Keban Project 1969 Activities]* (Ankara: ODTÜ Keban Projesi Yayınları, Seri 1, No 2 [METU Keban Project Publications, Series I, No 2], 1971), 39-46.

[726] Baki Öğün, "Haraba Kazısı, 1970 [Haraba Excavations, 1970]," in *Keban Projesi 1970 Çalışmaları [Keban Project 1970 Activities]* (Ankara: ODTÜ Keban Projesi Yayınları, Seri 1, No 3 [METU Keban Project Publications, Series I, No 3], 1972), 75-78.

[727] Baki Öğün, "Recent Archaeological Research in Turkey: Haraba, 1970," *Anatolian Studies* 21 (1971), 45-46.

[728] Öğün, "Haraba Kazıları 1969 [Haraba Excavations, 1969]," 39-46.

Deregezen | Signalling station | Roman ?

Deregezen neighbourhood is located in Arapgir/ Malatya. It is on the northern bank of the Euphrates, and the eastern bank of the Söğütlü Stream, which is a branch of it, and approximately 26 kilometres south of Arapgir, 52 kilometres northeast of the Malatya city centre. There are twin mounds rising from the watershed at the head of Deregezen valley on the northeast of Deregezen neighbourhood. Mitford suggested that although there is no evidence, the northern mound which is looking down to Körpinik mound, might be a signalling station.[729] No intervention has been realized in a ruined state signalling station.

Taşbaşımalyanı | Watchtower | Roman ?

Taşbaşımalyanı is located southeast of Bahçeli (former name: Malyan (ku))[730] neighbourhood of Arguvan/ Malatya. It is on the northern bank of the Euphrates, and the western bank of the Söğütlü Stream, which is a branch of it, and approximately 18 kilometres southeast of Arguvan, and 45 kilometres northeast of the Malatya city centre. There is a small circular hill here with 16 metres in diameter and a collapsed wall of small, rough stones. Mitford suggested that this hill could be a watchtower. Although the hill has a view towards the Euphrates, from Dulluk Tepe, it cannot be seen due to Muşar mountain in between them.[731] No intervention has been realized in a ruined state watchtower (Figure 4.138).

Figure 4.138. Taşbaşımalyanı watchtower[732]

729 Mitford, *East of Asia Minor/ I,* 190-191.
730 "Bahçeli," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=22868&haritasi=bah%C3%A7eli.
731 Mitford, *East of Asia Minor/ I,* 188-189.
732 Mitford, *East of Asia Minor/ I,* 188.

Kaleköy | Fort | Byzantine

Kaleköy or Kale (former name: Muşar (tr), Masara (el))[733] village is located at the foothill of the Muşar mountain in Baskil/ Elazığ. It is located on the eastern bank of the Euphrates, about 35 kilometres west of Baskil. Rescue excavations were carried out at Kaleköy within the scope of the Lower Euphrates Project under the direction of Prof. Dr. Tomris Bakır and Prof. Dr. Altan Çilingiroğlu in 1978-79. The fort was positioned by building terrace walls on the hill where settling is difficult. The east of the hill is very steep, and the west side slopped towards the Euphrates. Settlements have been identified in the fort from the First Bronze Age to the Ottoman period. The entrance of the fort is from the south. Approximately 200 metres north of the south entrance, there is a niche, which is thought to be a sanctuary. It is thought that the chapel in the niche area was built in the Byzantine period. A stepped tunnel entrance was also found in the fort. At the highest point of the fort, there is a vaulted structure, which is thought to be a cistern called "Gavur Damı" by the villagers, and it was dated to the Iron Age. Medieval pottery was found extensively in the fort, but there were also late Roman-early Byzantine pottery.[734] Although the village is submerged, the fort can still be seen on the hill (Figure 4.139, 4.140).

[733] "Kale," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=46632&haritasi=kale.

[734] Altan Çilingiroğlu, "Recent Archaeological Research in Turkey: Kaleköy, 1979," *Anatolian Studies* 30 (1980): 219-221; T. A. Sinclair, *Eastern Turkey: An Architectural and Archaeological Survey/ III* (London: The Pindar Press, 1989), 45; Tomris Bakır, "Recent Archaeological Research in Turkey: Kaleköy (Baskil), 1980," *Anatolian Studies* 31, (1981), 191-192; Tomris Bakır and Altan Çilingiroğlu, "Kaleköy Kazısı, 1978 [Kaleköy (Baskil) Excavations- 1978]," in *Aşağı Fırat Pojesi 1978-1979 Çalışmaları [Lower Euphrates Project 1978-1979 Activities]* (Ankara: ODTÜ Aşağı Fırat Projesi Yayınları, Seri 1, No 3 [METU Lower Euphrates Project Publications, Series I, No 3], 1987), 153-159; Tomris Bakır and Altan Çilingiroğlu, "Kaleköy Kazısı 1979 [Kaleköy (Baskil) Excavations, 1979]," in *Aşağı Fırat Pojesi 1978-1979 Çalışmaları [Lower Euphrates Project 1978-1979 Activities]* (Ankara: ODTÜ Aşağı Fırat Projesi Yayınları, Seri 1, No 3 [METU Lower Euphrates Project Publications, Series I, No 3], 1987) 161-175.

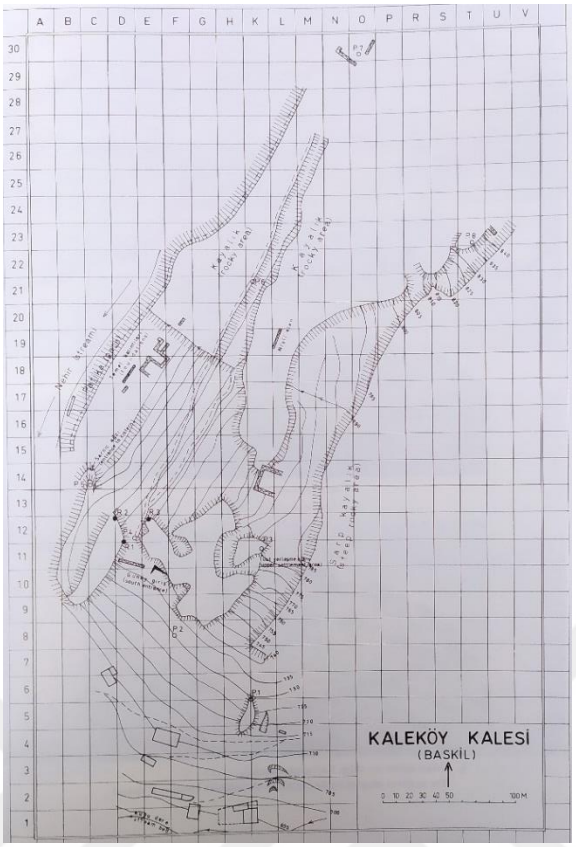

Figure 4.139. Kaleköy Fort plan[735]

Figure 4.140. Kaleköy southern slope[736]

[735] Bakır and Çilingiroğlu, "Kaleköy Kazısı, 1978 [Kaleköy (Baskil) Excavations- 1978]," 153-159.

[736] Bakır and Çilingiroğlu, "Kaleköy Kazısı, 1978 [Kaleköy (Baskil) Excavations- 1978]," 153-159.

Şemsiyetepe | Fort | Roman

Şemsiyetepe mound is located 500 metres southern of Bilaluşağı village in Baskil/ Elazığ. The mound is on the eastern bank of the Euphrates, and approximately 25 kilometres northeast of Malatya city centre. Rescue excavations were carried out at Kaleköy within the scope of the Lower Euphrates Project under the direction of Prof. Dr. Muhibbe Darga in 1978-79 before it was submerged by Karakaya dam waters. During the excavations, a Roman fort built on the ruins of the last phase of the Early Bronze Age was found. There are a kitchen section and a structure thought to be a cistern inside the fort. A rubble stone wall made from limestone was built for terracing on the south slope. Near the southern slope, there is a structure with 3 metres x 6 metres, which is thought to be an arsenal[737] (Figure 4.141).

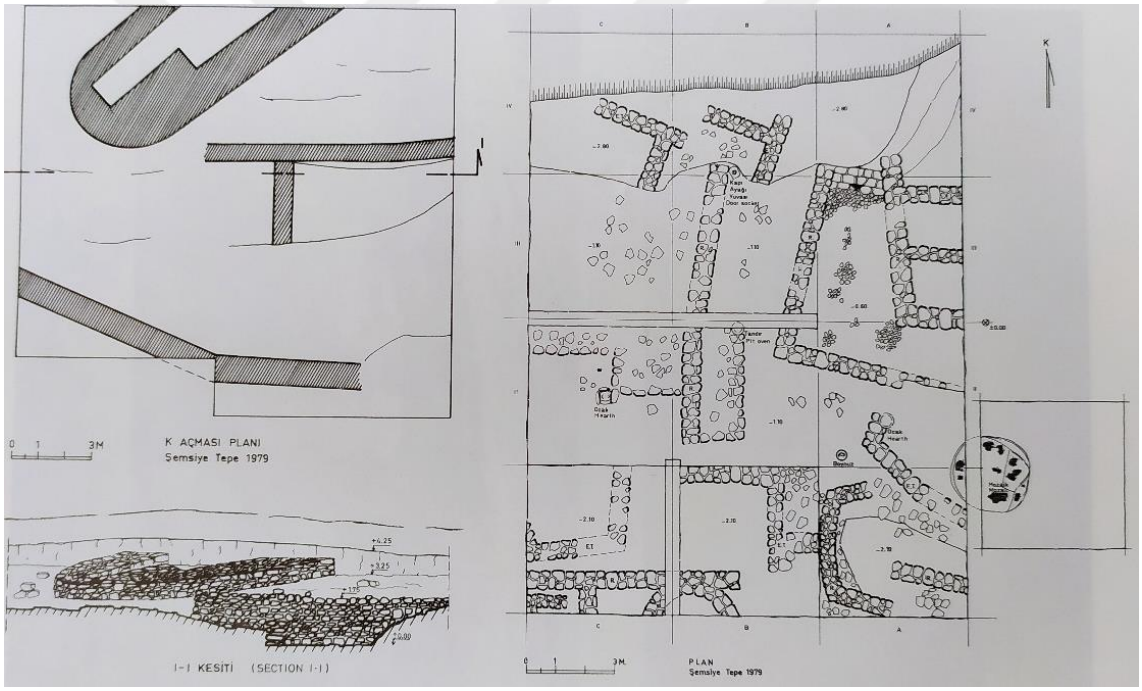

Figure 4.141. Şemsiyetepe Roman structures[738]

[737] Muhibbe Darga, "Şemsiyetepe Kazıları 1978-1979 [Şemsiyetepe Excavations, 1978-1979]," in *Aşağı Fırat Pojesi 1978-1979 Çalışmaları [Lower Euphrates Project 1978-1979 Activities]* (Ankara: ODTÜ Aşağı Fırat Projesi Yayınları, Seri 1, No 3 [METU Lower Euphrates Project Publications, Series I, No 3], 1987), 291-298.

[738] Darga, "Şemsiyetepe Kazıları 1978-1979 [Şemsiyetepe Excavations, 1978-1979]," 291-298.

Battalgazi (Eskimalatya- *Melitene*) | Legionary fortress/ town (later) | Late Roman

Battalgazi (former name: Eskimalatya)[739] district is located in Malatya, where the old settlement was established. It is approximately 10 kilometres northeast of Malatya city centre (Figure 4.142). The presence of the legionary fortress of Legio XII Fulminata here was suggested with legionary tile, military epitaphs, and coins. Pipes found in Ulu Cami, 2nd or 3rd century wall, maybe Justianic cores, legionary cemetery with inscriptions, and a probable signalling system at Dulluk Tepe suggest Roman veteran settlement at Melitene here.[740] Melitene was an important road junction in the Roman period. Due to the garrison, the status of the settlement was elevated to metropolis by Trajan.[741] Although Mitford suggested that the rectangular planned legionary fortress, built in the 1st century AD, was expanded and strengthened in the Anastasius and Justinian periods and took its current form[742], Crow suggested that the fort had a medieval appearance considering its several demolishment and reconstruction over the years[743], and Gregory stated that there was not a single wall construction technique, but various techniques. Gregory also suggested that today's road texture may overlap with the original inner fort road texture.[744] Although no trace of the earlier legionary fortress can be observed today, Gabriel suggested the location of it as the southwest corner of the present fort walls.[745] The eastern wall of the fort follows Pınarbaşı Stream with an irregular plan, but the western and southern walls meet at perpendicular angle with about 800 and 750 metres walls, respectively. The enclosing area is approximately 55 hectares[746] (Figure 4.143, 4.144). The observable later abutments were constructed with mortared rubble core with stone facings; the facing was lost at some abutments. Several pentagonal abutments and gates of the later fortifications are visible within the urban fabric on the west, south and eastern sides which surround the settlement. According to Battalgazi District Governorship, there

739 "Battalgazi," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=23077&haritasi=battalgazi.

740 Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1186.

741 Gabriel, *Şarki Türkiye'de Arkeolojik Geziler*, 223-232; Mitford, *East of Asia Minor/ I,* 53; Vincent W. Yorke, "A Journey in the Valley of the Upper Euphrates," *The Geographical Journal* 8, no. 5 (1896): 463-465.

742 Mitford, *East of Asia Minor/ I,* 175.

743 James Crow, "A Review of the Physical Remains of the Frontier of Cappadocia," in *The Defence of the Roman and Byzantine East: Proceedings of a Colloquium Held at the University of Sheffield in April 1986,* ed. Philip Freeman and David Kennedy. British Institute of Archaeology at Ankara Monograph No. 8 (Oxford: BAR International Series 297, 1986), 86.

744 Gregory, *Roman Military Architecture on the Eastern Frontier/ II,* 49-53.

745 Gabriel, *Şarki Türkiye'de Arkeolojik Geziler,* 225-226; Sinclair, *Eastern Turkey/ III,* 7-10.

746 Mitford, *East of Asia Minor/ I,* 171-181.

are 71 towers[747], to Battalgazi Municipality 75 towers[748] , however, during the site visit in July 2022, 28 towers can be observed by the author. A part of the fortifications on the eastern side was reconstructed by Battalgazi Municipality during the recent restoration in 2010-2015.[749] Except for these research mentioned above, no excavations were carried out in Battalgazi (Figure 4.145, 4.146, 4.147).

Figure 4.142. Satellite image of Melitene Fortress in Battalgazi[750]

[747] "Battalgazi Surları," T.C. Battalgazi Kaymakamlığı, accessed December 20, 2023, http://battalgazi.gov.tr/battalgazi-surlari.

[748] "Eski Malatya Surları ve Kalesi," T.C. Battalgazi Belediyesi, accessed December 20, 2023, https://www.battalgazi.bel.tr/p/eski-malatya-surlari-ve-kalesi-1600764347386.

[749] "Eski Malatya Surları ve Kalesi."

[750] Google Earth, accessed December 20, 2023.

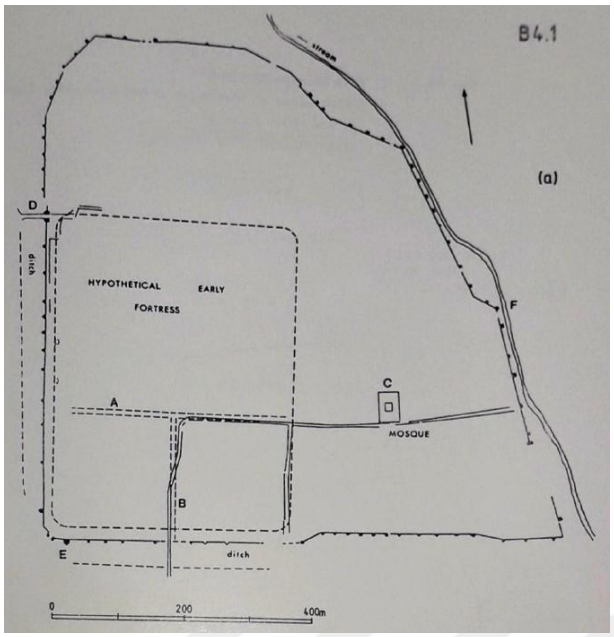

Figure 4.143. Eski Malatya Fort[751]

Figure 4.144. Battalgazi fortifications in 1965[752]

751 Gregory, *Roman Military Architecture on the Eastern Frontier/ III,* B 4.1.
752 Mitford, *East of Asia Minor/ I,* 178.

Figure 4.145. Battalgazi fortifications[753]

Figure 4.146. Partial reconstruction of Battalgazi fortifications[754]

[753] Ö. D. Toköz, 18 August 2022.
[754] Ö. D. Toköz, 18 August 2022.

Figure 4.147. Partial reconstruction of Battalgazi fortifications[755]

Dulluk (Kulluk) Tepe | Signalling station | Roman ?

Dulluk Tepe is located in Malatya. It is approximately 6.5 kilometres northeast of the Malatya city centre, 4.5 kilometres southeast of Battalgazi, and 3.5 kilometres northwest of Karamildan (Kırman) Tepe (Figure 4.148). The flat hill has a conical shape with about 50 metres in diameter. The remains consist of two rectangular pits. The larger one is 18 metres long, 8 metres wide, and 5 metres deep, and the smaller one is 10 metres long and 4 metres wide. The large pit is divided into two by a 60 centimetres thick brick wall. Pit walls were built of large square stones with mortar. I addition to the pits, there are also traces of supporting wall on the southern edge, and five saucer shape depressions with 2.5 metres in diameter each at the highest point on the west. Mitford suggested that this hill might be a Roman signalling station since saucer shape depressions in the ground may have been used as signal beacons, and pits as storage for cut wood. Dulluk tepe is visible from Melitene due to its location, and it may have transmitted signals to the

[755] Ö. D. Toköz, 18 August 2022.

outlying auxiliary fort from the fortress at Melitene.[756] No intervention has been realized in a moderately preserved signalling station (Figure 4.149).

Figure 4.148. Satellite image of Dulluk Tepe southeast of Battalgazi[757]

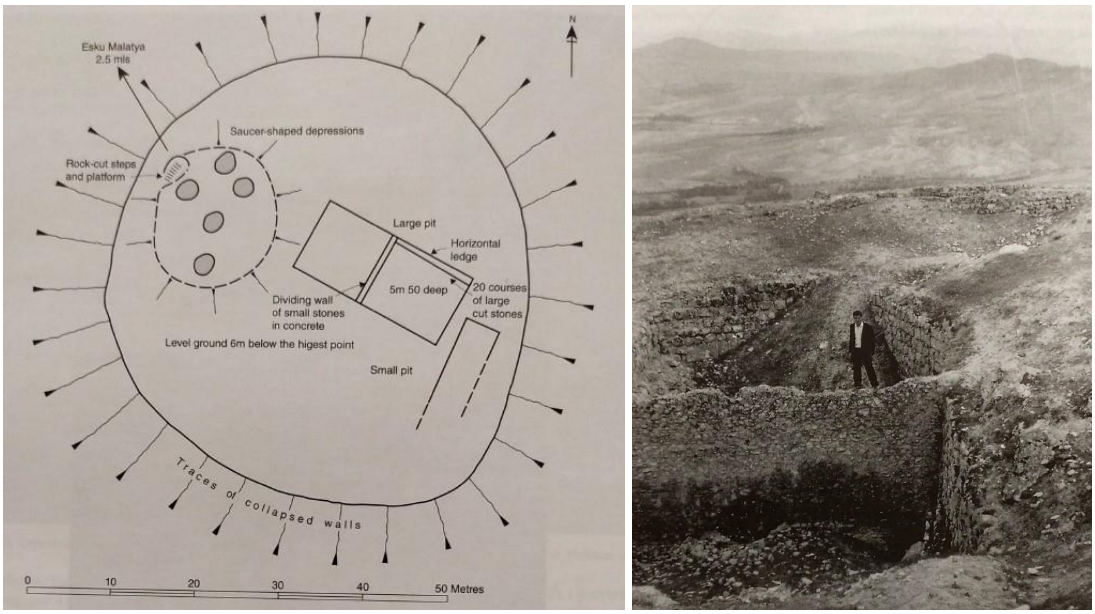

Figure 4.149. Dulluk Tepe[758]

[756] Mitford, *East of Asia Minor/ I*, 167-170.
[757] Google Earth, accessed December 20, 2023.
[758] Mitford, *East of Asia Minor/ I*, 170, 169.

Karamildan (Kırman) Tepe | Fort | Roman

Karamildan (formerly known as Kırman) Tepe is located in Malatya. It is approximately 6 kilometres east of the Malatya city centre, 7.5 kilometres southeast of Battalgazi, and 3.5 kilometres southeast of Dulluk (Kulluk) Tepe (Figure 4.150). The settlement is built on a flat hill and is reached by a ramp from the west. The settlement covers a rectangular area of 320 x 300 metres. The curtain walls are 2 m wide and covered with rectangular limestone blocks on the outside, with rubble core mixed with lime mortar on the inside. The southern and eastern parts of the wall, which have projecting towers and buttresses along the curtain wall, have survived, but the other parts have been lost by erosion. A cistern carved into rock and structure remains were found inside the curtain wall. Hellenistic pottery was found in the area during the surveys of Sevin and Derin, and the fort was dated between the 2nd century BC and the 2nd century AD. However, they suggested that this is not the legionary Fortress of Melitene.[759] No intervention has been realized in a ruined state fort.

Figure 4.150. Satellite image of Karamildan Tepe southeast of Battalgazi[760]

[759] Mitford, *East of Asia Minor/ I,* 166-167; Veli Sevin and Zafer Derin, "A Fortified Site to the East of Malatya," in *The Eastern Frontier of the Roman Empire. Proceedings of a colloquium held at Ankara in September 1988,* ed. David H. French and Chris S. Lightfoot. British Institute of Archaeology at Ankara Monograpgh No. 11 (Oxford: BAR International Series 553, 1989), 437-460.

[760] Goole Earth, accessed December 20, 2023.

Adagören | River Crossing ? | Roman ?

Adagören (former name: Kilisik (ku))[761] neighbourhood is located in Battalgazi/ Malatya. It is on the western bank of the Euphrates, and approximately 17 kilometres northeast of the Malatya city centre. Mitford mentioned during the survey that he saw villagers crossing the river by boats here. Therefore, a crossing point might be here in ancient periods.[762]

Köşkerbaba | Fort | Roman

Köşkerbaba mound is located in Kuluşağı neighbourhood in Battalgazi/ Malatya. The mound is located on the western bank of the Euphrates, approximately 31 kilometres northeast of Malatya city centre. Rescue excavations were carried out at Köşkerbaba within the scope of the Lower Euphrates Project under the direction of Prof. Dr. Önder Bilgi in 1978-79 before it was submerged by Karakaya dam waters. The mound is located on the western bank of the Euphrates, 250 m southwest of the Fırat railway bridge, which was built to cross the river. The three semi-circular towers of the level I Roman period layer fort were unearthed during the excavations. Inside the fort, there is a structure with a square plan that is thought to be a communication and surveillance tower, which is dated to the level II Roman period layer. These two Roman periods in the fort are thought to be dated to the 1st and 2nd centuries. Urartian ruins were found under the Roman period structures. For this reason, it is thought that Köşkerbaba was also used as an end fort in the 7th century BC in the Urartian period to ensure its relations with the late Hittites[763] (Figure 4.151).

761 "Adagören," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=23071&haritasi=adag%C3%B6ren.

762 Mitford, *East of Asia Minor/ I,* 149, 164.

763 Önder Bilgi, "Köşkerbaba Höyük Kazısı, 1978 [Köşkerbaba Höyük Excavations, 1978]," in *Aşağı Fırat Pojesi 1978-1979 Çalışmaları [Lower Euphrates Project 1978-1979 Activities]* (Ankara: ODTÜ Aşağı Fırat Projesi Yayınları, Seri 1, No 3 [METU Lower Euphrates Project Publications, Series I, No 3], 1987), 189-216; Önder Bilgi, "Köşkerbaba Höyük Kazısı, 1979 [Köşkerbaba Höyük Excavations, 1979]," in *Aşağı Fırat Pojesi 1978-1979 Çalışmaları [Lower Euphrates Project 1978-1979 Activities]* (Ankara: ODTÜ Aşağı Fırat Projesi Yayınları, Seri 1, No 3 [METU Lower Euphrates Project Publications, Series I, No 3], 1987) 217-247; Önder Bilgi, "Recent Archaeological Research in Turkey: Köşkerbaba Höyük, 1979," *Anatolian Studies* 30 (1980), 223-224; Sinclair, *Eastern Turkey/ III*, 46.

Figure 4.151. Köşkerbaba Fort with the Euphrates and Fırat railway bridge[764]

Kuluşağı | River Crossing ? | Roman ?

Kuluşağı neighbourhood is located in Battalgazi/ Malatya. It is on the western bank of the Euphrates, and approximately 20 kilometres northeast of the Malatya city centre. Mitford mentioned during the survey that he saw villagers crossing the river by boats here. Therefore, a crossing point might be here in ancient periods.[765]

Kıyıcak | River Crossing ? | Roman ?

Kıyıcak (former name: Pirot (hy))[766] neighbourhood is located in Kale/ Malatya. It is on the western bank of the Euphrates, and approximately 33 kilometres northeast of the Malatya city centre. Mitford mentioned during the survey that he saw villagers crossing the river by boats here. Therefore, a crossing point might be here in ancient periods. There was also a timber bridge in the Ottoman period.[767]

764 Önder Bilgi, "Köşkerbaba Höyük Kazısı, 1979 [Köşkerbaba Höyük Excavations, 1979]," 217-247.
765 Mitford, *East of Asia Minor/ I,* 149.
766 "Kıyıcak," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=23101&haritasi=k%C4%B1y%C4%B1cak.
767 Mitford, *East of Asia Minor/ I,* 149.

Pirot | Watchtower | Roman ?

Pirot mound is located northeast of Kıyıcak neighbourhood of Kale/ Malatya. It is on the southern bank of the Euphrates. There is a mound which rescue excavations were realized. After the settlement was submerged, the village was moved to the south at Kıyıcak. About 3 kilometres west of Pirot, there is a rounded hill above the Euphrates with a foundation of a wall 15 metres long. Due to its location overlooking both banks, Mitford suggested that a watchtower might be in this place.[768] The settlement was submerged by Karakaya dam waters (Figure 4.152).

Figure 4.152. Pirot watchtower[769]

Tepebaşı (Kesrik- <u>Sis Kale</u>) | Fortlet | Late Roman ?

Tepebaşı (former name: Kesrik (ku))[770] neighbourhood is located in Kale/ Malatya. It is on the southern bank of the Euphrates, and approximately 37 kilometres east of the Malatya city centre. On the southern of Tepebaşı, lower slopes of Şakşak mountain, there is a structure called Sis Kale on a rocky spur. The position of Sis Kale overlooks Pirot. Its plan is circular with 29 metres in diameter. The walls are 2 metres

768 Sinclair, *Eastern Turkey/ III,* 218; Mitford, *East of Asia Minor/ I,* 163-164.
769 Mitford, *East of Asia Minor/ I,* 164.
770 "Tepebaşı," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=23107&haritasi=tepeba%C5%9F%C4%B1.

thick and built with large cut stones with mortar in regular course. On the northeast corner, there is a projected tower with 6 metres in diameter, and another small tower in the northwest corner. The gate of the structure is on the south. The northern wall of the structure has not survived. Mitford suggested that although its remote location, this might be a fortlet that can be dated to the Justinian period.[771] No intervention has been realized in a moderately preserved fortlet (Figure 4.153, 4.154).

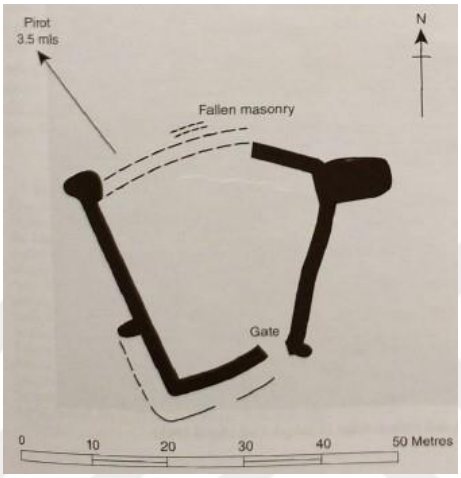

Figure 4.153. Sis Kale Fortlet[772]

Figure 4.154. Sis Kale Fortlet[773]

[771] Mitford, *East of Asia Minor/ I*, 152-153; Sinclair, *Eastern Turkey/ III*, 42-43.
[772] Mitford, *East of Asia Minor/ I*, 155.
[773] Mitford, *East of Asia Minor/ I*, 155.

Kerefto | Watchtower | Roman ?

Kerefto village is on the east of Behramlı, and north of Konurtay (former name: Xaşkento (Syraic))[774] neighbourhood of Doğanyol/ Malatya. It is on the eastern bank of the Euphrates, and approximately 10 kilometres southeast of the Doğanyol district centre. On the left bank of the Kerefto Stream, there is a natural promontory about 50 metres long. On its narrow neck, there are remains of a structure approximately 7 metres square. Its 75 centimetres thick walls are faced with ashlar both inside and outside without mortar. Mitford suggested that this could be a watchtower. On the tip of the promontory, there is also a rectangular structure 8 metres long and 3 metres wide with a dividing wall inside.[775] The village was submerged by Karakaya dam waters (Figure 4.155).

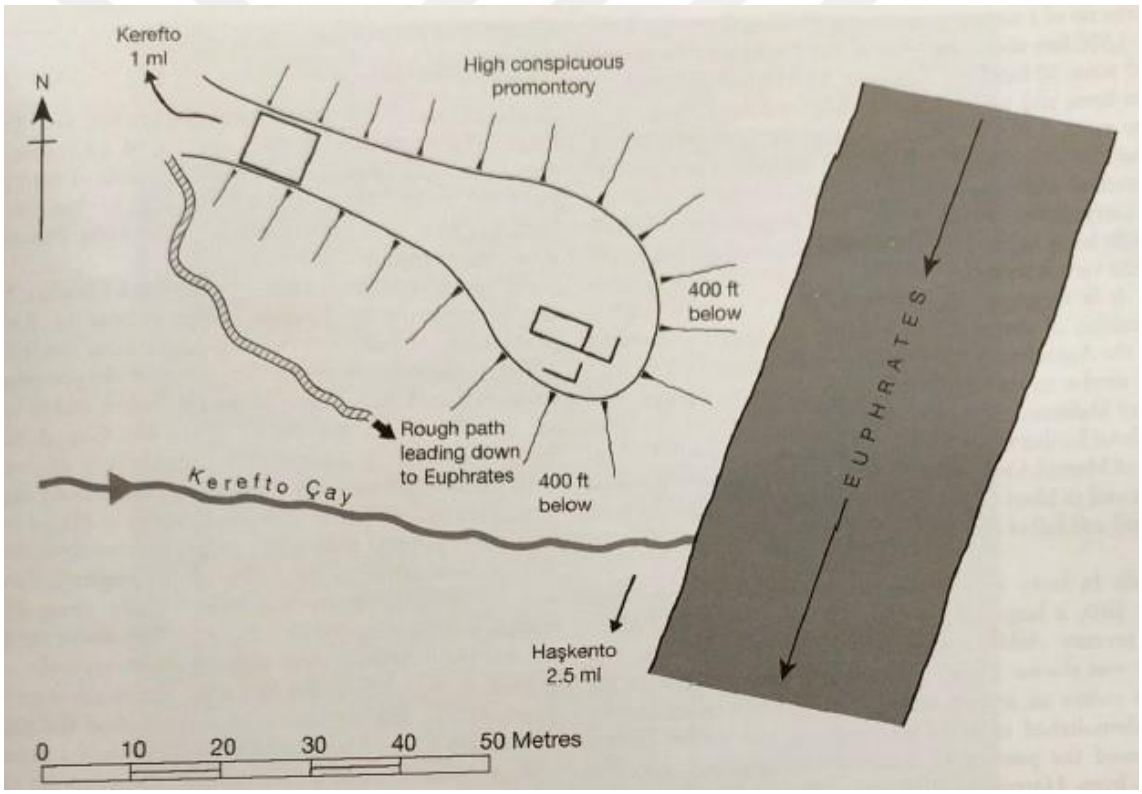

Figure 4.155. Kerefto watchtower[776]

[774] "Konurtay," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=23166&haritasi=konurtay.
[775] Mitford, *East of Asia Minor/ I,* 139-140.
[776] Mitford, *East of Asia Minor/ I,* 141.

4.2.3. Southern Part (Commagene + Syria)

Direk (Derik) Kale (*Lacotena*) | Sanctuary | Roman ?

Direk Kale is located in Fatih (former name: Yukarı Kaşgun)[777] neighbourhood in Sincik/ Adıyaman. It is approximately 40 kilometres northeast of the Adıyaman city centre, and 8 kilometres north of Septimus Severus Bridge on Cendere Stream. It is on a high hill overlooking Septimus Severus Bridge. Hoepfner described three structures side by side considered to be temples; the smallest one is 19 x 8 metres, the middle one is vaulted and is 22 x 17.5 metres, and the biggest one is 23.5 x 14 metres. There are also remains of capitals, friezes, and ionic and Corinthian capitals. Mitford suggested, based on Hoepfner that the Hellenistic cult centre of Direk Kale can be dated to between the middle and the end of the first century AD.[778] No intervention has been realized in a ruined state sanctuary (Figure 4.156).

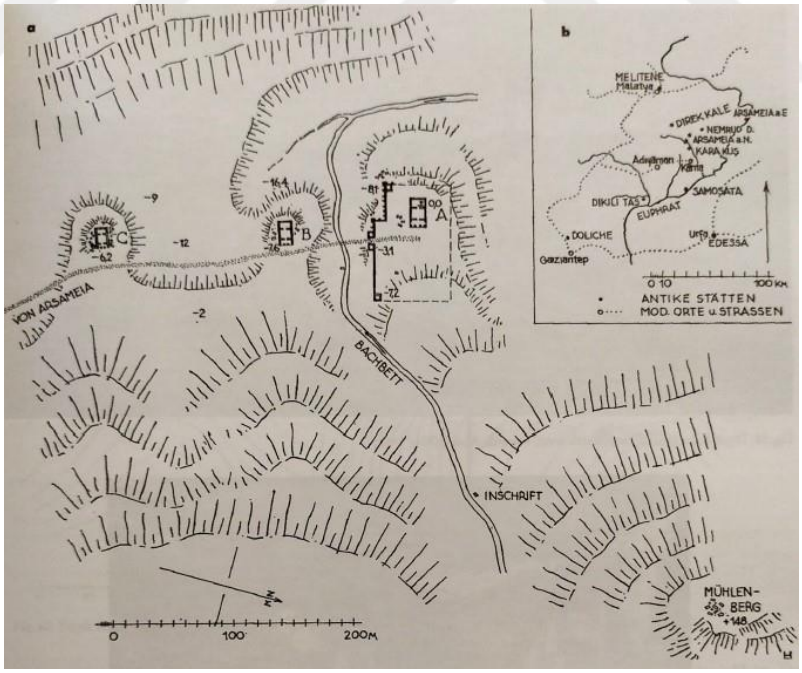

Figure 4.156. Lacotena[779]

[777] "Fatih," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=69361&haritasi=fatih.
[778] Mitford, *East of Asia Minor/ I,* 112-117.
[779] Mitford, *East of Asia Minor/ I,* 113.

Şeytan (Avat) | Bridge | Roman ?

Şeytan (Avat) Bridge is located in Eski Kahta (former name: Gaxtai (Syriac), Kocahisar (tr))[780] village of Kahta/ Adıyaman. It is on the Kahta Stream, on the skirt of Yeni Kale (New Fortress), and approximately 17 kilometres north of the Kahta district centre (Figure 4.157). The bridge has a single arch spanning the mouth of the gorge. Although the bridge was considered to have been built in the Ottoman period, due to the four lowest courses on the western abutment, Mitford suggested that it might have a Roman predecessor.[781] The bridge is in a good condition, and the crossing is provided with a new reinforced concrete bridge nearby. No intervention has been realized in the well-preserved bridge (Figure 4.158, 4.159).

Figure 4.157. Satellite image of Şeytan Bridge. Yenikale is on the north[782]

[780] "Eski Kahta," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=36307&haritasi=eskikahta.
[781] Mitford, *East of Asia Minor/ I,* 111.
[782] Google Earth, accessed December 20, 2023.

Figure 4.158. Şeytan Bridge. Yenikale is on the background[783]

Figure 4.159. Şeytan Bridge from Yenikale[784]

[783] "Adıyaman'da Gezilecek Yerler," En Uygun blog, accessed December 20, 2023, https://www.enuygun.com/bilgi/adiyaman-da-gezilecek-yerler-1/.
[784] Ö. D. Toköz, 20 August 2022.

Cendere (Septimus Severus) | Bridge | Roman

Cendere (Septimus Severus) Bridge is located in Burmapınar (former name: Darberi)[785] village of Kahta/ Adıyaman. It is approximately 35 kilometres northeast of the Adıyaman city centre (Figure 4.160). The bridge is on the Cendere *(Chabinas)* Stream. In the scope of PhD thesis study of Anthony Comfort completed at Exeter University in 2008, the bridge was surveyed and measured by him. The bridge has one arch with a diameter 34 metres, 120 metres in length and 7 metres in width. As understood from its inscription, it was built by Legio XVI Flavia Firma in 198-200 AD under Septimius Severus. It was on the road of Samosata to Malatya via the Euphrates, between the way stations of *Charmodara* and *Heba*.[786] The bridge has three columns (originally four) on each side, which were dedicated to the emperor, his wife Julia Domna and his sons, Caracalla and Geta. The column of Geta was removed by Caracalla later, after his assassination. The bridge also has original parapets.[787] The bridge was surveyed by the author in August 2022; it is one of the well-preserved examples of Roman bridges in the region. The river crossing is provided by a new modern bridge 280 metres east. The bridge was not damaged in the February 2023 Pazarcık and Elbistan earthquakes.[788] No intervention has been realized in the well-preserved bridge (Figure 4. 161, 4.162, 4.163).

Figure 4.160. Satellite image of Cendere Bridge[789]

[785] "Burmapınar," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?y=burmap%C4%B1nar&lv=&t=&cry=TR&ua=10.
[786] Comfort, "Roman bridges of South-East Anatolia," 335-336.
[787] Comfort, "Roads on the frontier between Rome and Persia," 86-87.
[788] "Romalılar malzemeden çalmamış," Gazete Duvar, accessed December 20, 2023, https://www.gazeteduvar.com.tr/romalilar-malzemeden-calmamis-harc-kullanmadan-insa-edilen-1800-yillik-cendere-koprusu-yikilmadi-haber-1605855.
[789] Google Earth, accessed December 20, 2023.

Figure 4.161. Cendere Bridge from south[790]

Figure 4.162. Cendere Bridge[791]

[790] Ö. D. Toköz, 20 August 2022.
[791] Ö. D. Toköz, 20 August 2022.

Figure 4.163. Inscriptions at column and parapet[792]

Geldibuldu (Karatilbe/ Tille) | Fort ? | Roman, Late Roman

Geldibuldu (former name: Karatilbe)[793] village is located in Kahta/ Adıyaman. Tille is located on the western bank of the Euphrates, and approximately 55 kilometres east of Adıyaman city centre. Rescue excavations were carried out at Tille within the scope of the Lower Euphrates Project under the direction of Dr. David French from BIAA in 1978-90 before it was submerged by Atatürk dam waters. While the first ancient settlement, dated to 4000-2000 BC, was limited to the area where the mound was located, then spread to the south of the mound during the Hellenistic and Roman periods. The structure with water channels, which is thought to be a Roman bath, was unearthed in the part that was destroyed during the construction of the highway. In addition, a large number of bricks stamped with Roman military units were found, so it is thought that a military unit was stationed in or around Tille. Three towers, which are thought to be

[792] Ö. D. Toköz, 20 August 2022.

[793] "Karatilbe," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?lv=2&y=Karatilbe&t=&srt=x&u=1&ua=0.

watchtowers, were discovered near and south of the village of Karatilbe, close to Tille. During the excavations, one of these towers was cleaned, and it was observed that it has a rhombohedron plan and corner tower. These watchtowers are thought to belong to the 4th century AD. Due to the high amount of tiles stamped Al(a) Fl(avia) Ag(rippiana) were found, the location of this unit is considered at or around Tille.[794] However, in 1981 excavation season, the location of the Roman military camp couldn't be determined. Only the Roman cistern could be excavated fully in that season.[795] Excavations were resumed in 1989 to locate the fort. The structure, thought to be a barrack building, was unearthed during the excavations started in the south corner of the bath. Three rooms, 3.5 metres wide and at least 23 metres long, with stone footings with mudbrick above, both faces were plastered, and lying in the east-west direction were unearthed.[796] Excavations continued in this part in 1990, but the possibility of a fort adjacent to the bath was abandoned because other structures belonging to the fort could not be discovered.[797] It was suggested by French that Tille might be Charmodara mentioned in the *Peutinger Table*[798], although Mitford preferred Çakıreşme might be *Charmodora*.[799]

Horis Kale | Fort | Roman, Late Roman ?

Hasköy (former name: Horis or Xoris (hy) later Yığınak (tr))[800] village is in Kahta/ Adıyaman, and the western bank of the Euphrates River. The village is approximately 47 kilometres east of the Adıyaman city centre. The ancient ruins of the settlement were submerged by the Atatürk Dam in 1992, and the village was moved to its present location with a new name, Hasköy. Rescue excavations were carried out at Horis Kale within the scope of the Lower Euphrates Project under the direction of Prof. Dr. Baki Öğün in 1978-79 before it was submerged by Atatürk dam waters. The fort is located on a hill overlooking the river, and 1 kilometres north of the village. The east, northeast, and southeast sides of the hill facing the river are very steep, and there is a defensive ditch built of bedrock in the west and northwest. There is a tunnel at the east that descends to

794 David H. French, "Tille Kazıları, 1979 [Tille Excavations, 1979]," in *Aşağı Fırat Pojesi 1978-1979 Çalışmaları [Lower Euphrates Project 1978-1979 Activities]* (Ankara: ODTÜ Aşağı Fırat Projesi Yayınları, Seri 1, No 3 [METU Lower Euphrates Project Publications, Series I, No 3], 1987), 303-309; French, "The Year's Work: Tille," (1980), 197-199.

795 French, "The Year's Work: Tille," (1982), 4.

796 Blaylock, "The Year's Work: Tille Höyük," 5-8.

797 Blaylock, "The Year's Work: Tille Höyük Excavation," 3-7.

798 French, Moore and Russell, "Excavations at Tille 1979-1982: An Interim Report," 161-187.

799 Mitford, *East of Asia Minor/ I*, 101.

800 "Hasköy," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=37268&haritasi=hask%C3%B6y.

the Euphrates, formed by carving the bedrock. The western and northern slopes were covered with rectangular limestone blocks to prevent landslides and to support the curtain walls. The stones on this side were mostly destroyed due to the removal of stones by the villagers, but the steep east side curtain walls with their rectangular and circular towers have been preserved until today. A large structure inside the fort found during the excavations has a 2 metres wall thickness as average, and was built from rectangular limestone blocks on the outside and rubble stones on the inside, and lime mortar was used as the binding material. Pottery belonging to the Anatolian Seljuks was found inside this structure. Two chamber tombs and sarcophagi were found on the rocks between the fort and the village. Due to the coin found in the sarcophagus, it was dated to the Hellenistic period. In the excavation report, no other dating information was given, but it was stated that besides the Anatolian Seljuks, Byzantine and Roman pottery were also found[801] (Figure 4.164, 4.165).

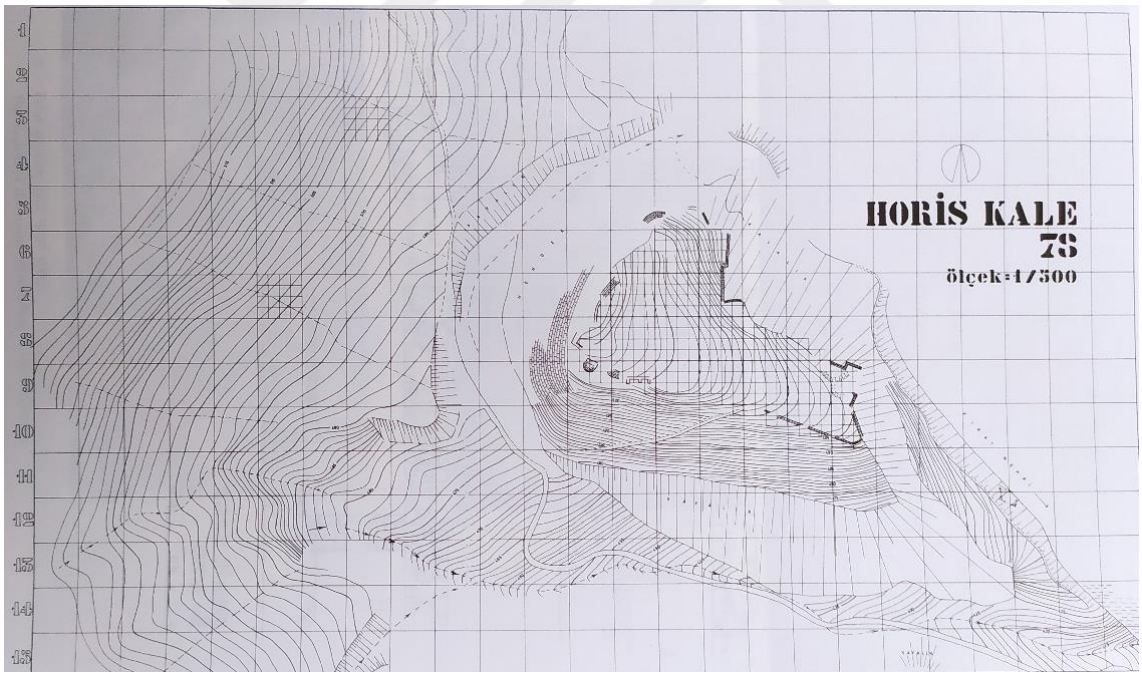

Figure 4.164. Horis Kale plan[802]

[801] Baki Öğün, "Horis Kale Kazıları, 1978-1979 [Horis Kale Excavations, 1978-1979]," in *Aşağı Fırat Pojesi 1978-1979 Çalışmaları [Lower Euphrates Project 1978-1979 Activities]* (Ankara: ODTÜ Aşağı Fırat Projesi Yayınları, Seri 1, No 3 [METU Lower Euphrates Project Publications, Series I, No 3], 1987), 145-152; Baki Öğün, "Recent Archaeological Research in Turkey: Horis Kale, 1978," *Anatolian Studies* 29 (1979), 199-200.

[802] Öğün, "Horis Kale Kazıları, 1978-1979 [Horis Kale Excavations, 1978-1979]," 145-152.

Figure 4.165. Horis kale from the west[803]

Çakıreşme (Kosan/ Kocan, *Charmodora ?*) | Fort ? | Roman ?

Çakıreşme (former name: Kosan (ku))[804] village is located in Kahta/ Adıyaman. It is approximately 39 kilometres southeast of the Adıyaman city centre, and 19 kilometres northeast of Samsat. It is on the western bank of the Euphrates. Mitford suggested that this place could be ancient Charmodora, and its location is logical for building a fort for the eastern protection of Samosata.[805] However, French suggested that Tille could be Charmodora.[806] No intervention has been realized in a ruined state fort.

Dikili (Lidar) | Fort ? | Roman, Late Roman

Dikili (former name: Lidar (tr), Ltar (hy))[807] neighbourhood is located in Hilvan/ Şanlıurfa. Lidar mound is located on the eastern bank of the Euphrates, and approximately 45 kilometres northwest of Şanlıurfa city centre. Rescue excavations were carried out at Lidar within the scope of the Lower Euphrates Project under the direction of Prof. Dr. Harold Hauptmann in 1978-79 before it was submerged by Atatürk dam waters. It forms a bridgehead with Samosata at the opposite ends of the Euphrates. A settlement continuity from the Chalcolithic period to the Ottoman period was identified at Lidar mound. Roman

803 Öğün, "Horis Kale Kazıları, 1978-1979 [Horis Kale Excavations, 1978-1979]," 145-152.
804 "Çakıreşme," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=915&haritasi=%C3%A7ak%C4%B1re%C5%9Fme.
805 Mitford, *East of Asia Minor/ I*, 101.
806 French, Moore and Russell, "Excavations at Tille 1979-1982," 161-187.
807 "Lidar," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?y=lidar&lv=&t=&cry=TR&ua=10.

and Byzantine period structures are mostly on the north terrace, where the Lidar village is located. The fort unearthed during the excavations belongs to the Medieval period. Different civilization coins belonging to such as the Artuqids, Ayyubids, and Anatolian Seljuks give information about the history of this border fort. It is thought that the fort was last used in the 13th century and then abandoned. Roman building levels could not be explored because the mound was submerged under Atatürk dam waters.[808]

Samsat *(Samosata)* | Legionary base/ fortified city with citadel | Roman, Late Roman

Samsat district was located in Adıyaman, which was the place of ancient Samosata. Samosata was the capital of the Commagene Kingdom, as well as being one of the legion garrisons during the Roman period. Samosata was one of the two most strategic crossing points of the Euphrates (the other is Zeugma). It is located on the western bank of the Euphrates, and approximately 33 kilometres southeastern of the Adıyaman city centre. After the village and mound were submerged by the Atatürk dam waters, the modern Samsat settlement was established in its current location. Rescue excavations were carried out within the scope of the Lower Euphrates Project under the direction of Prof. Dr. Nimet Özgüç in 1978-87. The ancient settlement consists of the city walls surrounding the flat lower city and the upper city built on the mound rising in the middle of this plain (Figure 4.166). The excavations started in the mound revealed that the Seljuk period towers and fortification walls were well-preserved and sitting on the Roman period fortification walls. In the middle of the mound, there is the palace thought to have been built by Mithridates, the king of Commagene.[809]

[808] Harald Hauptmann, "Lidar Höyük Kazıları, 1979 [Die Grabungen auf dem Lidar Höyük, 1979]," in *Aşağı Fırat Pojesi 1978-1979 Çalışmaları [Lower Euphrates Project 1978-1979 Activities]* (Ankara: ODTÜ Aşağı Fırat Projesi Yayınları, Seri 1, No 3 [METU Lower Euphrates Project Publications, Series I, No 3], 1987), 249-263; Harald Hauptmann, "Recent Archaeological Research in Turkey: Lidar Höyük, 1979," *Anatolian Studies* 30 (1980), 225-226.

[809] Nimet Özgüç, "1985 Yılında Yapılmış olan Samsat Kazılarının Sonuçları," in *VIII. Kazı Sonuçları Toplantısı* Cilt 1 (Ankara: T.C. Kültür ve Turizm Bakanlığı Eski Eserler ve Müzeler Genel Müdürlüğü, 1986), 297-304; Nimet Özgüç, "Samsat 1984 Yılı Kazıları," in *VII. Kazı Sonuçları Toplantısı* (Ankara: T.C. Kültür ve Turizm Bakanlığı Eski Eserler ve Müzeler Genel Müdürlüğü, 1985), 221-227; Nimet Özgüç, "Samsat Kazıları 1982," in *V. Kazı Sonuçları Toplantısı* (İstanbul: T.C. Kültür ve Turizm Bakanlığı Eski Eserler ve Müzeler Genel Müdürlüğü, 1983), 111-112.

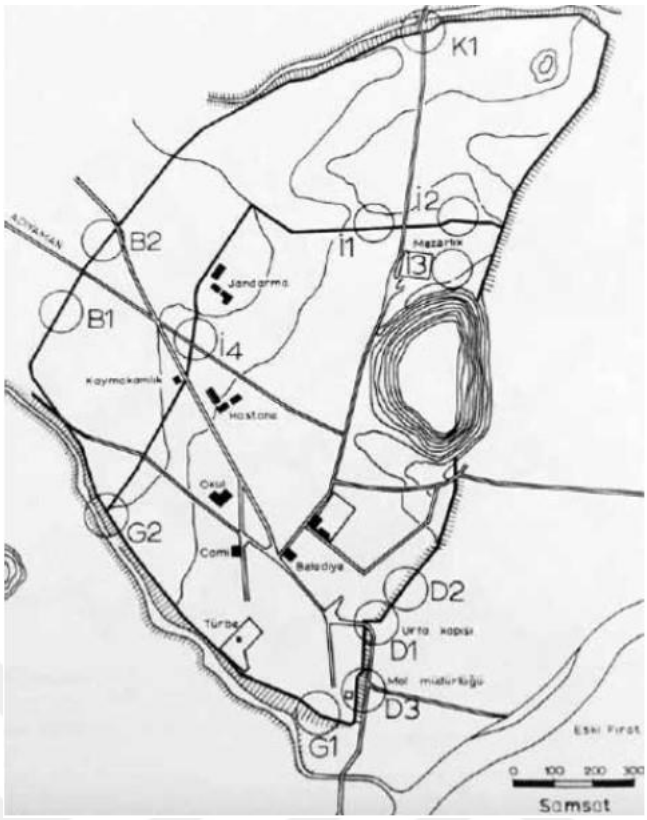

Figure 4.166. Samosata lower city walls[810]

The lower city walls extend along the Sütbulak Stream in the north, Samsat Stream in the south, the line formed by the high conglomerate layer in the east, and the hill skirts in the west. The lower city walls, which are about 5 kilometres long, were built mainly in the *opus caementicium* and covered with *opus reticulatum* technique. It is known that *opus caementicium* and *opus reticulatum* started to be used in the eastern provinces from the 1st century BC to the middle of the 1st century AD. Since it is also known that Legio XVI Flavia Firma was also deployed at Samosata in the Vespasian period, it was thought that the lower city walls were built in the last quarter of the 1st century AD in order to form a castrum for the legion. Although Prof. Dr. Naumann suggested that the lower city walls were built in 200 AD in connection with the Septimus Severus Bridge, this view was not adopted because of the wall technique and the history of the city's development; since it cannot be considered that the garrison on the important crossing point may not have been enclosed in the protection wall. *Qasi reticulatum,* which

[810] Tırpan, "Samosata Aşağı Şehir Sur Duvarları," 183-201.

is a lower technique than *opus reticulatum*, was used inside the towers. Apart from these, there are also later walls on which *opus testaceum* and *opus mixtum* were applied[811] (Figure 4.167).

Figure 4.167. City walls of Samosata[812]

Samsat *(Samosata)* | Aqueduct | Roman

Samsat- Samosata aqueduct research was carried out by Dr. Ülkü İzmirligil between 1978-82 within the scope of the project before it was submerged by the Atatürk dam waters. The Samosata aqueduct starts from the south bank of the Kahta (Nymphaios) Stream and the western bank of the Euphrates, and extends to the foothills of the Kalayun

811 Ahmet A. Tırpan, "Roman Masonry Techniques at the Capital of the Commagenian Kingdom," in *The Eastern Frontier of the Roman Empire. Proceedings of a colloquium held at Ankara in September 1988*, ed. David H. French and Chris S. Lightfoot. British Institute of Archaeology at Ankara Monograph No. 11 (Oxford: BAR International Series 553, 1989), 519-536; Ahmet A. Tırpan, "Samosata Aşağı Şehir Sur Duvarları," in *IV. Araştırma Sonuçları Toplantısı* (Ankara: T.C. Kültür ve Turizm Bakanlığı Eski Eserler ve Müzeler Genel Müdürlüğü, 1986), 183-201.

812 "Samosata," Vici.org, accessed December 20, 2023, https://vici.org/vici/2397/.

mountain. The aqueduct passes through the Belenli (former name: Pirut (hy))[813] and Çakıreşme (former name: Kosan (ku))[814] villages of Kahta, and the Tepeönü (former name: Gevrek/ Gavarak)[815] and Kovanoluk (former name: Biriman (ku))[816] villages of the Samsat district, and is approximately 40 kilometres long. The aqueduct is provided by arches in the stream beds, vaulted channels in the slopes between the stream beds, and tunnels carved into the rock in the rocky terrain. In the project, the sections of Zınar-ı Kazırka water channel carved into the rock, Hazak, Kara Mehmet, Nali Pra, Kulpusik, Kosan Aşutik, Alaköprü Aşutik, Momece, Nolinovi aqueducts in Çakıreşme village; Heri, Gelli, Kanısipi (Beyaz Pınar), Musiherdi, Piri Haraba (Harabe Deresi), Delavi Hınzır, Pirimiçe, Piri Bridge, Kuşkuş Stream aqueducts and Zınar-ı Kuve water channel carved into the rock in Tepeönü village; Çambeyi and Gevrik aqueducts in Kovanoluk village were documented. According to the construction technique, it was observed that local stones provided from nearby the aqueduct were used. Due to the lack of large cut stones in the terrain, only the abutment of the arches and spring were built of large cut stone blocks, and the remains of the arches were built of rough-cut small stones. Repairs and supporting walls were built in later periods along the aqueduct, but the infills of the arches were built mostly in the same period as the arches. Prof. Dr. Naumann suggested that the aqueduct may have been built in the Septimus Severus period, considering the historical development of the city. From the inscription found at the mouth of the carved into tunnel on the southern slope of the Kara Mehmet Stream, it was determined that the aqueduct was used at the end of the 5th - beginning of the 6th century[817] (Figure 4.168).

[813] "Belenli," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=910&haritasi=belenli.

[814] "Çakıreşme."

[815] "Tepeönü," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=1061&haritasi=tepe%C3%B6n%C3%BC.

[816] "Kovanoluk," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=1055&haritasi=kovanoluk.

[817] İzmirligil, "Samosata (Samsat) Su Yolu Araştırması- 1982," 21-23; İzmirligil, "Samsat (Samosata) Su Yolu Araştırması, 1981," 345-356; Ülkü İzmirligil, "Samosata (Samsat) Su Yolu Araştırması (1978-1979) [The Samosata (Samsat) Aqueduct Investigatins, 1978-1979]," in *Aşağı Fırat Pojesi 1978-1979 Çalışmaları [Lower Euphrates Project 1978-1979 Activities]* (Ankara: ODTÜ Aşağı Fırat Projesi Yayınları, Seri 1, No 3 [METU Lower Euphrates Project Publications, Series I, No 3], 1987), 281-289.

Figure 4.168. Alaköprü Aşutik aqueduct[818]

Samsat *(Samosata)* | River Crossing | Roman ?

Samsat was one of two major crossing points on the Euphrates. The crossing was especially used by Trajan and Septimus Severus for eastern campaigns. In the Valerian period, the headquarters of the emperor was briefly located at Samosata to protection of the crossing.[819]

Örenli *(Perre)* | City | Roman, Late Roman

Ancient Perre (former name: Pirin/ Pirun)[820] is located Örenli neighbourhood of Adıyaman. It is approximately 3 kilometres northeast of the Adıyaman city centre (Figure 4.169). Perre was one of the four cities of the Commagene Kingdom (the others were Samosata, Doliche and Germaniceia). Perre had geopolitical importance because it is on the road route connecting Melitene to the capital Samosata. The city had a large necropolis area. Rescue excavations conducted by Archaeologist Fehmi Erarslan in the

[818] İzmirligil, "Samosata (Samsat) Su Yolu Araştırması (1978-1979) [The Samosata (Samsat) Aqueduct Investigatins, 1978-1979]," 281-289; Mitford, *East of Asia Minor/ I,* 88-91.
[819] Mitford, *East of Asia Minor/ I,* 87.
[820] "Perre," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?y=perre&lv=&t=&cry=TR&ua=10.

directorship of Adıyaman Museum were started in 2001. In the first excavations, a part of the carved into rock necropolis, which is dated from the Late Hellenistic period to Early Byzantine, was unearthed. The necropolis was used as a quarry in later periods.[821] Following rescue excavations continued until 2009, in the necropolis, wine and olive oil workshops, and a villa with mosaics dated to the 2nd century AD.[822] Seasonal excavations were started in 2020 and conducted by the Adıyaman Museum under the directorship of Archaeologist Assoc. Prof. Dr. Kahraman Yağız, again in the necropolis and Roman fountain and public structure north of it in the nearby Örenli village.[823] The remains in Perre were not damaged in the February 2023 Pazarcık and Elbistan earthquakes[824] (Figure 4.170).

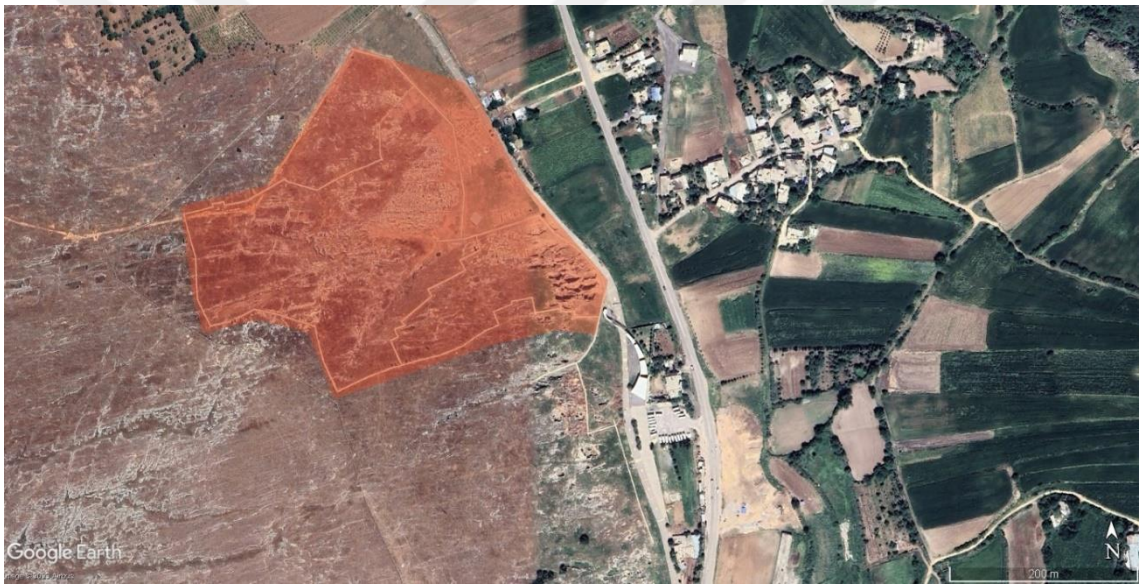

Figure 4.169. Satellite image of Perre archaeological site. Örenli village is on the east[825]

821 Fehmi Erarslan, "Perre Antik Kenti Nekropol Alanı Kaya Mezarları Kurtarma Kazısı," in *13. Müze Çalışmaları ve Kurtarma Kazıları Sempozyumu* (Ankara: Kültür Bakanlığı DÖSİMM Basımevi, 2003), 129-136.

822 Fehmi Erarslan, Turgut H. Zeyrek, Recep Özman, Fuat Şancı, Enver Akın, Muhammet Arslan, Mehmet Alkan, Mehmet Nuri Karaca, and Muhammet Sunullah Koca, "Perre Antik Kenti Nekropol Alanı 2009 Yılı Kazı ve Temizlik Çalışmaları," in *19. Müze Çalışmaları ve Kurtarma Kazıları Sempozyumu* (Ankara: T.C. Kültür ve Turizm Bakanlığı, 2011), 363-377.

823 Yağız, Alkan, and Tosun, "Perre 2021 Kazıları," 341-356.

824 "Perre Antik Kenti depremi hasarsız atlattı, karşılama merkezi çatısı hariç!," Arkeolojik Haber, accessed December 20, 2023, https://www.arkeolojikhaber.com/haber-perre-antik-kenti-depremi-hasarsiz-atlatti-karsilama-merkezi-catisi-haric-36408/.

825 Google Earth, accessed December 20, 2023.

Figure 4.170. Carved into rock tombs[826]

Örenli *(Perre)* | Bridge | Roman ?

There is a bridge near Perre on the Ziyaret Stream. The upper structure of the bridge was renewed in a recent period. The bridge is approximately 19 metres long, and 3.3 metres wide. It has three arches of unequal size. The western abutment was built on bedrock, and two of the ancient courses have survived. The main arch sprang from it is 7.3 metres long. The main pier is approximately 2.83 metres long and square, and five courses have survived. There are seven survived courses built without mortar on the second pier. Mitford suggested that the bridge might be dated to the Roman period.[827] The superstructure of the bridge was renewed with reinforced concrete (Figure 4.171).

[826] Ö. D. Toköz, 19 August 2022.
[827] Mitford, *East of Asia Minor/ I*, 105-106.

Figure 4.171. Bridge near Perre[828]

Göksu (Kızılin) | Bridge | Roman

Göksu (Kızılin) Bridge is located in Kızılin village of Besni/ Adıyaman. It is on the Göksu (Singas) Stream and 3 kilometres from its confluence with the Euphrates (Figure 4.172). The bridge is approximately 3.83 kilometres northeast of Kızılin and 37 kilometres southwest of the Adıyaman city centre. According to Comfort, it had one central large arch with a diameter of approximately 30 metres, and two small arches on the sides, 60 metres in length and 10 metres in width. It was on the road from Doliche to Samosata with the nearest way-station *Tarsa*.[829] The middle of the bridge was destroyed in the 19th century, and was partially reconstructed and consolidated by the 8th Regional Directorate of Highways in 2020.[830] The bridge was surveyed by the author in August 2022. The bridge was not damaged in the February 2023 Pazarcık and Elbistan earthquakes[831] (Figure 4.173, 4.174).

828 Mitford, *East of Asia Minor/ I,* 106.

829 Comfort, "Roman bridges of South-East Anatolia," 336-337; Comfort, "Roads on the frontier between Rome and Persia," 87-89.

830 "Besni Kızılin Köprüsü'nün restorasyonu tamamlandı," Arkeolojik Haber, accessed December 20, 2023, https://www.arkeolojikhaber.com/haber-besni-kizilin-koprusunun-restorasyonu-tamamlandi-27271/#google_vignette.

831 "Adıyaman'daki tarihi Kızılin Köprüsü depremde zarar görmedi," TRT Haber, accessed December 20, 2023, https://www.trthaber.com/haber/turkiye/adiyamandaki-tarihi-kizilin-koprusu-depremde-zarar-gormedi-760869.html.

Figure 4.172. Satellite image of Kızılin Bridge[832]

Figure 4.173. Göksu (Kızılin) Bridge after destruction[833]

[832] Google Earth, accessed December 20, 2023

[833] "Bir Tarih yeniden Ayağa kalkıyor," Besni Ekspres, accessed December 20, 2023, https://besniekspres.com/haber/bir-tarih-yeniden-ayaga-kalkiyor-1715.html.

Figure 4.174. Kızılin Bridge after partial reconstruction[834]

Çiftekoz | River Crossing | Roman ?

Çiftekoz neighbourhood is located in Araban/ Gaziantep, in the close vicinity of Tarlabaşı neighbourhood. Here, there are ancient steps to a ford of the Euphrates, which can be related to tracks with Habeş and Süpürgüç bridges, as well as many ancient tombs, cisterns and a square underground structure that is thought to have been used as a mill. In Sırataşlar neighbourhood of Halfeti/ Şanlıurfa opposite the river, there is a cart-track going down to the river, along with many cisterns and a structure that could be a caravanserai.[835]

Tarlabaşı | River Crossing | Roman ?

Tarlabaşı (former name: Kotal/ Rumevlek)[836] neighbourhood is located in Araban/ Gaziantep. It is on the western bank of the Euphrates, very close to the junction of the Karasu Stream with the Euphrates, and approximately 23 kilometres east of Araban,

834 Ö. D. Toköz, 19 August 2022.
835 Comfort, Abadie-Reynal, and Ergeç, "Crossing the Euphrates in antiquity," 119.-121.
836 "Tarlabaşı," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=14262&haritasi=tarlaba%C5%9F%C4%B1.

65 kilometres northeast of the Gaziantep city centre. There are bridge remains of nearby Süpürgüç and Habeş, which routes can be followed. It was stated by 19th century travellers that the river was crossed here by inflated animal skins.[837]

<u>Süpürgüç</u> (Septimus Severus/ Kırık) | Bridge | Roman

Süpürgüç Bridge is located in Akbudak (former name: Süpürgüç (hy))[838] neighbourhood of Araban/ Gaziantep. The bridge is on the Karasu (Aşağımülk) Stream, and 5.2 kilometres northwest of its junction with Euphrates. It is 3.6 kilometres southwest of Akbudak neighbourhood and 62 kilometres northeast of the Gaziantep city centre (Figure 4.175). The bridge probably had six arches originally, approximately 75 metres in length. It was on the road from Doliche to Samosata, between the way stations of *Sugga* and *Tarsa*.[839] Wagner stated that he found roof tiles of Legio IV Scythica nearby the bridge, which indicates it was built probably at the same time with the Septimus Severus and Kızılin bridges. The bridge was repaired by Sultan Murad IV (1623 to 1640).[840] The bridge, whose abutments and one arch have survived, was partially reconstructed and consolidated by the Regional Directorate of Highways in 2015-2017[841] (Figure 4.176).

Figure 4.175. Satellite image of Süpürgüç Bridge[842]

837 Comfort, Abadie-Reynal, and Ergeç, "Crossing the Euphrates in antiquity," 119.-121.
838 "Süpürgüç," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?y=s%C3%BCp%C3%BCrg%C3%BC%C3%A7&lv=&t=&cry=TR&ua=10.
839 Comfort, "Roman bridges of South-East Anatolia," 338.
840 Comfort, "Roads on the frontier between Rome and Persia," 89-90.
841 "Gaziantep'teki Roma Köprüsünün Yerine Yenisi Yapıldı," Arkeofili, accessed December 20, 2023, https://arkeofili.com/gaziantepteki-roma-koprusunun-yerine-yenisi-yapildi/.
842 Google Earth, accessed December 20, 2023.

Figure 4.176. Süpürgüç Bridge before partial reconstruction and consolidation, and after partial reconstruction and consolidation in 2017[843]

Habeş | Bridge | Roman

Habeş Bridge is located between Hisarköy and Tarlabaşı (former name: Kotal/ Rumevlek)[844] neighbourhoods of Araban/ Gaziantep. It is on the junction of the Karasu (Aşağımülk) Stream with Euphrates. The bridge is 22 kilometres southeast of Araban. According to Comfort, it is approximately 40 metres in length and 5 metres in width. It was on the road of Sura-Zeugma-Samosata with the way station *Ad ponte Singe* probably.[845] There is an inscription read "Legio IIII Schyt Operosa Felix" on a nearby quarried rock-face which indicates the bridge could have been built during the Severan period by Legio IV Scythica, whose base was at Zeugma. The bridge was submerged by Birecik Dam in 2000; however, its inscription is still above water[846] (Figure 4.177, 4.178).

843 "Tarihi yapı restorasyona girdi, fayans olarak çıktı," Sözcü, accessed December 20, 2023, https://www.sozcu.com.tr/hayatim/yasam-haberleri/tarihi-yapi-restorasyona-girdi-fayans-olarak-cikti/.; Tarihi yapı restorasyona girdi, fayans olarak çıktı."

844 "Tarlabaşı."

845 Comfort, "Roman bridges of South-East Anatolia," 338.

846 Anthony Comfort, "Legio IIII Scythica," *Zeitschrift Für Papyrologie Und Epigraphik* 138, (2002): 275–76; Comfort, "Roads on the frontier between Rome and Persia," 92-93; Mitford, *East of Asia Minor/ I,* 94.

Figure 4.177. Habeş Bridge[847]

Figure 4.178. Habeş Bridge inscription[848]

[847] Comfort, "Roads on the frontier between Rome and Persia," 93.
[848] Anthony Comfort, "Legio IIII Scythica," 275.

Bozyazı | Fortress | Roman ?

Bozyazı Fortress is located approximately 1.7 kilometres northwest of Bozyazı (former name: Bazur/ Bazir (ku))[849] neighbourhood in Halfeti/ Şanlıurfa. It is on the eastern bank of the Euphrates, 16 kilometres northwest of new Halfeti, 80 kilometres northwest of the Şanlıurfa city centre, and 5.5 kilometres north of Elif Fortress on the opposite bank of the Euphrates (Figure 4.179). The fortress was built on an area consisting of three parallel ridges descending towards the river. The long thin fortress was positioned on the ridge closest to the river, facing the mule track going down to the river. It had an underground room with an arched roof hidden on the river side, and traces of a circular room at the top.[850] No intervention has been realized in a ruined state fortress.

Figure 4.179. Satellite image of Bozyazı Fortress[851]

Elif (Kaleboyu) | Fortress | Roman ?

Kaleboyu is located approximately 3.8 kilometres southwest of Elif neighbourhood in Araban/ Gaziantep. It is on the western bank of the Euphrates,

[849] "Bozyazı," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=32811&haritasi=bozyaz%C4%B1.
[850] Comfort, "Roads on the frontier between Rome and Persia," 330; Comfort and Ergeç, "Following the Euphrates in antiquity," 28.
[851] Google Earth, accessed December 20, 2023.

approximately 18 kilometres southeast of the Araban district centre, and 5.5 kilometres south of Bozyazı Fortress on the opposite bank of the Euphrates. The fortress is located on a high plateau to the west of the Euphrates. Probably it was protecting the crossing and maybe the pontoon bridge towards Gözeli (former name: Ayni/ Aynixalil (ku, ar), Hayni (hy) – former village was submerged by dam waters, and the new settlement was located at a higher point with a new name)[852] neighbourhood of Halfeti/ Şanlıurfa. There are projecting tower remains with a square plan on the main wall, also traces of possibly the main gateway carved into the bedrock.[853] No intervention has been realized in a ruined state fortress.

Gözeli | River Crossing | Late Roman ?

Gözeli (former name: Ayni/ Aynixalil (ku, ar), Hayni (hy))[854] neighbourhood is located in Halfeti/ Şanlıurfa. It is approximately 82 kilometres northwest of the Şanlıurfa city centre. It is on the eastern bank of the Euphrates; the old village was submerged by Birecik dam waters, and the modern neighbourhood was settled at the current location nearby. On the western bank of the Euphrates, opposite Gözeli, there is an Assyrian relief of Shalmaneser III, near the top of the cliff. At this point, it is possible to cross the river when the water level is low. Under the Assyrian relief, there is a statue of the Roman river god and an inscription stating that an "opus cochli" (a type of mechanism made of screws) was constructed by the legions during the Vespasian period. This mechanism has been interpreted as a system that allows adjusting the water level in the river and enabling crossing by raising the water level. However, since the cliffs are very high on both banks and the river frequently overflows, a pumping system that will raise the river level does not seem possible. Moreover, there are no traces of this mechanism, which was expected to be made of wood. Therefore, it was thought that as an alternative, boats could be towed with a pulley and cable system installed on both sides. However, traces of the pulley system have not been found on either side, and although it is confirmed that this system was invented by Archimedes, no example is known of the Romans using this method to carry loads.[855]

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[852] "Gözeli," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=32818&haritasi=g%C3%B6zeli.

[853] Comfort, "Roads on the frontier between Rome and Persia," 330-331; Comfort and Ergeç, "Following the Euphrates in antiquity," 27.

[854] "Gözeli."

[855] Comfort, Abadie-Reynal, and Ergeç, "Crossing the Euphrates in antiquity," 115-119; Mitford, *East of Asia Minor/ I*, 94.

Gözeli | Watchtower | Late Roman ?

2 kilometres away from the Gözeli, there is a structure built of rubble stones without mortar, thought to be a watchtower. This watchtower is one of the rare military structures between Zeugma and Gözeli. Although it cannot be dated precisely, it is thought to belong to the Medieval period or more recently.[856] No intervention has been realized in the moderately preserved watchtower (Figure 4.180).

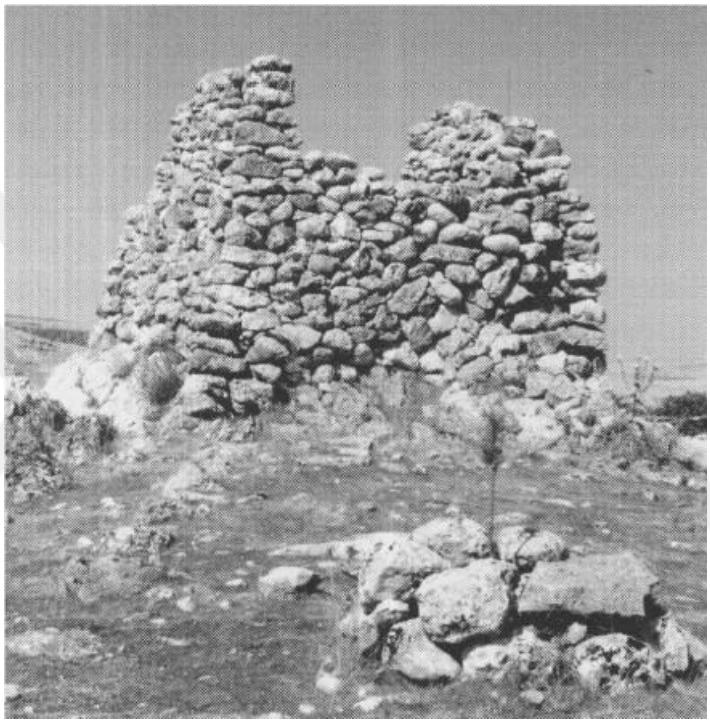

Figure 4.180. Gözeli watchtower[857]

Yarımca | Bridge | Roman

Yarımca Bridge is located in Yarımca neighbourhood in Yavuzeli/ Gaziantep. It is on the Merziman Stream. The bridge is approximately 1.5 kilometres southeast of the neighbourhood and 40 kilometres northeast of the Gaziantep city centre (Figure 4.181). According to Comfort, the bridge has one arch, approximately 23.5 metres in length and 7.1 metres in width. It was on the road from Doliche to Samosata, with the nearest way

[856] Comfort and Ergeç, "Following the Euphrates in antiquity," 33.
[857] Comfort and Ergeç, "Following the Euphrates in antiquity," 32.

station *Sugga*.[858] No intervention has been realized in the moderately preserved bridge (Figure 4.182).

Figure 4.181. Satellite image of Yarımca Bridge[859]

Figure 4.182. Yarımca Bridge[860]

[858] Comfort, "Roman bridges of South-East Anatolia," 339; Comfort, Abadie-Reynal, and Ergeç, "Crossing the Euphrates in antiquity," 117.
[859] Google Earth, accessed December 20, 2023.
[860] "Yavuzeli Yarımca Köyü Resimleri," Köylerim, accessed December 20, 2023, https://www.koylerim.com/yavuzeli-yarimca-koyu-resimleri-28886g.htm.

Yarımca | Watchtower | Roman ?

There is a well-preserved structure thought to be a watchtower some kilometres southwest of Yarımca neighbourhood of Yavuzeli/ Gaziantep. It is located approximately 22 kilometres west of Rumkale. The structure has a square plan of approximately 4.5 square metres, and seven courses of large rectangular cut-stone blocks are on the surface. Its door is 112 centimetres long and 150 centimetres wide and has a slot for a metal bar to lock the door. It probably dates back to the Hellenistic or Roman period and is thought to have been built on the road from Doliche to Samosata.[861] No intervention has been realized in the moderately preserved watchtower (Figure 4.183).

Figure 4.183. Yarımca watchtower[862]

Rumkale | Fortress | Late Roman ?

Rumkale (former name: Hesno d'Rhomaye (Syriac), Hromgıla [Romkıla] (hy), Qalʿat er-Rûm (ar))[863] is an ancient city located on Nizip/ Gaziantep. It is on the junction of the Merziman Stream with the Euphrates. It is approximately 47 kilometres northeast

[861] Comfort, "Roads on the frontier between Rome and Persia," 93, 151, 358, 363; Comfort, Abadie-Reynal, and Ergeç, "Crossing the Euphrates in antiquity," 117; Comfort and Ergeç, "Following the Euphrates in antiquity," 46.

[862] Comfort, Abadie-Reynal, and Ergeç, "Crossing the Euphrates in antiquity," 118.

[863] "Rumkale," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=47065&haritasi=rumkale.

of the Gaziantep city centre (Figure 4.184). Rumkale was the seat of the Armenian Patriarchate in the 12th century. Although the current appearance of the fortress is dated to the Mamluk period, it is thought that there was a Late Roman predecessor, especially due to the ditches carved into the rock at the neck of the peninsula where the fortress is located. Also, probably the ancient river crossing was here. Before the waters rose through the dam lake, there was a river crossing with pebbles which still in use. In addition to the abutments of the Roman bridge, there are also the remains of aqueducts that can have the Roman predecessor.[864] No intervention has been realized in the moderately preserved fortress (Figure 4.185).

Figure 4.184. Satellite image of Rumkale Fortress[865]

[864] Comfort, "Roads on the frontier between Rome and Persia," 331-332; Comfort and Ergeç, "Following the Euphrates in antiquity," 37.
[865] Google Earth, accessed December 20, 2023.

Figure 4.185. Rumkale fortress[866]

Rumkale | Bridge | Roman

Rumkale Bridge is located on Nizip/ Gaziantep. The bridge is on the junction of the Merziman Stream with Euphrates. It is approximately 47 kilometres northeast of the Gaziantep city centre and within the Rumkale (former name: Hesno d'Rhomaye (Syriac), Hromgıla [Romkıla] (hy), Qalʿat er-Rûm (ar))[867] ancient settlement. According to Comfort, the bridge had probably one arch with a diameter of approximately 20 metres, and 50 metres in length, and dated to the Roman period. It was on the road of Soura-Samosata along the Euphrates originally, later a local road for a fortified point on the site of Rumkale with the probable way station *Arulis*.[868] Because of the Birecik dam, the water level of the river has increased, the bridge was submerged, and transportation is provided by boats on the river (Figure 4.186).

[866] "Nizip Rumkale," Nizip Belediyesi, accessed December 20, 2023, https://www.nizip.bel.tr/nizip/rumkale.

[867] "Rumkale."

[868] Comfort, "Roads on the frontier between Rome and Persia," 95-96; Comfort, "Roman bridges of South-East Anatolia," 339-340; Mitford, *East of Asia Minor/ I*, 96.

Figure 4.186. Rumkale Bridge[869]

Rumkale | River Crossing ? | Roman ?

Rumkale is located at the junction of the Merzumen and Euphrates, 26 kilometres north of Zeugma. It seems possible to cross the river here when the water level is low. Although wheeled traffic is currently impossible under Rumkale due to the lack of flat land, there are traces that the rock under the fortress was carved for passage. Also, there are remains of a Roman bridge under the fortress.[870]

Halfeti | River Crossing ? | Roman ?

The old Halfeti (former name: Xalfeti (ar))[871] district is located in Şanlıurfa. It is on the eastern bank of the Euphrates, and approximately 4 kilometres southeast of Rumkale, 85 kilometres west of the Şanlıurfa city centre. Half of the old Halfeti was submerged by Birecik dam waters, and the new district centre was moved to 7 kilometres of inner land on the east where Karaotlak neighbourhood located. It is thought that Freya Stark, who was carried to Rumkale on a flat-bottomed boat in 1908, crossed the opposite bank from Halfeti. Similarly, Hogart crossed the Euphrates from Halfeti by ferry during a flood in 1896.[872]

869 Comfort, "Roads on the frontier between Rome and Persia," 96.

870 Comfort, Abadie-Reynal, and Ergeç, "Crossing the Euphrates in antiquity," 113-115; Mitford, *East of Asia Minor/ I*, 95.

871 "Halfeti," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?y=halfeti&lv=&t=&cry=TR&ua=10.

872 Comfort, Abadie-Reynal, and Ergeç, "Crossing the Euphrates in antiquity," 119.-121; Stark, *Rome on the Euphrates*, 110.

Yukarıçardak | Watchtower | Roman ?

Yukarçardak neighbourhood is located in Nizip/ Gaziantep. It is on the western bank of the Euphrates. It is approximately 43 kilometres northeastern of the Gaziantep city centre, and 15 kilometres south of Rumkale. Mitford mentioned a Roman watchtower on the bend observing the Anik Stream valley but without giving any further details.[873] No intervention has been realized in a ruined state watchtower.

Dülük *(Doliche)* | Sanctuary | Roman, Late Roman

Ancient Doliche is located on Keber Tepe in the modern Dülük neighbourhood of Gaziantep, which is 10 kilometres north of the Gaziantep city centre. Excavations have been carried out under the direction of Dr. Michael Blömer from Westfälische Wilhelms Universität Münster since 2003. The temple of Jupiter Dolichenus is located on the highest Dülük Baba Hill in the south.[874] The worship in the sanctuary began in the 1st millennium BC, and there was an increase in the Persian Period. Although there is no information about Doliche in the Hellenistic Period, it is thought that the city was under the rule of the Seleucids before. The city was included in the Commagene Kingdom for a short time in the 1st century BC, and in the Roman province of Syria in 30 BC. Doliche was captured by Sapor I in 253 AD and became a diocese in the 4th century AD. After it was captured by the Arabs, the city became an Umayyad and Abbasid frontier stronghold. When the Byzantine Empire took the city back in 962 AD, it became the capital of the frontier province, and then it became the fortress of Edessa (Urfa) Crusader County. It was plundered by the Seljuks in 1156 AD. In addition to the temple of Jupiter Dolichenus, there are two Mithras temples carved into the rocks on the western slope of the Keber Till, a 4th century AD church on the south slope, and a rock-cut necropolis on the Dülük Baba hill, and two rock churches thought to date back to the 6th century AD.[875]

[873] Jörg Wagner, "Provincia Osrhoenae. New archaeological finds illustrating the military organisation under the Severan dynasty," in *Armies and Frontiers in Roman and Byzantine Anatolia: Proceedings of a Colloquium held at University College, Swansea in April 1981,* ed. Stephen Mitchell. British Institute of Archaeology at Ankara Monograph No. 5 (Oxford: BAR International Series 156, 1983), 103-129; Mitford, *East of Asia Minor/ I,* 96.

[874] Güllüce, Blömer, and Winter, "Forschungen in Doliche 2003," 53-62.

[875] Blömer and Çobanoğlu, "Doliche Yamaç Kilisesi ve Diğer Dini Yapıları," 43-75.

Belkıs *(Zeugma)* | Legionary base/ fortified city | Roman, Late Roman

Seleucia at the Zeugma, or Zeugma after 1st century BC at Belkıs village in Nizip/ Gaziantep and Apamea at Keskince (former name: Tıl Musa (ar))[876] in Birecik/ Şanlıurfa constitute twin cities for bridge-head at two sides of the Euphrates (Figure 4.187). While Zeugma is on the western bank of the Euphrates, Apamea is on the eastern bank. It is thought that these twin cities were founded in 300 BC by Seleucus I Nicator. With the completion of the Birecik Dam in 2000, Zeugma and Belkıs village were partially, Apamea and Keskince village completely submerged, then Belkıs and Keskince were relocated to their present locations. Zeugma is approximately 10 kilometres northeast of Nizip. Zeugma was one of the locations that have been searched during the Euphrates and Tigris Archaeological Reconnaissance Project carried out under the direction of Dr. Guillermo Algaze of the Oriental Institute of Chicago University began in 1988. Legio IV Scythica stamped tiles were found in the first investigations at Zeugma in the 1989 season.[877] With the understanding of the importance of Zeugma, a rescue excavation was started in 1993 by museum director Dr. Rıfat Ergeç from the Gaziantep Museum and with the support of BIAA, under the project manager of Dr. David Kennedy from the University of Western Australia and excavation manager of Philip Freeman from University of Glasgow. In the excavations operated in six areas, mosaic floors inside large masonry walls, numerous tesserae, terracotta pipes in-situ, painted plaster on the walls, well-preserved cistern, and rock-cut tombs were discovered.[878] After the survey in 1995, excavations in Zeugma were started by the French-Turkish team in 1996 and continued until 2000, when its submersion. Excavations were conducted under the directorship of Prof. Dr. Catherine Abadie-Reynal with the support of IFEA. In this period, the settlement development of Zeugma and Apamea, Roman and Hellenistic period structures, bath complex, villa architecture, and the location of the Euphrates crossing were tried to be understood, and the mosaics found in large quantities in the villas were removed to the museum.[879] Research on Roman military history at Zeugma was initiated by M. Hartmann

[876] "Keskince," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=32721&haritasi=keskince.

[877] Algaze and Rosenberg, "The Tigris-Euphrates Archaeological Reconnaissance Project, 1989," 137-161; Lightfoot, "The Year's Work: Euphrates and Tigris Archaeological Reconnaissance Project 1989," 19-24.

[878] David Kennedy and Philip Freeman, "The Year's Work: Zeugma 1993," *Anatolian Studies* 44 (1994), 18-20; Rıfat Ergeç, "1993-1994 Belkıs/ Zeugma Kurtarma Kazıları," in *VI. Müze Kurtarma Kazıları Semineri* (Ankara: T.C. Kültür Bakanlığı Milli Kütüphane Basımevi, 1996), 357-369.

[879] Abadie-Reynal and Ergeç, "Zeugma-Moyenne Vallee de L'euphrate Rapport Preliminaire de la Campagne de Fouilles de 1997," 379-406.

and M. A. Speidel in 2000 with the support of the universities of Bern and Lausanne. The investigations to locate the Roman military fortress were carried out at two locations; the first is the western slopes of the Zeugma, where the Legio IV Scythica stamped tiles are dense, and Wagner suggested that the probable location of the camp; the second is the flat area east of the Belkıs village, which was also confirmed by the Russian satellite photos. As a result of the trial trenches, it was thought that there were at least two Roman military camps dated to the first half of the 1st century AD with internal structures built of dried mudbricks in the area to the east of the Belkıs.[880] Since these structures were built temporarily and were used for a short time, it is thought that there were no other large and permanent military camp in Zeugma at that time. In 2002 and 2003, surveys were conducted to determine the permanent fortress of Legio IV Scythica at northwest of Belkıs Tepe, which was named as "At Meydanı", where lots of legion stamped tiles and inscriptions were found (Figure 4.188). In the geophysical study conducted by Prof. Dr. Mahmut Drahor from Izmir Dokuz Eylül University, gradiometry and resistivity were applied.[881] As a result of the study, the picture obtained from the gradiometric data shows the rectangular outline of a structure that has the characteristics of a Roman military camp. However, due to the size of the structure, the difficult-to-use terraced area, and the absence of soldiers' graveyard other than the western necropolis, it was thought that this structure was not a permanent camp of Legio IV Scythica. However, trial trenches were opened at the site of the survey and walls built of large stone blocks with foundations built of gravel and concrete were reached. From the traces on the structure and the small findings obtained, it was thought that the structure went through several periods between the late 1st and the mid-3rd century AD. Trenches in the north of At Meydanı, the main road to Zeugma, workshops, and ruins that were thought to be a latrina and bath, besides abundant of Roman military equipment such as arrowheads, spearheads, armour scales, scabbards, mantraps, mail shirts, helmets, and parts of a catapult were found.[882] The Zeugma Archaeology Project was carried out under the chairmanship of Prof. Dr.

[880] Hartmann, Speidel and Ergeç, "Roman Military Forts at Zeugma," 417-423; Hartmann, et. al., "Roman Military Forts at Zeugma," 337-340; Hartmann, et. al., "Roman Military Forts at Zeugma (Campaign 1999)," 255-258.

[881] Drahor, et. al., "Magnetic and Electrical Resistivity Tomography Investigations in a Roman Legionary Camp Site (Legio IV Scythica) in Zeugma, Southeastern Anatolia, Turkey," 159–186.

[882] Hartmann, et. al., "Roman Military Installations at "At Meydanı" Zeugma," 335-343; Hartmann, et. al., "Roman Military Installations at 'At Meydanı'/Zeugma, Report 2003," 217–226; Hartmann and Speidel, "Military Installations at Zeugma: An Overview of the Swiss Archaeological Investigations, 2001-2003," 381-392; Abadie-Reynal. "Les Fouilles De Sauvetage De Zeugma: Un Bilan Des Résultats," 821–45.

Kutalmış Görkay, the director of the Zeugma excavation, in order to investigate the city walls, which are conducted jointly with the Berlin Freie University and TOPOI Institute in 2009-2012. In this project, the results of previous geophysical studies were reinterpreted, and new geophysical studies were carried out in other areas. Based on the results of the geophysical study and considering the need for a gladiator arena parallel to the dense military population in Zeugma, it was suggested that the structure on the southwest slope of the Köşk Tepe, which was thought to be a theatre and was partially excavated in 2004, might be an amphitheatre. The elliptical-circular anomaly, which is thought to belong to another amphitheatre used for military purposes, was also detected on the terrace flat facing Bahçedere, southwest of At Meydanı. Also, it was thought that the structure, which was thought to be a 60 by 230 m stadion in At Meydanı, may be a campus structure (*hippika gymnasia*) designed for cavalry training and parade regiments. In addition to these, it was thought based on the marble Mithras relief found near At Meydanı and the religion of Mithras, which was a common religion among Roman soldiers, that there may be a mithraeum in Zeugma, although there is no archaeological remains until now.

It is understood that the land called At Meydanı had a settlement pattern surrounded by walls during the Roman Imperial Period. Although there are mostly Legio IV Scythica stamped tiles found here, many legions from Pannonia, Moesia, and Danube were also stationed in Zeugma, and considering the reconstruction activities carried out by the legions in this region, Zeugma needs a large military settlement area that can be used as a centre where these large organizations are managed. It was suggested that considering also the presence of military complex structures, Legio IV Scythica first established a conventional styled legion settlement outside the Hellenistic city walls, but later on, together with the auxiliary legions, it was turned into an urban military settlement with the characteristics of a military Roman colony (*colonia*) growing south[883] (Figure 4.189, 4.190, 4.191, 4.192).

[883] Görkay, "Zeugma Lejyon Yerleşkesi: Yeni Araştırmalar, Sonuçlar ve Ön Değerlendirmeler," 147-178; Görkay, "Zeugma/ Seleukeia," 327-400.

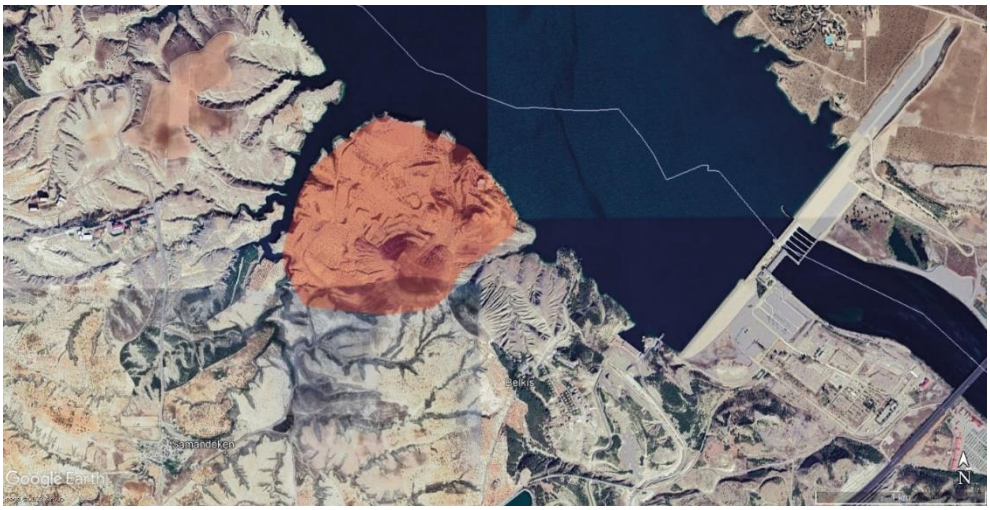

Figure 4.187. Satellite image of Zeugma archaeological site, and nearby Birecik dam[884]

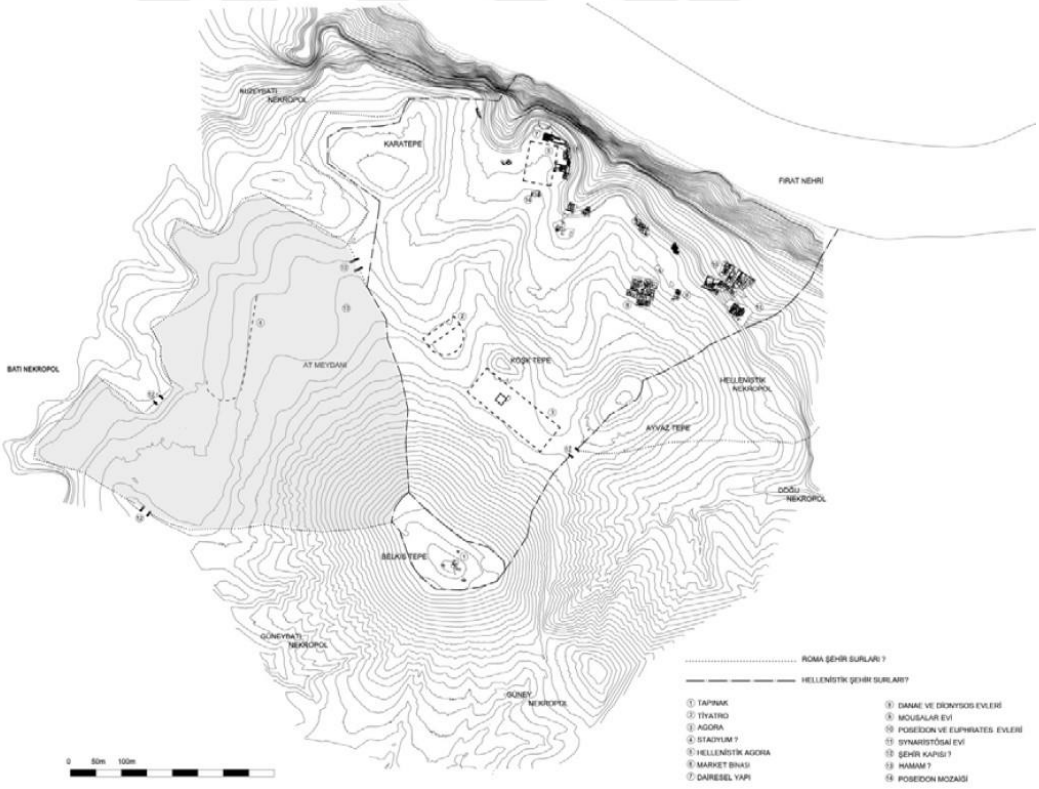

Figure 4.188. Zeugma plan, At Meydanı indicated with darker colour[885]

884 Google Earth, accessed December 20, 2023.

885 Görkay, "Zeugma Lejyon Yerleşkesi: Yeni Araştırmalar, Sonuçlar ve Ön Değerlendirmeler," 147-178.

Figure 4.189. Roman villas with mosaics and murals under the protective shelter[886]

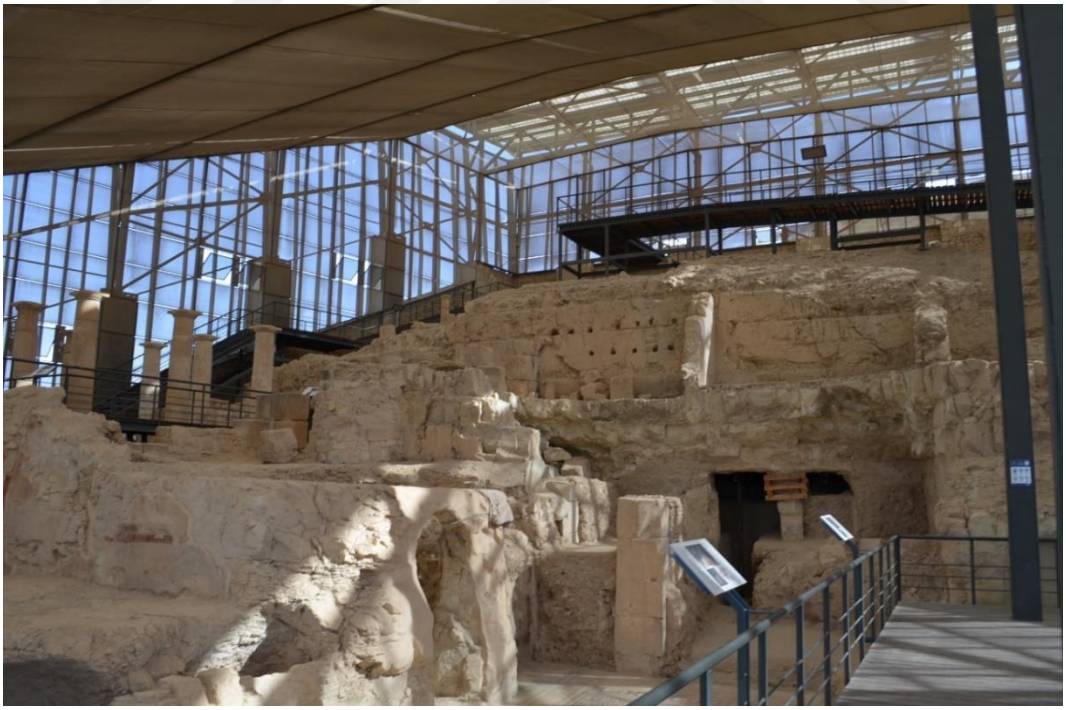

Figure 4.190. Roman villas with mosaics and murals under the protective shelter[887]

[886] Ö. D. Toköz, 29 August 2022.
[887] Ö. D. Toköz, 29 August 2022.

Figure 4.191. Euphrates view from Zeugma[888]

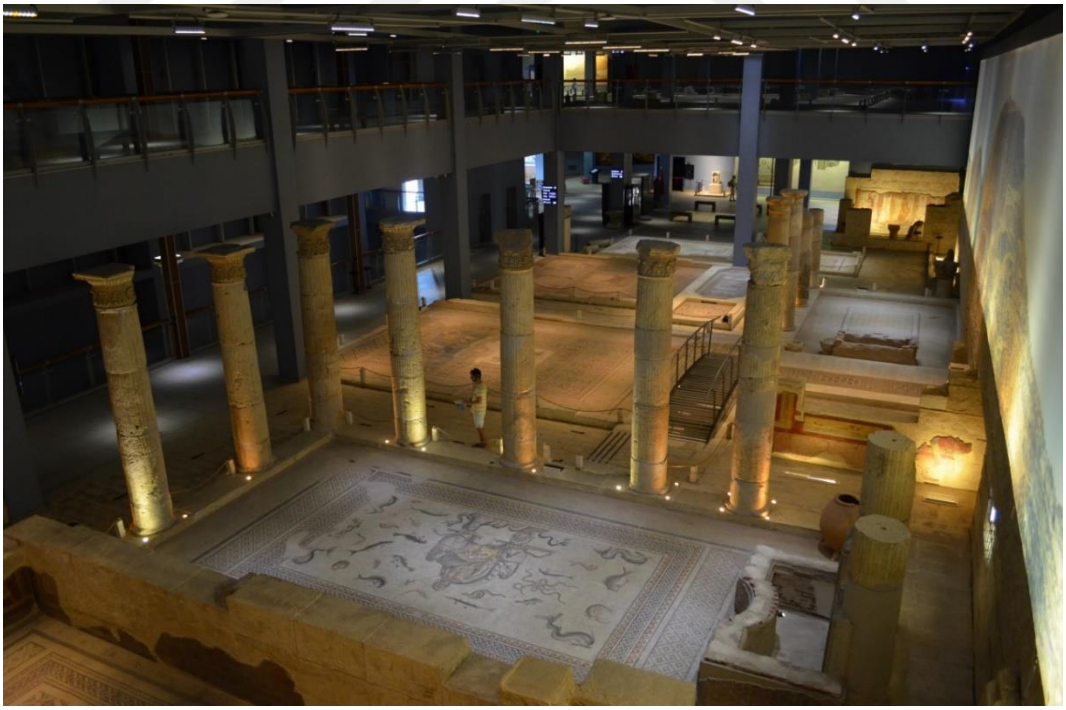

Figure 4.192. Zeugma Mosaic Museum in Gaziantep city centre[889]

[888] Ö. D. Toköz, 29 August 2022.
[889] Ö. D. Toköz, 29 August 2022.

Zeugma | River crossing | Roman

Zeugma was one of the most important crossing points in the Upper Euphrates Valley. Birecik, 10 kilometres east of Zeugma, has been the main crossing of the river since the Middle Ages. In the modern period, the road bridge built in 1956 replaced the previously used ferry and became the only river crossing in the region until it was submerged by the waters of the Atatürk Dam in 1991. For most of recorded history, there were no bridges over the Euphrates River. Crossing was usually done by small wooden boats or rafts made of inflated animal skins, or by walking when the river was low. The absence of a fixed connection can be explained by the frequent flooding of the river. Although a fixed connection existed at Zeugma for several centuries in ancient times, the material and location of the bridge are still a matter of debate. The absence of traces of the bridge's stone foundation currently is the reason it is believed that the fixed link consisted of a series of troughs that were connected together and could rise with the water level, a pontoon bridge, rather than a permanent and immovable structure.[890]

Birecik *(Birtha)* | Fortified town | Roman ?

Birecik (former name: Bira (ar), Birtha (Syriac))[891] district of Şanlıurfa, is located on the eastern bank of the Euphrates. It is approximately 73 kilometres southwest of Şanlıurfa city centre, and 19 kilometres north of Turkey-Syria border (Figure 4.193). There is a fort in the city centre. It was considered that Birtha was a former Parthian city. There is a fort that might belong to the Crusaders period in the city centre.[892] The walls of the fort have been moderately preserved, and partial reconstruction and consolidation works were realized in the fort in 2013-2014.[893]

The river crossing in Birecik was the only Euphrates crossing by motorway in the region until the Gaziantep-Şanlıurfa highway was built further north in 2009. Another motorway crossing is the Nissibi Bridge in Adıyaman, 130 kilometres northern, which was also opened recently in 2015 (Figure 4.194).

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890 Comfort, Abadie-Reynal, and Ergeç, "Crossing the Euphrates in antiquity," 107-113.

891 "Birecik," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?y=birecik&lv=&t=&cry=TR&ua=10.

892 Comfort, "Roads on the frontier between Rome and Persia," 287; David Kennedy, "Parthia and Rome: Eastern perspectives," in *The Roman Army in the East*, Journal of Roman Archaeology Supplementary Series 18, ed. David Kennedy (Ann Arbor: Journal of Roman Archaeology, 1996), 67-90.

893 "Birecik Kalesi Restorasyonu Uygulama İşi," Gaziantep Rölöve ve Anıtlar Müdürlüğü, accessed December 20, 2023, https://gazianteproloveveanitlar.ktb.gov.tr/TR-180345/birecik-kalesi-restorasyonu-uygulama-isi.html.

Figure 4.193. Satellite image of Birecik Fortress[894]

Figure 4.194. Birecik Fortress[895]

[894] Google Earth, accessed December 20, 2023.

[895] "Birecik Kalesi," T.C. Birecik Kaymakamlığı, accessed December 20, 2023, http://www.birecik.gov.tr/birecik-kalesi2019.

Karkamış (*Europos* ?) | Town ? | Roman ?

Karkamış (former name: Carablus/ Barak (tr), Şeyxavi (ar))[896] district is located Gaziantep. It is on the western bank of the Euphrates, on the Turkey-Syria border, and approximately 61 kilometres southeast of the Gaziantep city centre (Figure 4.195). After the foundation of the Turkey Republic, the ancient settlement of Karkamış was divided into two between Turkey and Syria, but most of the historic settlement remained within the borders of Turkey. Since it was at the border area, no excavations were allowed until 2011, and previous excavations were realized during the Ottoman period by the British Museum. The city has a long history going back to the Hittites, as being one of the important Hittite cities. In the excavations, mostly the Hittite period was focused. It is thought that Karkamış became Europos after the city came under Roman rule. Although it continued to be important during the Roman period due to its location on the banks of the Euphrates, the Roman layers were destroyed in the early excavations in order to reach the Bronze Age layers. The new excavation project, consisting of a Turco-Italian team and carried out by Assoc. Prof. Dr. Nicolò Marchetti from the University of Bologna, started in 2011[897] (Figure 4.196).

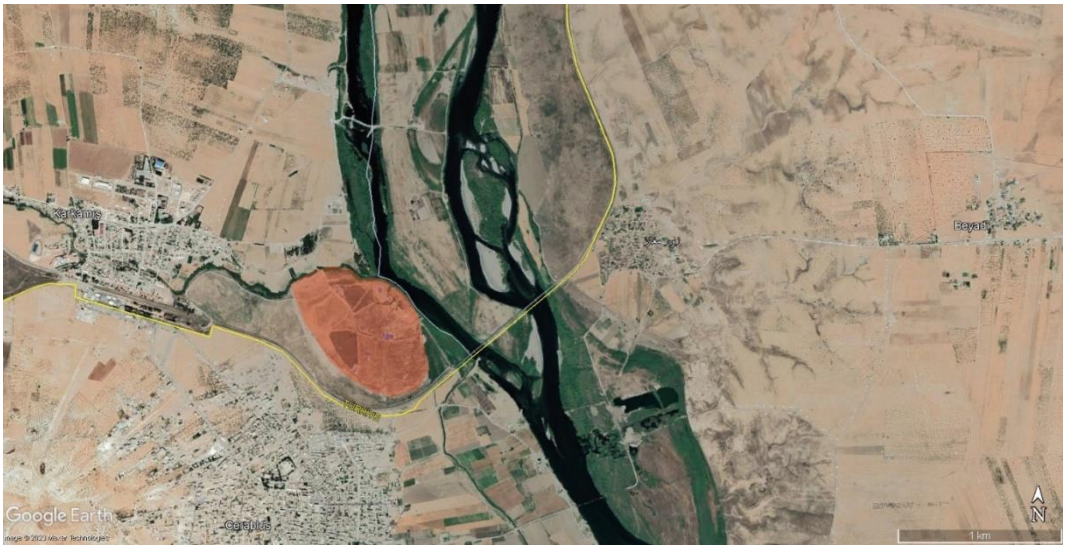

Figure 4.195. Satellite image of Karkamış mound[898]

[896] "Karkamış," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?y=karkam%C4%B1%C5%9F&lv=&t=&cry=TR&ua=10.
[897] Comfort, "Roads on the frontier between Rome and Persia," 296-297; Marchetti, "A Century of Excavations at Karkemish: Filling the Gaps," 21–43.
[898] Google Earth, accessed December 20, 2023.

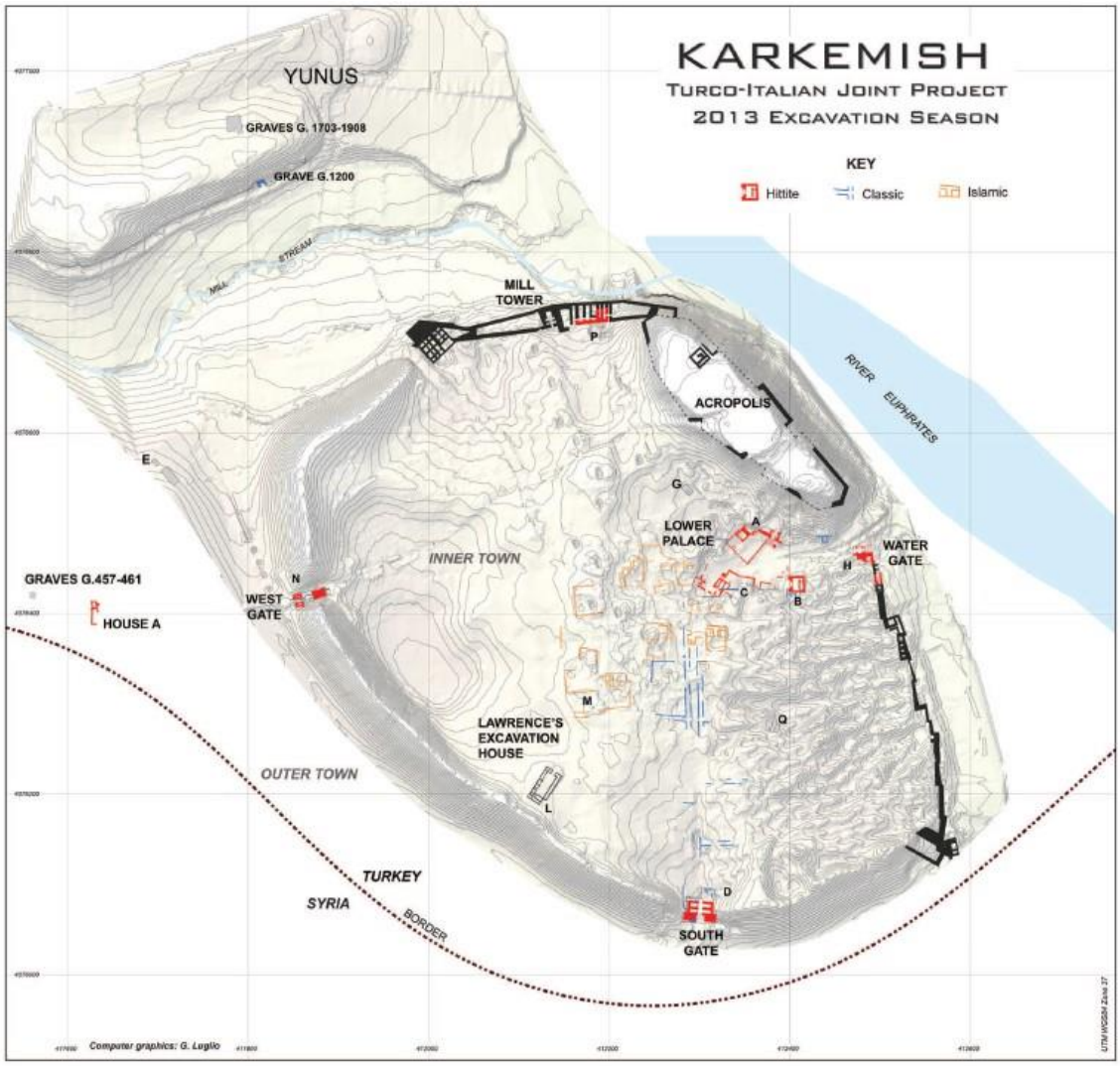

Figure 4.196. Karkamış[899]

Karkamış | River Crossing ? | Roman ?

Karkamış (former name: Carablus/ Barak (tr), Şeyxavi (ar))[900] district is located in Gaziantep. It is on the western bank of the Euphrates, right on the Turkey-Syria border, and approximately 60 kilometres southeast of the Gaziantep city centre. After the border between Turkey and Syria was determined, the south of the city remained within the borders of Syria, and the name of the Syrian part is Cerablus. The identification of

899 Marchetti, "A Century of Excavations at Karkemish," 22.
900 "Karkamış."

Carchemish with the Seleucid city of Europus is in doubt recently.[901] Although there are no remains of a ford, there is rope drawn ferry to an island north of the citadel and a railway bridge, currently.[902]

4.2.4. Eastern (Tigris) Frontier

Birkilin (Birkleyn) | Fortified town with citadel | Late Roman

Birkilin (former name: Birkileyn/ Bakireyn (tr), Kleisoúra (el))[903] neighbourhood of Lice/ Diyarbakır is on the western bank of Kara Stream. It is approximately 12 kilometres northwest of the Lice district centre (Figure 4.197). Some branches of Birkleyn Stream, one of the branches of the Tigris River, pass through Birkleyn cave here. Birkleyn Citadel and Ziyaret Fortress may have been built to defend the northern route towards Citharizon, the great defensive strongpoint. Although the citadel is small, there are traces of a fortified area further down. Assyrian reliefs are also found in the caves.[904] The citadel is almost in a ruined state, and no intervention has been realized (Figure 4.198).

[901] Justine Gaborit and Pierre Leriche, "Géographie historique de la vallée du Moyen-Euphrate," in *Geographica Historica*, ed. Pascal Arnaud and Patrick Counillon (Pessac: Ausonius Éditions, 1998), 167-200.

[902] Comfort, Abadie-Reynal, and Ergeç, "Crossing the Euphrates in antiquity," 119-120; Irene J. Winter, "Carchemish Ša Kišad Puratti," *Anatolian Studies,* vol. 33 (1983): 177–97. https://doi.org/10.2307/3642708.

[903] "Birkilin," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=50272&haritasi=birkilin.

[904] Andreas Schachner, "Birkleyn Mağaraları (Dicle Tüneli) Yüzey Araştırması, 2004," in *23. Araştırma Sonuçları Toplantısı* 1. Cilt (Ankara: Kültür Bakanlığı DÖSİMM Basımevi, 2006), 367-384; Sinclair, *Eastern Turkey/ III,* 274-276; Comfort, "Roads on the frontier between Rome and Persia," 318-319.

Figure 4.197. Satellite image of Birkilin Fort[905]

Figure 4.198. Birkleyn fort[906]

905 Google Earth, accessed December 20, 2023.

906 "8 bin yıllık gizem: Dünyanın bittiği ve ölümsüzlük suyunun aktığı yer," Sputnik Türkiye, accessed December 20, 2023, https://sputniknews.com.tr/20190718/8-bin-yillik-gizem-dunyanin-bittigi-ve-olumsuzluk-suyunun-aktigi-yer-1039698025.html.

Ziyaret *(Dakyanus/ Fis)* | Fortress | Late Roman ?

The fortress is located on a rocky hill 3 kilometres northwest of Ziyaret (former name: Fis, Phison (el))[907] neighbourhood of Lice/ Diyarbakır. It is approximately 13 kilometres southwest of the Lice city centre. Although Sinclair mentioned little remains of the fortress on the surface currently except a cistern and basin, Taylor described a series of arched chambers, scattered columns, thick wall fragments and scattered cut-stone blocks covering the slopes of the hill over an area of about a mile in the 1860s.[908] The fortress is almost in a ruined state, and no intervention has been realized.

Antağ (Gömey Perdi) | Bridge | Late Roman ?

Antağ (Gömey Perdi) Bridge is located on Kabakaya (former name: Antax (hy), Ataq (ku), El-Hattâx (ar), Attaxâs (el))[909] neighbourhood in Lice/ Diyarbakır. It is on the Batman *(Nymphius)* Stream and approximately 12 kilometres southeast of Lice. According to Comfort, the bridge has one pointed arch with two small rounded arches on the sides. It is approximately 40 metres in length and 6 metres in width. The bridge was on the road from Martyropolis-Citharizon.[910] It is thought that the pointed arch may belong to the medieval period, and if not, the bridge may have been built around 540 AD.[911] The arch and abutments are moderately preserved, and no intervention has been realized (Figure 4.199).

[907] "Ziyaret," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=11144&haritasi=ziyaret.

[908] Comfort, "Roads on the frontier between Rome and Persia," 320; J. G. Taylor, "Travels in Kurdistan, with Notices of the Sources of the Eastern and Western Tigris, and Ancient Ruins in Their Neighbourhood," *The Journal of the Royal Geographical Society of London,* vol. 35 (1865): 21–58. https://doi.org/10.2307/3698077; Sinclair, *Eastern Turkey/ III,* 272.

[909] "Kabakaya," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=11136&haritasi=kabakaya.

[910] Comfort, "Roman bridges of South-East Anatolia," 330-331.

[911] Comfort, "Roads on the frontier between Rome and Persia," 67-68.

Figure 4.199. Gömey Perdi Bridge[912]

Kabakaya (Antağ- *Attaxas*) | Fortress | Late Roman ?

Antağ Fortress is located on Kabakaya (former name: Antax (hy), Ataq (ku), El-Hattâx (ar), Attaxâs (el))[913] neighbourhood in Lice/ Diyarbakır. It is on the eastern bank of the Batman (*Nymphius*) Stream and approximately 12 kilometres southeast of Lice. It is approximately 15 kilometres east of Dakyanus Fortress[914] (Figure 4.200). Procopius described the fortress as approximately 18.5 kilometres from Martyropolis (Silvan), but the fortress is 35 kilometres from Martyropolis. Whitby matches Attachas with the Sassanians fortress of Phathacon, which was captured by the Romans in 584 AD and is located at the intersection of the Lice and Kulp Streams. However, Comfort recommends Kabakaya for the location of the fortress, considering that the mentioned intersection is much closer to another fortress, Akbaş Fortress. In addition to the fortress, there are two churches and a probably Roman bridge about 1 kilometre southeast of the fortress.[915] The fortress is almost in a ruined state, and no intervention has been realized.

912 Comfort, "Roman bridges of South-East Anatolia," 331.
913 "Kabakaya."
914 Sinclair, *Eastern Turkey/ III,* 278, 375.
915 Comfort, "Roads on the frontier between Rome and Persia," 315; Michael Whitby, *The Emperor Maurice and his Historian: Theophylact Simocatta on Persian and Balkan Warfare* (Oxford: Clarendon Press, 1988), 283.

Figure 4.200. Satellite image of Kabakaya Fortress[916]

Silvan *(Martyropolis)* | Fortified town | Late Roman

Silvan (Martyropolis (el), Farqin/ Silîvanî (ku))[917] district of Diyarbakır, is located in Southeastern Anatolia, approximately 75 kilometres northeast of Diyarbakır city centre (Figure 4.201, 4.202). The ancient town was the seat of Satrap of the Roman Client Kingdom of Sophanene. After the satrapy was dissolved in 536 AD, Martyropolis became the capital of the province of Armenia IV. The city was captured by the Arabs in the 7th century.[918] Although the current plan trace of the fortress can be read from the streets, its conservation status is very poor. Some of the fortification walls, some of its towers and fortress entrances have survived to the present day, and many of the walls have been reused by historical and modern structures that have been built on it. The general plan scheme of the fort reflects the Justinian period, but it has undergone many repairs and reconstructions in the following periods. Especially the pentagonal towers might belong to the 6th century. The fort has approximately 600 x 500 metres in dimensions. Survived walls were measured as 4-5 metres thick with10-12 metres high; towers were 8-10 metres wide, and buttresses were approximately 2 metres square. The construction is based on

916 Google Earth, accessed December 20, 2023.
917 "Silvan," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?y=silvan&lv=&t=&cry=TR&ua=10.
918 Gabriel, *Şarki Türkiye'de Arkeolojik Geziler,* 186-187.

limestone ashlar facing with mortared rubble core.[919] To the east of the city, there is the medieval Malabadi Bridge on the Batman Stream. The bridge is currently located just in front of the Batman dam. A Late Roman fort, possibly thought to be Samocharta, is southwest of this bridge. It is thought that the road from Amida to Artaxata/Dvin via Bitlis Pass and Lake Van in the 4th and 5th centuries AD passed approximately 15 kilometres south of the Harap Bridge. However, Silvan/Martyropolis is located to the north of the main trade route, and the reason for its establishment at this location is uncertain. It is thought to have guarded a route through a valley to the north, possibly from Citharizon via Boşat.[920] The fortification walls are partially survived and can be traced in the street. No intervention has been realized in the moderately preserved fortifications (Figure 4.203, 4.204, 4.205).

Figure 4.201. Satellite image of Martyropolis Fortress in Silvan[921]

919 Gregory, *Roman Military Architecture on the Eastern Frontier/ II*, 66-69.
920 Comfort, "Roads on the frontier between Rome and Persia," 301-303.
921 Google Earth, accessed December 20, 2023.

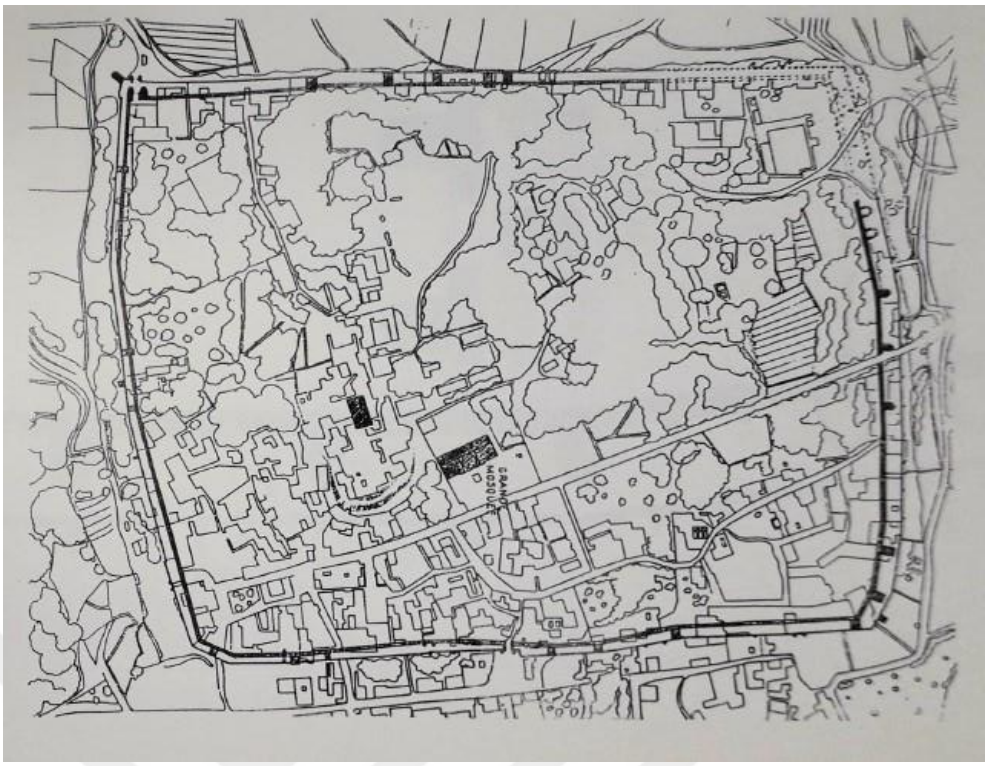

Figure 4.202. Silvan plan[922]

Figure 4.203. Silvan Fortress[923]

[922] Gregory, *Roman Military Architecture on the Eastern Frontier/ III,* C2.1.
[923] Google Earth street view, accessed December 20, 2023.

Figure 4.204. Silvan Fortress[924]

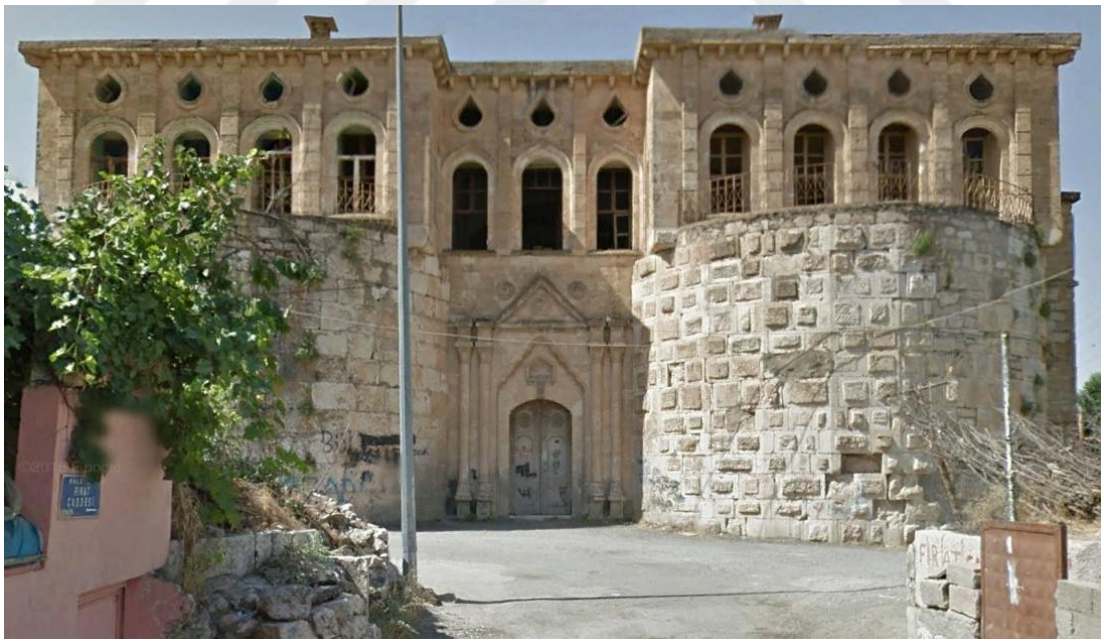

Figure 4.205. Silvan Fortress[925]

[924] Google Earth street view, accessed December 20, 2023.
[925] Google Earth street view, accessed December 20, 2023.

Akbaş (Başka) | Fortress | Late Roman ?

Akbaş (Başka) Fortress is located 3 kilometres southeast of Kızlar or Kızlal neighbourhood in Silvan/ Diyarbakır. It is approximately 15 kilometres northeast of the Silvan district centre (Figure 4.206). It was on the eastern bank of Kulp Stream; after the Batman Dam was completed, it is on the northern bank of the Batman dam lake now. Although Sinclair dates the present ruins to the Middle Ages, Whitby argues that the fortress was first built in 579 AD by the Sassanians in response to the Romans' advance in Arzenene. The fortress was built to watch the Roman movements from Martyropolis, and was captured by the Romans in 583 AD. It was destroyed a few years after it was captured, but may have been rebuilt by the Sassanians again.[926] No intervention has been realized in a ruined state fortress, and traces of its plan can be seen via Google Earth.

Figure 4.206. Satellite image of Akbaş Fortress[927]

Semra(h) Kale (Şemrah) | Fortress | Late Roman

Semra(h) Kale (former name: Şemrah) is located near Akçeltik (former name: Deriki Deyrûn (tr), Derik/ Derkêvan (hy))[928] neighbourhood of Silvan/ Diyarbakır, on the

926 Sinclair, *Eastern Turkey/ III,* 381, 428; Whitby, *The Emperor Maurice and his Historian,* 130, 246, 277-278.

927 Google Earth, accessed December 20, 2023.

928 "Akçeltik," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=11308&haritasi=ak%C3%A7eltik.

western bank of Batman valley. In the Euphrates and Tigris Archaeological Reconnaissance Project carried out under the direction of Dr. Guillermo Algaze of the Oriental Institute of Chicago University began in 1988, the site was surveyed. The site is located in a position that overlooks the northern portion of the Batman Su, and is close to Malabadi Bridge.[929] The consists of conglomerate out-crop, which remains of the defensive walls can be seen. The well-preserved fortifications were located on the southwest and southeast corners, besides a number of square-planned towers on the western side. The entrance of the fortress possibly was provided from the north side, where there is a cut in the hill that can be approached from the plain.[930] It was thought that this fortress was one of the major positions that guarding the frontier along the Batman. It was suggested that the river was the boundary between Romans and Persians from 363 AD. The coins found on the site dated to the 7th century suggested that the occupation of the site by the Romans continued until that time.[931] No intervention has been realized in a ruined state fortress.

Yıldızlı *(Anuşirvan- Aphoumun ?)* | Fortress | Late Roman ?

Yıldızlı (Aphuomun- Anuşirvan ?) Fortress is located approximately 1 kilometre south of Yıldızlı village of Kozluk/ Batman. It is located on top of a steep hill on the western bank Yanarsu (former name: Garzansu) *(Nicephorion)* Stream. It is approximately 38 kilometres northeast of the Batman city centre (Figure 4.207). Although Sinclair dates the fortress to the 16th century, Lightfoot argued that the brick gateway is similar to the workmanship in other Roman forts in the region, such as Tilli and Neocaesarea.[932] The fortress may have been built during the Bakur revolt around 335 AD, and may have been one of the 15 fortresses handed over to the Persians in 363 AD. It probably guarded the route down the river Garzan from Bitlis to Tigranocerta.[933] The fortress is in a ruined state, and traces of its plan can be seen via Google Earth.

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929 Algaze and Rosenberg, "The Tigris-Euphrates Archaeological Reconnaissance Project, 1989," 137-161.

930 Lightfoot, "The Year's Work: Euphrates and Tigris Archaeological Reconnaissance Project 1989," 19-24.

931 Mehmet Söylemez and Chris S. Lightfoot, "The Tigris- Euphrates Archaeological Reconnaissance Project Numismatic Notes," in *Recent Turkish Coin Hoards and Numismatic Studies*, ed. Chris S. Lightfoot. British Institute of Archology at Ankara, Monograph 12, Oxbow Monograph 7 (Oxford: Oxbow Books, 1991), 313-331.

932 Sinclair, *Eastern Turkey/ III*, 301-303; Lightfoot, "Tilli - a late Roman Equites fort on the Tigris," 517.

933 Comfort, "Roads on the frontier between Rome and Persia," 315.

Figure 4.207. Satellite image of Yıldızlı Fortress[934]

Kayalar/ Gayda (Eski Hizan-Gayda Kale) | Fortress | Roman ?, Late Roman ?

Kayalar (former name: Nefsi Xizan (tr), Xizan (ku, hy))[935] village is located in Hizan/ Bitlis. It is approximately 6 kilometres southwest of the Hizan district centre, and Lake Van. Old Hizan town was in Gayda; later, it was moved to its current location in Hizan district. On the south and west, fortification walls have survived with ashlar facing up to 11 metres. The walls enclose a semi-rectangle area approximately 240 by 190 metres. The fortress has 15 projecting semi-circular towers with 8-10 metres in diameter. There are no observable gates, but in the centre of the northern wall, an arch that might dated to the Seljuk period has survived. Mitford suggested that the fortress might be dated to the Byzantine period, and below the Byzantine walls, there might be a Roman predecessor.[936] No intervention has been realized in the moderately preserved fortress (Figure 4.208).

[934] Google Earth, accessed December 20, 2023.
[935] "Kayalar," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=36902&haritasi=kayalar.
[936] Mitford, *East of Asia Minor/ I*, 609-610; Gregory, *Roman Military Architecture on the Eastern Frontier/ II*, 73-75.

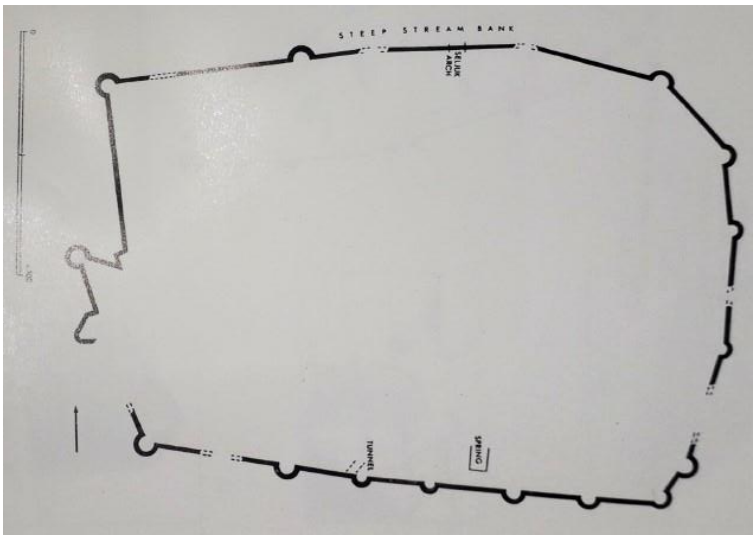

Figure 4.208. Gayda Kale plan[937]

Nasreddin | Bridge | Late Roman ?

Nasreddin Bridge is 1.5 kilometres southwest of Konacık (former name: Kasrik (ku))[938] village of Siirt. It is 15 kilometres southwest of the Siirt city centre. The bridge is on the Gökçesu (Bitlis) Stream and in the vicinity of the junction of it with the Uluçay (Botan) *(Kentrites)* Stream and Kırık Bridge (Figure 4.209). In the Euphrates and Tigris Archaeological Reconnaissance Project carried out under the direction of Dr. Guillermo Algaze of the Oriental Institute of Chicago University began in 1988, the bridge has been surveyed and shown on the map.[939] Later, according to Comfort, it has 5 arches, and is approximately 140 metres in length and 6 metres in width. It was possibly on the road from Tilli to Bitlis and Armenia.[940] Although the current bridge has medieval features, since nearby Çattepe (Tilli) was a pre-363 AD Roman military base, it was suggested that this bridge had a Roman predecessor.[941] The bridge was reconstructed in 1952.[942] Before the bridge was submerged by Ilısu Dam in May 2020, it was still in use (Figure 4.210).

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937 Gregory, *Roman Military Architecture on the Eastern Frontier/ III,* C4.1.

938 "Konacık," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=28886&haritasi=konac%C4%B1k.

939 Algaze, "A New Frontier: First Results of the Tigris-Euphrates Archaeological Reconnaissance Project, 1988," 268.

940 Comfort, "Roman bridges of South-East Anatolia," 332.

941 Comfort, "Roads on the frontier between Rome and Persia," 73-75.

942 "Nasreddin Köprüsü, Yuvalı Köyü," Kültür Envanteri, accessed December 20, 2023, https://kulturenvanteri.com/tr/yer/antik-kopru-kurtalan/#17.1/37.821499/41.8284; Sinclair, *Eastern Turkey/ III,* 306.

Figure 4.209. Satellite image of Nasreddin Bridge before submersion[943]

Figure 4.210. Nasreddin Bridge before submersion[944]

Kırık | Bridge | Late Roman ?

Kırık Bridge is 1 kilometre northeast of Eğlence (former name: Çemipiri (ku))[945] village of Siirt. It is 15 kilometres southwest of the Siirt city centre. The bridge is on the Uluçay (Botan) *(Kentrites)* Stream and vicinity of the junction of it with Gökçesu (Bitlis) Stream and Nasreddin Bridge (Figure 4.211). In the Euphrates and Tigris Archaeological

943 Google Earth, accessed December 20, 2023.
944 "Nasreddin Köprüsü, Yuvalı Köyü."
945 "Eğlence," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=48983&haritasi=e%C4%9Flence.

Reconnaissance Project carried out under the direction of Dr. Guillermo Algaze of the Oriental Institute of Chicago University began in 1988, the bridge has been surveyed and shown on the map.[946] Later, according to Comfort, the bridge had probably 7 arches with approximately 100 metres length and 4 metres width. It was possibly on the road from Bezabde to Tilli and Armenia.[947] The bridge was a ruin state in which only one arch could be seen. It had a stone arch with a partly brick superstructure that was thought to be the Late Roman or Sassanians.[948] One arch and several abutments of the bridge have survived and partially reconstructed as understood from Google Earth in a time period between 2013-2017. The bridge was submerged by Ilısu Dam in May 2020 (Figure 4.212).

Figure 4.211. Satellite image of Kırık Bridge after partial reconstruction and before submersion[949]

946 Algaze, "A New Frontier: First Results of the Tigris-Euphrates Archaeological Reconnaissance Project, 1988," 268.
947 Comfort, "Roman bridges of South-East Anatolia," 332.
948 Comfort, "Roads on the frontier between Rome and Persia," 76; Comfort, "Roman bridges of South-East Anatolia," 332.
949 Google Earth, accessed December 20, 2023.

Figure 4.212. Kırık Bridge before restoration[950]

Çattepe (Tilli) | Fort | Late Roman

Çattepe (former name: Tilli (ku/ Syriac))[951] village is located in Kurtalan/ Siirt. It is on a hill where the junction of the Tigris and Botan Su, and the western bank of the Tigris. It is approximately 21 kilometres southern of Kurtalan (Figure 4.213). Çattepe was surveyed during the Euphrates and Tigris Archaeological Reconnaissance Project carried out under the direction of Dr. Guillermo Algaze of the Oriental Institute of Chicago University began in 1988.[952] In 2000, J. Velibeyoğlu, A. Schachner and Ş. Schachner carried out survey at Çattepe mound within the scope of Ilısu and Karkamış Project.[953] Excavations at Çattepe have been carried out under the directorship of Assoc. Prof. Dr. Haluk Sağlamtimur from Ege University since 2009. After the completion of the Ilısu dam, the village was submerged, but the excavations continued on the mound for a while until its submersion. As observed in the first surveys in 1988, there is the *equites* fort, which is preserved with its towers on the triangular shaped Çattepe, and was built directly on the mound, as facing the Tigris.[954] There is a tower with diameter of about 20 metres on the western side of the fort. The other two well-preserved towers on

950 Comfort, "Roman bridges of South-East Anatolia," 332.

951 "Çattepe," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=28807&haritasi=%C3%A7attepe.

952 Lightfoot, "The Year's Work: Euphrates and Tigris Archaeological Reconnaissance Project 1989," 19-24.

953 Jale Velibeyoğlu, Andreas Schachner, and Şenay Schachner, "Botan Vadisi ve Çattepe (Tilli) Yüzey Araştırmalarının İlk Sonuçları," in *Ilısu ve Karkamıs Baraj Gölleri Altında Kalacak Arkeolojik ve Kültür Varlıklarını Kurtarma Projesi 2000 Yılı Çalısmaları [Salvage Project of the Archaeological Heritage of the Ilısu and Carchemish Dam Reservoirs Activities in 2000],* ed. Numan Tuna and Jale Velibeyoğlu (Ankara: METU, 2002), 783-857.

954 Guillermo Algaze, "The Tigris-Euphrates Archaeological Survey Project, 1988. Dicle ve Fırat Yüzey Araştırmaları Projesi, 1988," in *VII. Araştırma Sonuçları Toplantısı* (Ankara: Ankara Üniversitesi Basımevi, 1990), 392-403.

the riverside, have 6 and 7 metres high, and a rectangular and semi-circular plan. Both towers were built of coursed masonry over a rubble core with lime mortar. The staircase on the south-eastern side shows the access from the river to the fort. Although the walls on the east and north sides were not well preserved, it shows that the settlement was surrounded by walls similar to those in the south.[955] During the 2009 excavations, two gates of the fort were unearthed. One of these, which is thought to be the main entrance, is located in the north, and the other in the Tigris side. The structures inside the fort were not adjacent to the fortification walls, but were probably built on the mound, a little behind and at a high point. It is thought that the gate on the Tigris side provided a bridge to cross the river, and the stone wall in the middle of the Tigris is the pillar of this bridge.[956] The fort, which was a part of the eastern defence system of the Late Roman Empire in Çattepe, was under the cultural and political influence of the Persian-Sassanians Empire in the 4th century AD. It is known from the records of Notitia Dignitatum that an *equites* was deployed here. During the Diocletian period, the Tigris was accepted as a border with the Persians, and the control of Amida, Nisibis, Singara, and Cizre passed to the Romans; forts and towers were built in this period. It is known that the Çattepe was left to the Sassanians with the agreement in 363 AD; therefore, it is thought that it was built by the Romans before. It is suggested that there was an early period fort near the harbour in the south, and a late period fort in the north that was expanded to include the mound after the Tigris changed its bed. Due to the Constantius II coins found here, it is thought that the late fort was built during this period. The name of Çattepe in the Middle Ages was Tell-Fafan. It is thought that ships, rather than rafts, were used for the first time at this point, which is important for river transportation, especially in the 10th century. The harbour structure, located on the bank of the Tigris and in the southwest of the settlement, was reached by a stone staircase, passing through the administrative buildings. Although no early remains have been found in the port structure yet, it is thought to have been used before the Middle Ages, considering the importance of river transportation. From the 11th century, Çattepe/Tell-Fafan lost its importance with the shift of river transportation to Hasankeyf[957] (Figure 4.214, 4.215, 4.216).

[955] Algaze, "A New Frontier: First Results of the Tigris-Euphrates Archaeological Reconnaissance Project, 1988," 241–281.

[956] Sağlamtimur and Aydoğan, "Çattepe Höyük," 88-93.

[957] Sağlamtimur, "A Castle and a River Port from the Late Roman Period on the Shores of Tigris," 8-25; Sağlamtimur, Özkan and Uhri, "Çattepe Höyük," 247-261; Sağlamtimur and Türker, "Çattepe Höyük," 66-76.

Figure 4.213. Satellite image of Çattepe before submersion[958]

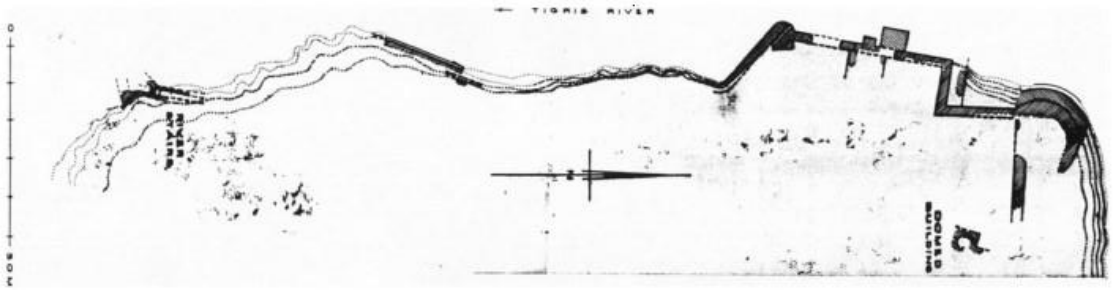

Figure 4.214. Sketch of western side of the fortifications at Çattepe[959]

[958] Google Earth, accessed December 20, 2023.

[959] Algaze, "A New Frontier: First Results of the Tigris-Euphrates Archaeological Reconnaissance Project, 1988," 241–281.

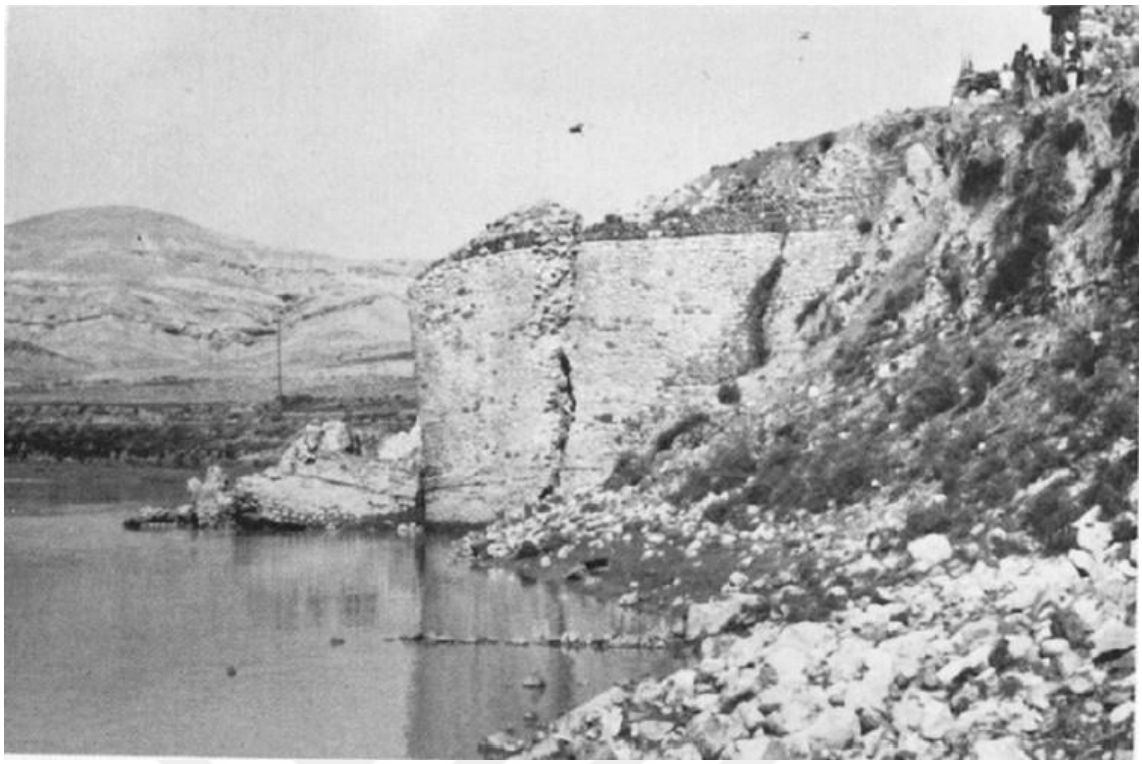

Figure 4.215. Fortifications at the western side of Çattepe towards the west[960]

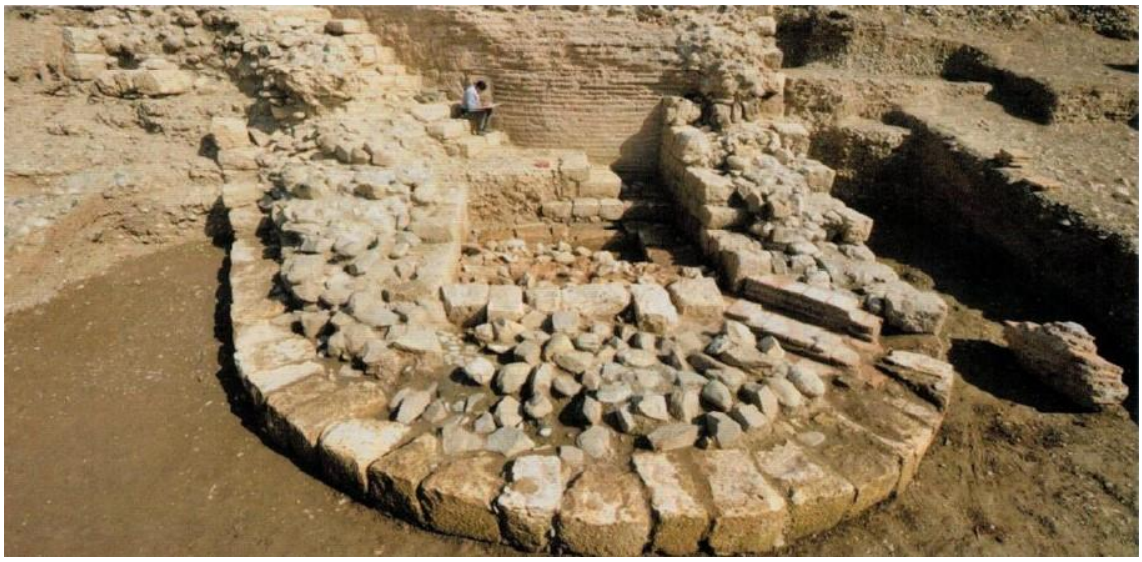

Figure 4.216. Çattepe harbour[961]

[960] Algaze, "A New Frontier: First Results of the Tigris-Euphrates Archaeological Reconnaissance Project, 1988," 241–281.

[961] Sağlamtimur and Aydoğan, "Çattepe Höyük," 88-93.

Çelikköy | Fortress | Late Roman ?

Çelikköy (former name: Çelik (tr), Celik (ku))[962] neighbourhood is located in Dargeçit/ Mardin. It is on the western bank of the Tigris. It is approximately 15 kilometres northeast of the Dargeçit district centre (Figure 4.217). The neighbourhood was submerged by Ilısu dam water, but the location where the fortress is can still be seen on satellite images. Wiessner surveyed the fortress and stated that there were rock-carved rooms connected to each other with well-preserved steps on the west side, and on the east, the ramp reaching the plateau, along with the walls built on the edge of the ramp; however, there was no remains of a standing wall.[963] Nearby in the village of Ölik (modern and former names could not be identified), there is the Mar Šallita monastery, probably dated to the 4th century AD. If it can be confirmed that the fortress was built in the Late Roman period, this would be evidence that after 363 AD, the easternmost part of the Roman frontier did indeed reach as far east as the Tigris straits. However, Comfort states that at this location, there is no possibility of a frontier road following the west bank of the Tigris.[964] The fortress is in a ruined state, and traces of its plan can be seen via Google Earth. After the completion of Ilısu Dam, the fortress was partially submerged. No intervention has been realized.

Figure 4.217. Satellite image of Çelikköy Fortress after partial submersion[965]

[962] "Çelikköy," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=24967&haritasi=%C3%A7elikk%C3%B6y.
[963] Gernot Wiessner, *Christliche Kultbauten im Tur Abdin* (Wiesbaden: Harassowitz, 1981), 3.xix.
[964] Comfort, "Fortresses of the Tur Abdin and the Confrontation between Rome and Persia," 205-207.
[965] Google Earth, accessed December 20, 2023.

Sulak | Fort | Late Roman ?

Sulak (former name: Bafe (ku), Bafi (tr))[966] village is located in İdil/ Şırnak. It is approximately 10 kilometres northeast of the İdil district centre. It is on the western bank of the Tigris. The fort is located on a projecting hill towards the Tigris (Figure 4.218). Comfort suggested that this fort was located at a possible junction of the frontiers of the Romans and Sassanians. A building remains that may be a church is visible in satellite images at the northeast corner of the entrance. The proximity of this location to Bezabde and Fil makes it possible that this place could have been a frontier fort after the loss of Bezabde to the Sassanians.[967] The fortress is in an almost ruined state, and traces of its plan can be seen via Google Earth. No intervention has been realized (Figure 4.219).

Figure 4.218. Satellite image of Sulak Fort[968]

[966] "Sulak," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=24765&haritasi=sulak.
[967] Comfort, "Fortresses of the Tur Abdin," 220-221.
[968] Google Earth, accessed December 20, 2023.

Figure 4.219. Sulak Fort[969]

<u>Hendekköy</u> (Xendek/ <u>Eski Hendek- *Bezabde*</u>) | Fortress | Late Roman

Hendekköy (former name: Xendek (ku))[970] village is in İdil/ Şırnak. It is on the western bank of the Tigris, and approximately 14 kilometres northwest of Cizre/ Şırnak (Figure 4.220). In the Euphrates and Tigris Archaeological Reconnaissance Project[971] carried out under the direction of Dr. Guillermo Algaze of the Oriental Institute of Chicago University began in 1988; it is thought that this place was ancient Bezabde where the 4th century Roman legionary fortress, town, and bishopric were located.[972] Bezabde was the capital of the Seleucid district of Zabdicene. Later, it was in the province of Mesopotamia, formed by Diocletian, but was captured by Sapor II in 359 AD. Although

969 "Elo Dîno'yu defineciler istila etti," Yüksekova Haber, accessed December 20, 2023, https://www.yuksekovahaber.com.tr/haber/elo-dinoyu-defineciler-istila-etti-235795.htm.

970 "Hendekköy," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=24754&haritasi=hendekk%C3%B6y.

971 In the Euphrates and Tigris Archaeological Reconnaissance Project by Algaze, Finik and Eski Yapı were mentioned as former settlements of modern Damlarca village. However, as understood from Nişanyan Index Anatolicus and Google Earth, Damlarca and Eski Yapı are two different villages next to each other. The hamlet of Eski Yapı village, which is close to the river, is also called the Eski Yapı, while the upper Eski Yapı appears as a dead settlement and its former name is given as Dêra Bani (ku). "Eskiyapı," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=70451&haritasi=eskiyap%C4%B1.

972 Lightfoot, "The Year's Work: Euphrates and Tigris Archaeological Reconnaissance Project 1989," 19-24.

Constantius II took back by the Sassanians, it was given to the Sassanians again with Nisibis.[973]

The Late Roman fortress is a castellum which has double-wall, circular corner towers, and a surrounding ditch carved out of bedrock on the eastern and southern sides.[974] On the western side of the fortress, there is a trapezoidal-planned with regularly spaced circular towers, which were thought as a later addition. Its towers were built by alternating rows of ashlar mix blocks of limestone and basalt, and thin bricks. Wall remains were also observed in the east of the fortress[975] (Figure 4.221, 4.222, 4.223).

Figure 4.220. Satellite image of Hendekköy in on the south and Eski Yapı- Damlarca is on the north[976]

[973] Comfort, "Fortresses of the Tur Abdin," 194-196; Comfort, "Roads on the frontier between Rome and Persia," 286-287.

[974] Algaze, "The Tigris-Euphrates Archaeological Survey Project, 1988. Dicle ve Fırat Yüzey Araştırmaları Projesi, 1988," 392-403.

[975] Algaze, "A New Frontier: First Results of the Tigris-Euphrates Archaeological Reconnaissance Project, 1988," 241–281; Algaze et. al., "The Tigris-Euphrates Archaeological Reconnaissance Project. Final Report of the Cizre Dam and Cizre-Silopi Plain Survey Areas," 42-44.

[976] Google Earth, accessed December 20, 2023.

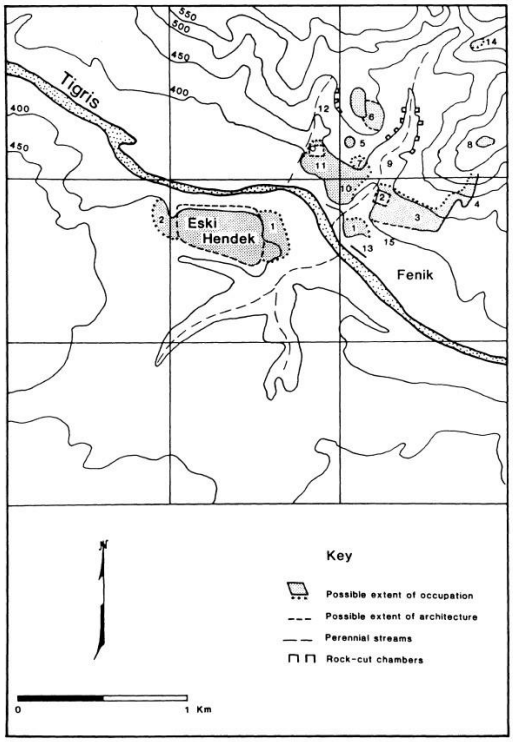

Figure 4.221. Settlement complex of Eski Hendek (western) and Fenik (eastern) on two opposite sides of the Tigris[977]

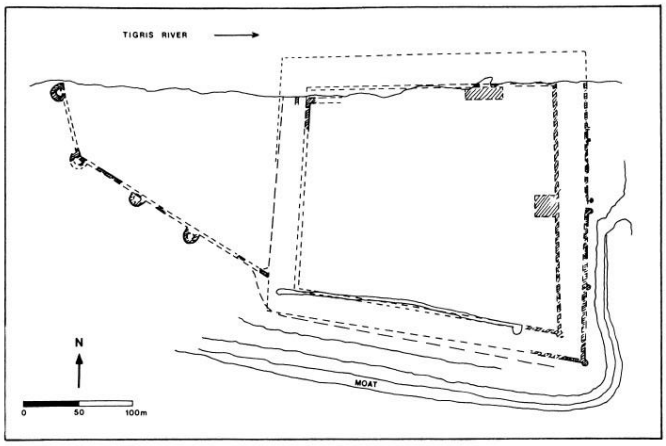

Figure 4.222. Square-planned Late Roman fortress with trapezoidal addition on the western at Eski Hendek[978]

977 Algaze, "A New Frontier: First Results of the Tigris-Euphrates Archaeological Reconnaissance Project, 1988," 241–281.

978 Algaze, "A New Frontier: First Results of the Tigris-Euphrates Archaeological Reconnaissance Project, 1988," 241–281.

Figure 4.223. A circular tower built of thin baked bricks with ashlar courses at the eastern entrance of Eski Hendek Fortress[979]

<u>Eski Yapı</u>-Damlarca (Finiki Geli- Finiki Revi- *Phaenicha*) | Fortress | Late Roman, Byzantine

Eski Yapı (former name: Finiki Geli (ku))[980] and Damlarca (former name: Finiki Revi/Finik (ku)-Phaenicha (el))[981] villages are in Güçlükonak/ Şırnak. They are on the opposite side of Eski Hendek on the eastern bank of the Tigris, and approximately 14 kilometres northwest of Cizre/ Şırnak (Figure 4.220). In the Euphrates and Tigris Archaeological Reconnaissance Project carried out under the direction of Dr. Guillermo Algaze of the Oriental Institute of Chicago University began in 1988, the site was surveyed. It consists of at least two mounds built around a stream. The walls seen on the slopes of both mounds belong to the Late Roman or Byzantine period, built with alternating rows of ashlar blocks and bands of thin baked bricks. A massive retaining wall with 1.5 metres wide, 20 metres high, built by cut basalt blocks in the north-western slopes of both mounds, protected them from erosion.[982] On the northwest side of the hill

[979] Algaze, "A New Frontier: First Results of the Tigris-Euphrates Archaeological Reconnaissance Project, 1988," 241–281.
[980] "Eskiyapı."
[981] "Damlarca," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=28713&haritasi=damlarca.
[982] Algaze, "A New Frontier: First Results of the Tigris-Euphrates Archaeological Reconnaissance Project, 1988," 241–281.

facing the river, there is a retaining wall built with limestone blocks. On the southeast slope, there is a square-planned fortress with at least two circular towers on the north-western side, alongside garden terraces and a water mill. The fortress was built with limestone dry technique and has circular towers at the corners. There is also a trapezoidal-planned large fortress with regularly spaced square projections in the east of the area. The fortress was built around the cliffs leading down to the river. The core of the walls was built of small pieces of limestone and earth and lime mortar mix, with large limestone blocks visible where the facing survives. Due to a large number of Parthian pottery was found in the material collected from the surface, the fortress was first dated to the 2nd century BC- 2nd century Parthian AD fortress[983], but then it was reached a consensus that this pottery belonged to earlier Parthian occupation in the 4th century AD Late Roman fortress.[984] By the Late Roman period, after the Tigris became frontier between the Romans and the Sassanians, the military complex was enlarged to include the opposite west side of the river, Hendekköy.[985] No intervention has been realized in the moderately preserved fortress (Figure 4.224).

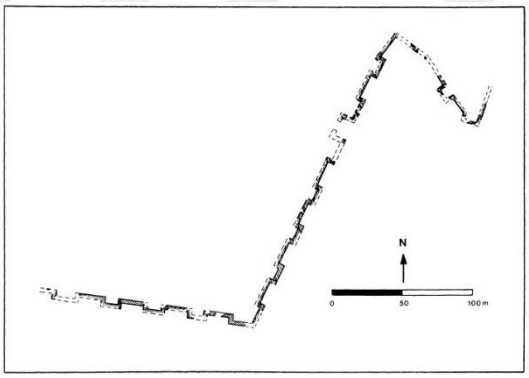

Figure 4.224. A partial plan of the surviving remains at the eastern part of the east mound at Fenik[986]

[983] Algaze, "A New Frontier: First Results of the Tigris-Euphrates Archaeological Reconnaissance Project, 1988," 241–281; Lightfoot, "The Year's Work: Euphrates and Tigris Archaeological Reconnaissance Project 1989," 19-24.

[984] Algaze, "A New Frontier: First Results of the Tigris-Euphrates Archaeological Reconnaissance Project, 1988," 241–281; Comfort, "Fortresses of the Tur Abdin," 211-213.

[985] Algaze et. al., "The Tigris-Euphrates Archaeological Reconnaissance Project. Final Report of the Cizre Dam and Cizre-Silopi Plain Survey Areas," 42-44.

[986] Algaze, "A New Frontier: First Results of the Tigris-Euphrates Archaeological Reconnaissance Project, 1988," 241–281.

Bürüçek | Bridge | Late Roman ?

Bürüçek Bridge is approximately 2.2 kilometres southwest of Kasrik (former name: Meşeiçi)[987] town of Şırnak. The bridge is on the Kızılsu Stream and Kasrik Gorge (Figure 4.225). In the Euphrates and Tigris Archaeological Reconnaissance Project carried out under the direction of Dr. Guillermo Algaze of the Oriental Institute of Chicago University began in 1988, the bridge has been surveyed and shown on the map.[988] It is 2 kilometres northeast of the junction of the Kızılsu and Tigris River. Later, according to Comfort, the bridge possibly had 9 abutments. The river bed here is 150 metres, and the width of the bridge is 6 metres. It was on the road of Arbela-Finik-Tilli and towards Bitlis, Lake Van and Armenia.[989] The bridge is part of a complex of forts on either side of the gorge, Parthian relief, and aqueduct. It has large ashlar blocks for the facing, with a rubble core, which seems Roman. However, although it seems interesting that there is a Roman bridge in the east of the Tigris, it is unclear whether the bridge was built by the Romans, the Parthians[990] or by the Sassanians.[991] The bridge is in an almost ruined state, and traces of its survived abutments can be seen via Google Earth. No intervention has been realized (Figure 4.226).

Figure 4.225. Satellite image of Bürüçek Bridge[992]

[987] "Kasrik," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=25236&haritasi=kasrik.
[988] Algaze, "A New Frontier: First Results of the Tigris-Euphrates Archaeological Reconnaissance Project, 1988," 249, 261.
[989] Comfort, "Roman bridges of South-East Anatolia," 333.
[990] Algaze et. al., "The Tigris-Euphrates Archaeological Reconnaissance Project. Final Report of the Cizre Dam and Cizre-Silopi Plain Survey Areas," 60.
[991] Comfort, "Roads on the frontier between Rome and Persia," 77-78.
[992] Google Earth, accessed December 20, 2023.

Figure 4.226. Bürüçek Bridge[993]

<u>Cizre</u> (Piradeşt/ Telkabin) | Bridge | Late Roman ?

Cizre (Piradeşt/ Telkabin) Bridge is located in district centre of Cizre/ Şırnak. It is on the south gate of the old city, and since the riverbed of the Tigris has changed, it is not on the river currently (Figure 4.227). According to Comfort, the bridge has at least 5 arches, approximately 45 metres in length and 7 metres in width. It was probably on the road of Bezabde to the Tigris crossings at Cizre and Fesh-Khabour.[994] Although it is not on the river, it is still in use as a pedestrian road. The bridge was damaged and partially collapsed during the restoration in 2012[995] (Figure 4.228).

[993] Comfort, "Roman bridges of South-East Anatolia," 333.
[994] Comfort, "Roman bridges of South-East Anatolia," 333; Comfort, "Roads on the frontier between Rome and Persia," 78-80.
[995] "Cizre'nin simge köprüsünde göçük!," Yüksekova Haber, accessed December 20, 2023, https://www.yuksekovahaber.com.tr/haber/cizrenin-simge-koprusunde-gocuk-68672.htm.

Figure 4.227. Satellite image of Cizre Bridge[996]

Figure 4.228. Cizre Bridge[997]

Çermik *(Abarne)* | Fort | Late Roman ?

Çermik Fort is located at Çermik (former name: Çermuk (hy), Abarne (el))[998] district in Diyarbakır. It is located on the eastern bank of the Seyhan Stream, and approximately 70 kilometres northwest of the Diyarbakır city centre (Figure 4.229). The

[996] Google Earth, accessed December 20, 2023.
[997] Google Earth street view, accessed December 20, 2023.
[998] "Çermik," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=35994&haritasi=%C3%A7ermik.

remains of the fort on the rocky hill northwest of the settlement. Approximately 1 kilometre south of the fort, there is the medieval Haburman Bridge, which is thought to possibly have a Roman predecessor, on Seyhan Stream.[999] The fort is in an almost ruined state, and traces of its plan can be seen via Google Earth. No intervention has been realized.

Figure 4.229. Satellite image of Çermik Fort[1000]

Dibni | Bridge | Late Roman ?

Dibni Bridge is located between Uluçeşme (former name: Uri (hy))[1001]/Dicle and Başköy/Bismil neighbourhoods in Diyarbakır. It is approximately 3.7 kilometres northwest of Döğer (former name: Dibni (hy))[1002] neighbourhood in Dicle/ Diyarbakır and 50 kilometres north of Diyarbakır city centre. It is on the Tigris River. According to Comfort, the bridge has two arches and possibly was on the road from Amida to Palu.[1003] It was suggested that the arches belonged to the Ottoman period, while the abutments

[999] Comfort, "Roads on the frontier between Rome and Persia," 314.
[1000] Google Earth, accessed December 20, 2023.
[1001] "Uluçeşme," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=37047&haritasi=ulu%C3%A7e%C5%9Fme.
[1002] "Döğer," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?y=d%C3%B6%C4%9Fer&lv=&t=&cry=TR&ua=10.
[1003] Comfort, "Roman bridges of South-East Anatolia," 327-328.

were probably Roman, as the arches were smaller than the abutments, yellow instead of grey, and had less chipped fresher stones.[1004] The bridge was submerged by the Dicle dam which was completed and opened in 1997.

Eğil *(Carcathicerta ?)* | Legionary Fortress ? | Late Roman ?

Eğil (former name: Aggel/ Ankğ (Syriac))[1005] district of Diyarbakır, is located on the eastern bank of the Tigris. It is approximately 38 kilometres northwest of the Diyarbakır city centre (Figure 4.230). Eğil is thought to be ancient Carcathiocerta. It was the seat of the Armenian prince and governor of Sophenene, and later, in the 5th and 6th centuries, was the seat of the bishop of Ingilene.[1006] There are rock tombs of the early Armenian dynasty near the fortress. Fortress was probably on or near the route from Amida across the Taurus, to Harput and Melitene. The fortress was strengthened, possibly by Justinian.[1007] The fortress is in an almost ruined state, and traces of its plan can be seen via Google Earth. No intervention has been realized.

Figure 4.230. Satellite image of Eğil Fortress[1008]

[1004] Comfort, "Roads on the frontier between Rome and Persia," 58-60; Sinclair, *Eastern Turkey/ III*, 268.

[1005] In 1936, the name Eğil and the district centre were transferred to the town of Piran (modern name: Dicle); Eğil was named Dicle. In 1951, this situation was reversed and Dicle became Eğil, and Eğil became Dicle. "Eğil," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=11186&haritasi=e%C4%9Fil.

[1006] A. H. M. Jones, *The Cities of the Eastern Roman Provinces* (Oxford: Clarendon Press, 1971), 522-523: Appendix IV, 542: Table XXXII; Sinclair, *Eastern Turkey/ III*, 196.

[1007] Comfort, "Roads on the frontier between Rome and Persia," 288.

[1008] Google Earth, accessed December 20, 2023.

<u>Kalecik</u> (<u>Ziata</u> ?- <u>Amini</u> ?) | Fortress | Late Roman ?

Kalecik Fortress is approximately 1.6 kilometres south of Kalecik (Ameni/ Amini)[1009] neighbourhood of Eğil/ Diyarbakır, and on the eastern bank of the Tigris. It is located on a hill north of Dicle Dam. It is approximately 8.5 kilometres east of Eğil district centre (Figure 4.231). The fortress is thought to be the fortress of Amini or Ziata, but Howard-Johnston places it to Harput.[1010] Although current remains are dated to the Medieval period, Sinclair suggested that it may have been a Roman predecessor.[1011] During the raids of the Persians in 359 AD and the Huns in 395 AD, the inhabitants took shelter in Ziata.[1012] The fortress is in an almost ruined state, and traces of its plan can be seen via Google Earth. No intervention has been realized.

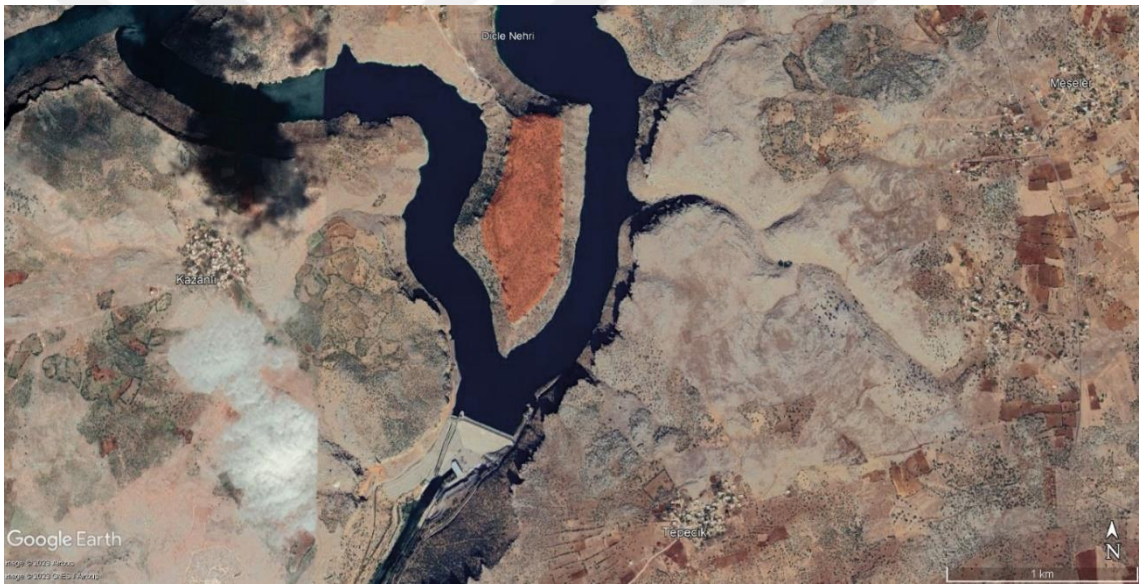

Figure 4.231. Satellite image of Kalecik Fortress[1013]

[1009] "Kalecik," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=37166&haritasi=kalecik.
[1010] J. D. Howard-Johnston, "Byzantine Anzitene," in *Armies and Frontiers in Roman and Byzantine Anatolia: Proceedings of a Colloquium held at University College, Swansea in April 1981,* ed. Stephen Mitchell. British Institute of Archaeology at Ankara Monograph No. 5 (Oxford: BAR International Series 156, 1983), 249.
[1011] Sinclair, *Eastern Turkey/ III*, 425.
[1012] Comfort, "Roads on the frontier between Rome and Persia," 328-330.
[1013] Google Earth, accessed December 20, 2023.

<u>Karaköprü (Pirareş)</u> | Bridge | Late Roman

Karaköprü Bridge, or by its local name Pirareş Bridge is located in Başil neighbourhood in Yenişehir/ Diyarbakır. It is approximately 18 kilometres northwest of Diyarbakır city centre. It is on the Devegeçidi Stream (Figure 4.232). The bridge, which was built with cut stones, has six arches. According to Comfort, the span of arches was measured by Comfort as 7.6 metres, the total span of the bridge as approximately 70 metres and the width as 7.5 metres. It was suggested that it was on the Amida-Melitene Road, and the nearest way station is *Coissa* (Şerbetin), according to the Peutinger Table.[1014] It was restored by the Regional Directorate of Highways, and suggested by Comfort that parapets might be added during the restoration. It was suggested by Comfort that the bridge may be built in the period of Constantius II.[1015] The bridge has been surveyed in August 2022 by the author. According to the survey, the bridge is in a good condition and still in use. Consolidation work have been realized during the restoration project. A Roman road reaches the bridge from the south, but a part of this road that intersects with the modern road has been destroyed (Figure 4.233, 4.234).

Figure 4.232. Satellite image of Karaköprü Bridge[1016]

[1014] Comfort, "Roman bridges of South-East Anatolia," 327.
[1015] Comfort, "Roads on the frontier between Rome and Persia," 55-57.
[1016] Google Earth, accessed December 20, 2023.

Figure 4.233. Karaköprü Bridge[1017]

Figure 4.234. Ancient road connected to Karaköprü Bridge[1018]

[1017] Ö. D. Toköz, 23 August 2022.
[1018] Ö. D. Toköz, 23 August 2022.

Diyarbakır *(Amida)* | Fortress city | Late Roman

Diyarbakır (former name: Diyarbekir (tr), Amed (Syriac), Amid (ar), Amida (el))[1019] is located in Southeastern Anatolia, 150 kilometres northeast of Şanlıurfa city centre, and on the western bank of the Tigris (Figure 4.235). The Fortress of Diyarbakır is southeast of the modern city, and the Tigris is just outside of the city walls. The history of the city goes back to 6 thousand BC, and it was fortified and kept by the Romans during the reign of Constantius II. It took refugees from Nisibis in 363 AD, and probably expanded at this date. It was captured by the Persians in 502 AD, taken back two years later, and recaptured in the 7th century. In 639 AD, the Arabs captured the city.[1020] Legio V Parthica and equites troops were deployed in Amida. Its strategic importance was probably due to its location on the road from Nisibis to the Euphrates crossing near Melitene. The city consists of outer fortifications and inner citadel, and a settlement area between them. The prehistoric Amida mound is located in the inner citadel. The walls encircle an area of approximately 1.5 x 1 kilometres; the main wall is approximately 4.5 metres thick, 8-12 metres high, and the outer wall is 1.8 metres thick and 2 metres high. The U-shaped towers are usually 15 metres wide with 12 metres projection; buttresses are 2 metres wide. The main construction material of the walls is basalt stone, brick was used for vaulting; walls were mortared with rubble core with coursed ashlar (Figure 4.236). It is thought that the main streets extending in the north-south and east-west directions within the city wall were planned in the Roman period with four main gates.[1021] Since the settlement was continued by many cultures in the following periods, the Roman structures remained under the present historical and modern structures. There are spolia Corinthian capitals and columns in the Great Mosque, which is located on the north-south main axis of the city (Figure 4.237, 4.238). Although no excavations focused on Roman period were carried out in the fortress, the Artuqid palace was unearthed in the Amida mound in the citadel.[1022] The city was visited by the author in October 2017 and August 2022; the city walls are in moderate condition with the restorations. Diyarbakır Fortress and Hevsel Gardens Cultural Landscape was included in the UNESCO World Heritage

[1019] "Diyarbakır," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?y=diyarbak%C4%B1r&lv=&t=&cry=TR&ua=10.

[1020] Gabriel, *Şarki Türkiye'de Arkeolojik Geziler,* 91.

[1021] Gregory, *Roman Military Architecture on the Eastern Frontier/ II,* 59-65.

[1022] "Amida Höyük'te arkeoloji kazıları 56 yıl sonra tekrar başlıyor," Arkeolojik Haber, accessed December 20, 2023, https://www.arkeolojikhaber.com/haber-amida-hoyukte-arkeoloji-kazilari-56-yil-sonra-tekrar-basliyor-14620/; Tuba Ökse, "Diyarbakır Kentinin En Eski Yerleşimi: İçkale'deki Amida Höyük," *Olba* XXIII (2015): 60-110.

List in 2021.[1023] The fortification walls were partially damaged in the February 2023 Pazarcık-Elbistan earthquake.[1024] Partial reconstruction, consolidation, and cleaning works have been realized in the fortification walls.

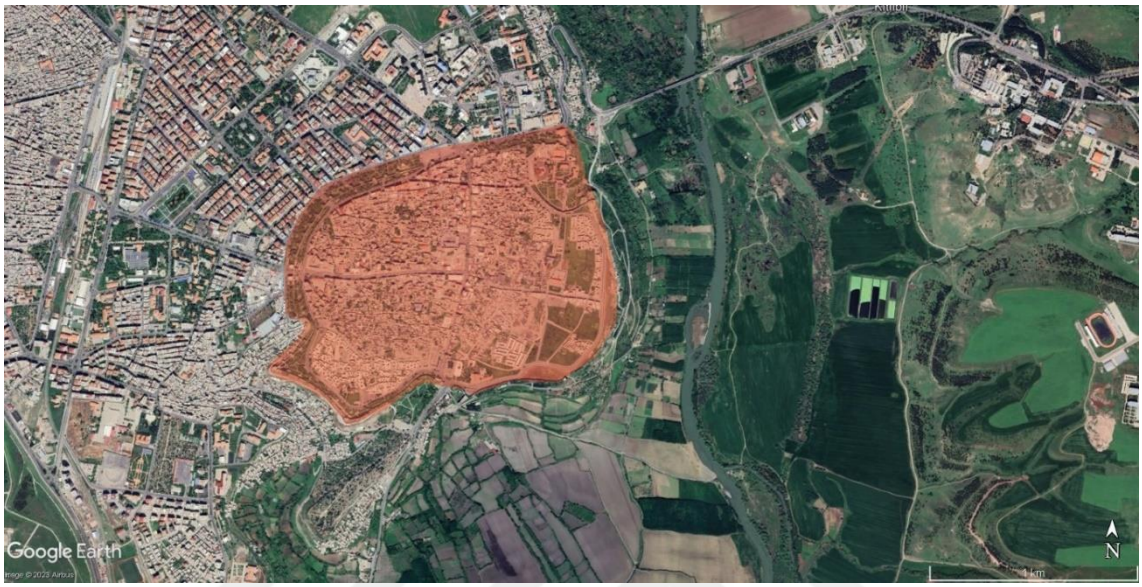

Figure 4.235. Satellite image of Diyarbakır Fortress[1025]

[1023] "Türkiye," UNESCO World Heritage Convention: State Parties, accessed December 20, 2023, https://whc.unesco.org/en/statesparties/tr.
[1024] "Tarihi Diyarbakır Surları, Depremde Zarar Gördü," Arkeofili, accessed December 20, 2023, https://arkeofili.com/tarihi-diyarbakir-surlari-depremde-zarar-gordu/.
[1025] Google Earth, accessed December 20, 2023.

Figure 4.236. A part of the fortification walls in inner citadel[1026]

Figure 4.237. Saint George Church dated to the 3rd century AD in inner citadel[1027]

[1026] Ö. D. Toköz, 21 August 2022.
[1027] Ö. D. Toköz, 21 August 2022.

Figure 4.238. Spolia use in east façade of the Diyarbakır Great Mosque from courtyard[1028]

Ongözlü | Bridge | Late Roman ?

Ongözlü Bridge is located outside of the Diyarbakır city centre, approximately 2.3 kilometres southern of the old city (Figure 4.239). It is on the Tigris River. According to Comfort, the bridge, which was built with cut stones, has 10 arches, and 150 metres in length and 7-11 metres in width. It was on the road from Amida to Tigranocerta with the nearest way station *AdTigren*.[1029] It is thought that the Late Roman bridge was built here in 485 AD, but this bridge is also a predecessor dated to the Constantius II period, and when the bridge was destroyed as a result of the flood in 742 AD, the current medieval bridge was built instead.[1030] The bridge was consolidated and cleaned, and the missing parts were completed in the restoration conducted in 2009 by General Directorate of Highways.[1031] The bridge has been surveyed in by the author in October 2017 and August

[1028] Ö. D. Toköz, 21 August 2022.
[1029] Comfort, "Roman bridges of South-East Anatolia," 328.
[1030] Comfort, "Roads on the frontier between Rome and Persia," 60-61, 354.
[1031] F. Meral Halifeoğlu, Neslihan Dalkılıç, Halide Sert, and Zülfikar Halifeoğlu, "Diyarbakır, Dicle (On Gözlü) Köprüsü'nün Rölöve, Restitüsyon ve Restorasyon Projelerinin Yapımı," in *Uluslararası Katılımlı tarihi Eserlerin Güçlendirilmesi ve Geleceğe Güvenle Devredilmesi Sempozyumu-2*, 15-16-17 October 2009 (Ankara: TMMOB İnşaat Mühendisleri Odası, 2009),

2022. According to the survey, the bridge is in a good condition and still in use by the pedestrians (Figure 4.240, 4.241).

Figure 4.239. Satellite image of Ongözlü Bridge[1032]

Figure 4.240. Ongözlü Bridge in 2005 before restoration[1033]

137-154; Halide Sert, F. Meral Halifeoğlu, Neslihan Dalkılıç, and Zülfikar Halifeoğlu, "Tarihi Diyarbakır Dicle (On Gözlü) Köprüsü'nün Onarımı, Güçlendirilmesi ve Yeniden Kullanımı," in *Uluslararası Katılımlı tarihi Eserlerin Güçlendirilmesi ve Geleceğe Güvenle Devredilmesi Sempozyumu-2*, 15-16-17 October 2009 (Ankara: TMMOB İnşaat Mühendisleri Odası, 2009), 121-137.

[1032] Google Earth, accessed December 20, 2023.

[1033] Sert et al., "Tarihi Diyarbakır Dicle (On Gözlü) Köprüsü'nün Onarımı, Güçlendirilmesi ve Yeniden Kullanımı," 123.

Figure 4.241. Ongözlü Bridge after restoration[1034]

Üçtepe *(*Kerxa Dicle/ Kerh/ Kurx - *Charcha ?)* | Station ? | Roman, Late Roman

Üçtepe (former name: Kerxa Dicle/ Kerh/ Kurx (ku))[1035] neighbourhood in Bismil/ Diyarbakır is located near the western bank and junction of the Göksu Stream with the Tigris. It is approximately 11 kilometres southeast of the Bismil district centre (Figure 4.242). The neighbourhood is on the eastern skirt of the mound. Excavations started in 1988 and were conducted by Prof. Dr. Veli Sevin from İstanbul University and with the support of Diyarbakır Museum. It is considered that the Assyrian palace built here constitutes a frontier province with the Urartians. It was also determined that the settlement here continued until the Roman period.[1036] Four structure levels belonging to the Late Roman period were unearthed above the Late Hellenistic period level dated to the Tigranes II period.[1037] Due to the inscription found in the excavations, it is thought

[1034] Ö. D. Toköz, 23 August 2022.
[1035] "Üçtepe," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=10738&haritasi=%C3%BC%C3%A7tepe.
[1036] Sevin, "1988 Yılı Diyarbakır/ Üçtepe Kazısı," 103-123; Veli Sevin, *Excavations at Üçtepe [Üçtepe Kazıları]* (İstanbul: Arkeoloji ve Sanat Yayınları, 1989).
[1037] Sevin, "1991 Yılı Diyarbakır Üçtepe Höyüğü Kazıları," 175-191.

that there may be Roman military units deployed here.[1038] Sinclair suggested that this place might be ancient *Charcha*.[1039]

Figure 4.242. Satellite image of Üçtepe[1040]

Köprüköy | Bridge | Late Roman ?

Köprüköy Bridge is located in Köprü neighbourhood of Bismil/ Diyarbakır. It is on the Tigris River and approximately 6 kilometres northwest of the junction of the Batman Su with the Tigris River (Figure 4.243). According to Comfort, before its destruction, the bridge had at least 4 arches. It is considered that the span of the bridge is 80 metres, and the width is approximately 6.4 metres. It was possibly on the road Mardin/ Savur/ Martyropolis.[1041] Although the bridge might bear traces of the Artuqid period, since the region formed the Roman and Persian border after 363 AD, it is thought that the bridge was built between 363-602 AD, since it is possible that Roman bridges were built in the region.[1042] As understood from Google Earth, abutments that is in a ruined state

[1038] Chris S. Lightfoot and J. F. Healey, "A Roman veteran on the Tigris," *Epigraphica Anatolica* 17 (1991): 2.
[1039] Comfort, "Fortresses of the Tur Abdin," 199-200; Sinclair, *Eastern Turkey/ III,* 430.
[1040] Google Earth, accessed December 20, 2023.
[1041] Comfort, "Roman bridges of South-East Anatolia," 328-329.
[1042] Comfort, "Roads on the frontier between Rome and Persia," 61-62.

have been partially reconstructed and consolidated in a time period between 2013-2015 (Figure 4.244).

Figure 4.243. Satellite image of Köprüköy Bridge after partial reconstruction [1043]

Figure 4.244. Köprüköy Bridge before partial reconstruction [1044]

[1043] Google Earth, accessed December 20, 2023.
[1044] Comfort, "Roman bridges of South-East Anatolia," 328.

Harap | Bridge | Late Roman

Harap Bridge is located in Bıçakçı (former name: Kerik/ Kirik (hy))[1045] village of Batman. It is on the Batman *(Nymphius)* Stream, which divides Diyarbakır and Batman, and approximately 11 kilometres northeast of the Batman city centre (Figure 4.245). The bridge is approximately 18 kilometres south of Artuqids Malabadi Bridge on the same stream. In the Euphrates and Tigris Archaeological Reconnaissance Project carried out under the direction of Dr. Guillermo Algaze of the Oriental Institute of Chicago University began in 1988, the bridge has been surveyed and shown on the map. Later, according to Comfort, it is considered that the bridge originally had 30 arches, currently, 17 of them can be seen on Google Earth. River bed is about 730 metres wide, and the width of the bridge is approximately 8 metres. The bridge was on the road from Amida to Tigranocerta with the probable way station *Colchana*.[1046] Since the Batman Stream was the border between Rome and Persia from 363 AD[1047], it is thought that this bridge is dated to the Late Roman period, and its superstructure may be wooden. It is known that there was no bridge on the stream during the eastern expedition of the Romans in 503 AD, so it was proposed that the bridge must have been built and demolished before 503 AD. Or the bridge may have been built later in 529 AD by Justinian or Maurice.[1048] As understood from Google Earth, the abutments that in a ruined state have been partially reconstructed and consolidated in a time period between 2018-2020 (Figure 4.246).

[1045] "Bıçakçı," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=28592&haritasi=b%C4%B1%C3%A7ak%C3%A7%C4%B1.
[1046] Comfort, "Roman bridges of South-East Anatolia," 330.
[1047] Algaze, "A New Frontier: First Results of the Tigris-Euphrates Archaeological Reconnaissance Project, 1988," 245, 257.
[1048] Comfort, "Roads on the frontier between Rome and Persia," 64-67.

Figure 4.245. Satellite image of Harap Bridge after partial reconstruction[1049]

Figure 4.246. Harap Bridge before implementation[1050]

[1049] Google Earth, accessed December 20, 2023.
[1050] Comfort, "Roman bridges of South-East Anatolia," 330.

Bozhüyük *(Tigranocerta/Arzen ?)* | Fortified city | Late Roman

Although the location of Tigranocerta was discussed whether in Silvan or Kızıltepe, in recent studies, the location is considered in the Ancient Arzen/ Erzen settlement near Bozhüyük (former name: Teliba (ku))[1051] village in Kurtalan/ Siirt.[1052] As observed in Google Earth, the remains are 1.5 kilometres southwest of the village (Figure 4.247). Bozhüyük is located on the eastern bank of the Garzan Stream. It is approximately 26 kilometres northwest of the Kurtalan district centre. The city was established by Tigranes II (95 to 55 BC). It was the capital of the Armenian province of Arzanene. The city was captured by Lucullus in 69 BC. After changing hands several times between the Romans and the Kingdom of Armenia, in the 4th century, the city was destroyed by Sapor II in 364 AD. The city, which was under the rule of the Persians in the 5th and 6th centuries, was plundered by the Romans. The geopolitical significance of the city is due to its location on the route from Amida via Bitlis and Lake Van to Artaxata.[1053] The plan of the fortified settlement was drawn by Taylor.[1054] No intervention has been realized (Figure 4.248).

Figure 4.247. Satellite image of Bozhüyük[1055]

[1051] "Bozhüyük," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=28851&haritasi=bozh%C3%BCy%C3%BCk.
[1052] Demir, "Tigranokerta Savaşı (MÖ 69): Yeni Bir Gözden Geçirme," 145-176; Sinclair, "The site of Tigranocerta, I," 183-254; Sinclair, "The site of Tigranocerta, II," 51-118.
[1053] Comfort, "Roads on the frontier between Rome and Persia," 284-285; Sinclair, *Eastern Turkey/ III*, 298.
[1054] Taylor, "Travels in Kurdistan," 26.
[1055] Google Earth, accessed December 20, 2023.

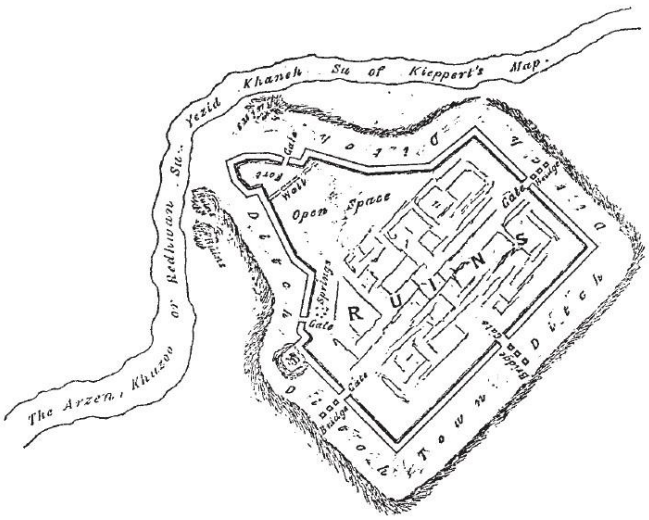

Figure 4.248. Arzen sketch plan[1056]

Zerzevan | Fortified town | Late Roman

Zerzevan Fortress is located in Demirölçek neighbourhood in Çınar/ Diyarbakır. The castle is located on the Diyarbakır-Mardin highway on the east, approximately 45 kilometres southeast of Diyarbakır (Figure 4.249). The fortress is located on a hill where the sight distance is high, on a flat land with small hills. Excavations in the castle have been carried out since 2014 under the direction of Prof. Dr. Aytaç Coşkun from Dicle University. The fortress has a defence and watchtower whose wall was preserved up to 19.2 metres, a tower, two large vaulted cisterns, a church, dwellings, an arsenal, a bath, water channels, rock tombs and vaulted tombs. In addition to the large cisterns in the northern section for public use, there are also many individual cisterns located in front of the houses. The fortress is surrounded by 1.2 kilometres long walls; the main entrance is from the east. Fortification walls are approximately 12-15 metres in height, 2.1-2.5 metres thick and ten projecting bastions and two towers were identified (Figure 4.250). Three of the bastions are circular, and the rest are square planned. There is a passage with rotating steps and windows looking into the fortification wall adjacent to the west of the southern three-storey tower. There is a well-preserved church in the east-west direction in the southern part of the fortress. The church, built on the highest point of the settlement, was

[1056] Taylor, "Travels in Kurdistan," 26.

entered from the south and was covered with a gable roof.[1057] A Mithraeum measuring 7 x 5 metres and a height of 2.5 metres was found, which was built by carving the bedrock underground in the north of the castle. The religion of Mithras, the sun god, was a common religion among Roman soldiers in the 2nd and 3rd centuries AD; however, it was banned in the 4th century with the spread of Christianity. Their religious ceremonies were secret and closed, and these ceremonies were performed underground in caves or temples. It is important that the Mithraeum was found in the castle together with the garrison structures[1058] (Figure 4.251). Zerzevan Fortress is located on the road from Amida to Dara and on the ancient road route from Edessa to Nisibis. Although the ancient name of the castle is uncertain, it is thought to be *Samachi*, and it was a border garrison that was constantly changing hands between the Romans and the Sassanians. It is thought that there is also a civilian settlement in the fortress since there are domestic structures together with military structures, and it provides a refuge point for the people in the valley. Although the first construction date is uncertain now, it is thought to have been used in the 3rd century AD. The fortification walls and structures of the fortress were repaired or rebuilt during the reigns of Anastasius and Justinian. It is thought that the fortress was used until the conquest of the region by the Islamic armies in 639 AD. Afterwards, while fortress continued in Amida and Dara, Zerzevan lost its geopolitical importance and was abandoned because of being located on a high hill, tough transportation and water problems[1059] (Figure 4.252).

[1057] Coşkun, "2014 Yılı Zerzevan Kalesi Kazısı (İlk Sezon)," 101-128; Coşkun, "Zerzevan Kalesi 2016 Yılı Kazı Çalışmaları",,405-422.
[1058] Coşkun, "Zerzevan Kalesi 2018 Yılı Çalışmaları," 567-586.
[1059] Coşkun, "2015 Yılı Zerzevan Kalesi Kazı Çalışmaları (2. Sezon)," 125-150; Coşkun, "Zerzevan Castle in the Light of Recent Archaeological Researches," 91-110; Coşkun, "Zerzevan Kalesi 2021 Yılı Çalışmaları," 377-390.

Figure 4.249. Satellite image of Zerzevan Fortress[1060]

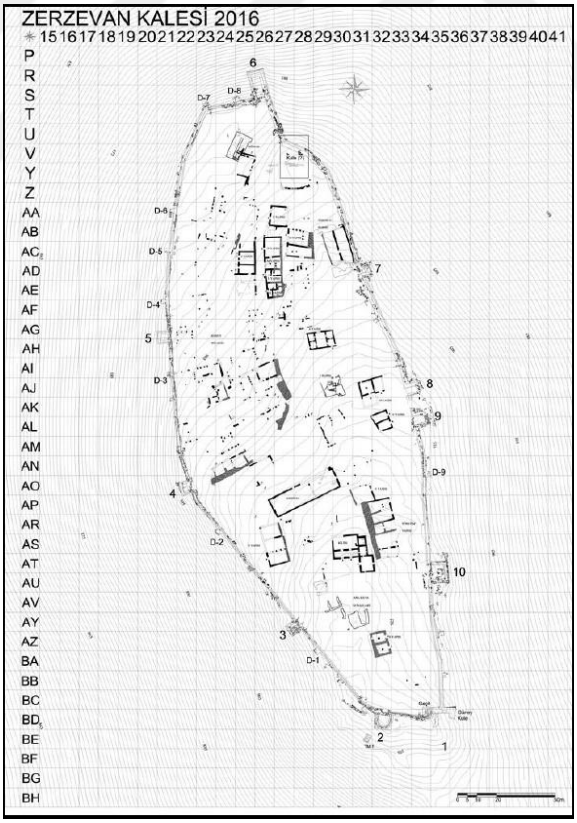

Figure 4.250. Zerzevan Fortress plan[1061]

[1060] Google Earth, accessed December 20, 2023.
[1061] Coşkun, "Zerzevan Kalesi 2016 Yılı Kazı Çalışmaları," 405-422.

Figure 4.251. Mithraeum[1062]

Figure 4.252. Southern tower[1063]

[1062] Ö. D. Toköz, 24 August 2022.
[1063] Ö. D. Toköz, 24 August 2022.

Hisarkaya (Bozresa) | Fortress | Late Roman ?

The fort is approximately 1.5 kilometres southwest of Hisarkaya (former name: Kalepozreş (ku))[1064] neighbourhood of Savur/ Mardin. It is on the western bank of Savur Stream, and approximately 38 kilometres northeast of the Mardin city centre, and 12 kilometres north of the Savur district centre (Figure 4.253). It was suggested that probably was guarding a route to Amida with Savur Fortress. It is possibly the *Idriphthon* that Procopius mentioned. Wiessner suggested to date the fortress to the Justinian period.[1065] The fortification walls are almost in a ruined state, and traces of its plan can be seen via Google Earth. No intervention has been realized (Figure 4.254).

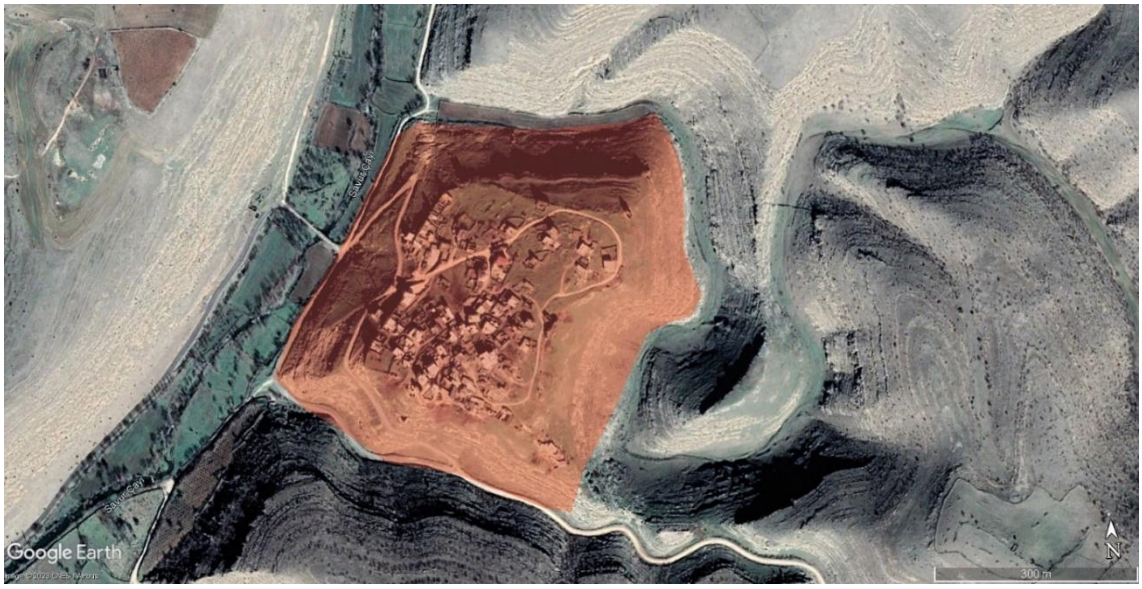

Figure 4.253. Satellite image of Hisarkaya Fortress[1066]

[1064] "Hisarkaya," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=25157&haritasi=hisarkaya.

[1065] Comfort, "Fortresses of the Tur Abdin," 196-197; Comfort, "Roads on the frontier between Rome and Persia," 316-317; Gernot Wiessner, *Nordmesopotamische Ruinenstätten* (Wiesbaden: Harrasowitz, 1980).

[1066] Google Earth, accessed December 20, 2023.

Figure 4.254. Hisarkaya fortifications[1067]

Savur *(Saúras)* | Fortress | Late Roman ?

Savur (former name: Stewr (ku), Şawr (ar), Saúras/ Tzaúras (el))[1068] Fortress is located on a hill above Savur approximately 1.5 kilometres north of Savur district of Mardin. It is on the western bank of the Savur Stream, and approximately 28 kilometres northeast of the Mardin city centre (Figure 4.255). A modern military base is currently in the fortress. There are three Early Christian churches in Dereiçi (former name: Kıllıt (tr), Qıllıth (Syriac))[1069] neighbourhood, approximately 7 kilometres east of Savur.[1070] The fortress is moderately preserved, and no intervention has been realized (Figure 4.256).

[1067] "Keşfedilmeyi bekleyen tarih: Hisarkaya," Sputnik Türkiye, accessed December 20, 2023, https://sputniknews.com.tr/20180305/kesfedilmeyi-bekleyen-tarih-hisarkaya-1032505167.html.

[1068] "Savur," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=36183&haritasi=savur.

[1069] "Dereiçi," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=25153&haritasi=derei%C3%A7i.

[1070] Comfort, "Fortresses of the Tur Abdin," 218.

Figure 4.255. Satellite image of Savur Fortress[1071]

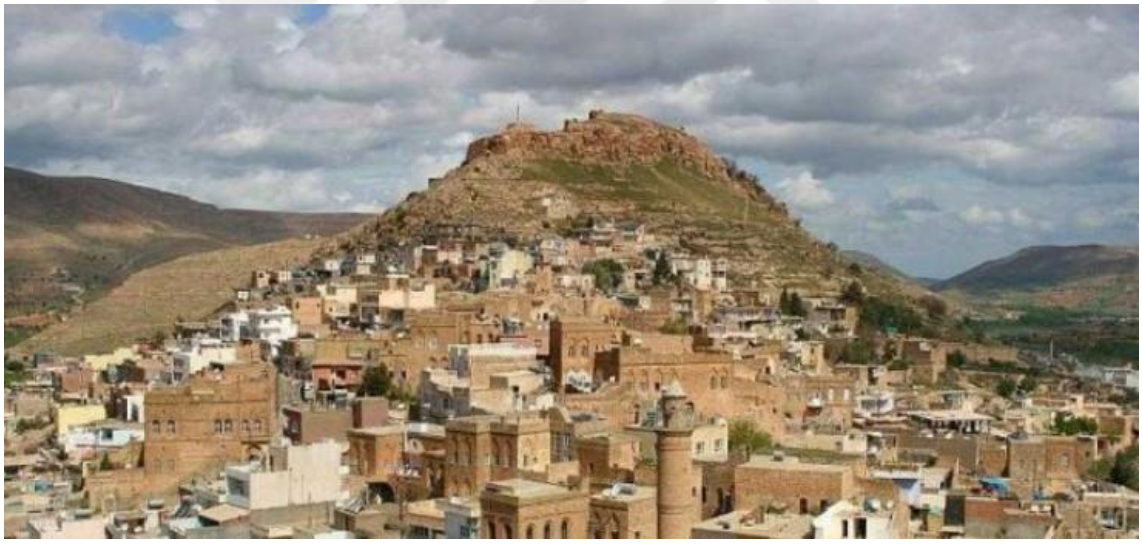

Figure 4.256. Savur Fortress[1072]

[1071] Google Earth, accessed December 20, 2023.

[1072] "Krallara Taht olan Kent: Savur," Mardin Haber, accessed December 20, 2023, https://mardinhaber.com.tr/haber/9586090/krallara-taht-olan-kent-savur#google_vignette.

<u>Alodino</u> (<u>Atlıhan</u>- <u>*Rhipalthas*</u> ?) | Fortress | Late Roman ?

Alodino (Atlıhan) Fortress is located in Atlıhan in Kumluca (former name: Merdis)[1073] village of Hasankeyf/ Batman. It is located on the western bank of the Tigris, and approximately 3 kilometres southwest of Kumluca, 16 kilometres west of the Hasankeyf district centre (Figure 4.257). The fortress may have been connected to Hasankeyf by a route on the northern bank of the Tigris or by boat. The fortress may also have protected the north-south crossing. According to the *Notitia Dignitatum*, Ala Octava Flavia Francorum was placed in *Ripaltha*.[1074] The fortress is in an almost ruined state, and traces of its plan can be seen via Google Earth. No intervention has been realized (Figure 4.258).

Figure 4.257. Satellite image of Alodino Fortress[1075]

[1073] "Kumluca," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=24654&haritasi=kumluca.
[1074] Comfort, "Fortresses of the Tur Abdin," 217-218; Comfort, "Roads on the frontier between Rome and Persia," 323.
[1075] Google Earth, accessed December 20, 2023.

Figure 4.258. Alodino Fortress[1076]

Hasankeyf (Cepha) | Legionary fortress | Late Roman

Cepha (Hasankeyf) Bridge is located on Hasankeyf (former name: Hısn el- Kîfa (ar), Risképhas/ Hesno-d'kîpho/ Kêpha (Syriac))[1077]/ Batman. It is on the Tigris River and approximately 32 kilometres southeast of the Batman city centre (Figure 4.259). The city, which was important since the Assyrian period, was also a Roman frontier legionary fortress for Legio II Parthica as known in *Notitia Dignitatum*, and remained in Romans after 363 AD. From 363 AD, the frontier must have passed to the east of Hasankeyf. However, Hasankeyf did not lose its importance and continued to be an important centre during the Artuqids period.[1078] The traces of these periods can be read in the fortress, and the settlement has continued until today.[1079] Excavations were carried out by

[1076] "Atlıhan Doğu ve Batı Kale Yerleşimleri," Batman İli Kültür Envanteri, accessed December 20, 2023, http://www.batmankulturenvanteri.org/Haberler-92-atlihan_dogu_ve_bati_kale_yerlesimleri-139.aspx?vid=da0.

[1077] "Hasankeyf," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?y=hasankeyf&lv=&t=&cry=TR&ua=10.

[1078] Comfort, "Fortresses of the Tur Abdin," 197-198; Comfort, "Roads on the frontier between Rome and Persia," 289-290; Gabriel, *Şarki Türkiye'de Arkeolojik Geziler,* 65.

[1079] Sinclair, *Eastern Turkey/ III*, 235.

Archaeologist Prof. Dr. Oluş Arık under the directorship of Mardin Museum in 1986-2002[1080], and by Archaeologist Prof. Dr. Abdüsselam Uluçam in 2004-2017 focusing on Islamic period structures besides a structure dated to the Roman period also unearthed.[1081] Rescue excavations were carried out by Archaeologist Assist. Prof. Dr. Mevlüt Eliüşük in 2018.[1082] Since 2017, excavations have been carried out by Archaeologist Assoc. Prof. Dr. Zekai Erdal, under the directorship of Hasankeyf Museum in the inner citadel that was not submerged by Ilısu dam waters[1083] (Figure 4.260).

Figure 4.259. Satellite image of Hasankeyf Fortress and Hasankeyf Bridge[1084]

[1080] Arık, "Hasankeyf 2002 Yılı Çalışmaları," 127-138.
[1081] Uluçam, "Hasankeyf Kazıları 2005," 73-96.
[1082] Eliüşük, "2018 Yılı Hasankeyf Kazıları," 237-256.
[1083] "Hasankeyf'teki kazılar Asurlulardan Cumhuriyet dönemine kadar izleri ortaya çıkardı," Anadolu Ajansı, accessed December 20, 2023, https://www.aa.com.tr/tr/kultur/hasankeyfteki-kazilar-asurlulardan-cumhuriyet-donemine-kadar-izleri-ortaya-cikardi/3045221;
"Hasankeyf'teki kazılara yeni başkan...," Cumhuriyet, accessed December 20, 2023, https://www.cumhuriyet.com.tr/haber/hasankeyfteki-kazilara-yeni-baskan-861693.
[1084] Google Earth, accessed December 20, 2023.

Figure 4.260. Hasankeyf fortress by the Tigris before partial submersion[1085]

Cepha (Hasankeyf) | Bridge | Late Roman ?

Cepha (Hasankeyf) Bridge is located on Hasankeyf (former name: Hısn el- Kîfa, Risképhas/ Hesno-d'kîpho/ Kêpha (Syriac))[1086]/ Batman. It is on the Tigris River and approximately 32 kilometres southeast of the Batman city centre (Figure 4.259). According to Comfort, the bridge originally had 5 arches and approximately 165 metres span width. It is considered that the bridge was reconstructed during the Medieval Period and on the road from Nisibis to Tigranocerta as the way station *Sitae*.[1087] It was considered that the existing bridge was built in the 12th century. However, considering Hasankeyf was a legionary base and capital of the province of Arzanene, it is possible that there was a Roman bridge, possibly with a wooden superstructure based on piers of masonry and natural stone likewise the current bridge.[1088] The bridge was visited by the author in October 2017, and observed that only abutments had survived and they have been partially reconstructed and consolidated (Figure 4.261, 4.262). Since the bridge was

[1085] Ö. D. Toköz, 5 October 2022.
[1086] "Hasankeyf."
[1087] Comfort, "Roman bridges of South-East Anatolia," 329.
[1088] Comfort, "Roads on the frontier between Rome and Persia," 63-64.

demolished, the transportation between the two banks is provided by a new reinforced concrete bridge. Hasankeyf was submerged by Ilısu Dam in May 2020, and the settlement was re-located on the other side of the river with the removal of some of the historical monuments; however, the bridge was not re-located.

Figure 4.261. Partial reconstruction of Hasankeyf Bridge before submersion[1089]

Figure 4.262. Partial reconstruction of Hasankeyf Bridge before submersion[1090]

[1089] Ö. D. Toköz, 5 October 2017.
[1090] Ö. D. Toköz, 5 October 2017.

Şeyhosel | Bridge | Late Roman ?

Şeyhosel Bridge is located on approximately 16.4 kilometres of submerged Hasankeyf/ Batman and 3 kilometres southwest of Çavuşbayırı (Halevi)[1091] village in Beşiri/ Batman (Figure 4.263). The bridge is on the Yanarsu (former name: Garzansu) *(Nicephorion)* Stream. According to Comfort, the bridge had one arch before demolition. It is approximately 30 metres in length, and 4.5 metres in width. It was on the road from Cephas to Tilli.[1092] The main abutments of the bridge are of ashlar limestone with a rubble core and concrete. It is thought that it was built in the 3rd or 4th century.[1093] Before it was submerged by Ilısu Dam in May 2020, two abutments on the sides were survived until present day, and partially reconstructed and consolidated as understood from Google Earth in a time period between 2013-2017 (Figure 4.264, 4.265).

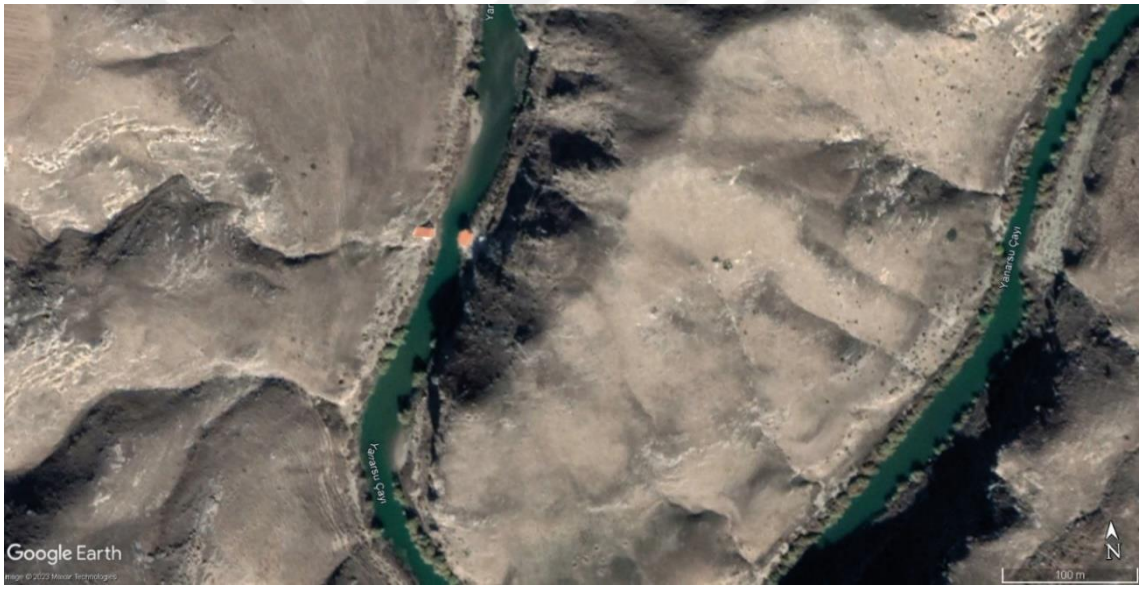

Figure 4.263. Satellite image of Şeyhosel Bridge after partial reconstruction in 2017[1094]

[1091] "Halevi," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?lv=2&y=Halevi&t=&srt=x&u=1&ua=0.
[1092] Comfort, "Roman bridges of South-East Anatolia," 331.
[1093] Comfort, "Roads on the frontier between Rome and Persia," 68-73.
[1094] Google Earth, accessed December 20, 2023.

Figure 4.264. Şeyhosel Bridge before partial reconstruction[1095]

Figure 4.265. Şeyhosel Bridge before submersion[1096]

[1095] Comfort, "Roman bridges of South-East Anatolia," 331.

[1096] "Şey Hosel Köprüsü," Batman İli Kültür Envanteri, accessed December 20, 2023, http://batmankulturenvanteri.org/Haberler-107-sey_hosel_koprusu-416.aspx?vid=009.

Adaklı| Fortress | Late Roman ?

Adaklı (former name: Kefsur (tr), Kfarsu (Syriac))[1097] neighbourhood is located in Midyat/ Mardin. It is approximately 13 kilometres northeast of the Midyat district centre (Figure 4.266). Wiessner dated the fortress in two periods. Both earlier and later remains have at least three towers. He suggested that the early date could be dated to the Urartians or Assyrians because of using 1.2 x 1 metre stone blocks.[1098] The fortress is in an almost ruined state, and traces of its plan can be seen via Google Earth. No intervention has been realized.

Figure 4.266. Satellite image of Adaklı Fortress[1099]

Hatem Tai *(Rhabdion)* | Fortress | Late Roman ?

Hatem Tai (former name: Rhabdion (el))[1100] Fortress is located near Aksoy (former name: Mamulan (ku))[1101] village in İdil/ Şırnak. It is approximately 6 kilometres

[1097] "Adaklı," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=38277&haritasi=adakl%C4%B1.
[1098] Comfort, "Fortresses of the Tur Abdin," 201-202; Wiessner, *Christliche Kultbauten im Tur Abdin*, 3.134–166.
[1099] Google Earth, accessed December 20, 2023.
[1100] "Hatem Tai," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=49789&haritasi=hatemtai.
[1101] "Aksoy," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=24779&haritasi=aksoy.

west of Aksoy village, and 28 kilometres southwest of the İdil district centre (Figure 4.267). It is located inside the escarpment in a ravine. The site was visited by Taylor between 1861 and 1863, and the late Gertrude Bell in 1911.[1102] Along with *Amida*, and Cepha, *Rhabdion* was probably one of the three fortresses built in the period of Constantius II. It was the easternmost stronghold of the Romans after the loss of Çattepe and *Bezabde* after 363 AD. Procopius pointed out that the fortress was not accessible by cart from the north, so the fortress is thought to be inaccessible from Roman territory. However, considering that the Tur Abdin region, together with the *Cepha*, remained in Roman hands after 363 AD, and a bishop was appointed here, *Rhabdion* must be under Roman control.[1103] The fortress is in an almost ruined state, and traces of its plan can be seen via Google Earth. No intervention has been realized (Figure 4.268).

Figure 4.267. Satellite image of Hatem Tai Fortress[1104]

[1102] Gertrude L. Bell, *From Amurath to Amurath* (London: William Heinemann, 1911), 306-308; Taylor, "Travels in Kurdistan," 51-52.
[1103] Comfort, "Fortresses of the Tur Abdin," 215-217; Comfort, "Roads on the frontier between Rome and Persia," 322-323.
[1104] Google Earth, accessed December 20, 2023.

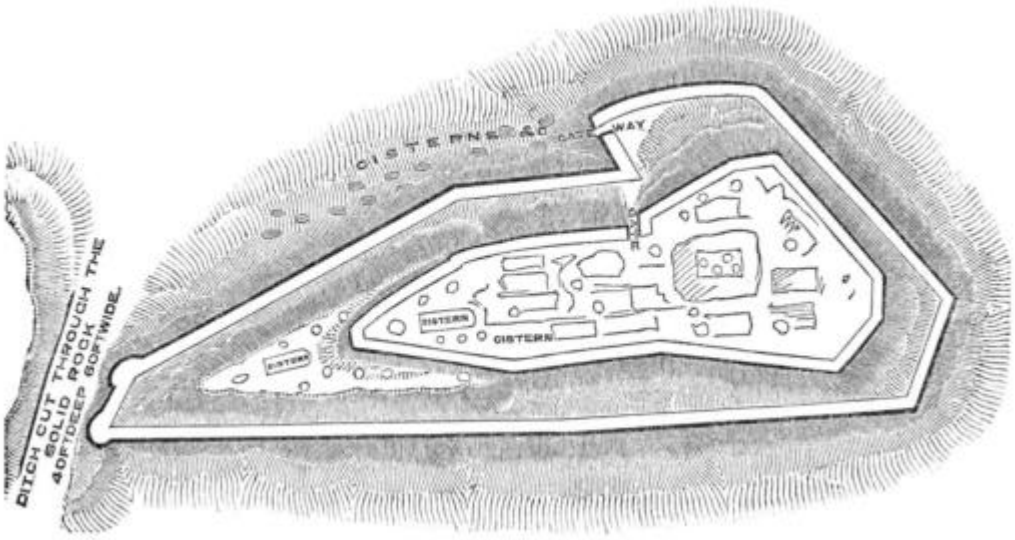

Figure 4.268. Plan of Hatem Tai fortress[1105]

Şirvan (Şervan/ Sarbane/ *Sisauranon*) | Fortress | Late Roman

Şirvan (Şervan)[1106] Fortress is approximately 1.5 kilometres northwest of Turgutlu (former name: Kemina (ku))[1107] neighbourhood of Nusaybin/ Mardin. It is approximately 38 kilometres northeast of the Nusaybin district centre (Figure 4.269). The fortress was probably on the north of the road from Nisibis to Cizre, and approximately 7 kilometres southeast of the castle of Rhabdion Fortress. It fell into the hands of Sassanians after 363 AD and was captured back by the Romans in 541 AD.[1108] The fortress is in an almost ruined state, and traces of its plan can be seen via Google Earth. No intervention has been realized.

[1105] Taylor, "Travels in Kurdistan," 52.

[1106] "Şirvan," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=64708&haritasi=%C5%9Firvan.

[1107] "Turgutlu," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=25101&haritasi=turgutlu.

[1108] Comfort, "Fortresses of the Tur Abdin," 219; Comfort, "Roads on the frontier between Rome and Persia," 326; Eduard Sachau, *Reise in Syrien und Mesopotamien* (Leipzig: F. A. Brockhaus 1883), 388.

Figure 4.269. Satellite image of Şirvan Fortress[1109]

Beşikkaya (Fafi) | Fort | Roman ?, Late Roman ?

The fort is located on a rocky hill on the west of Beşikkaya (former name: Faf/ Fafa/ Fafix (ku), Beioudaes (el))[1110] neighbourhood in Ömerli/ Mardin. It is approximately 32 kilometres east of the Mardin city centre (Figure 4.270, 4.271). According to Whitby, the fort was captured by the Sassanians after the fall of the Dara in 573 AD, but was taken back by Maurice in 587 AD.[1111] Although current remains are few, Gertrude Bell mentioned a large tower tomb when she visited the site in 1911.[1112] The tower may belong to the 2nd or 3rd century[1113] (Figure 4.272). The fortifications may predate Justinian, and possibly being built to protect the route to the Çağ Çağ Stream and Kara Stream towards Amida, and some walls might be date back to the Hittites.[1114] The fortress is in an almost ruined state, and traces of its plan can be seen via Google Earth. No intervention has been realized.

[1109] Google Earth, accessed December 20, 2023.
[1110] "Beşikkaya," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=25109&haritasi=be%C5%9Fikkaya.
[1111] Whitby, *The Emperor Maurice and his Historian,* 284.
[1112] Gertrude L. Bell, Marlia Mundell Mango, *The Churches and Monasteries of the Tur Abdin* (London: Pindar Press, 1982), 27,29.
[1113] Sinclair, *Eastern Turkey/ III,* 324, 376.
[1114] Comfort, "Fortresses of the Tur Abdin," 203-205; Comfort, "Roads on the frontier between Rome and Persia," 317-318.

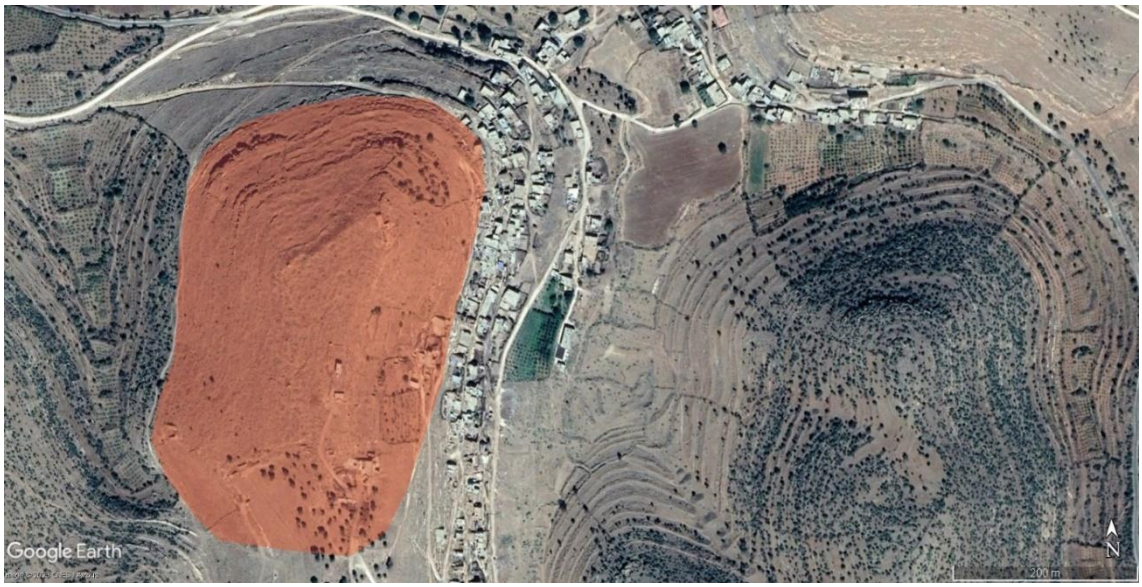

Figure 4.270. Satellite image of Beşikkaya Fort[1115]

Figure 4.271. Beşikkaya fortification walls[1116]

[1115] Google Earth, accessed December 20, 2023.
[1116] Comfort, "Fortresses of the Tur Abdin," 205.

Figure 4.272. Tower at Beşikkaya. Gertrude Bell's photograpgh in 1911[1117]

Nusaybin *(Nisibis)* | Fortified city | Roman, Late Roman ?

Ancient Nisibis (former name: Nisibis (el)/ Nisebin (ku)/ Mıdzpin (hy/ Ṣawbā/ Naṣîbina (Syriac))[1118] is located in Nusaybin district of Mardin. It is approximately 50 kilometres southeast of the Mardin city centre, and on the Turkey-Syria border. Trajan took the Nisibis during his eastern expansion, but this conquest was short-lived and was withdrawn after Trajan's death. Nisibis was taken again by co-emperor Lucius Verus from Parthians in 165 AD, and it was turned to a garrison town. In the Septimus Severus period, Nisibis became a colony, and in the period of Severus Alexander, it became a metropolis. In the 3rd century crisis, after Nisibis changed hands a few times between the Romans and the Sassanians, it was captured again by the Romans in 297 AD. Then, it became the capital of the Roman province of Mesopotamia. Sapor II besieged the city three times in

[1117] Comfort, "Fortresses of the Tur Abdin," 204.

[1118] "Nusaybin," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?y=nusaybin&lv=&t=&cry=TR&ua=10.

338, 346, and 350 AD, he could not take it, but the city was handed over in 363 AD with the treaty along with Singara and other fortified cities in Mesopotamia. The surrender of Nisibis, a crucial point for the defence of the eastern frontier, came as a great loss to the Romans. They tried to take the city back many times; however, it passed into the hands of the Arabs in 639 AD after the Sassanians. Although there are not enough written sources or findings, it cannot be thought that the Legio I Parthica was not stationed in this important frontier city here, or it is thought that it was stationed at *Singara*.[1119] Currently, the remains of the Nisibis Fortress are not visible on the surface, but there are columns with Corinthian capitals at no-man's-land.[1120] To the south of the city, there is the Mor Jacob cathedral complex dated to the 4th century AD. The excavations in Mor Jacob cathedral started in 2000-2002 under the directorship of Diyarbakır Museum, and under the directorship of Mardin Museum since 2002[1121] (Figure 4.273, 4.274).

Figure 4.273. Excavation area of Mor Jacob Cathedral in Nusaybin[1122]

[1119] Chris S. Lightfoot, "Facts and Fiction: The Third Siege of Nisibis (A.D. 350)," *Historia: Zeitschrift Für Alte Geschichte* 37, no. 1 (1988): 105–25. http://www.jstor.org/stable/4436041; Comfort, "Fortresses of the Tur Abdin," 208-211.

[1120] Rocco Palermo, "Nisibis, capital of the province of Mesopotamia: Some historical and archaeological perspectives," *Journal of Roman Archaeology* 27, (2014): 456-471. doi:10.1017/S1047759414001354.

[1121] Keser-Kayaalp, and Erdoğan, "The Cathedral Complex at Nisibis," 137–54.

[1122] Keser-Kayaalp, and Erdoğan, "The Cathedral Complex at Nisibis," 141.

Figure 4.274. Columns with Corinthian capitals at no-man's-land[1123]

Nisibis (Baghdad) | Bridge | Roman ?

Nisibis (Baghdad) Bridge is located in the district centre of Nusaybin/ Mardin which is on the current border of Turkey and Syria (Figure 4.275). The bridge is on the Çağ Çağ *(Mygdonius)* Stream. It has at least 8 arches, 45 metres in length and 4.5 metres in width. It was probably a Roman bridge on the Nisibis-Tigris crossing[1124] (Figure 4.276). Although the moderately preserved bridge is on the Nisibis archaeological site and has been registered[1125], it was damaged due to new border wall construction on top of it[1126] (Figure 4.277, 4.278).

[1123] Palermo, "Nisibis, capital of the province of Mesopotamia," 464.
[1124] Comfort, "Roads on the frontier between Rome and Persia," 80-81; Comfort, "Roman bridges of South-East Anatolia," 334.
[1125] "Nusaybin'de Mayınlı sahadaki tarihi köprüye koruma," Nusaybinim, accessed December 20, 2023, https://www.nusaybinim.com/nusaybin-de-mayinli-sahadaki-tarihi-kopruye-koruma_2885.html.
[1126] "Sınırdaki duvar tarihi köprü üzerine örüldü," Evrensel, accessed December 20, 2023, https://www.evrensel.net/haber/74930/sinirdaki-duvar-tarihi-kopru-uzerine-oruldu.

Figure 4.275. Satellite image of Nisibis Bridge[1127]

Figure 4.276. Nisibis Bridge. Gertrude Bell's Photograph in 1911[1128]

[1127] Google Earth, accessed December 20, 2023.
[1128] Comfort, "Roman bridges of South-East Anatolia," 334.

Figure 4.277. Nisibis Bridge in 2012[1129]

Figure 4.278. Situation of the Nisibis Bridge after border wall construction[1130]

[1129] "Mayınlı sahadaki tarihi köprüye koruma," Anadolu Ajansı, accessed December 20, 2023, https://www.aa.com.tr/tr/kultur-sanat/mayinli-sahadaki-tarihi-kopruye-koruma/357031.

[1130] "Sınır Duvarı Tarihi Köprü Üzerine Örüldü," Hürseda Haber, accessed December 20, 2023, https://hurseda.net/yerel/96687-sinir-duvari-tarihi-kopru-uzerine-oruldu.html.

Durakbaşı (*Sargathon ?)* | Fort | Late Roman ?

Durakbaşı (former name: Qesra Serçixanê/ Serçexan (ku), Sargathon (el))[1131] neighbourhood is located in Nusaybin/ Mardin, and it is on the Turkey- Syria border. It is approximately 13 kilometres northwest of Nusaybin district centre (Figure 4.279). Although it is known that the fort was in the hands of the Sassanians in the 6th century, it is thought that it was first built by the Romans during the period of Diocletian. The fort was probably built on a mound, and after 363 AD, it was on the border between Dara and Nisibis. Dillemann 's identification of this place with Sargathon[1132] has been disputed, and it has been suggested that this is the unfinished Mindouos Fort ordered by Justinian. However, Comfort suggested this fort as Sargathon, and matches Mindouos Fort with Kalecik (former name: Keleya Bunisra (ku))[1133] neighbourhood of Nusaybin, west of Çağ Çağ Stream and 10 kilometres north of Nisibis, by inferencing the ancient name of the stream; *Mygdonius*.[1134] One tower still stands currently, but it is thought to have originally had twelve.[1135] The fort is in an almost ruined state, and traces of its plan can be seen via Google Earth. No intervention has been realized (Figure 4.280).

Figure 4.279. Satellite image of Durakbaşı Fort[1136]

[1131] "Durakbaşı," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=25047&haritasi=durakba%C5%9F%C4%B1.
[1132] Louis Dillemann, *Haute Mésopotamie orientale et pays adjacents* (Paris: Geuthner, 1962), 228.
[1133] "Kalecik," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=25095&haritasi=kalecik.
[1134] Comfort, "Fortresses of the Tur Abdin," 219-220; Comfort, "Roads on the frontier between Rome and Persia," 325-326.
[1135] Ernst Honigmann, *Die Ostgrenze des Byzantinischen Reiches von 363 bis 1071* (Brussels: Imprimerie de Meester, 1935), 20; Sachau, *Reise in Syrien und Mesopotamien.*
[1136] Google Earth, accessed December 20, 2023.

Figure 4.280. Fortification wall remains at Durakbaşı[1137]

Oğuz (Dara- *Anastasiopolis*) | Fortress city | Late Roman

Oğuz (former name: Dara)[1138] neighbourhood of Artuklu/ Mardin is located in Southeastern Anatolia, approximately 6 kilometres northern on the Turkey- Syria border, and 24.5 kilometres southeast of the Mardin city centre (Figure 4.281). The city is at the northern end of the Mesopotamian plain, at the southern foot of the Tur Abdin region. The Dara River (though its water does not flow currently) runs through the middle of the city. The city was founded by Anatasius in 505-507 AD. Therefore, although its first name was Anastasiopolis, it was later called Dara, which is the local name. During the Justinian period, the city walls were strengthened and rebuilt (Figure 4.282). After it became a Roman fortress city, it passed into the hands of the Persians in 573 AD. Although the Romans took the city back with an agreement in 591 AD, the Persians recaptured the city in 606 AD and plundered it. The city passed into the hands of the

[1137] Comfort, "Fortresses of the Tur Abdin," 220.
[1138] "Oğuz," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=24940&haritasi=o%C4%9Fuz.

Arabs in 639 AD; although it is no longer a frontier city, the Syriac bishop continued to exist until the 13th century.[1139] Excavations conducted by Architect Prof. Dr. Metin Ahunbay in the directorship of Mardin Museum were realized in 1986-1990[1140] and 2001-2009, and 2010-2013 by Nihat Erdoğan.[1141] In the new excavation and conservation period conducted by Archaeologist Assoc. Prof. Dr. Hüseyin Metin, in the directorship of Kafkas University, agora and southern city walls were focused[1142] (Figure 4. 283).

The ruins of the city are intertwined with the current village on top of it. The city is about 1 kilometre from north to south. The first fortification walls were 3-4 metres thick and 9-10 metres high. Although the dimensions of the reinforced walls are unknown, they are estimated to be higher. The towers built in the first stage are 12 x 12 and 4 x 4 square metres. The walls consist of ashlar with mortared rubble core.[1143] Inside the walls, two cisterns, an agora, two bridges, a necropolis, a water distribution centre, and a dam built to control floods outside the city have been preserved. The site was visited by the author in August 2022. Especially two cisterns are very well preserved. The south walls, towers and south gate, water distribution centre, agora and necropolis are also well preserved (Figure 4.284, 4.285, 4.286, 4.287).

[1139] Brian Croke and James Crow, "Procopius and Dara," *The Journal of Roman Studies* 73 (1983): 143–59. https://doi.org/10.2307/300078.; Comfort, "Fortresses of the Tur Abdin," 200-201; Sinclair, *Eastern Turkey/ III*, 219-221.

[1140] Ahunbay, "Dara- Anastasiopolis," 391-397.

[1141] Can, and Erdoğan, "Dara. Bizans - Sasani Sınırında Bir Garnizon Kenti ve Kazıları," 347-371.

[1142] Metin, and Durukan, "Dara (Anastasiopolis) Kazı, Restorasyon ve Konservasyon Çalışmaları 2020," 429-446; Metin, Durukan, and Menteşe, "Dara (Anastasiopolis) Kazı, Restorasyon ve Konservasyon Çalışmaları 2021," 189-206.

[1143] Gregory, *Roman Military Architecture on the Eastern Frontier/ II*, 80-88.

Figure 4.281. Satellite image of Dara village and Dara archaeological site[1144]

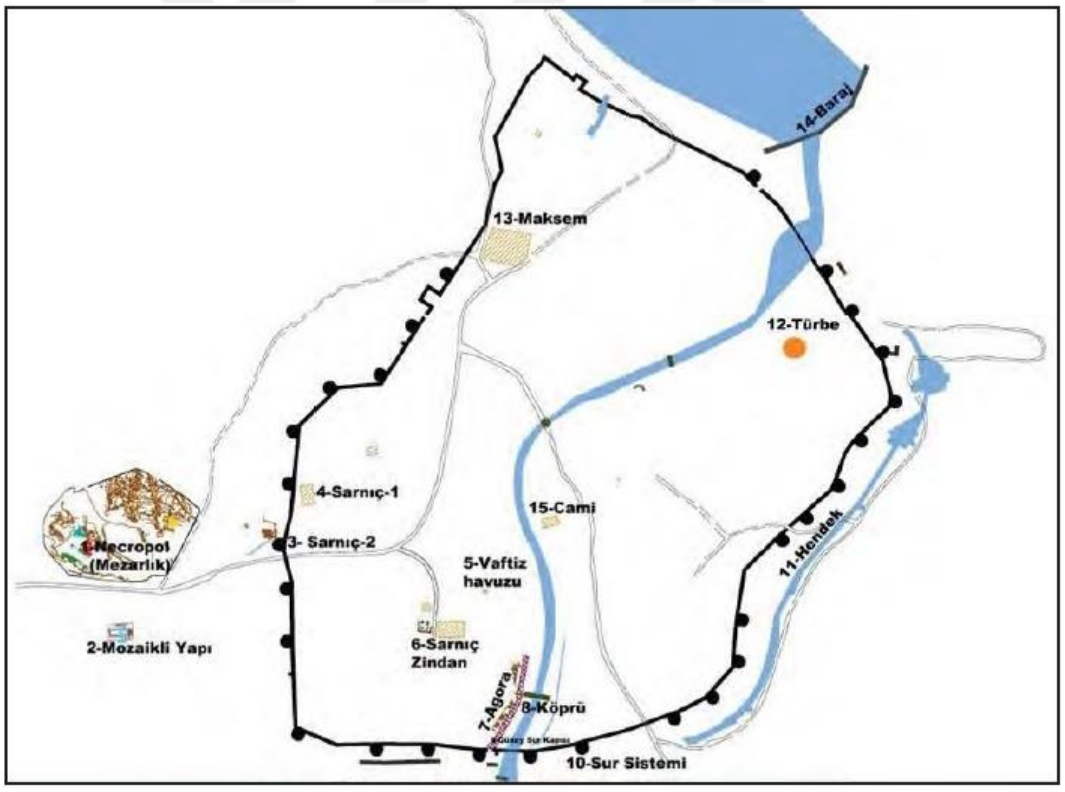

Figure 4.282. Dara plan[1145]

[1144] Google Earth, accessed December 20, 2023.

[1145] Metin, Durukan, and Menteşe, "Dara (Anastasiopolis) Kazı, Restorasyon ve Konservasyon Çalışmaları 2021," 200.

Figure 4.283. Before and after partial reconstruction of a retaining wall in Dara[1146]

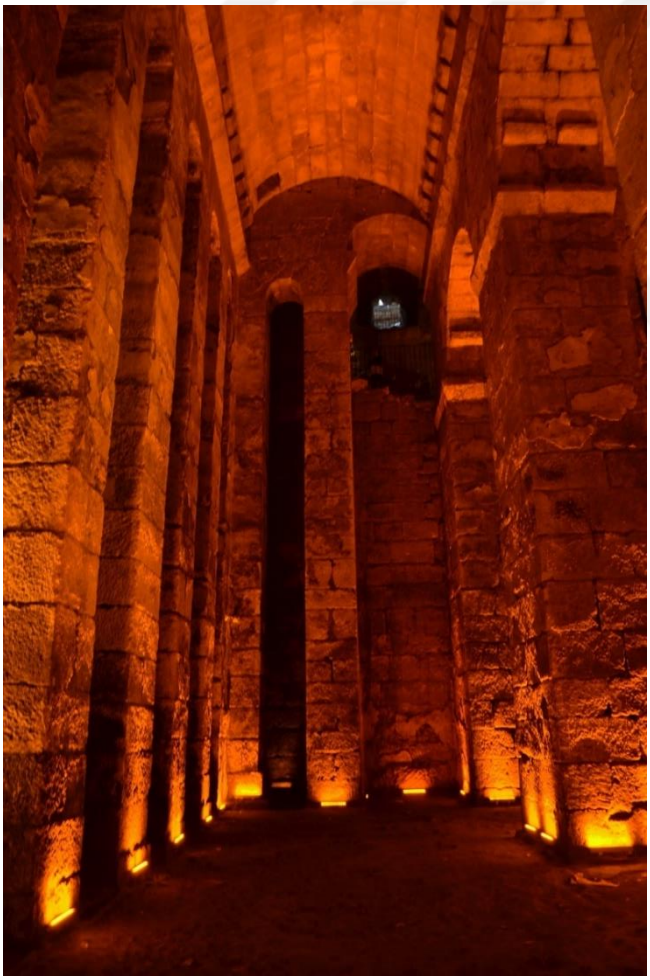

Figure 4.284. Great cistern at Dara[1147]

[1146] Metin, and Durukan, "Dara (Anastasiopolis) Kazı, Restorasyon ve Konservasyon Çalışmaları 2020," 445.
[1147] Ö. D. Toköz, 25 August 2022.

Figure 4.285. Southern walls and gates of the city[1148]

Figure 4.286. Carved into rock tombs[1149]

[1148] Ö. D. Toköz, 25 August 2022.
[1149] Ö. D. Toköz, 25 August 2022.

Figure 4.287. Water distributor[1150]

Dara | Bridge | Late Roman

Dara Bridge is located on Dara archaeological site in Oğuz (former name: Dara)[1151] neighbourhood of Artuklu/ Mardin. It is approximately 24.5 kilometres southeast of the Mardin city centre (Figure 4.281). The bridge was on the Dara Stream originally, and the stream has dried up currently. According to Comfort, the bridge has two arches, 23 metres in length and 6.8 metres in width. It was on the road of Dara (Anastasiopolis) ancient city.[1152] It was built of hard limestone, and dated to the 6th century which is the date of the construction of the city. There might be a second bridge south of the city walls, but it was associated with the fortification system.[1153] The bridge was surveyed by the author in August 2022, and it was observed that the remains have survived until present day which are partially under the ground. Excavation work continues in the archaeological site (Figure 4.288).

[1150] Ö. D. Toköz, 25 August 2022.
[1151] "Oğuz."
[1152] Comfort, "Roman bridges of South-East Anatolia," 334.
[1153] Comfort, "Roads on the frontier between Rome and Persia," 81-83.

Figure 4.288. Dara Bridge[1154]

Bülbül (Benabil) | Fort | Roman ?

Benabil Fortress is located Bülbül (former name: Binebil (ku), Banabel (el))[1155] neighbourhood in Yeşilli/ Mardin. It is approximately 9 kilometres east of the Mardin city centre (Figure 4.289). The fortress of Benabil is mentioned by George of Cyprus. Sinclair suggested that Benabil Fortress became the Armenian royal fortress "Bnabegh" later, and is known as Numan Bey Fortress at present.[1156] The fortress was visited by Comfort, and he stated that very few remains are survived and dismantled.[1157] The fort is in an almost ruined state, and traces of its plan can be seen via Google Earth. No intervention has been realized.

[1154] Ö. D. Toköz, 25 August 2022.
[1155] "Bülbül," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=24925&haritasi=b%C3%BClb%C3%BCl.
[1156] Comfort, "Roads on the frontier between Rome and Persia," 316.
[1157] Comfort, "Fortresses of the Tur Abdin," 194.

Figure 4.289. Satellite image of Bülbül Fort[1158]

Mardin | Fortified city with citadel | Late Roman ?

Mardin (former name: Margdis/ Marida/ Marda (el)) citadel is located at the highest point of Mardin. Mardin is on the east of the road from Nisibis to Amida by passing Tur Abdin (Figure 4.290). The present historic city is mostly dated to the Middle Ages. From 363 AD to the establishment of Dara in 505 AD, Mardin is thought to be the main Roman military base in the region. The city was strengthened during the Justinian period. It regained its importance between the periods of Dara was captured in 573 AD, and taken back in the Maurice period.[1159] There is a modern military base is in the citadel, currently. In the excavations started in 2013 and conducted in the citadel by Mardin Museum, occupation has not been found earlier than the Artukid period, yet[1160] (Figure 4.291, 4.292).

[1158] Google Earth, accessed December 20, 2023.
[1159] Comfort, "Roads on the frontier between Rome and Persia," 319; Gabriel, *Şarki Türkiye'de Arkeolojik Geziler,* 22-23, 28-32, 34-35.
[1160] Comfort, "Fortresses of the Tur Abdin," 207-208.

Figure 4.290. Satellite image of Mardin Citadel on top of Mardin[1161]

Figure 4.291. Mardin citadel from south[1162]

[1161] Google Earth, accessed December 20, 2023.
[1162] Ö. D. Toköz, 6 October 2022.

Figure 4.292. Mardin Citadel from the city[1163]

Kızıltepe (Dunaysir) | Bridge | Late Roman ?

Kızıltepe (Dunaysir) Bridge is located in Hocaköy (former name: Evdilimam/ Abdülimam)[1164] neighbourhood of Kızıltepe/ Mardin. It is on the Gümüş (Zergan) *(Arzamon)* Stream. It is approximately 8.5 kilometres southwest of Kızıltepe. According to Comfort, the bridge had probably two arches,one of the abutments has survived. It is considered that on the road from Ressaina to Nisibis; possibly with the nearest way-station *Rene*.[1165] Only one abutment foundation of the bridge has survived, and no intervention has been realized (Figure 4.293).

[1163] Ö. D. Toköz, 24 August 2022.
[1164] "Hocaköy," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=24845&haritasi=hocak%C3%B6y.
[1165] Comfort, "Roads on the frontier between Rome and Persia," 83-84; Comfort, "Roman bridges of South-East Anatolia," 335.

Figure 4.293. Foundations of Kızıltepe bridge[1166]

Hisaraltı (Rabat) | Fortress | Late Roman ?

The fortress is located approximately 1.5 kilometres northeast of the hill of Hisaraltı (former name: Rebet/ Rabat (ar/ ku))[1167] neighbourhood of Derik/ Mardin. It is approximately 48 kilometres northwest of the Mardin city centre (Figure 4.294). Sinclair suggested that this fortress may have been built in the Late Roman period to protect the road between Constantia and Amida.[1168] There is a Late Roman church here; structures such as a cistern can be dated to an earlier period. Like Rumkale and Hatem Tai, Rabat Fortress is separated from the ridge connecting the fortress to the mountain behind by a deep artificial ditch carved into the rock. There are remains of the road connecting the fortress to the village.[1169] The fortress is moderately survived, and traces of its plan can be seen via Google Earth. No intervention has been realized (Figure 4.295).

[1166] Comfort, "Roman bridges of South-East Anatolia," 335.
[1167] "Hisaraltı," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=24625&haritasi=hisaralt%C4%B1.
[1168] Sinclair, *Eastern Turkey/ III*, 227.
[1169] Comfort, "Fortresses of the Tur Abdin," 213-215; Comfort, "Roads on the frontier between Rome and Persia," 321.

Figure 4.294. Satellite image of Hisaraltı Fortress[1170]

Figure 4.295. Hisaraltı (Rabat) Fortress[1171]

[1170] Google Earth, accessed December 20, 2023.

[1171] "Turizm- Tarihi Yerler," T.C. Derik Kaymakamlığı, accessed December 20, 2023, http://www.derik.gov.tr/turizm-tarihi-yerler.

Viranşehir *(Tella/ Constantia ?)* | Fortified city | Late Roman

Viranşehir (former name: Wêranşar (ku)/ Tell Mewzîn (ar)/ Constantina (el))[1172] is district of Şanlıurfa. It is approximately 85 kilometres east of the Şanlıurfa city centre. It was located on the eastern bank of Sulutepe and Kızbeyi Streams. The Hellenistic city might be established as a base on the route from Edessa to Nisibis. The city was renamed Antoninopolis by Caracalla or Elagabalus and then Constantia by Constantius II. After the loss of Nisibis, Constantia was the main military base in the fifth century of the Romans. According to *Notitia Dignitatum*, the prefect and two equites units were based here. City walls were repaired, towers and aqueduct were built in the period of Justinian.[1173] There are remains of a Roman octagonal structure (church?) near Ahmet Necdet Sezer Park on the southwestern side of the city at present (Figure 4.296, 4.297).

Figure 4.296. Roman octagonal structure[1174]

[1172] "Viranşehir," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?yer=36254&haritasi=viran%C5%9Fehir.
[1173] Comfort, "Roads on the frontier between Rome and Persia," 309-310.
[1174] Google Earth, accessed December 20, 2023.

Figure 4.297. Wall remains in Viranşehir centre[1175]

Harran *(Carrhae)* | City | Late Roman ?

Ancient Carrhae is located in Harran district of Şanlıurfa. It is on the Harran plain, approximately 38 kilometres southeast of the Şanlıurfa city centre, and 16 kilometres north of the Turkey-Syria border (Figure 4.298). The ancient city is located in the centre of modern settlement. Marcus Crassus died in the Battle of Carrhae in 53 BC, and the army of Edessa was deserted to the Persians.[1176] When Mesopotamia was annexed as a major province in 199 AD, Carrhae was returned to a Roman colony, and veterans were settled here.[1177] In the war against Anastasius in 502 AD, the inhabitants of the city were enslaved by Kavad. The city walls were strengthened by Justinian. Although the city was left unharmed by Chosroes in 549 AD, it was captured by Sahrwaraz in 609 AD[1178] (Figure 4.299). Excavation works were carried out in 1983-2011 by Archaeologist Dr. Nurettin Yardımcı focusing on the Islamic period fortress, mound and the great mosque[1179], and continued since 2014 by Archaeologist Prof. Dr. Mehmet Önal.[1180]

[1175] Google Earth street view, accessed December 20, 2023.
[1176] Kaya, "Romalılar, Parthlar ve Armenia Krallığı (İ.Ö. 92-İ.S.4)," 78; Stark, *Rome on the Euphrates*, 110-119.
[1177] Mitford, *East of Asia Minor/ I*, 75.
[1178] Comfort, "Roads on the frontier between Rome and Persia," 298-299.
[1179] Yardımcı, "2011 Yılı Harran Kazıları," 35-44.
[1180] Önal, "Harran 2021 Yılı Çalışmaları," 447-466.

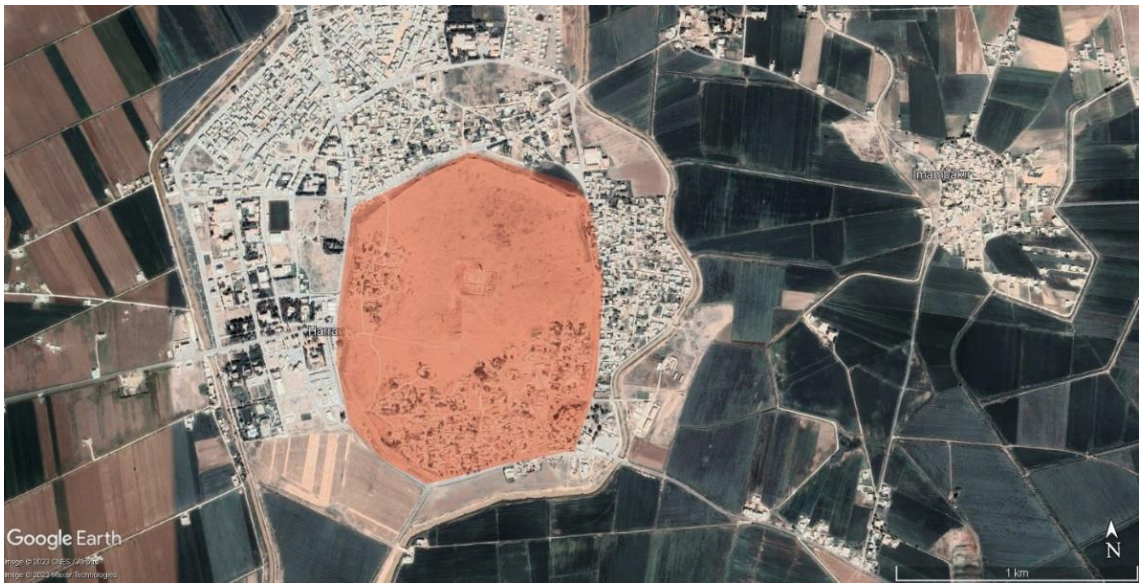

Figure 4.298. Satellite image of Harran archaeological site in Harran[1181]

Figure 4.299. Harran archaeological site[1182]

[1181] Google Earth, accessed December 20, 2023.
[1182] Ö. D. Toköz, 7 October 2017.

Şanlıurfa *(Edessa)* | Citadel | Late Roman

Ancient Edessa is located in the centre of Şanlıurfa. It is located approximately 80 kilometres east of the Euphrates. The city was founded by Seleucus I Nicator in 303-302 BC. It was the capital of the Roman client state of Osrhoene.[1183] When Nisibis was lost in 363 AD, Edessa became the principal city for the eastern provinces and a vital military base. After the Christianity, the city became a bishopric in Syria. It was captured by the Sassanians many times, then by Arabs in 638 AD. It was occupied by the Crusaders in 1908 and became the County of Edessa. After Ayyubids, Mamluks and Aq Qoyunlus, it was annexed to the Ottoman Empire in the 16th century. There is a citadel in the centre of the city; however, very little remains survived, belonging to the Hellenistic and Roman periods. The two columns on the citadel are considered to belong to the Late Roman period. 5th century churches were converted to mosques, St. John to Selahaddin Eyyubi Mosque, St. Sergius to Circis Peygamber Mosque. In the Justinian period, the city was refortified.[1184]

In the survey study held in 2014, it was aimed to research the history and construction phases of the citadel (Figure 4.300). In the research, building layers that can be dated to after the 2nd century and the Justinian period were identified.[1185] In 2015-2017, rock-cut tombs were realized in the necropolis area at the skirt of the citadel during infrastructure work, and 74 tombs that dated to the 3rd century AD and some containing mosaics were excavated.[1186] The citadel was partially reconstructed, consolidated and cleaned in 2012[1187] and 2022[1188] (Figure 4.301, 4.302).

[1183] Wagner, "Provincia Osrhoenae," 104-105.

[1184] Comfort, "Roads on the frontier between Rome and Persia," 294-296; Gabriel, *Şarki Türkiye'de Arkeolojik Geziler,* 233; Kozbe, Caner, and Güngör, "Şanlıurfa Kalesi 2020 Yılı Kazıları," 263-278.

[1185] Cristina Tonghini, "Şanlıurfa Kalesi: Stratigrafik Analizlerin İlk Sonuçları," in *33. Araştırma Sonuçları Toplantısı* 2. Cilt (Ankara: T.C. Kültür ve Turizm Bakanlığı, 2016), 427-442.

[1186] Albayrak, "Şanlıurfa Kale Eteği Nekropolü 2015-2017 Yılları Kazı ve Temizlik Çalışmaları," 639-650.

[1187] "1200 Yıllık Tarihi Kalede Restorasyon Rezaleti!," Yapı, accessed December 20, 2023, http://www.yapi.com.tr/haberler/1200-yillik-tarihi-kalede-restorasyon-rezaleti_122589.html.

[1188] "Urfa Kalesi'nin ağustosta yeniden ziyarete açılması hedefleniyor," Anadolu Ajansı, accessed December 20, 2023, https://www.aa.com.tr/tr/kultur/urfa-kalesinin-agustosta-yeniden-ziyarete-acilmasi-hedefleniyor/2632086.

Figure 4.300. Satellite image of Şanlıurfa Citadel on top of Şanlıurfa[1189]

Figure 4.301. Şanlıurfa citadel and two Roman columns[1190]

[1189] Google Earth, accessed December 20, 2023.
[1190] Google Earth street view, accessed December 20, 2023.

Figure 4.302. Şanlıurfa citadel from the city[1191]

Suruç *(Batnae ?)* | Fortified town | Late Roman ?

Suruç (former name: Seruc (ar)/ Batnan (Syriac)/ Batnai (el))[1192] district of Şanlıurfa is thought to be ancient Batnae. It is approximately 39 kilometres southwestern of Şanlıurfa city centre, and 8.5 kilometres north of Turkey-Syria border. City walls were rebuilt, also baths and two aqueducts were built in 504 AD.[1193] It is thought that the ancient ruins remained under the modern settlement.[1194]

Eski Hisar | Fort | Roman ?, Late Roman ?

Eski Hisar is close to Macunlu (former name: Macun)[1195] neighbourhood of Halfeti/ Şanlıurfa. A building inscription was found by Wagner in Eski Hisar that recorded construction of a castellum by a vexillation of Legio IIII Scythica in 197 AD.

[1191] Ö. D. Toköz, 7 October 2017.
[1192] "Suruç," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanmap.com/?y=suru%C3%A7&lv=&t=&cry=TR&ua=10.
[1193] Mitford, *East of Asia Minor/ I*, 82; Trombley and Watt, *The Chronicle of Pseudo-Joshua the Stylite*, 48-100.
[1194] Comfort, "Roads on the frontier between Rome and Persia," 285-286.
[1195] "Macunlu," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=32828&haritasi=macunlu.

The fort is approximately 34 x 34 metres, has towers in each corner and also two intermediate projecting towers.[1196] It was built of limestone ashlar without mortar, and has mouldings and Corinthian capitals. There is a praetorium at the centre of the structure, according to Guyer's report. During the survey of Gregory, most of the remains disappeared, and only foundations have survived. Gregory argued that the plan of the structure is unusual for a 2nd century fort; the central structure is not a praetorium, but might be a civil building with two rooms connecting with arcade lining. Also, the inscription might belong to another structure since it was not found in-situ. Gregory also mentioned the hard-to-read Greek inscription reported to be found on the gate by Guyer and stated that the building may be a funerary structure or a temple that can be dated after the 4th century. This structure may have been built by reusing the fort built in 197 AD, but she still found this explanation insufficient to explain the projecting towers.[1197] No intervention has been realized in a ruined state fort (Figure 4.303, 4.304).

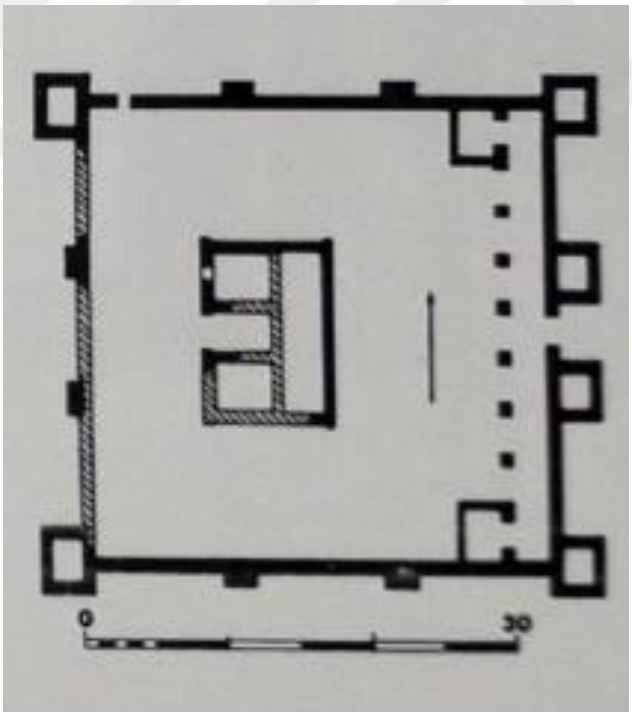

Figure 4.303. Eski Hisar plan[1198]

[1196] Mitford, *East of Asia Minor/ I*, 97.
[1197] Gregory, *Roman Military Architecture on the Eastern Frontier/ II*, 116-120.
[1198] Gregory, *Roman Military Architecture on the Eastern Frontier/ III*, C12.1.

Figure 4.304. Interior of the Eski Hisar[1199]

Uzunburç | Watchtower | Late Roman ?

There is a well-preserved two storeyed structure thought to be a watchtower in Uzunburç neighbourhood of Bozova/ Şanlıurfa that 9 kilometres northeast of Eski Hisar, and 52 kilometres northwest of the Şanlıurfa city centre. The structure has a rectangular plan and 8.3 x 4.6 metres in size, and built of cut stone blocks. It was suggested the watchtower dates back to the Late Roman period and its monitoring function is connected to the Eski Hisar nearby. In the modern period, a building adjacent to the short side of the watchtower was built, and no intervention was carried out in the well-preserved watchtower[1200] (Figure 4.305).

[1199] Wagner, "Provincia Osrhoenae," 124.
[1200] Wagner, "Provincia Osrhoenae," 109, 122.

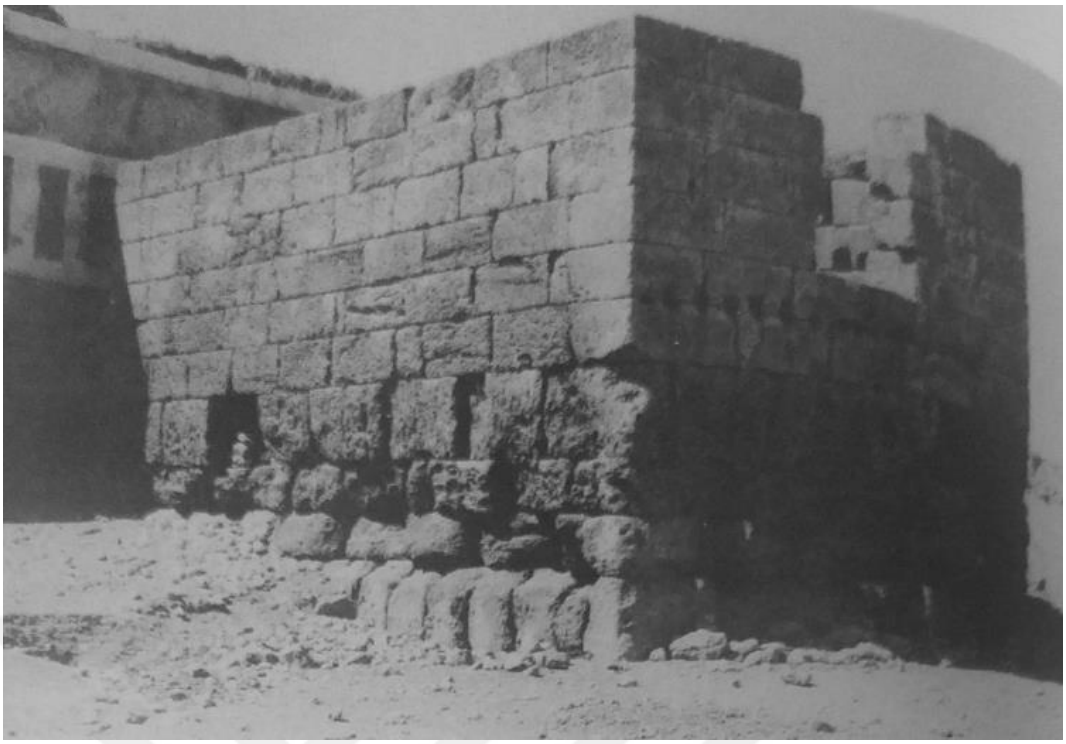

Figure 4.305. Watchtower at Uzunburç[1201]

Trapezus- Melitene- Samosata- Zeugma | Road | Roman

In order to provide communication and movement on the eastern frontier, roads were built from south to north. With the presence of previous roads that provided access from the inner regions to the border region, from west to east, a network of roads was ensured. The support roads crossed the Lycus Valley to reach Ancyra (Ankara) for Satala, and Caesarea (Kayseri) for Melitene.[1202] The road in the northern part of the border within Armenia Minor was probably built at the beginning of 76 AD probably by Legio XVI Flavia. The road is merged in the south at Melitene, built by Legio XII Fulminata.[1203] The construction of the roads that supported the frontier continued for about 20 years, and after that, renovation works were carried out at different times between 97-323 AD.[1204] In Syria to the south, the road system was mostly based on roads built during the Seleucid

[1201] Wagner, "Provincia Osrhoenae," 126.

[1202] David H. *French, Roman Roads and Milestones of Asia Minor 1: The Pilgrim's Road* (Oxford: British Institute of Archaeology at Ankara, 1981); Mitchell, *Anatolia. Land, Men and Gods in Asia Minor I,* 124-136.

[1203] Mitford, "Cappadocia and Armenia Minor: Historical Setting of the Limes," 1183-1184.

[1204] J. Arthur R. Munro, "Roads in Pontus, Royal and Roman," *The Journal of Hellenic Studies* 21 (1901): 64; Mitford, "Some Inscriptions from the Cappadocian Limes," 173.

Period or earlier under the Persian Empire, although the evidence for road construction in the Flavian Period is limited to the presence of a small number of milestones. In Commagene, the road from Syria to Zeugma connected to Samosata.[1205]

The Roman Road between Trapezus and Melitene, which was documented in David French's research, was recorded in Antonine Itinerary and Peutinger Table, also. The road starting from the Trapezus passed over the Zigana Pass and reached Satala, from there it went south and reached the Euphrates, following the Euphrates it reached Zimara. After Zimara, it reached Melitene, partly parallel to the Euphrates and sometimes winding behind the mountains, and from Melitene it moved south towards Samosata. The road has been partially preserved, and can be observable along the route. 5 milestones were found in this route and recorded in the literature. These are in Elmelik/ Kelkit/ Gümüşhane, Sadak/ Kelkit/ Gümüşhane, Tütenli (former name: Elbizin/ İlbizim)[1206]/ Kelkit/ Gümüşhane, Battalgazi/ Malatya, and Orduzu (former name: Bahçebaşı)[1207]/ Malatya. Sadak, Battalgazi and Orduzu milestones have inscription on them.[1208] Two further roads lead south from Melitene. While the western road from the west of Melitene went south via Doliche, the eastern road follows the river and reaches Samosata.[1209] The road from Trapezus to Melitene and beyond was recorded in the Antonine Itinerary[1210], and from Trapezus to Melitene (except the part from Satala to Carsaga) and continue along the river to Samosata was recorded in the Peutinger Table[1211] (Figure 4.306, 4.307, 4.308.

[1205] G. W. Bowersock, "Syria under Vespasian," *The Journal of Roman Studies* 63 (1973): 133; Isaac, *The Limits of the Empire,* 35; Mitford, *East of Asia Minor/ I,* 46-47.

[1206] "Tütenli," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=15593&haritasi=t%C3%BCtenli.

[1207] "Orduzu," Nişanyan Yer Adları, accessed December 20, 2023, https://nisanyanyeradlari.com/?yer=38226&haritasi=orduzu.

[1208] David H. French, *Roman Roads & Milestones of Asia Minor. Vol. 3 Milestones. Fasc. 3.4 Pontus et Bithynia (With Northern Galatia)* (British Institute at Ankara. Electronic Monograph 4, 2013), 22; David H. French, *Roman Roads & Milestones of Asia Minor. Vol. 3 Milestones. Fasc. 3.3 Cappadocia* (British Institute at Ankara. Electronic Monograph 3, 2012), 260-262.

[1209] French, *Roman Roads & Milestones of Asia Minor. Vol. 3 Milestones. Fasc. 3.3 Cappadocia,* 25.

[1210] David H. French, *Roman Roads & Milestones of Asia Minor. Vol. 4 The Roads. Fasc. 4.1 Notes on the Itineraria* (British Institute at Ankara. Electronic Monograph 10, 2016), 13.

[1211] French, *Roman Roads & Milestones of Asia Minor. Fasc. 4.1 Notes on the Itineraria,* 25.

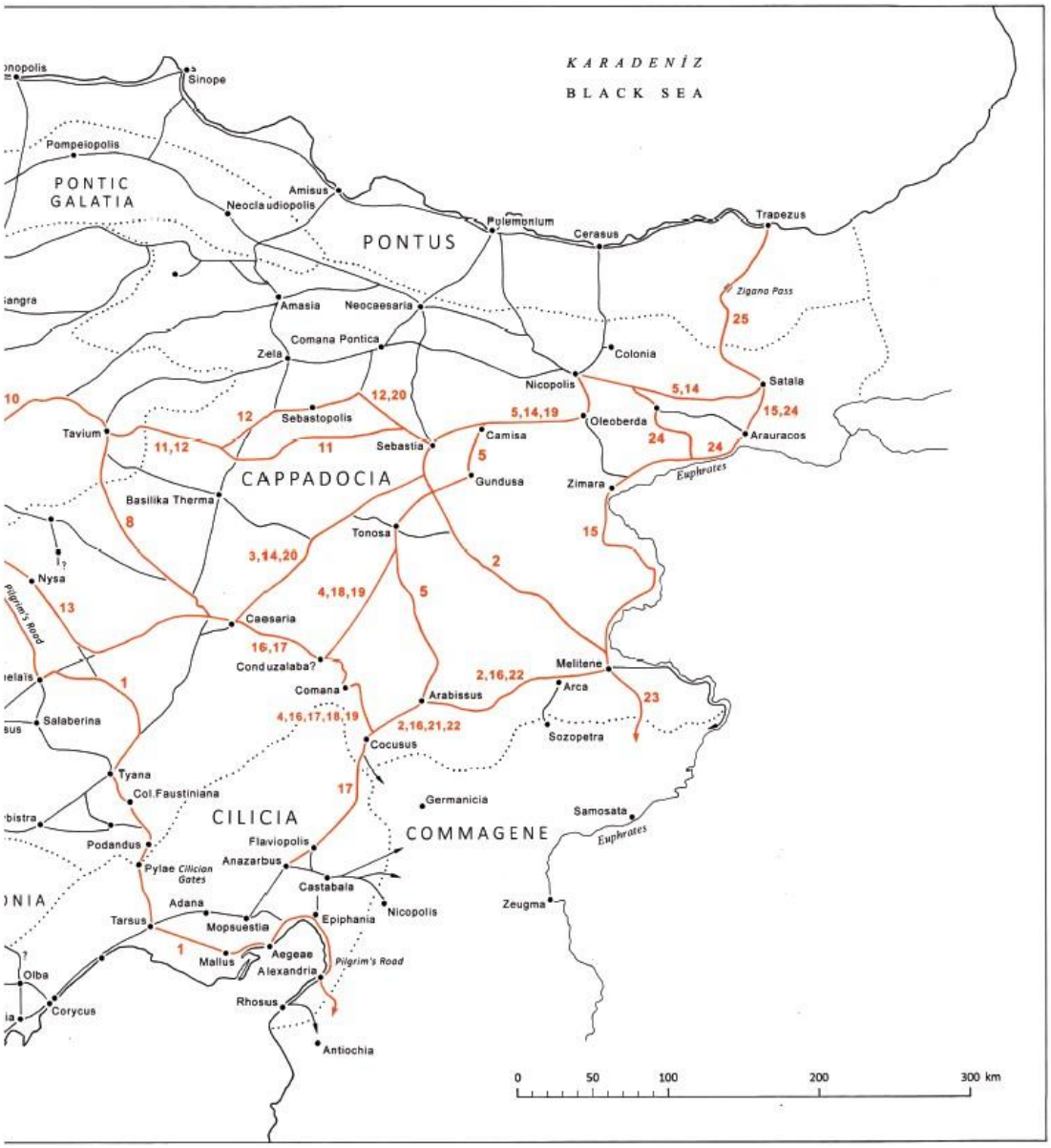

Figure 4.306. The listed roads of the Antonine Itinerary[1212]

[1212] French, *Roman Roads & Milestones of Asia Minor. Vol. 4 The Roads. Fasc. 4.1 Notes on the Itineraria*, 13.

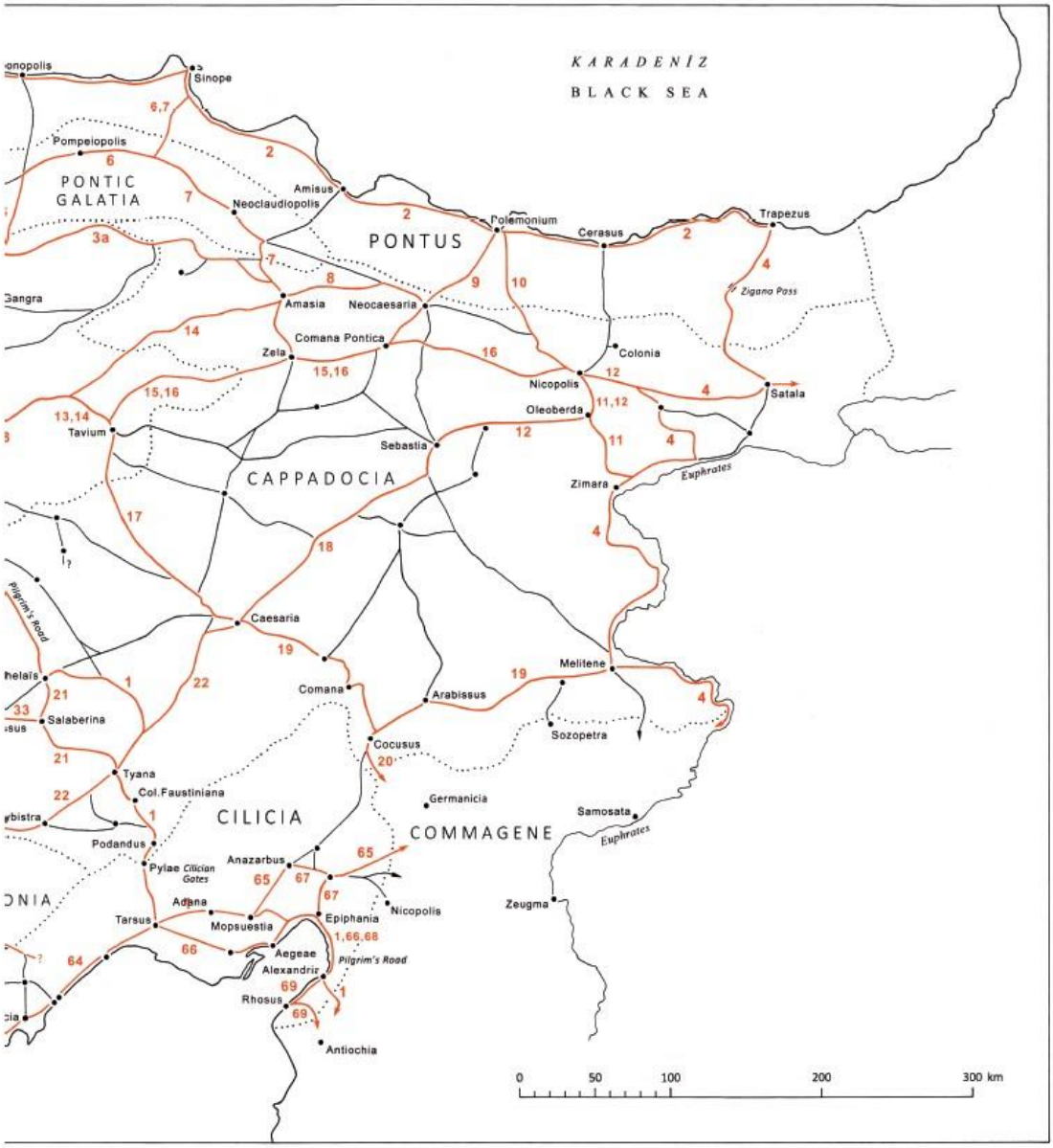

Figure 4.307. The listed roads of the Peutinger Table[1213]

[1213] French, *Roman Roads & Milestones of Asia Minor. Fasc. 4.1 Notes on the Itineraria*, 25.

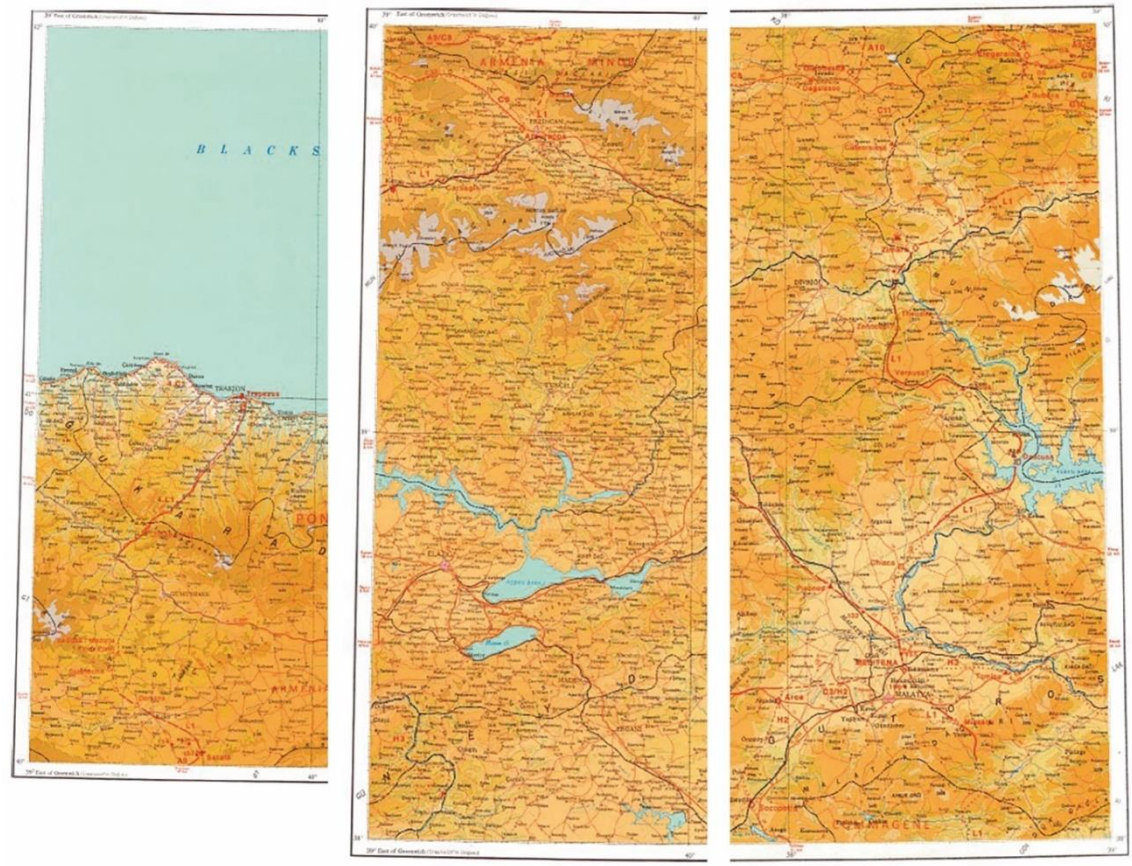

Figure 4.308. Parts of the Roman Road from Trapezus to Satala, from the south of Satala to Carsaga, and from Zimara to Melitene and continue. Roman road can be observed in thick continuous lines, and partially observed in thick dashed lines[1214]

The Roman road knotted in Trapezus, was to control both the sea traffic in the Black Sea, and the land traffic of the northern route coming from the Caucasus, and continued from the Pontus to inland, Armenia Minor. It was garrisoned by both the fleet during the period of Vespasian, Classis Pontica, and the vexillations in the 2nd century AD, and the Legio I Pontica in the Diocletian period. The road continued to Maçka, probably passing through the Öğütlü Bridge. It is not clear whether the road reached here from Trabzon through the Değirmendere valley or from the western slopes of Boztepe.

[1214] David H. French, *Roman Roads & Milestones of Asia Minor. Vol. 3 Milestones. Fasc. 3.9 An Album of Maps* (British Institute at Ankara. Electronic Monograph 9, 2016), 27, 31, 39.

From here the road reached the river junction below Hortokop Fort and climbed the hills. From here on, the Roman and the caravan paths proceeded together. Although it is known that the Zigana pass was used in the Roman period and is included in the Antonine Itinerary, Mitford thinks that there may be a shorter route to the south. According to Mitford, the road turned east after Hortokop and reached Kolat. From here, it proceeded along the ridges and passed through Maden inns near Deveboynu hill. These inns were important inns during the Ottoman period. Based on the continuity of use of the roads, Mitford suggests that this route was also used during the Roman period. The road probably crossed Harşit Stream through the Tohumoğlu Bridge in Gümüşhane and proceeded towards Köse. The road followed the Sadak stream after Köse, and reacheed Satala by passing Kılıççı. After Satala, it might be reached Kemah in two ways. Although there is no trace of the Roman road on the route going south, the caravan route can be followed and this road zigzags and passes two inns, reaching the south of the Sipikor pass. After the Erzincan plain to the south of the Sipikor pass, it probably proceeded almost at the river level along the Kemah Gorge. Mitford thinks that the bridge to the east of Alpköy connected to this road. From here, the road passed the Kömür Stream and continued towards Dostal, opposite Kemah. The second route might have headed to the west after Sadak and followed a route over the Çimen Mountains. This road continued and reached Nicopolis. It splited in the Çimen mountains and descended from Carsaga to the south, passed Kurtlu Hill, reached Kemah by passing near Ermelik and Kömür Stream, and joined the first route here. The Ermelik part of the road is well preserved and an inscription was found here. When the route proceeding towards Dostal, it passed through Şekerhan, then the Kürtler Stream, Kuru Stream and Karabudak Stream, respectively. It crossed the Karabudak Stream by the bridge with the same name which has inscription. After Dostal, the road approached the Euphrates again in Zimara. Mitford thinks that after Zimara, the Çaltı Stream was crossed over the bridge at Burmahan. From here, the road left the very steep Euphrates gorge and followed an inland route towards the west, passing the Antitaurus Mountains and reaching Çit Harabe. From here, parallel to the Çit Stream, it reached the chain of forts around Ağın. The road following Kilise Yazısı and Pağnik forts, might have crossed the Arapkir Stream through the Bahadın bridge. Unfortunately, this part of it, along with other components, was submerged by the Keban dam. As the road moved towards the south, it crossed the Söğütlü Stream after Deregezen, passed through the Malyan Çiftliği, following a route parallel to the Euphrates, and reached Melitene at Battalgazi by crossing the Kuruçay and Tohma Streams. The Roman Road is

partially preserved next to the caravan road from Deregezen to Melitene. After Melitene, the road divided into two, for the river crossings to Armenia from Tomisa to heading to the east. The one going to south was divided into two later. While one went south following the Euphrates, the other went south around Kahta in the west. Mitford suggests that the route on the inner side went south, passing through the east of Dulluk Tepe, passed over the Şiro Stream, headed west around the Gopal Hill, following Lacotena crossed Cendere Stream through the Cendere bridge. This road lied to the west of the Nemrut Mountain. The route, following the Euphrates in the east crossed the Şiro Stream around Kerar Kale, then crossed the Kerefto Stream and proceeded south, passing near Barzalo following the Euphrates. Mitford suggests that there were many signalling stations on the hills to watch over the Euphrates on this part of the road. Unlike the steep cliffs of Antitaurus, the huge moat passing through the Taurus Mountains could be crossed on foot, although it was dangerous.[1215] In his research, Comfort surveyed the river traffic and river crossings in the Euphrates. According to his survey, the Euphrates was used for both upstream and downstream traffic, and the goods in the river were pulled by men on the roads on both sides of the river (towpaths), and when the river bank became too narrow, they often crossed to the opposite bank and continued the journey from there. For this purpose, roads were used on both sides of the river and crossings were used in many places of the river. The road from Samosata passed through the Göksu Bridge and continued to Doliche. However, Comfort suggests that even though the river was the border with the Parthians, the eastern bank might have been used by the Romans, because traces of the towpath can be found on the eastern bank as well, and Bozyazı Fortress on the eastern bank may have been built by the Romans rather than having a Parthian predecessor. Accordingly, a road leading to Gözeli and Halfeti might have been used by providing river crossings from Irmakboyu in the south of the Göksu Bridge and Kelefis in the southwest. The roads following the river on its both sides continued towards the south and river crossings were provided from Habeş, Gözeli, Rumkale, Halfeti and Zeugma. The road on the west bank continued to Syria on the south, and to Edessa on the east by crossing the river from Zeugma. In places where the river bank was very steep, the road continued across the river or turned inland. Although there are very limited traces of these roads today, it is thought that the roads were on these routes in ancient times, as

[1215] Mitford, "The Roman Frontier on the Upper Euphrates," 255-272.

the ruins of watchtowers, forts, bridges and quarries on these routes, and the practices of crossing and following the river continued until the dams were built in modern times.[1216]

The East of the Euphrates | Road Network | Roman, Late Roman

Our state of knowledge on the road network to the East of the Euphrates was based on Comfort's detailed and meticulous inquiries. In determining the network, in addition to the travels of the first researchers who came to the region in the 19th century, the remains of a small number of fortresses and bridges with uncertain dates in the region, ruins that could be Roman roads, and maps of the Roman road network that have survived from ancient periods were used. Due to the very small amount of road remains that have survived to the present day, these estimates were made mostly based on place names on ancient maps and geography. However, ancient maps do not provide precise results due to deviations in measurements and scales, and the verification of these place names may be possible through future excavations.

In this part of the thesis, four routes passing through the present-day Southeastern Anatolia lands determined by Comfort in his studies were included. These routes are as follows: the first route is from the north-west to south-east (or Melitene to Nisibis), the second route is the road to Armenia from the south-west, the third route is from the Euphrates (Zeugma) east to Edessa, Batnae and Harran, and the fourth route is from the Euphrates (Caeciliana) to Edessa and Nisibis.

Among the routes in Comfort's study, those passing through Syria, and those starting from Zeugma and Samosata on the Euphrates and ending in Antiochia were not included. Apart from these four routes, it is thought that there were intermediate roads between cities and fortresses (Figure 4.309, 4.310).

[1216] Comfort and Ergeç, "Following the Euphrates in antiquity," 19-49.

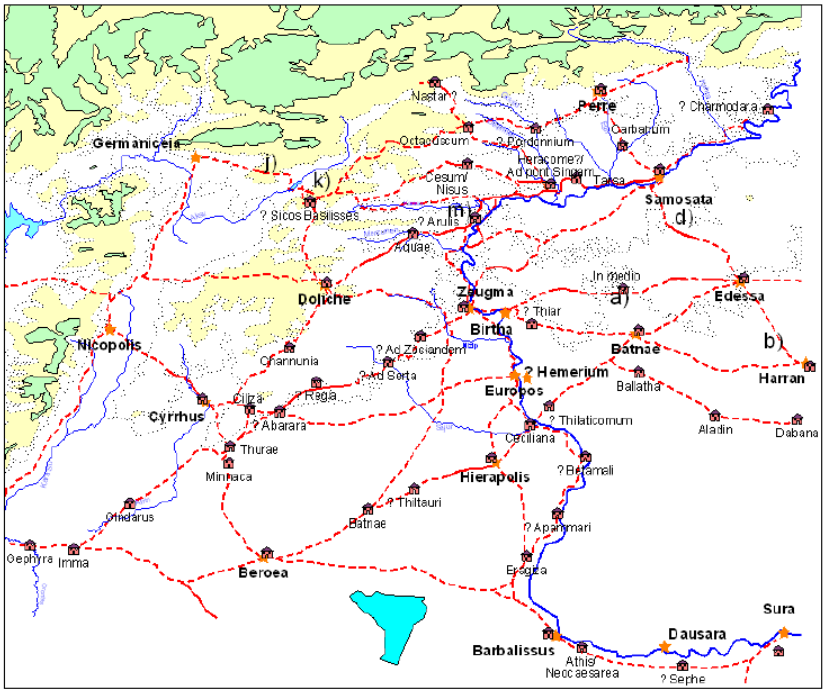

Figure 4.309. Road network south of Euphrates[1217]

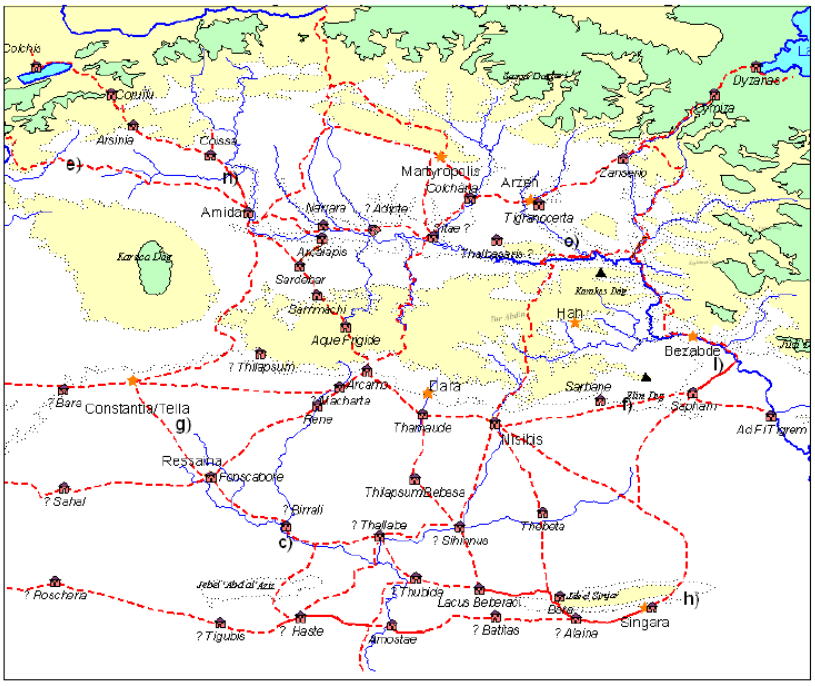

Figure 4.310. Road network in Mesopotamia[1218]

[1217] Comfort, "Roads on the frontier between Rome and Persia," 145.
[1218] Comfort, "Roads on the frontier between Rome and Persia," 105.

- Route 1: North-west to south-east (or Melitene to Nisibis)

For the first route Comfort suggests that the Persian Royal Road might have been a predecessor for a part of the road. This route started from Melitene and crossed the Euphrates towards the east. Here, it passed through Colchis in the north of Hazar Lake in Elazığ and proceeded to the south of the lake, probably passing through Eğil and reaching Amida. From here it probably continued to Zerzevan in the south of Amida and then turned east and passed through the south of Dara and proceeded to Nisibis. After Nisibis, it passed through Şirvan and continued to Sapha, which remains in modern Syrian territory currently. It is also thought that it turned north from Saphane and reached Bezabde[1219] (Figure 4.311).

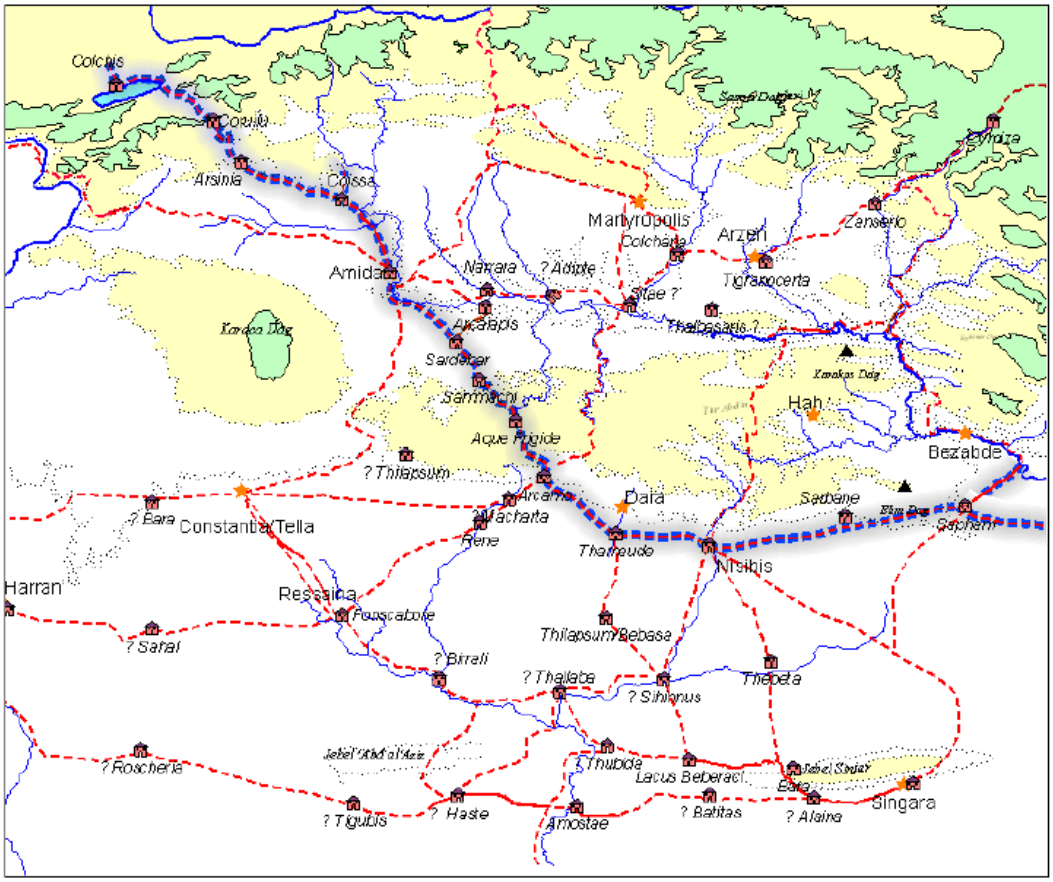

Figure 4.311. North-west to south-east route (or Melitene to Nisibis)[1220]

[1219] Comfort, "Roads on the frontier between Rome and Persia," 106-116.
[1220] Comfort, "Roads on the frontier between Rome and Persia," 109.

- Route 2: The road to Armenia from the south-west

The second route started at Amida and continued to the east by passing Üçtepe and Körüköy probably, then turned to north and followed the Batman Stream, then passed the stream by Harap Bridge and continued to the east. It might have passed through Bozhüyük and continued towards northeast to reach the Lake Van. This route split and followed a second route. The second route headed south and followed the Tigris River, passing Bezabde and heading towards today's Syria[1221] (Figure 4.312).

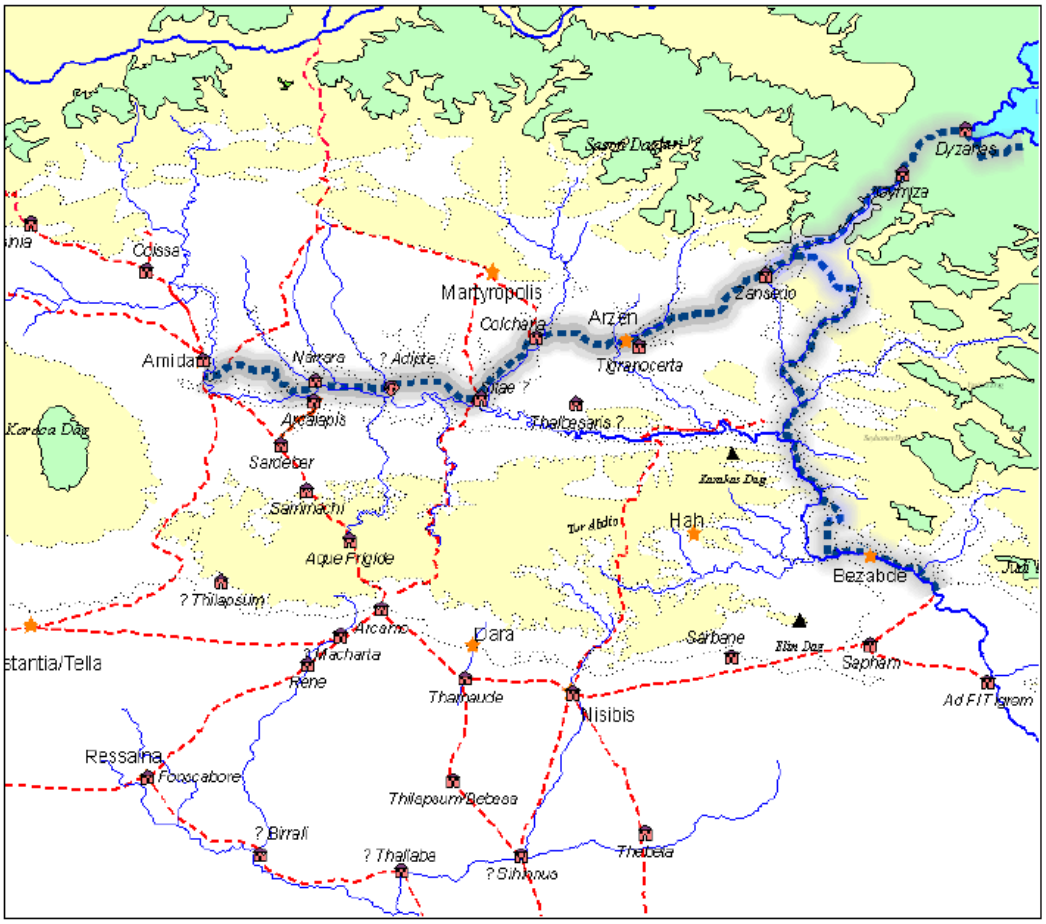

Figure 4.312. The road to Armenia from the south-west[1222]

[1221] Comfort, "Roads on the frontier between Rome and Persia," 116-125.
[1222] Comfort, "Roads on the frontier between Rome and Persia," 118.

- Route 3: From the Euphrates (Zeugma) east to Edessa, Batnae and Harran

It is thought that this route was more preferred in the earlier period and lost its importance as another route was used from the 5th to 6th centuries. This route started from Zeugma, crosses the Euphrates in Zeugma and headed to the east. It reached Edessa by passing through Yuvacık, Büyükhan and Kızılburç. Remains thought to be Roman roads have been identified in the places.[1223] In addition to this road leading directly to Edessa, there is also a route reaching Edessa from further south. After crossing the Euphrates, this route reaches Edessa after going south to Batnae. After Edessa, the road went south and reached Harran. It moved east and reaches Dara by stopping at Rene and Macharta. Then it passed through Nisibis and moved south in today's Syrian territory[1224] (Figure 4.313).

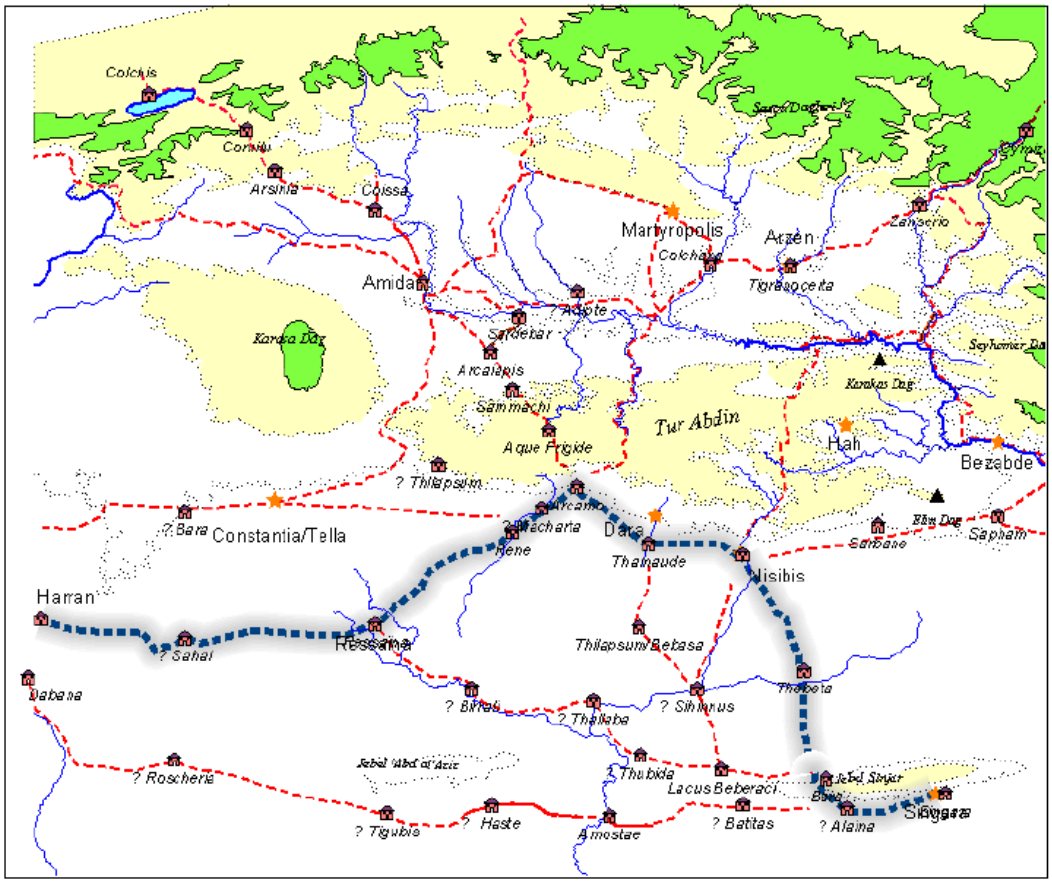

Figure 4.313. From the Euphrates (Zeugma) east to Edessa, Batnae and Harran[1225]

[1223] Wagner, "Provincia Osrhoenae," 110, 113-115.
[1224] Comfort, "Roads on the frontier between Rome and Persia," 126-135.
[1225] Comfort, "Roads on the frontier between Rome and Persia," 130.

- Route 4: From the Euphrates (Caeciliana) to Edessa and Nisibis

It is thought that this route began to be used in the 5th and 6th centuries, when the previous route lost its importance. The road from Zeugma to Edessa continued east and passed the low and barren range of the Tektek Mountain and reached Constantia. From here, after passing Macharta, it reaches Dara and from there it went south and continued in today's Syrian territory[1226] (Figure 4.314).

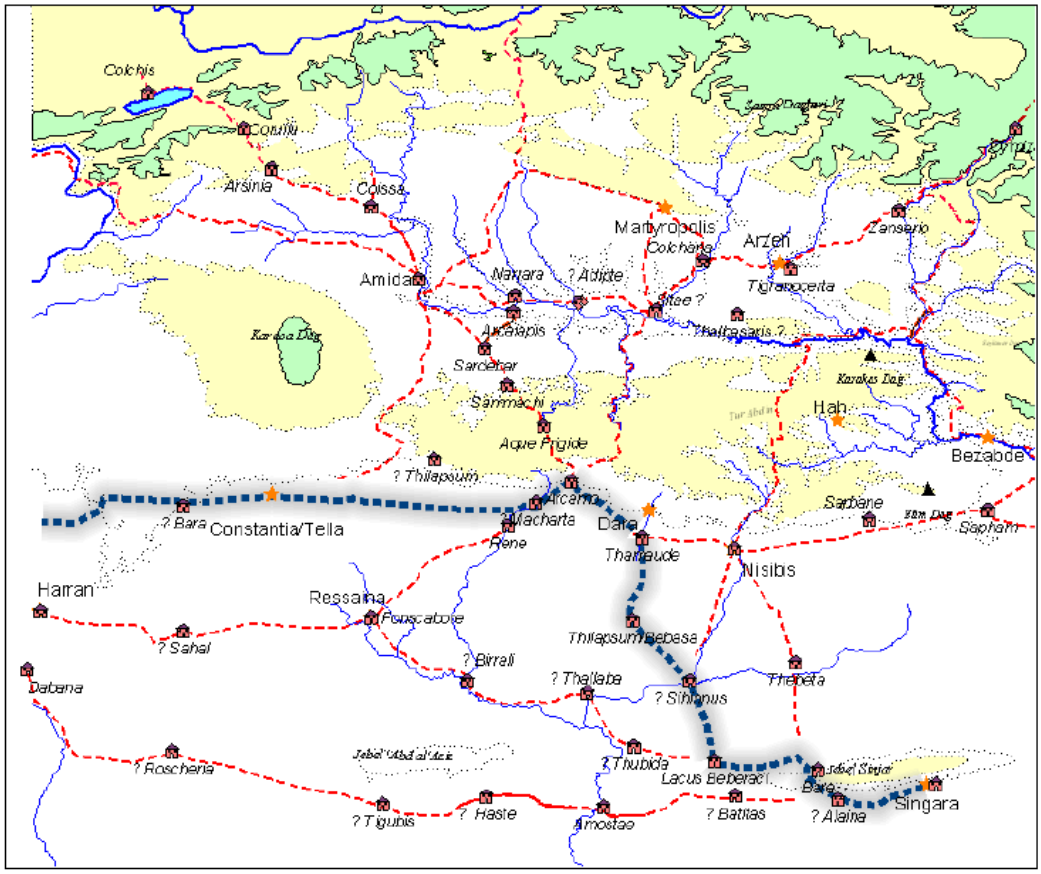

Figure 4.314. From the Euphrates (Caeciliana) to Edessa and Nisibis[1227]

[1226] Comfort, "Roads on the frontier between Rome and Persia," 135-138.
[1227] Comfort, "Roads on the frontier between Rome and Persia," 137.

CHAPTER 5

COMPARISON OF THE ANATOLIAN FRONTIER WITH OTHER FRONTIER SECTIONS

This part of the thesis consists of the assessment of the Anatolian frontier and its comparative study with other frontier sections. In the first part, analyses and different mappings of the Anatolian frontier investigated in the previous chapter were made for the level of knowledge, component type, period, multilayeredness, rurality, survival level before implementation, conservation implementation, conservation status analyses, additionally conservation problems are discussed by using literature survey and site trip. In the second part, the Anatolian frontier was compared in terms of historic (period, multilayeredness), socio-political (purpose, military organization, civil settlements), spatial (type, geography, components, material), and conservation (conservation level, conservation regulations, conservation problems, conservation implementations, ownership and community engagement/ adoption) aspects with the other frontier sections examined in the previous chapter.

5.1. Assessment of the Anatolian Frontier

Information about the components obtained from the literature was analyzed under various headings, these are level of knowledge, period and multilayeredness, component type, rurality, landscape, level of conservation and conservation implementation, conservation status, and conservation problems. Although the information obtained depends on the level of excavation and survey studies, it has been accepted that these studies are still few in number and fragmental, although an attempt has been made it to evaluate and interpret.

5.1.1. Level of Knowledge (Location, Date, Survey/ Excavation)

The level of knowledge table was made with a method similar to restitution studies in conservation, the information columns were given colours from dark to light according to the weight of the information, and the results were classified from high to low according to the different situations in which these colors came together. The level of knowledge was determined through 4 information input. These are the “exact location of the component”, “period by remains so far”, “survey”, and “excavation”. Three colours were used from dark to light, to indicate the weight of the information. For the “exact location”, if the exact location of a component is known, dark green was used. If it is unknown, yellow was used. For the “period by remains so far”, if an opinion was given as a result of excavations or research about the period, dark green was used. If the periodization issue was not certain, but it was thought that it could be the Roman period, light green was used. For the “survey”, only light green was used because surveys do not provide as detailed and accurate information as the excavations. For the “excavation”, dark green was used if that component was excavated.

When this table was made for all components, 8 result situations emerged. These results were divided into three groups: high, average and low. In the first situation of the high group, a high level of knowledge was reached, with all columns being provided and dark green (except for the survey, due to the previous explanation). In the second situation, even though no excavation has been carried out, if there is a definite consensus on periodization, this situation is also included in the high level of knowledge.

The next three results were determined as average level of knowledge. In the first two situations of this group, excavation was not carried out. Although survey was carried out in the first situation, no survey was carried out in the second. Thus, in the first situation, average knowledge level was attributed because the periodization could not be sure, and in the second situation, although the exact periodization was stated in the sources, this could not be confirmed by surveys or excavations. In the third situation, there are places whose periodization cannot be determined precisely, even if excavations were carried out, and this has reduced the level of knowledge.

The last two results are low level of knowledge. These are components whose locations have not yet been determined. River crossings are especially included in this

group. Many studies have been carried out to determine the points where the river crossing took place, and places that continue to be used with the same function today have been identified, but their exact locations could not be determined because there are no architectural remains, such as bridges in these places at all or they have not survived to the present day. Although there are places such as Zeugma, which are known for certain through ancient sources to have been used as a river crossing in the Roman period for eastern expeditions, this situation is also at a low level of knowledge since the exact location has not been determined (Figure 5.1).

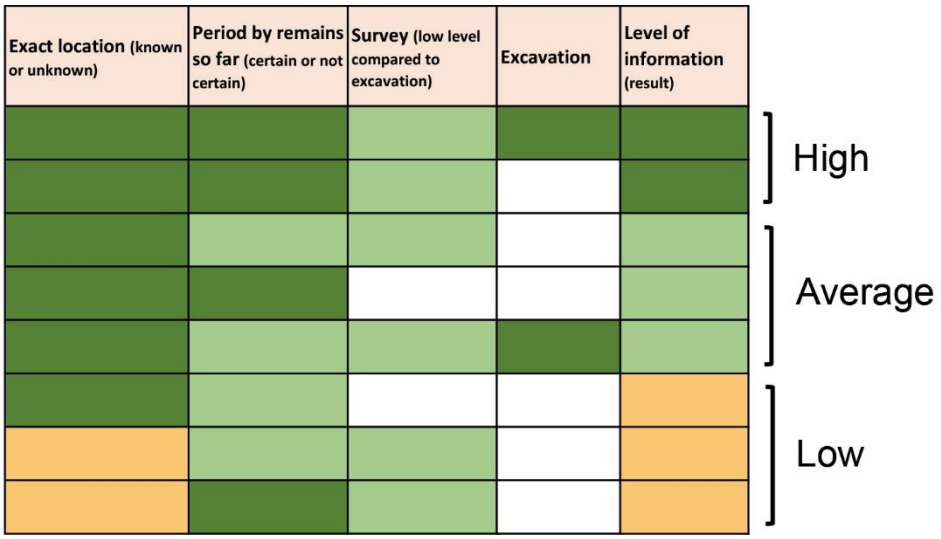

Figure 5.1. Three levels of knowledge with two situations in High, three situations in Average, and three situations in Low

According to the results, there are more components in average knowledge level group. This shows that there are many components that are not sure to be from the Roman period. The total number of those with average and low knowledge levels is almost twice that of those in the first group. However, there are also a lot of components in the first group. Although there are components in this group that have not yet been excavated, some of these components can be surveyed and obtained information without excavation (Figure 5.2).

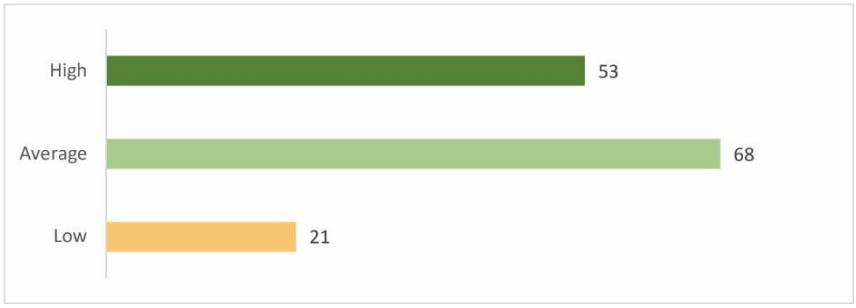

Figure 5.2. Level of knowledge in total

When the 4 regions are compared, the Pontus region stands out as the group where low information group is not available. Since the components were determined through mainly by surveys in Mesopotamia, the average level of knowledge is higher. Although the most excavated components are in Cappadocia and Commagene + North Syria regions, the components with medium and low knowledge level are still in majority in these regions (Figure 5.3, 5.4).

Figure 5.3. Comparison of Level of Knowledge for four regions

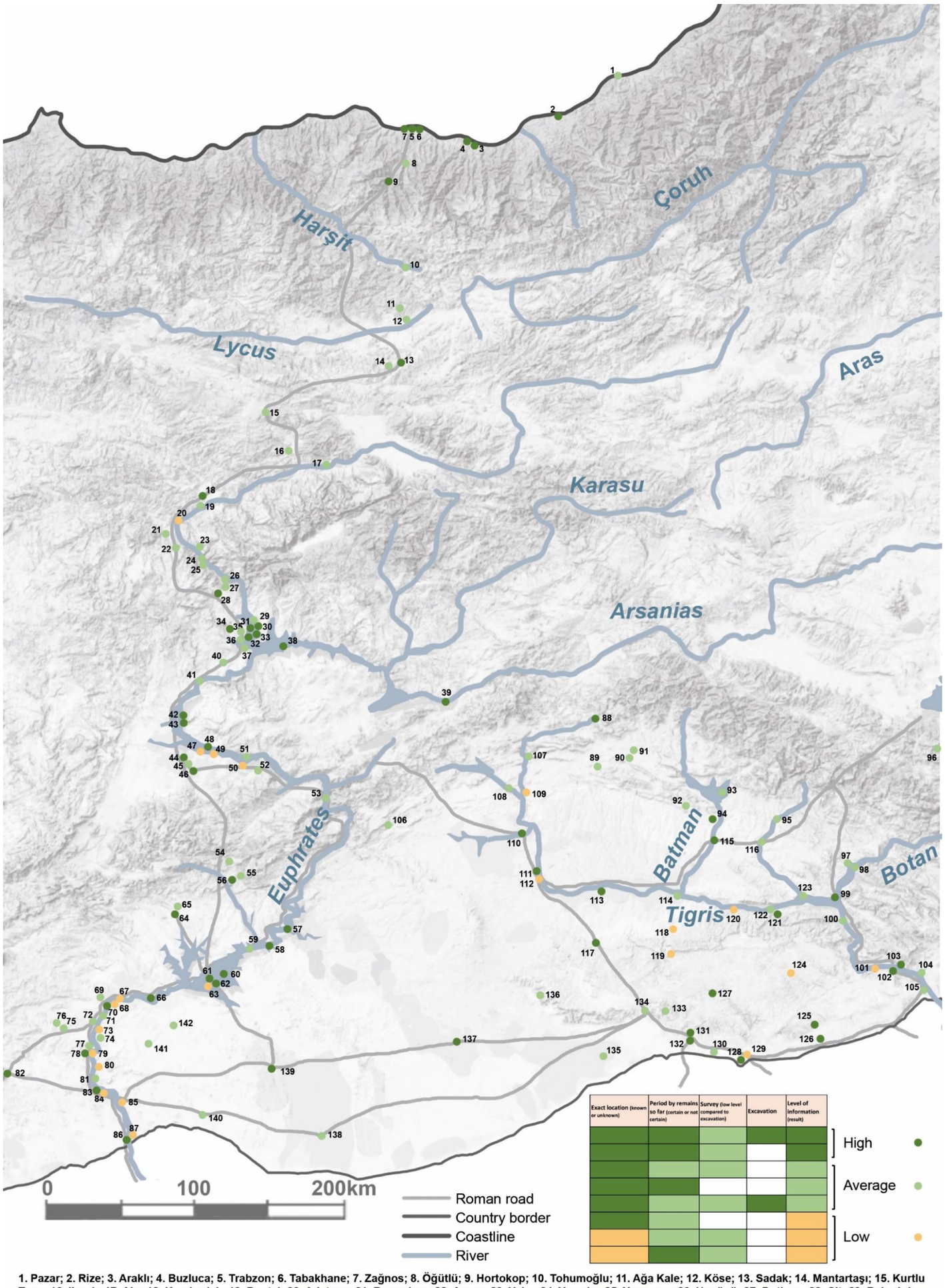

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Figure 5.4. Level of knowledge map

5.1.2. Period and Multilayeredness

While conducting the period analysis, they were classified as “Roman”, “Late Roman” and “Byzantine” based on the dates on which the components were periodized. If the periodization is unclear, it is indicated with a question mark as “Roman ?” and “Late Roman ?”. Remains dating back to two periods were found in some components, and these were indicated as “Roman, Late Roman”, and “Late Roman, Byzantine”. Some components were dated to one period with certainty and the other period remains questionable, or there are components that could not be assured whether they are neither Roman nor Late Roman. These situations are also shown as overlapping as “Roman, Late Roman ?”, “Roman ?, Late Roman”, and “Roman ?, Late Roman ?”.

When the period of the ruins was analysed, it was seen that the components that are suspected to be Roman and/ or Late Roman are more than those that are strongly thought to be Roman and/ or Late Roman. If it is accepted that the suspicious components are Roman and/ or Late Roman, it is possible to assert that there was a dense Roman military structure in the region. Even if the suspicious components cannot be dated to the Roman period as a result of subsequent research, there are enough components to support the theory of a military line consisting of a chain of forts along the Euphrates (Figure 5.5).

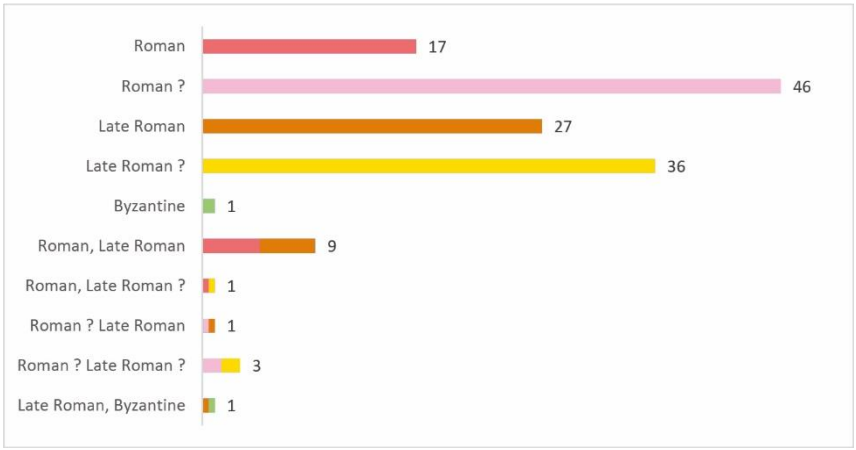


Figure 5.5. Periods of the components in total

In a comparison between the regions, it is seen that the Late Roman period structures are concentrated in the Mesopotamia region. Although there are suspicious Roman structures, the fact that no Roman ruins have been found yet confirms that this region was included in the empire in the Late Roman period. In other regions, Roman period or suspected Roman period structures predominate, but considering that the Late Roman layers just have been reached in these regions, especially in the ongoing excavations today, it can be expected that the detection of Roman period structures would increase in future excavations (Figure 5.6, 5.9).

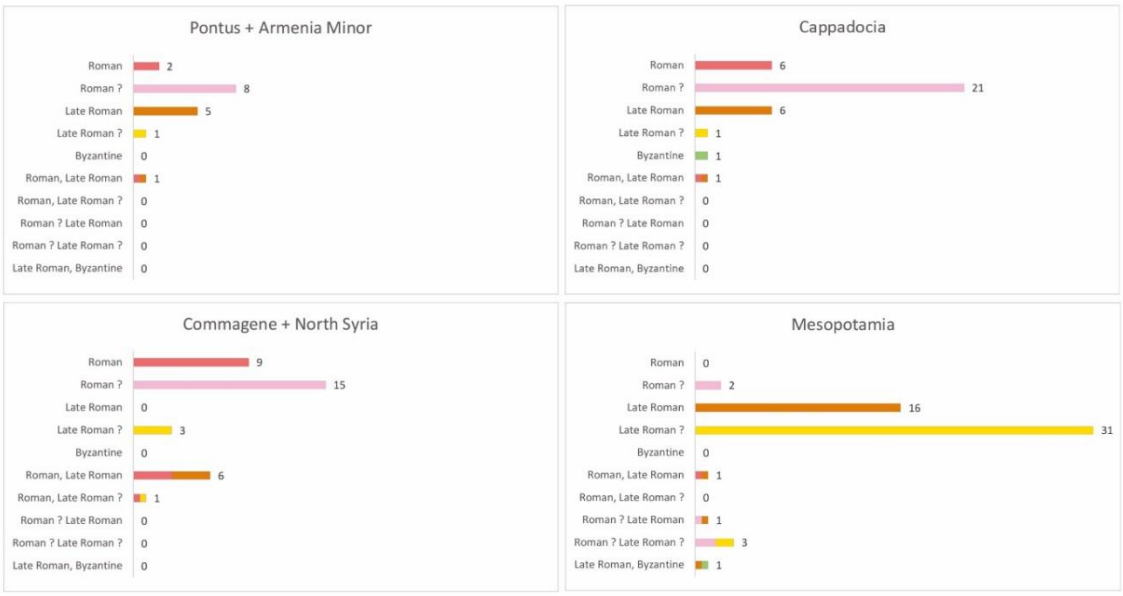


Figure 5.6. Comparison of periods for four regions

While scanning the literature, it was found that under some Roman buildings there were structures from previous period, or structures from the later period above them. However, due to time and energy limitation of the study, instead of making a full historical research of the places where the examined components were located, the focus was only on the Roman periods, but if information about the existence of another period was encountered during the literature review, especially in the excavation reports, this information was included in the study. As can be understood from this, there is a

multilayered structure in this region of Anatolia. Some structures were used both before and after the Romans. Some sites have both earlier and later period remains (Figure 5.7).

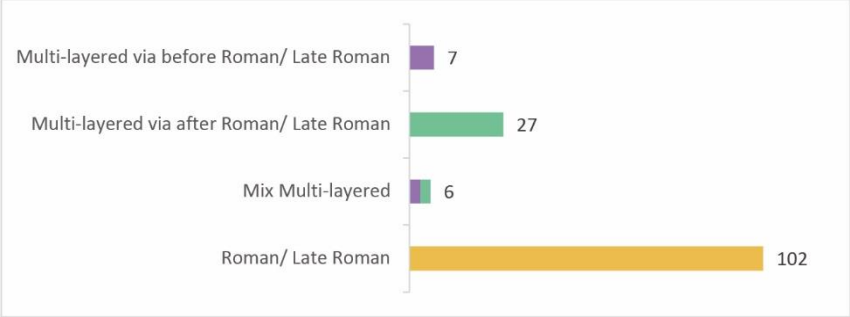


Figure 5.7. Multilayeredness of the components in total

When a comparison is made between regions, it can be seen that later period structures are in majority in all regions. The pre-Roman period is less in number, but considering that it is easier for late period remains to reach the present day due to proximity in time and that earlier period structures may not have been reached in the excavations yet, it can be expected that previous period structures would be found under many other components especially settlements and forts/ fortresses (Figure 5.8, 5.10).

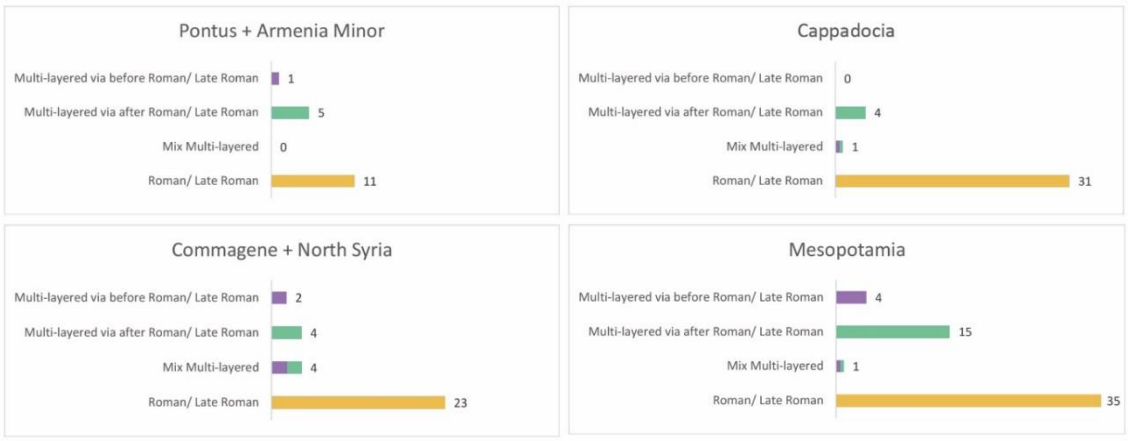
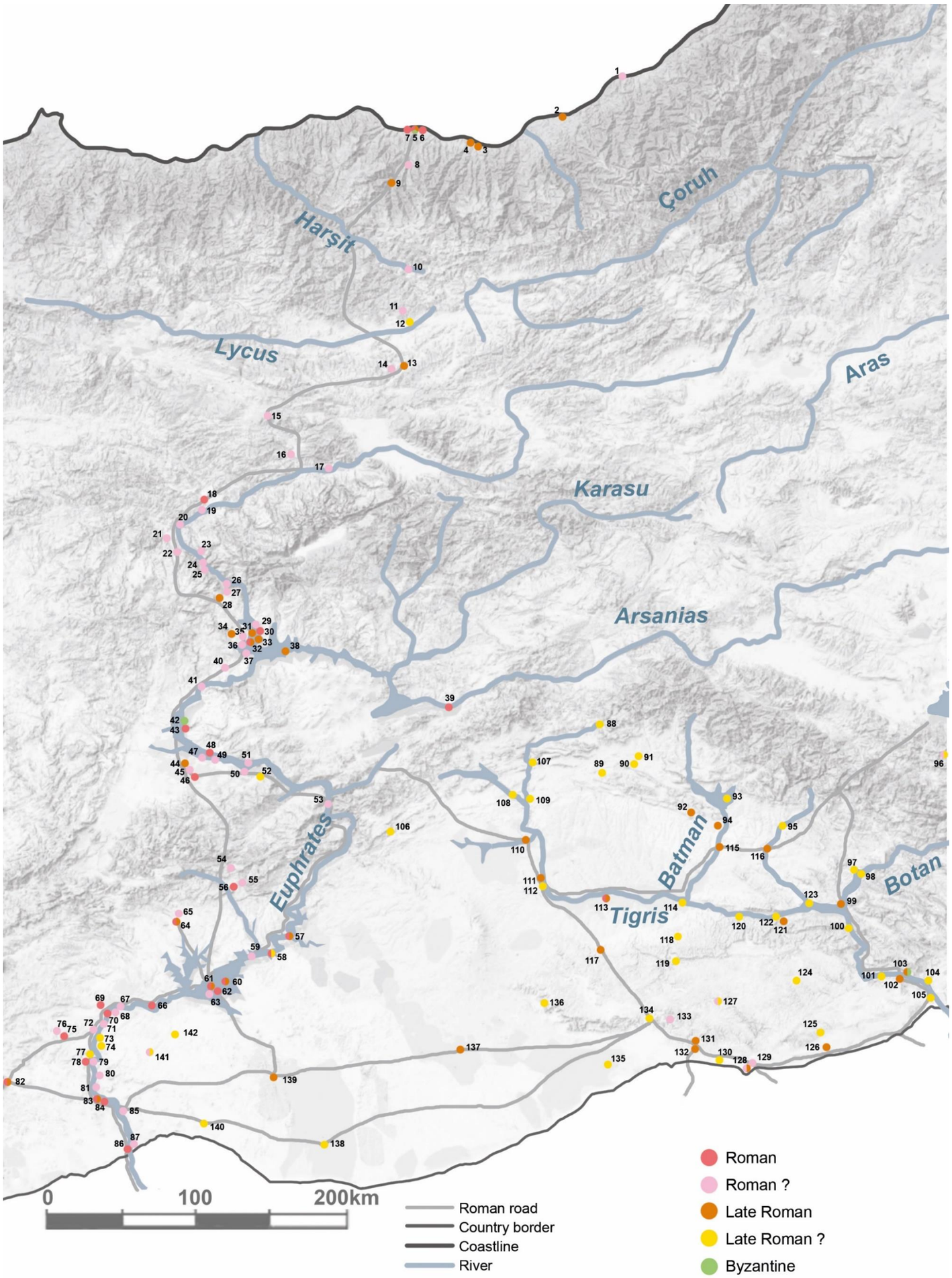
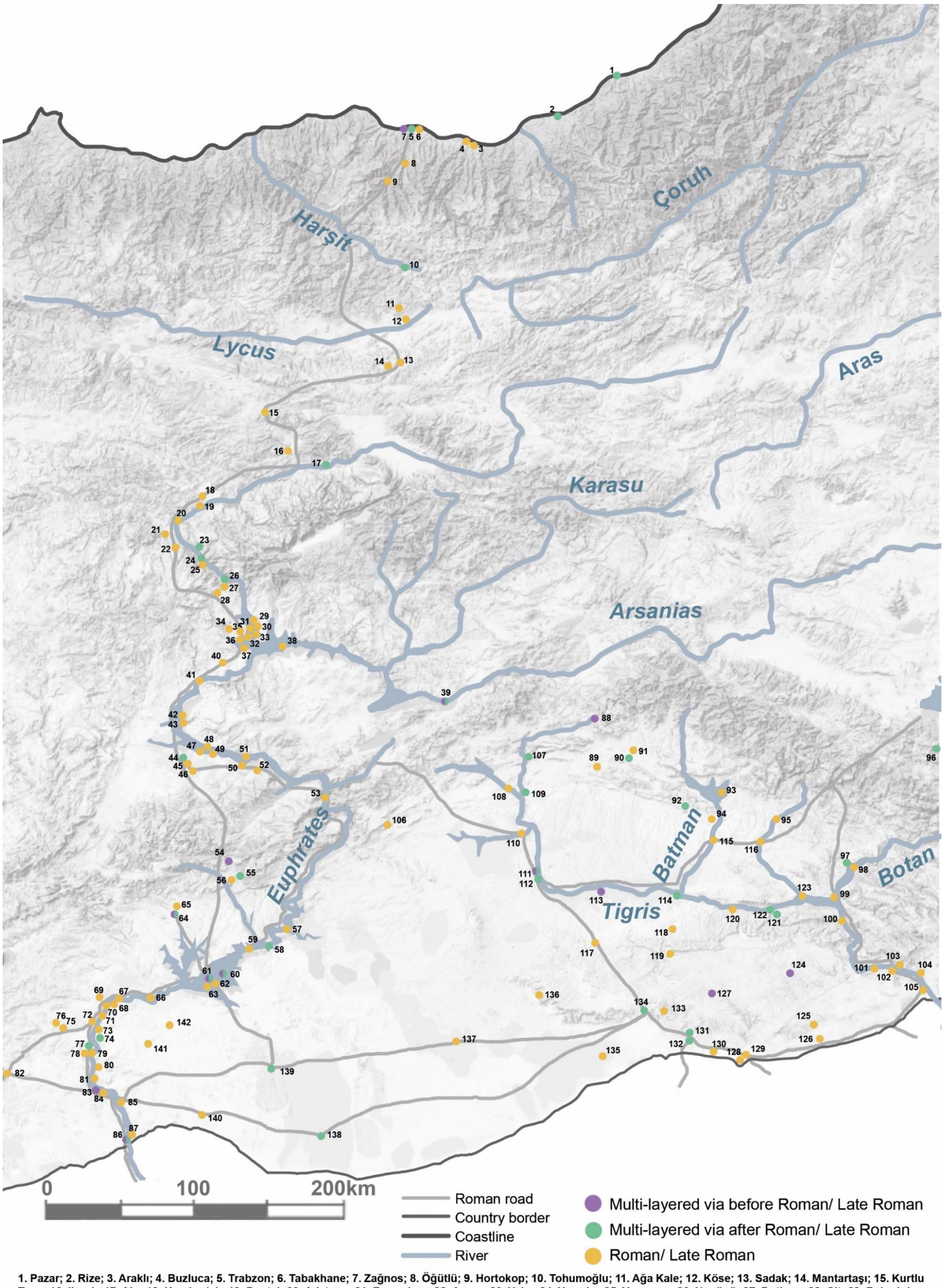


Figure 5.8. Comparison of multilayeredness for four regions



1. Pazar; 2. Rize; 3. Araklı; 4. Buzluca; 5. Trabzon; 6. Tabakhane; 7. Zağnos; 8. Öğütlü; 9. Hortokop; 10. Tohumoğlu; 11. Ağa Kale; 12. Köse; 13. Sadak; 14. Mantartaşı; 15. Kurtlu Tepe; 16. Ilgarlı; 17. Alp; 18. Karabudak; 19. Dostal; 20. Adatepe; 21. Burmahan; 22. Arege; 23. Yaka; 24. Yuva br; 25. Yuva aqu; 26. Hanönü; 27. Dutluca; 28. Çit; 29. Bahadırlar; 30. Kilise Yazısı; 31. Ağın-Hoşrik; 32. Kalecikler; 33. Pağnik; 34. Karamağara; 35. Uzunyol fr; 36. Uzunyol br; 37. Ayvacık; 38. Muratçık; 39. Harba-Şimşat; 40: Deregezen; 41. Taşbaşımalyanı; 42. Kaleköy; 43. Şemsiyetepe; 44. Battalgazi; 45. Dulluk Tepe; 46. Karamildan; 47. Adagören; 48. Köşkerbaba; 49. Kuluşağı; 50. Kıyıcak; 51. Pirot; 52. Sis Kale; 53. Kerefto; 54. Direk Kale; 55. Şeytan; 56. Cendere; 57. Geldibuldu; 58. Horis Kale; 59. Çakıreşme; 60. Lidar; 61. Samsat f; 62. Samsat aqu; 63. Samsat cr; 64. Perre; 65. Perre br; 66. Kızılın; 67. Çiftekoz; 68. Tarlabaşı; 69. Süpürgüç; 70. Habeş; 71. Bozyazı; 72. Elif; 73. Gözeli cr; 74. Gözeli w; 75. Yarımca br; 76. Yarımca w; 77. Rumkale f; 78. Rumkale br; 79. Rumkale cr; 80. Halfeti; 81. Yukarıçardak; 82. Dülük; 83. Zeugma f; 84. Zeugma cr; 85. Birecik; 86. Karkamış; 87. Karkamış cr; 88. Birkilin; 89. Ziyaret; 90. Antağ; 91. Kababaya; 92. Silvan; 93. Akbaş; 94. Semrah Kale; 95. Yıldızlı; 96. Gayda Kale; 97. Nasreddin; 98. Kırık; 99. Çattepe; 100. Çelikköy; 101. Sulak; 102. Hendekköy; 103. Eski Yapı; 104. Bürüçek; 105. Cizre; 106. Çermik; 107. Dibni; 108. Eğil; 109. Kalecik; 110. Karaköprü; 111. Diyarbakır; 112. Ongözlü; 113. Üçtepe; 114. Köprüköy; 115. Harap; 116. Bozhüyük; 117. Zerzevan; 118. Hisarkaya; 119. Savur; 120. Alodino; 121. Hasankeyf f; 122. Hasankeyf br; 123. Şeyhosel; 124. Adaklı; 125. Hatem Tai; 126. Şirvan; 127. Beşikkaya; 128. Nusaybin; 129. Nusaybin br; 130. Durakbaşı; 131. Dara; 132. Dara br; 133. Bülbül; 134. Mardin; 135. Kızıltepe; 136. Hisaraltı; 137. Viranşehir; 138. Harran; 139. Şanlıurfa; 140. Suruç; 141. Eski Hisar; 142. Uzunburç

Figure 5.9. Period map



1. Pazar; 2. Rize; 3. Araklı; 4. Buzluca; 5. Trabzon; 6. Tabakhane; 7. Zağnos; 8. Öğütlü; 9. Hortokop; 10. Tohumoğlu; 11. Ağa Kale; 12. Köse; 13. Sadak; 14. Mantartaşı; 15. Kurtlu Tepe; 16. Ilgarlı; 17. Alp; 18. Karabudak; 19. Dostal; 20. Adatepe; 21. Burmahan; 22. Arege; 23. Yaka; 24. Yuva br; 25. Yuva aqu; 26. Hanönü; 27. Dutluca; 28. Çit; 29. Bahadırlar; 30. Kilise Yazısı; 31. Ağın-Hoşrik; 32. Kalecikler; 33. Pağnik; 34. Karamağara; 35. Uzunyol fr; 36. Uzunyol br; 37. Ayvacık; 38. Muratçık; 39. Harba-Şimşat; 40: Deregezen; 41. Taşbaşımalyanı; 42. Kaleköy; 43. Şemsiyetepe; 44. Battalgazi; 45. Dulluk Tepe; 46. Karamildan; 47. Adagören; 48. Köşkerbaba; 49. Kuluşağı; 50. Kıyıcak; 51. Pirot; 52. Sis Kale; 53. Kerefto; 54. Direk Kale; 55. Şeytan; 56. Cendere; 57. Geldibuldu; 58. Horis Kale; 59. Çakıreşme; 60. Lidar; 61. Samsat f; 62. Samsat aqu; 63. Samsat cr; 64. Perre; 65. Perre br; 66. Kızılin; 67. Çiftekoz; 68. Tarlabaşı; 69. Süpürgüç; 70. Habeş; 71. Bozyazı; 72. Elif; 73. Gözeli cr; 74. Gözeli w; 75. Yarımca br; 76. Yarımca w; 77. Rumkale f; 78. Rumkale br; 79. Rumkale cr; 80. Halfeti; 81. Yukarıçardak; 82. Dülük; 83. Zeugma f; 84. Zeugma cr; 85. Birecik; 86. Karkamış; 87. Karkamış cr; 88. Birkilin; 89. Ziyaret; 90. Antağ; 91. Kabakaya; 92. Silvan; 93. Akbaş; 94. Semrah Kale; 95. Yıldızlı; 96. Gayda Kale; 97. Nasreddin; 98. Kırık; 99. Çattepe; 100. Çelikköy; 101. Sulak; 102. Hendekköy; 103. Eski Yapı; 104. Bürüçek; 105. Cizre; 106. Çermik; 107. Dibni; 108. Eğil; 109. Kalecik; 110. Karaköprü; 111. Diyarbakır; 112. Ongözlü; 113. Üçtepe; 114. Köprüköy; 115. Harap; 116. Bozhüyük; 117. Zerzevan; 118. Hisarkaya; 119. Savur; 120. Alodino; 121. Hasankeyf f; 122. Hasankeyf br; 123. Şeyhosel; 124. Adaklı; 125. Hatem Tai; 126. Şirvan; 127. Beşikkaya; 128. Nusaybin; 129. Nusaybin br; 130. Durakbaşı; 131. Dara; 132. Dara br; 133. Bülbül; 134. Mardin; 135. Kızıltepe; 136. Hisaraltı; 137. Viranşehir; 138. Harran; 139. Şanlıurfa; 140. Suruç; 141. Eski Hisar; 142. Uzunburç

Figure 5.10. Multilayeredness map

5.1.3. Component Types

For component types, all types mentioned in the literature are listed. These are “legionary base with probable legionary fortress”, “fortress”, “fort”, “station”, “fortlet”, “watchtower”, “signalling station”, “bridge”, “river crossing”, “fortified city”, “fortified town”, “fortified town/ city with citadel”, “citadel”, “city”, “town”, and “other” (sanctuary, granary, etc.). Among the component types, bridges, fortresses, and forts stand out the most. The reason for this may be that rather than the fact that these structures are the most common in the frontier system, previous research focuses on them as the first step because it is easy to detect the remains of these structures. For example, the number of watchtowers, which are on a much smaller scale compared to the forts, is less. The reason for this may be that only a small number of watchtower ruins have survived to the present day, and most of those that have survived could not be dated with certainty. When examined as a system, it is known that the first legions were placed in 4 legionary bases on the Euphrates frontier when the frontier system was being created. These are, from north to south, Satala, Melitene, Samosata and Zeugma. In later periods, a legion was placed in Trapezus, and Trapezus also became a fleet base. Although the formation date of the frontier is known from sources, the early period legion fortresses have not yet been reached in these legionary bases yet, and later period ruins have been identified. It is thought that there might have been late period legionary bases in Eğil and Hasankeyf in the Mesopotamia region. There are secondary fortresses between the legionary bases and forts after them. It can be seen that these fortresses and forts continue along the Black Sea coast after Trabzon. It is thought that signal stations were established on hilltops to monitor the river traffic and forts. In order to provide control, there may be watchtowers, usually square-planned, where soldiers could be present at these points, and signal stations using smoke for communication purposes were established by taking advantage of the height of the hill without tower construction. It is thought that bridges could not be built over the upper Euphrates in ancient times, as the nature of the Euphrates, which runs between steep mountains, did not allow river crossings. River crossings were only possible with bridges built on the branches of the Euphrates, or with floating bridges at shallow points when the water level is low. Since the Tigris is located on a flatter

geography compared to the Euphrates, bridges could be built on it or its branches (Figure 5.11).

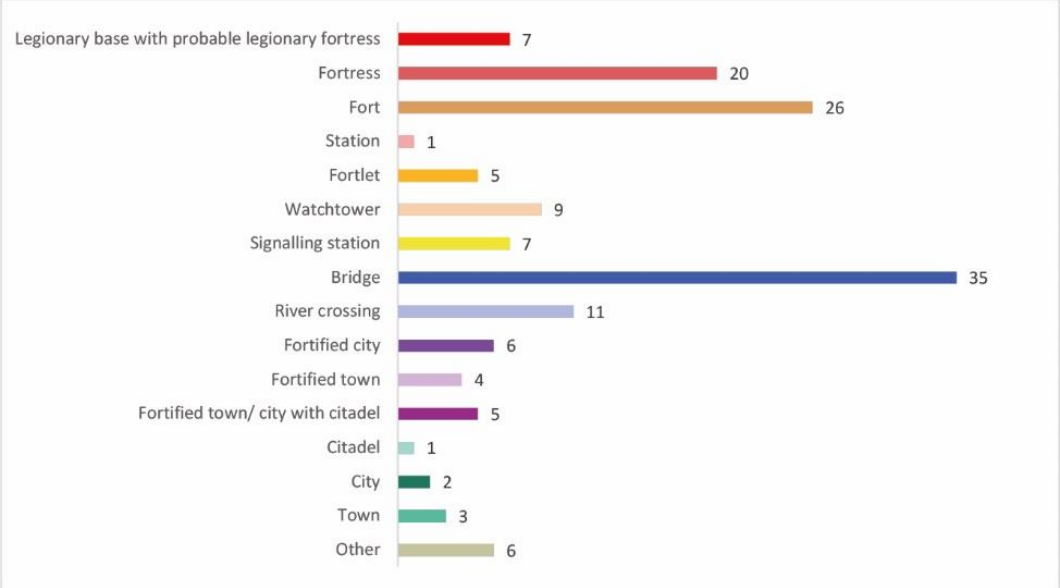


Figure 5.11. Component types in total

Legionary fortresses existed in all four regions, although earlier fortress remains could not be reached yet. The forts placed among them are numerous in all regions. There are more fortresses in Mesopotamia, and fortified cities were also built in the region during the Late Roman period. While bridges are in high number in all regions, river crossings are concentrated in Cappadocia and Commagene + North Syria regions (Figure 5.12, 5.13).

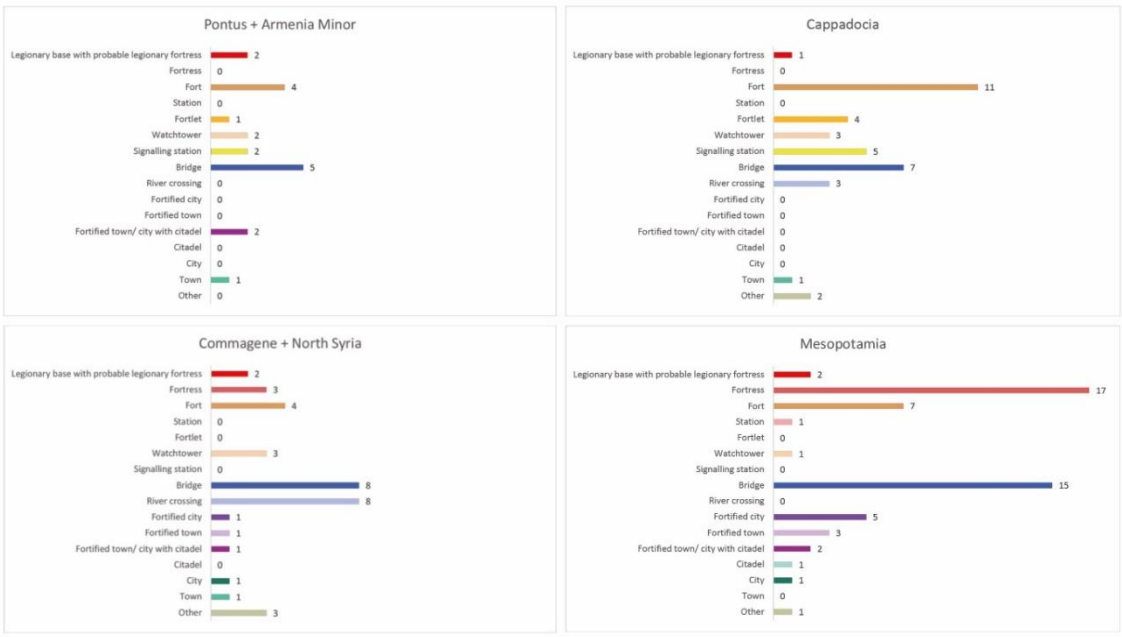
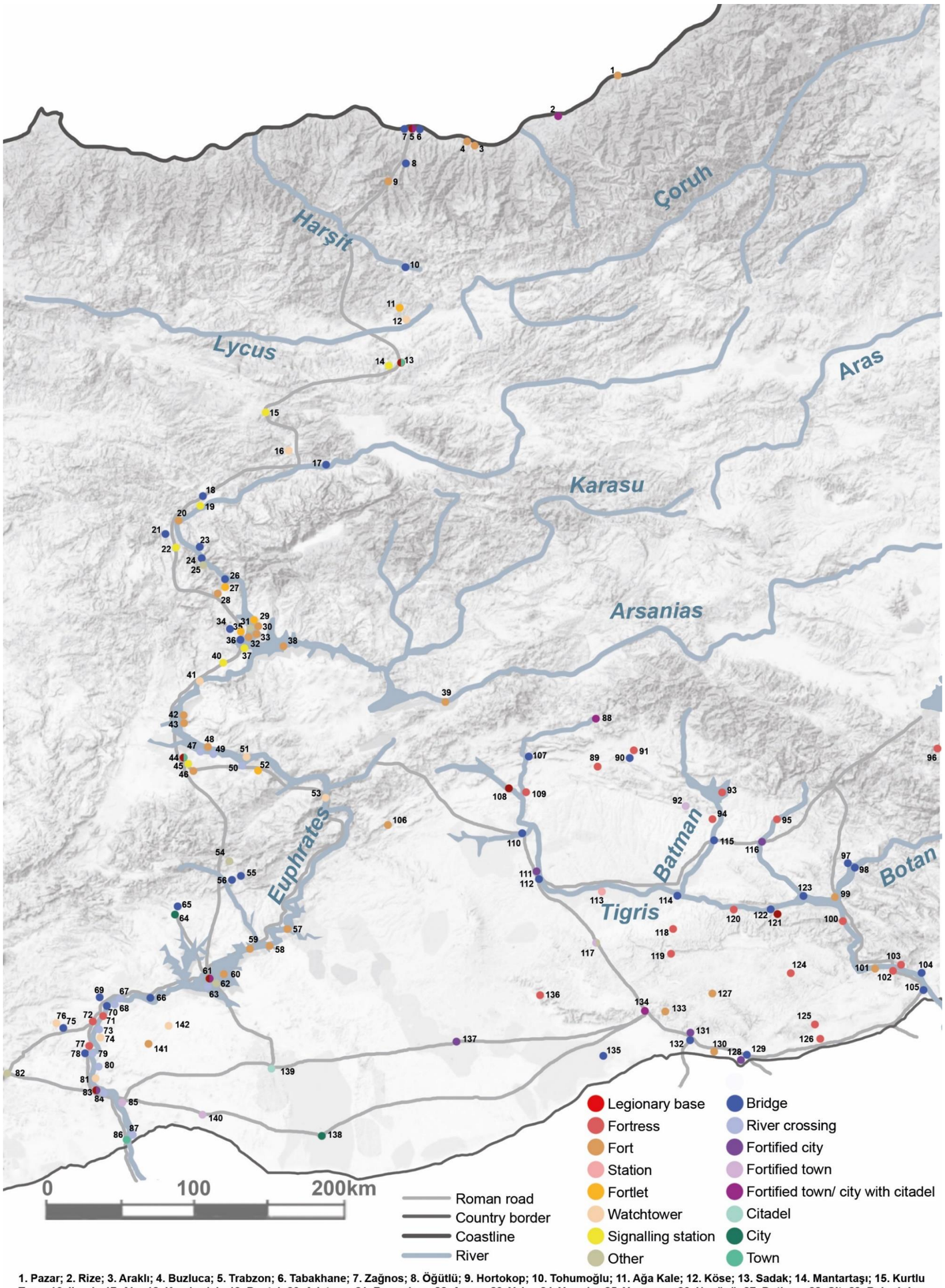


Figure 5.12. Comparison of component types for four regions



1. Pazar; 2. Rize; 3. Araklı; 4. Buzluca; 5. Trabzon; 6. Tabakhane; 7. Zağnos; 8. Öğütlü; 9. Hortokop; 10. Tohumoğlu; 11. Ağa Kale; 12. Köse; 13. Sadak; 14. Mantartaşı; 15. Kurtlu Tepe; 16. Ilgarlı; 17. Alp; 18. Karabudak; 19. Dostal; 20. Adatepe; 21. Burmahan; 22. Arege; 23. Yaka; 24. Yuva br; 25. Yuva aqu; 26. Hanönü; 27. Dutluca; 28. Çit; 29. Bahadırlar; 30. Kilise Yazısı; 31. Ağın-Hoşrik; 32. Kalecikler; 33. Pağnik; 34. Karamağara; 35. Uzunyol fr; 36. Uzunyol br; 37. Ayvacık; 38. Muratçık; 39. Harba-Şimşat; 40: Deregezen; 41. Taşbaşımalyanı; 42. Kaleköy; 43. Şemsiyetepe; 44. Battalgazi; 45. Dulluk Tepe; 46. Karamildan; 47. Adagören; 48. Köşkerbaba; 49. Kuluşağı; 50. Kıyıcak; 51. Pirot; 52. Sis Kale; 53. Kerefto; 54. Direk Kale; 55. Şeytan; 56. Cendere; 57. Geldibuldu; 58. Horis Kale; 59. Çakıreşme; 60. Lidar; 61. Samsat f; 62. Samsat aqu; 63. Samsat cr; 64. Perre; 65. Perre br; 66. Kızılın; 67. Çiftekoz; 68. Tarlabaşı; 69. Süpürgüç; 70. Habeş; 71. Bozyazı; 72. Elif; 73. Gözeli cr; 74. Gözeli w; 75. Yarımca br; 76. Yarımca w; 77. Rumkale f; 78. Rumkale br; 79. Rumkale cr; 80. Halfeti; 81. Yukarıçardak; 82. Dülük; 83. Zeugma f; 84. Zeugma cr; 85. Birecik; 86. Karkamış; 87. Karkamış cr; 88. Birkilin; 89. Ziyaret; 90. Antağ; 91. Kababakaya; 92. Silvan; 93. Akbaş; 94. Semrah Kale; 95. Yıldızlı; 96. Gayda Kale; 97. Nasreddin; 98. Kırık; 99. Çattepe; 100. Çelikköy; 101. Sulak; 102. Hendekköy; 103. Eski Yapı; 104. Bürüçek; 105. Cizre; 106. Çermik; 107. Dibni; 108. Eğil; 109. Kalecik; 110. Karaköprü; 111. Diyarbakır; 112. Ongözlü; 113. Üçtepe; 114. Köprüköy; 115. Harap; 116. Bozhüyük; 117. Zerzevan; 118. Hisarkaya; 119. Savur; 120. Alodino; 121. Hasankeyf f; 122. Hasankeyf br; 123. Şeyhosel; 124. Adaklı; 125. Hatem Tai; 126. Şirvan; 127. Beşikkaya; 128. Nusaybin; 129. Nusaybin br; 130. Durakbaşı; 131. Dara; 132. Dara br; 133. Bülbül; 134. Mardin; 135. Kızıltepe; 136. Hisaraltı; 137. Viranşehir; 138. Harran; 139. Şanlıurfa; 140. Suruç; 141. Eski Hisar; 142. Uzunburç

Figure 5.13. Component types map

5.1.4. Rurality

Rurality analysis was made according to the distance of the component location to settlements. Accordingly, 9 categories were determined, from the most urban to the most rural, regarding in the city or district or village centre, on the edge of city or district or village, and outside the city or district or village. As a result, it is seen that the components outside the village constitute the majority. Those at the village edge and in the village centre follow the next orders. However, there are also components, in increasingly small numbers, located at the edge of or in the district centre, and at the edge of or in the city centre (Figure 5.14).

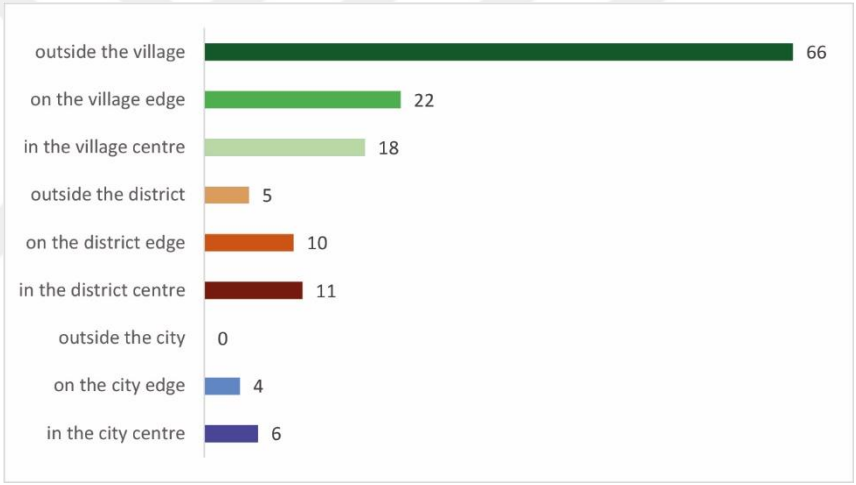


Figure 5.14. Rurality of the components in total

In the comparison between regions, while those components outside the village are the majority in three regions, there is a more balanced distribution in the Pontus + Armenia Minor region. Although the total number of components is not the same, Pontus + Armenia Minor has the least number of components and Mesopotamia has the highest number of components, the number of components in the city centre is equal. In Mesopotamia, the number of components located in the district centre is also high. It can

indicate that life continued in some places that were previously settlements or military units (Figure 5.15, 5.16).

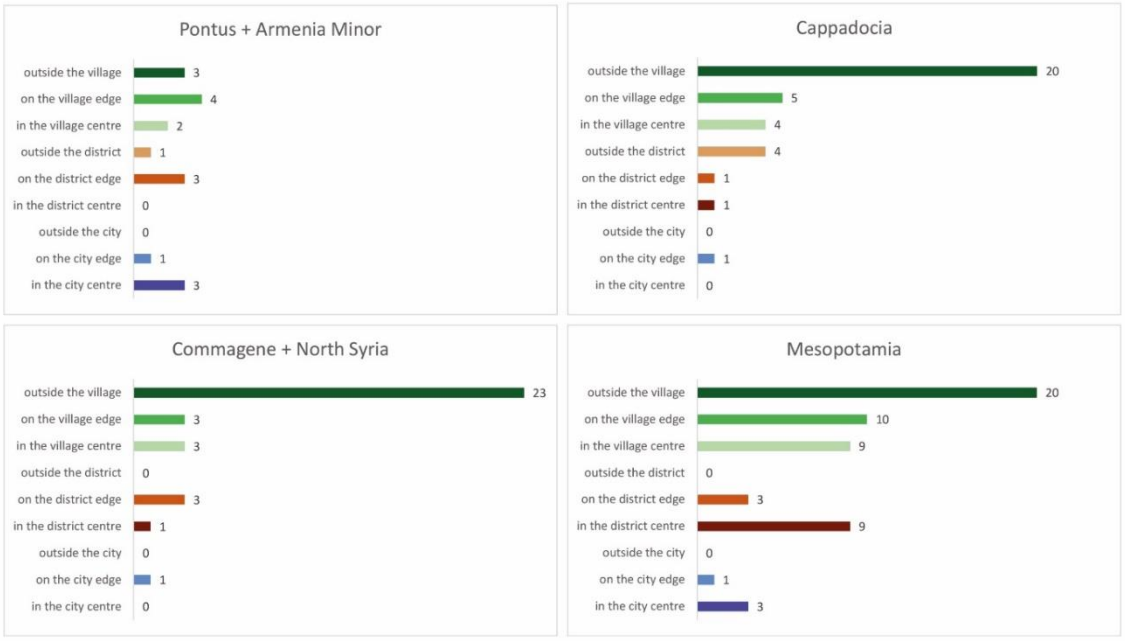
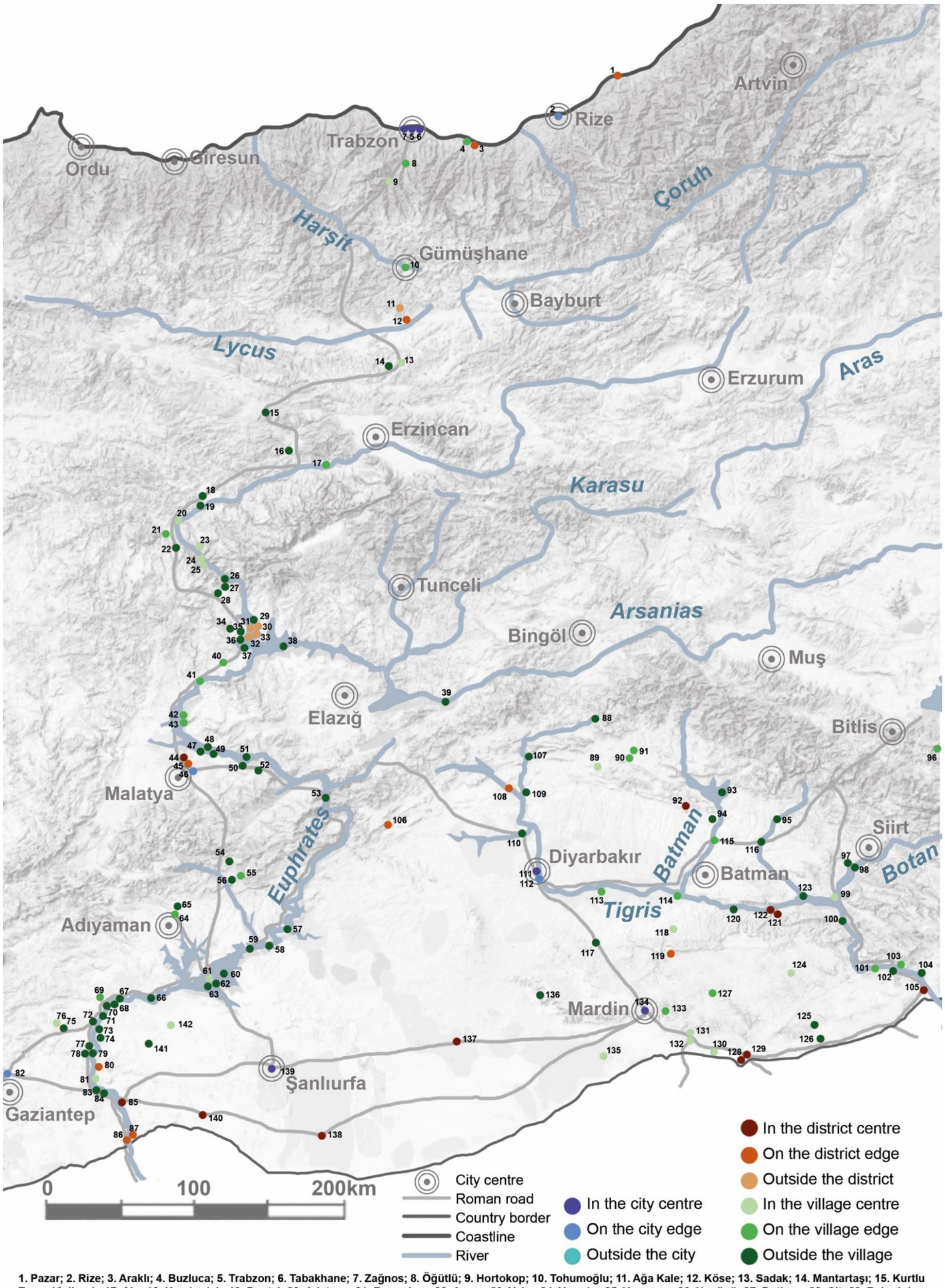


Figure 5.15. Comparison of rurality for four regions



1. Pazar; 2. Rize; 3. Araklı; 4. Buzluca; 5. Trabzon; 6. Tabakhane; 7. Zağnos; 8. Öğütlü; 9. Hortokop; 10. Tohumoğlu; 11. Ağa Kale; 12. Köse; 13. Sadak; 14. Mantartaşı; 15. Kurtlu Tepe; 16. Ilgarlı; 17. Alp; 18. Karabudak; 19. Dostal; 20. Adatepe; 21. Burmahan; 22. Arege; 23. Yaka; 24. Yuva br; 25. Yuva aqu; 26. Hanönü; 27. Dutluca; 28. Çit; 29. Bahadırlar; 30. Kilise Yazısı; 31. Ağın-Hoşrik; 32. Kalecikler; 33. Pağnik; 34. Karamağara; 35. Uzunyol fr; 36. Uzunyol br; 37. Ayvacık; 38. Muratçık; 39. Harba-Şimşat; 40: Deregezen; 41. Taşbaşımalyanı; 42. Kaleköy; 43. Şemsiyetepe; 44. Battalgazi; 45. Dulluk Tepe; 46. Karamildan; 47. Adagören; 48. Köşkerbaba; 49. Kuluşağı; 50. Kıyıcak; 51. Pirot; 52. Sis Kale; 53. Kerefto; 54. Direk Kale; 55. Şeytan; 56. Cendere; 57. Geldibuldu; 58. Horis Kale; 59. Çakıreşme; 60. Lidar; 61. Samsat f; 62. Samsat aqu; 63. Samsat cr; 64. Perre; 65. Perre br; 66. Kızılin; 67. Çiftekoz; 68. Tarlabaşı; 69. Süpürgüç; 70. Habeş; 71. Bozyazı; 72. Elif; 73. Gözeli cr; 74. Gözeli w; 75. Yarımca br; 76. Yarımca w; 77. Rumkale f; 78. Rumkale br; 79. Rumkale cr; 80. Halfeti; 81. Yukarıçardak; 82. Dülük; 83. Zeugma f; 84. Zeugma cr; 85. Birecik; 86. Karkamış; 87. Karkamış cr; 88. Birkilin; 89. Ziyaret; 90. Antağ; 91. Kababkaya; 92. Silvan; 93. Akbaş; 94. Semrah Kale; 95. Yıldızlı; 96. Gayda Kale; 97. Nasreddin; 98. Kırık; 99. Çattepe; 100. Çelikköy; 101. Sulak; 102. Hendekköy; 103. Eski Yapı; 104. Bürüçek; 105. Cizre; 106. Çermik; 107. Dibni; 108. Eğil; 109. Kalecik; 110. Karaköprü; 111. Diyarbakır; 112. Ongözlü; 113. Üçtepe; 114. Köprüköy; 115. Harap; 116. Bozhüyük; 117. Zerzevan; 118. Hisarkaya; 119. Savur; 120. Alodino; 121. Hasankeyf f; 122. Hasankeyf br; 123. Şeyhosel; 124. Adaklı; 125. Hatem Tai; 126. Şirvan; 127. Beşikkaya; 128. Nusaybin; 129. Nusaybin br; 130. Durakbaşı; 131. Dara; 132. Dara br; 133. Bülbül; 134. Mardin; 135. Kızıltepe; 136. Hisaraltı; 137. Viranşehir; 138. Harran; 139. Şanlıurfa; 140. Suruç; 141. Eski Hisar; 142. Uzunburç

Figure 5.16. Rurality map

5.1.5. Preservation Level and Conservation Implementation

Preservation level, conservation implementation, and the conservation status are information that should be read and evaluated triplely together. The current situation of the components was described as conservation status. In this section, components may have been interfered with, not intervened at all, or submerged. Therefore, if there is any intervention, it was given with its status after the implementation. Conservation level information was used to describe the situation of the structures before they were intervened or submerged; but conservation status information displays the current condition of the components. The conservation level was determined as “well-preserved”, “moderately preserved” and “ruined”. Those that have survived to the present day almost intact or with very little loss are determined as well-preserved, most of the structure have been lost but still have survived to the present day enough to enable us to understand the structure are determined as moderately preserved, and those that can only be read on the plan level or have very few elements remaining are classified as ruined.

When analyzed at all the components, it is seen that the well-preserved ones are the least in number and the ruined ones are the most. Unfortunately, the conservation level of the components have decreased because protection measures were not taken in a timely manner. However, the large number of moderately preserved components shows that it is not too late to take conservation measures and keep this heritage sustained (Figure 5.17).

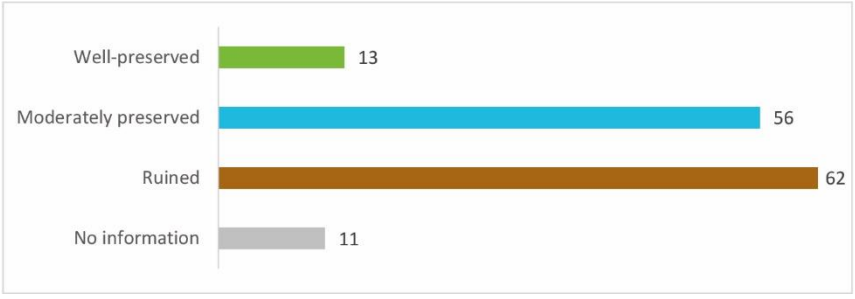


Figure 5.17. Preservation level of the components in total before implementation

When comparing between regions, it is seen that the most preserved components are in Pontus + Armenia Minor and Mesopotamia regions, while the moderately preserved ones are concentrated in the Cappadocia and Commagene + North Syria regions. However, although there are well-preserved components in Pontus + Armenia Minor and Mesopotamia regions, the number of ruined ones is still higher (Figure 5.18, 5.21).

Figure 5.18. Comparison of preservation level for four regions

Conservation implementations for all components were examined. These were determined as “partial reconstruction”, “consolidation”, “cleaning”, “new superstructure”, “protective shelter”, “completion”, “partial completion”, and “partial removal”. There are also places where excavations have been carried out, although no conservation implementation has been carried out yet. Some of these excavations are still ongoing. When these implementations are analysed, it can be seen that no implementation, including excavation, has yet been carried out on most of the components. This confirms the idea that the frontier was neglected. It is seen that partial reconstruction comes to the fore among the implementations carried out. In this group, there are especially bridges (Tohumoğlu, Göksu, Süpürgüç, Kırık, Cizre, Köprüköy, Nasreddin, Harap, Hasankeyf, and Şeyhosel) and fortifications (Pazar, Battalgazi, Birecik, Diyarbakır, and Şanlıurfa). The superstructure of a bridge (Perre) was renewed. In one component (Zeugma), a protective shelter was constructed on villas with mosaics. In one component (Rize Fort) the fortifications were completed, and in two components

(Ongözlü Bridge and Dara) the missing parts were partially completed. Two components (Karaköprü Bridge and Zağnos Bridge) were consolidated. The inscripted stones of one component (Karamağara Bridge) were dismantled and removed to the museum, and the rest of the bridge was left in the area. Excavations continue in 11 components (Satala, Perre, Dülük, Zeugma, Karkamış, Zerzevan, Hasankeyf, Dara, Mardin, and Harran). The number of completed excavations is 17 (Kilise Yazısı, Ağın-Hoşrik, Kalecikler, Pağnik, Muratçık, Örencik, Kaleköy, Şemsiyetepe, Köşkerbaba, Geldibuldu, Horis Kale, Lidar, Samsat, Çattepe, Diyarbakır, Üçtepe, Şanlıurfa), and in 1 component (Nusaybin) partial excavations have been carried out in the city (Figure 5.19).

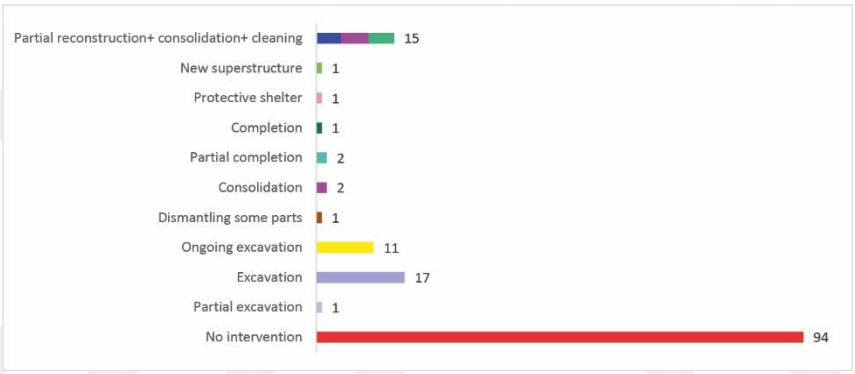


Figure 5.19. Implementations carried out for all components in total

In inter-regional comparison, components that no interventation was carried out are the overwhelming majority in all regions. Excavations are concentrated in Cappadocia, Commagene + North Syria and Mesopotamia regions. These are mostly rescue excavations carried out before the dams were completed. Apart from this, the partially reconstructed components are in all regions, mostly in Mesopotamia region (Figure 5.20, 5.22).

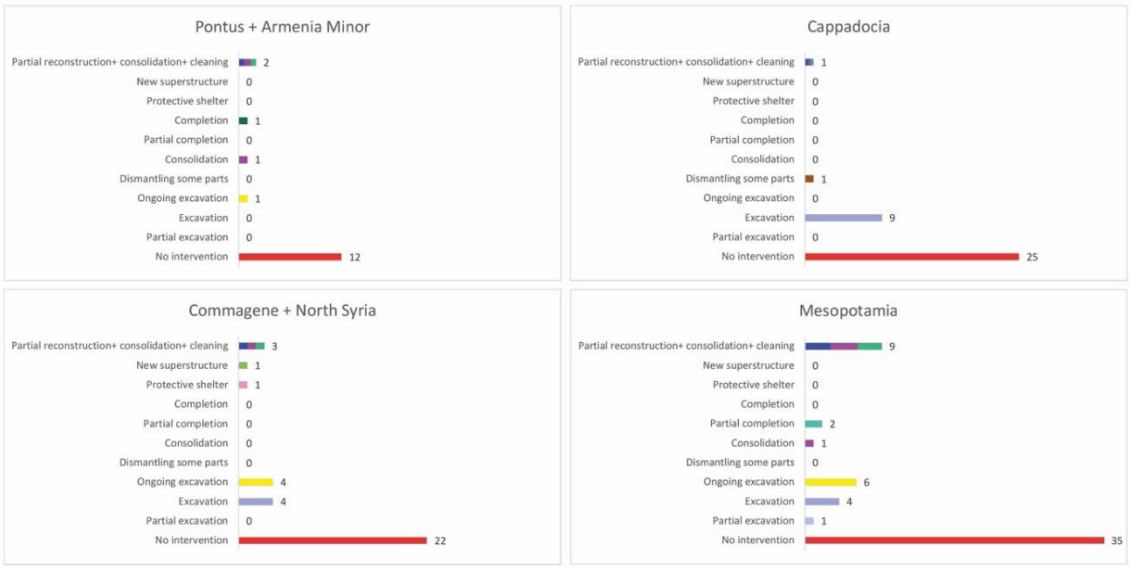
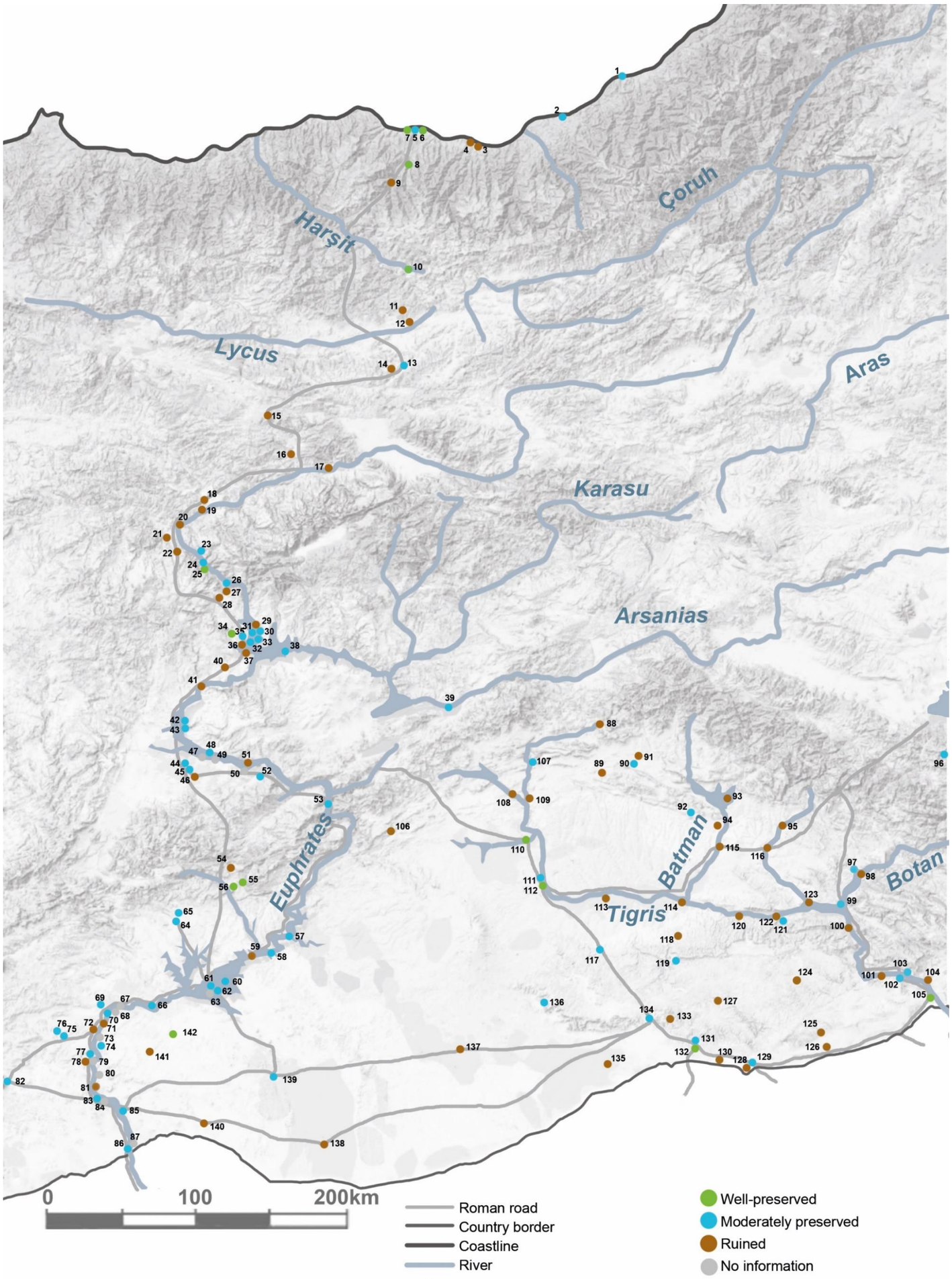
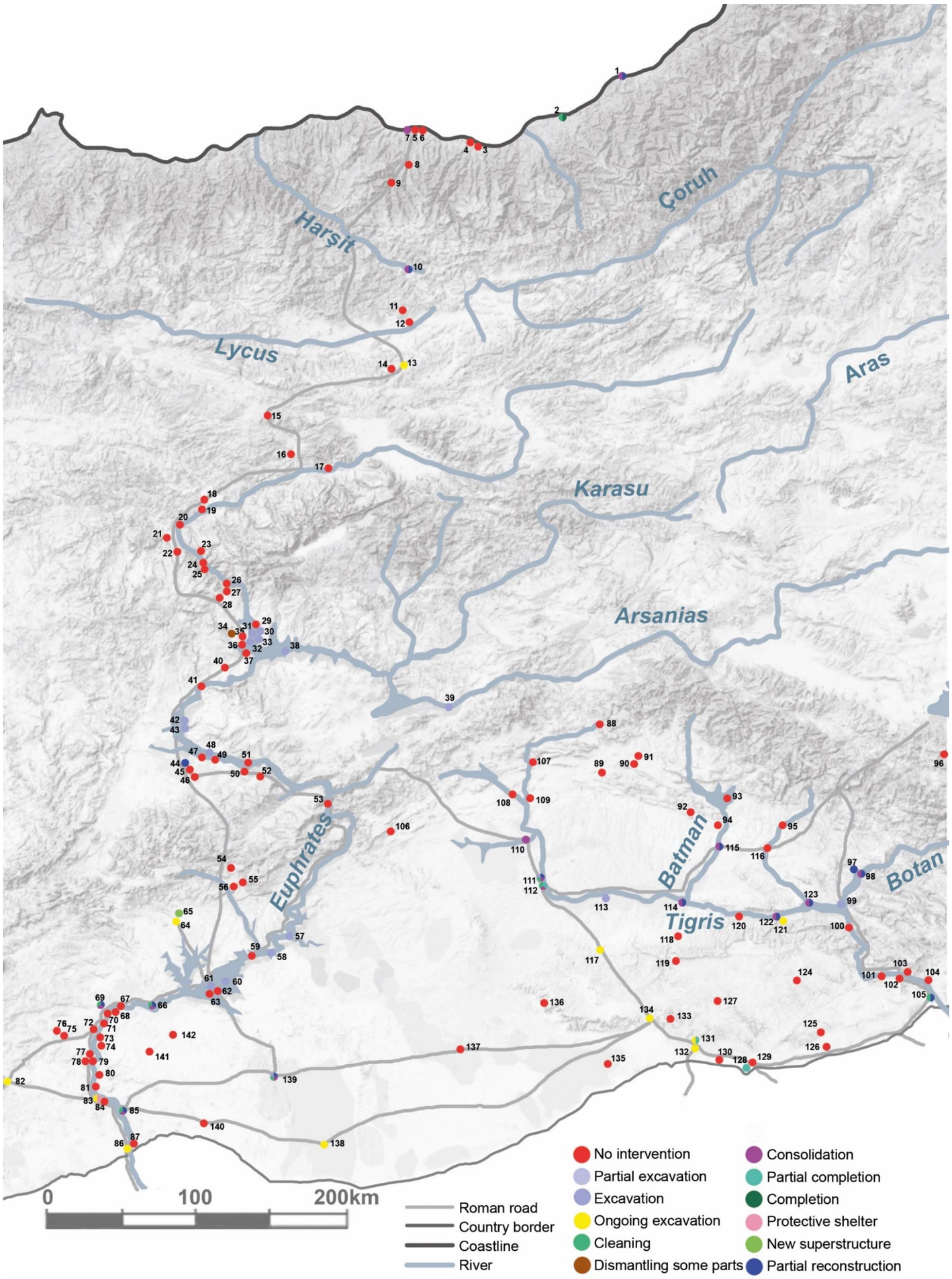


Figure 5.20. Comparison of implementations carried out for four regions



1. Pazar; 2. Rize; 3. Araklı; 4. Buzluca; 5. Trabzon; 6. Tabakhane; 7. Zağnos; 8. Öğütlü; 9. Hortokop; 10. Tohumoğlu; 11. Ağa Kale; 12. Köse; 13. Sadak; 14. Mantartaşı; 15. Kurtlu Tepe; 16. Ilgarlı; 17. Alp; 18. Karabudak; 19. Dostal; 20. Adatepe; 21. Burmahan; 22. Arege; 23. Yaka; 24. Yuva br; 25. Yuva aqu; 26. Hanönü; 27. Dutluca; 28. Çit; 29. Bahadırlar; 30. Kilise Yazısı; 31. Ağın-Hoşrik; 32. Kalecikler; 33. Pağnik; 34. Karamağara; 35. Uzunyol fr; 36. Uzunyol br; 37. Ayvacık; 38. Muratçık; 39. Harba-Şimşat; 40: Deregezen; 41. Taşbaşımalyanı; 42. Kaleköy; 43. Şemsiyetepe; 44. Battalgazi; 45. Dulluk Tepe; 46. Karamildan; 47. Adagören; 48. Köşkerbaba; 49. Kuluşağı; 50. Kıyıcak; 51. Pirot; 52. Sis Kale; 53. Kerefto; 54. Direk Kale; 55. Şeytan; 56. Cendere; 57. Geldibuldu; 58. Horis Kale; 59. Çakıreşme; 60. Lidar; 61. Samsat f; 62. Samsat aqu; 63. Samsat cr; 64. Perre; 65. Perre br; 66. Kızılin; 67. Çiftekoz; 68. Tarlabaşı; 69. Süpürgüç; 70. Habeş; 71. Bozyazı; 72. Elif; 73. Gözeli cr; 74. Gözeli w; 75. Yarımca br; 76. Yarımca w; 77. Rumkale f; 78. Rumkale br; 79. Rumkale cr; 80. Halfeti; 81. Yukarıçardak; 82. Dülük; 83. Zeugma f; 84. Zeugma cr; 85. Birecik; 86. Karkamış; 87. Karkamış cr; 88. Birkilin; 89. Ziyaret; 90. Antağ; 91. Kababkaya; 92. Silvan; 93. Akbaş; 94. Semrah Kale; 95. Yıldızlı; 96. Gayda Kale; 97. Nasreddin; 98. Kırık; 99. Çattepe; 100. Çelikköy; 101. Sulak; 102. Hendekköy; 103. Eski Yapı; 104. Bürüçek; 105. Cizre; 106. Çermik; 107. Dibni; 108. Eğil; 109. Kalecik; 110. Karaköprü; 111. Diyarbakır; 112. Ongözlü; 113. Üçtepe; 114. Köprüköy; 115. Harap; 116. Bozhüyük; 117. Zerzevan; 118. Hisarkaya; 119. Savur; 120. Alodino; 121. Hasankeyf f; 122. Hasankeyf br; 123. Şeyhosel; 124. Adaklı; 125. Hatem Tai; 126. Şirvan; 127. Beşikkaya; 128. Nusaybin; 129. Nusaybin br; 130. Durakbaşı; 131. Dara; 132. Dara br; 133. Bülbül; 134. Mardin; 135. Kızıltepe; 136. Hisaraltı; 137. Viranşehir; 138. Harran; 139. Şanlıurfa; 140. Suruç; 141. Eski Hisar; 142. Uzunburç

Figure 5.21. Preservation level map



1. Pazar; 2. Rize; 3. Araklı; 4. Buzluca; 5. Trabzon; 6. Tabakhane; 7. Zağnos; 8. Öğütlü; 9. Hortokop; 10. Tohumoğlu; 11. Ağa Kale; 12. Köse; 13. Sadak; 14. Mantartaşı; 15. Kurtlu Tepe; 16. Ilgarlı; 17. Alp; 18. Karabudak; 19. Dostal; 20. Adatepe; 21. Burmahan; 22. Arege; 23. Yaka; 24. Yuva br; 25. Yuva aqu; 26. Hanönü; 27. Dutluca; 28. Çit; 29. Bahadırlar; 30. Kilise Yazısı; 31. Ağın-Hoşrik; 32. Kalecikler; 33. Pağnik; 34. Karamağara; 35. Uzunyol fr; 36. Uzunyol br; 37. Ayvacık; 38. Muratçık; 39. Harba-Şimşat; 40: Deregezen; 41. Taşbaşımalyanı; 42. Kaleköy; 43. Şemsiyetepe; 44. Battalgazi; 45. Dulluk Tepe; 46. Karamildan; 47. Adagören; 48. Köşkerbaba; 49. Kuluşağı; 50. Kıyıcak; 51. Pirot; 52. Sis Kale; 53. Kerefto; 54. Direk Kale; 55. Şeytan; 56. Cendere; 57. Geldibuldu; 58. Horis Kale; 59. Çakıreşme; 60. Lidar; 61. Samsat f; 62. Samsat aqu; 63. Samsat cr; 64. Perre; 65. Perre br; 66. Kızılın; 67. Çiftekoz; 68. Tarlabaşı; 69. Süpürgüç; 70. Habeş; 71. Bozyazı; 72. Elif; 73. Gözeli cr; 74. Gözeli w; 75. Yarımca br; 76. Yarımca w; 77. Rumkale f; 78. Rumkale br; 79. Rumkale cr; 80. Halfeti; 81. Yukarıçardak; 82. Dülük; 83. Zeugma f; 84. Zeugma cr; 85. Birecik; 86. Karkamış; 87. Karkamış cr; 88. Birkilin; 89. Ziyaret; 90. Antağ; 91. Kababakaya; 92. Silvan; 93. Akbaş; 94. Semrah Kale; 95. Yıldızlı; 96. Gayda Kale; 97. Nasreddin; 98. Kırık; 99. Çattepe; 100. Çelikköy; 101. Sulak; 102. Hendekköy; 103. Eski Yapı; 104. Bürüçek; 105. Cizre; 106. Çermik; 107. Dibni; 108. Eğil; 109. Kalecik; 110. Karaköprü; 111. Diyarbakır; 112. Ongözlü; 113. Üçtepe; 114. Köprüköy; 115. Harap; 116. Bozhüyük; 117. Zerzevan; 118. Hisarkaya; 119. Savur; 120. Alodino; 121. Hasankeyf f; 122. Hasankeyf br; 123. Şeyhosel; 124. Adaklı; 125. Hatem Tai; 126. Şirvan; 127. Beşikkaya; 128. Nusaybin; 129. Nusaybin br; 130. Durakbaşı; 131. Dara; 132. Dara br; 133. Bülbül; 134. Mardin; 135. Kızıltepe; 136. Hisaraltı; 137. Viranşehir; 138. Harran; 139. Şanlıurfa; 140. Suruç; 141. Eski Hisar; 142. Uzunburç

Figure 5.22. Implementation map

5.1.6. Conservation Status

The conservation status was evaluated by considering the determined conservation level and implementation together. However, this is not an automatic synthesis; the situation of the components after the implementation was re-evaluated. Accordingly, all the situations that determined are as follows: “well-preserved”, “moderately preserved”, “ruined”, “well- preserved. excavated”, “moderately preserved. excavated”, “ruined. excavated”, “well-preserved. consolidated”, “moderately preserved. completed, cleaned”, “well-preserved. partially reconstructed, consolidated”, “moderately preserved. partially reconstructed, consolidated/ renewed”, “moderately preserved. excavated, partially completed/ reconstructed”, “partially reconstructed, consolidated. ruined”, “moderately preserved. excavated. partially submerged”, “excavated/ partially removed. submerged”, “ruined. partially submerged”, “partially reconstructed, consolidated. submerged”, “submerged”, and “no information”.

When analysed the current conservation status of the components after the implementations, including whether they have been submerged or not, a few situations come to the forefront. Partial reconstructions + consolidation appear to be the most dominant application group. 4 of them (Nasreddin, Kırık Bridge, Hasankeyf Bridge, Şeyhosel Bridge) remained under the dam waters after this implementation. In this case, the partial reconstructions + consolidation implementation can be interpreted as planned strengthening works carried out in the abutments before the components are submerged under the dam waters, or the fact that they are submerged shortly after these costly implementations can also be interpreted as conservation projects that were carried out without foresight. Since these implementations were carried out only on the abutments, they do not give much idea about perceiving the bridges as a whole and seem to be for strengthening purposes.

In addition to the groups that were excavated for a while or excavations are still continuing, there are places that were submerged by dam waters after the excavation was completed (Kilise Yazısı, Ağın-Hoşrik, Kalecikler, Pağnik, Muratçık, Örencik, Şemsiyetepe, Köşkerbaba, Geldibuldu, Horis Kale, Lidar, Samsat, Çattepe) or partially submerged (Kaleköy, Zeugma, and Hasankeyf). These are the centres where rescue excavations were carried out on the banks of the Euphrates and Tigris. However,

unfortunately, a significant part of the components submerged without any excavation beforehand (Hanönü Bridge, Karamağara Bridge, Uzunyol Fortlet, Uzunyol Bridge, Ayvacık, Pirot, Kerefto, Samsat Aqueduct, Habeş Bridge, Rumkale Bridge, Dibni Bridge). The fact that these components were submerged without even proper documentation was a great loss in terms of understanding the Roman frontiers. Moreover, despite the implementations, the number of those in the ruined group without any implementation is still high (Figure 5.23).

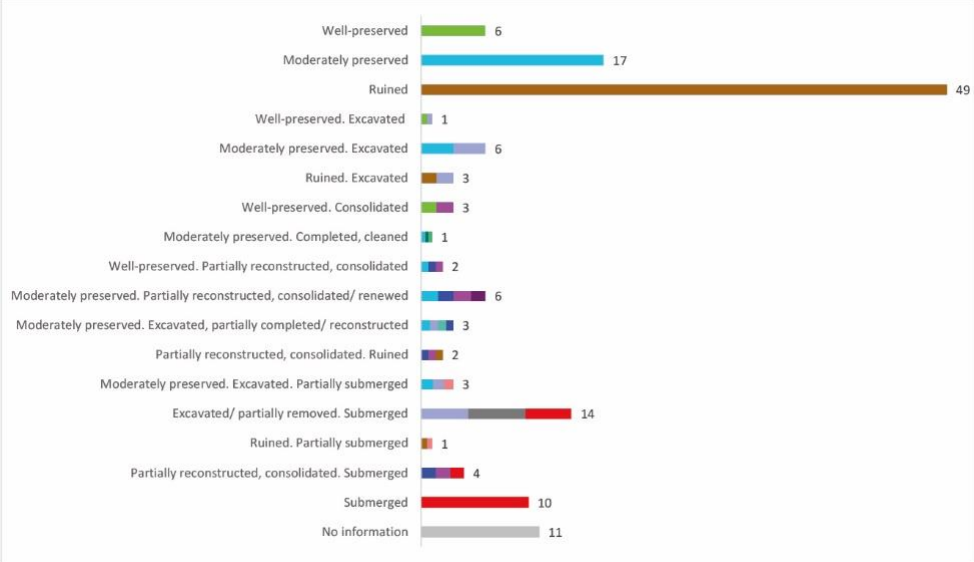
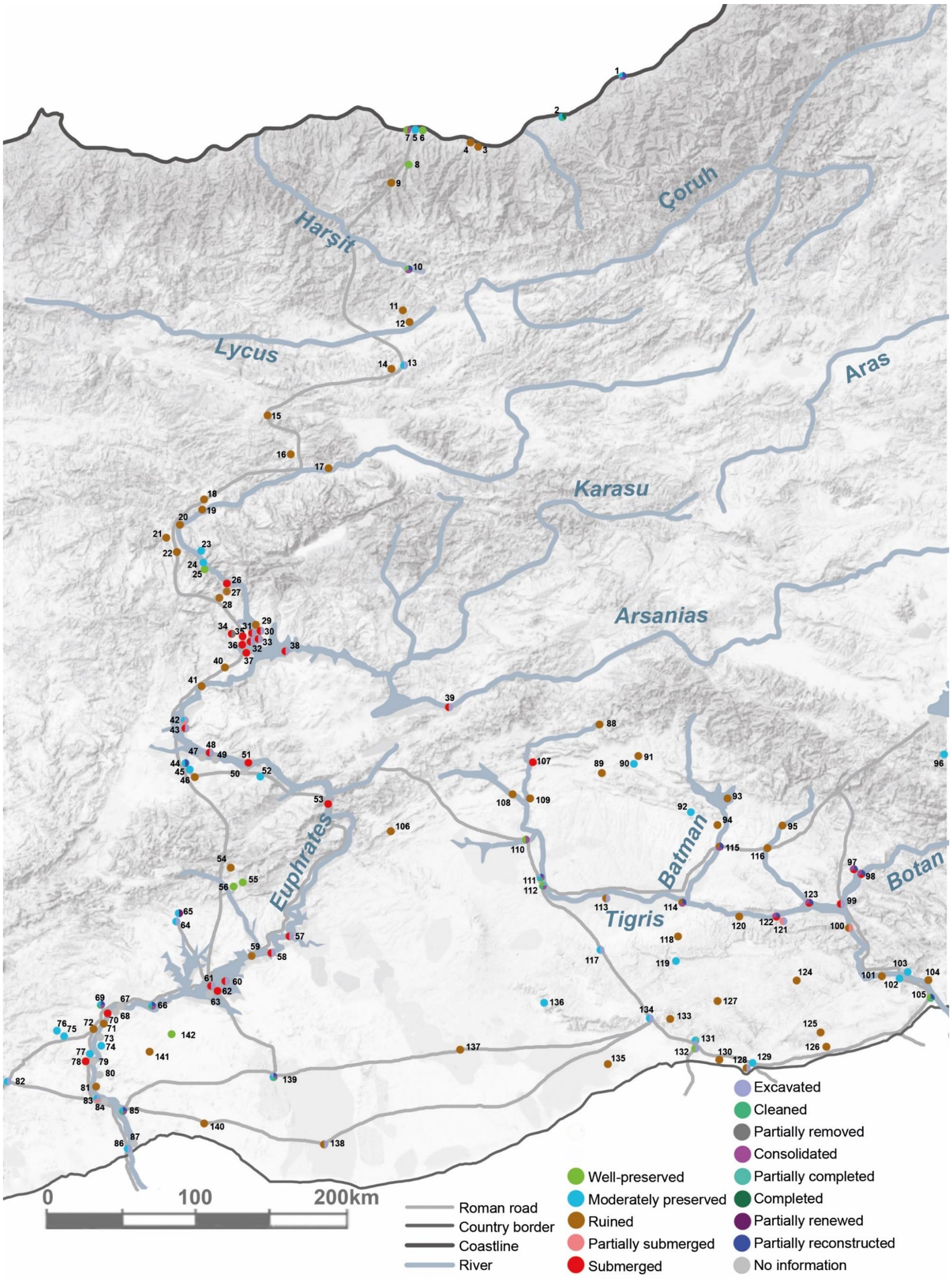


Figure 5.23. Conservation status for all components in total

In comparison between regions, the well-preserved ones are at least in Cappadocia and Commagene + North Syria regions, while the well-preserved components and well-preserved and implemented ones in Pontus + Armenia Minor and Mesopotamia regions are more. The submerged components are located in mostly in Cappadocia, but also in Commegene + North Syria and Mesopotamia regions. However, within the submerged group, the excavated and submerged ones are in Cappadocia and Commagene + North Syria, while all the partially reconstructed and submerged components are in Mesopotamia region (Figure 5.24, 5.25).

Figure 5.24. Comparison of conservation status for four regions



1. Pazar; 2. Rize; 3. Araklı; 4. Buzluca; 5. Trabzon; 6. Tabakhane; 7. Zağnos; 8. Öğütlü; 9. Hortokop; 10. Tohumoğlu; 11. Ağa Kale; 12. Köse; 13. Sadak; 14. Mantartaşı; 15. Kurtlu Tepe; 16. Ilgarlı; 17. Alp; 18. Karabudak; 19. Dostal; 20. Adatepe; 21. Burmahan; 22. Arege; 23. Yaka; 24. Yuva br; 25. Yuva aqu; 26. Hanönü; 27. Dutluca; 28. Çit; 29. Bahadırlar; 30. Kilise Yazısı; 31. Ağın-Hoşrik; 32. Kalecikler; 33. Pağnik; 34. Karamağara; 35. Uzunyol fr; 36. Uzunyol br; 37. Ayvacık; 38. Muratçık; 39. Harba-Şimşat; 40: Deregezen; 41. Taşbaşımalyanı; 42. Kaleköy; 43. Şemsiyetepe; 44. Battalgazi; 45. Dulluk Tepe; 46. Karamildan; 47. Adagören; 48. Köşkerbaba; 49. Kuluşağı; 50. Kıyıcak; 51. Pirot; 52. Sis Kale; 53. Kerefto; 54. Direk Kale; 55. Şeytan; 56. Cendere; 57. Geldibuldu; 58. Horis Kale; 59. Çakıreşme; 60. Lidar; 61. Samsat f; 62. Samsat aqu; 63. Samsat cr; 64. Perre; 65. Perre br; 66. Kızılın; 67. Çiftekoz; 68. Tarlabaşı; 69. Süpürgüç; 70. Habeş; 71. Bozyazı; 72. Elif; 73. Gözeli cr; 74. Gözeli w; 75. Yarımca br; 76. Yarımca w; 77. Rumkale f; 78. Rumkale br; 79. Rumkale cr; 80. Halfeti; 81. Yukarıçardak; 82. Dülük; 83. Zeugma f; 84. Zeugma cr; 85. Birecik; 86. Karkamış; 87. Karkamış cr; 88. Birkilin; 89. Ziyaret; 90. Antağ; 91. Kababakaya; 92. Silvan; 93. Akbaş; 94. Semrah Kale; 95. Yıldızlı; 96. Gayda Kale; 97. Nasreddin; 98. Kırık; 99. Çattepe; 100. Çelikköy; 101. Sulak; 102. Hendekköy; 103. Eski Yapı; 104. Bürüçek; 105. Cizre; 106. Çermik; 107. Dibni; 108. Eğil; 109. Kalecik; 110. Karaköprü; 111. Diyarbakır; 112. Ongözlü; 113. Üçtepe; 114. Köprüköy; 115. Harap; 116. Bozhüyük; 117. Zerzevan; 118. Hisarkaya; 119. Savur; 120. Alodino; 121. Hasankeyf f; 122. Hasankeyf br; 123. Şeyhosel; 124. Adaklı; 125. Hatem Tai; 126. Şirvan; 127. Beşikkaya; 128. Nusaybin; 129. Nusaybin br; 130. Durakbaşı; 131. Dara; 132. Dara br; 133. Bülbül; 134. Mardin; 135. Kızıltepe; 136. Hisaraltı; 137. Viranşehir; 138. Harran; 139. Şanlıurfa; 140. Suruç; 141. Eski Hisar; 142. Uzunburç

Figure 5.25. Conservation status map

5.1.7. Conservation Problems

- ***Energy centrals: Dams***

Dams are among the factors that threaten both the Roman frontier in Anatolia and other cultural heritage in the region. Starting from the 1970s, dams began to be built to solve the water shortage in Southeastern Anatolia and to generate energy. The dams that were first started to be built in the upper Euphrates, continued in the south of the river in the following years, Keban completed in 1974, Karakaya in 1987, Atatürk in 1990, and Birecik and Karkamış in 1999. Then dams were built on the Tigris River or other streams, namely Dicle in 1997 and Kralkızı in 1997 on the Tigris, and Batman in 1999 on the Batman. The lasts of these dams, Ilısu on the Tigris, was completed in 2020, and Silvan on Kulp Stream was completed in 2022. Although these are the largest dams in the Southestern Anatla Project (GAP in Turkish) project in the region, there are also smaller dams, such as Bağıştaş in 2015 on the Euphrates and Sadak in 2014 on the Kelkit.

Although it can be considered positive that rescue excavations started to reveal the cultural heritage and the value of the region before the completion of the dams on the Euphrates and Ilısu dam, these rescue excavations had to be carried out quickly before the dams were completed, most of the sites that identified in the surveys could not be excavated, the excavated sites were quickly documented and the excavations remained unfinished, some of them were removed to new places by taken out of context, and had to be abandoned without taking any protection measures for the unearthed structures. While we know that we have lost not only these excavated and surveyed places as the dams were completed and the dam lakes began to fill, we do not even know exactly what we have lost from the cultural areas, which are estimated to be much more in number.

The impact of dams was not only on cultural heritage, but also on the local people, natural areas, flora and fauna. Many villages that would remain under the dams were evacuated and moved to new places, the appearance of the region was completely changed, and climate of the region differentiated. Settlements that were previously neighbours were separated by the dam lakes, roads were changed, and the natural environment was intervened.

- ***Environmental Disasters***

There is a gold mine that make exploration with cyanide in İliç district of Erzincan, adjacent to the Euphrates River. Due to the explosion in the cyanide pipe in this mine in June 2022, a large amount of cyanide solution was mixed into the soil, water and air. Since the Euphrates flows from north to south, cyanide was carried throughout the entire Euphrates basin, negatively affecting agriculture and livestock in the region.[1228] In the same mine, in February 2024, a landslide occurred when the accumulated soil shifted and cyanide soil spread around. In addition to the fact that the landslide resulted in death, although the canals of the nearby Bağıştaş dam were closed, it remains unclear whether cyanide soil mixed with the Euphrates and how much area it affected.[1229] Such disasters, which have a huge environmental impact, directly affect the landscape and natural life, and create serious health problems.

Although it is on a different scale than the negligence of the mining operation, the fact that some parts of the frontier are in the first degree earthquake zone poses a natural threat to its existence. As the February 2023 Pazarcık and Elbistan earthquakes showed, cultural heitage in the region are also at risk. Although there has not been a negative update yet regarding the Roman frontier remains being damaged in the earthquake, there are still components whose latest condition has not been checked, also it was determined that other cultural heritage in the area where the Roman frontier structures are located, such as Diyarbakır fortifications and Gaziantep castle, were damaged in the earthquake. The uncontrolled waste process during the removal of debris after the earthquake and the accumulation of it in empty green areas also affect the natural life and health in the region.

- ***Urbanization, development, new and industrial structures***

One of the factors that threaten the Anatolian frontier is urbanization and development. Especially the structures located in the city centre of metropolitan municipalities such as Trabzon and Şanlıurfa are under threat. Although there is no settlement in Şanlıurfa fortress, there are buildings dating back to various periods in the low-lying city centre. In Trabzon, even the citadel walls are untraceable due to the

[1228] "İliç altın madenine karşı verilen mücadele ve uyarılar," Bianet, accessed April 30, 2024, https://bianet.org/haber/ilic-altin-madenine-karsi-verilen-mucadele-ve-uyarilar-291879. "İliç'te siyanür sızıntısı," BBC News Türkçe, accessed April 30, 2024, https://www.bbc.com/turkce/haberler-turkiye-61935902.

[1229] "JMO: Bir Çevre Felaketi 'İliç Altin Madeni İşletmesi'," TMMOB, accessed April 30, 2024, https://www.tmmob.org.tr/icerik/jmo-bir-cevre-felaketi-ilic-altin-madeni-isletmesi.

uncontrolled modern settlement within the citadel. The threat of construction is not only present for metropolitan cities. The remains, which are located intertwined with smaller settlements such as Silvan, Nusaybin, Battalgazi, and Viranşehir that no protection measures were taken, are gradually losing their integrity. Uncontrolled construction of new buildings affects the ruins in the villages also. In addition, the stone factory established very close to the Karaköprü in Diyarbakır, which was detected during the field trip, not only pollutes the devegeçidi Stream, but also damaged a part of the possible Roman road connecting to the bridge, due to the new road that opened for the factory.

- ***Remoteness***

Although the fact that the Anatolian frontier is mostly located in inaccessible geographies may seem positive against the pressure of urbanization and development, this situation also has negative effects on the protection of frontier. Due to they are in difficult-to-access areas, such as those on the banks of the Euphrates, caused the excavations to be started late. There are still areas that cannot be reached by road, they can only be accessed on foot or by packing. In addition to the difficulties of excavation in these regions, it is also difficult to carry out conservation projects. Furthermore, their inaccessibility causes their awareness to not increase and social awareness to remain weak.

- ***Security Problems***

There has been a security problem in the frontier region due to the fight against terrorism in Eastern and Southeast Anatolia regions since the 1980s. These conflicts not only pose a potential physical threat to cultural heritage, but also this insecure environment and lack of stability in the region affects scientific studies. Mitford mentioned that while he was continuing his frontier research, his access to some settlements was restricted for security reasons.[1230] This problem, which is decreasing today but still continuing, makes it difficult to take actions to protect cultural heritage.

- ***Extreme Reconstructions***

It is significant that there are a few components that have undergone conservation interventions on the Anatolian frontier, but the most frequently carried out among these

[1230] Mitford, *East of Asia Minor/ I,* xi.

is reconstruction implementations. Reconstruction implementations that are not carried out scientifically, especially on archaeological remains, affect the authentic characteristics of the structures. As a matter of fact, the practices applied in the Anatolian frontier resulted poorly, the structures lost their original characters and turned into alien structures. Furthermore, it is debatable whether these practices actually provide protection for the remains and whether they enable the perception of their original masses. Unfortunately, such reconstruction practices carried out far from scientific principles cause further damage rather than protecting the structures.

- ***Lack of Holistic Conservation Decisions***

The fact that there are reconstruction-oriented implementations applied to some of the frontier components, but no protection measures have been taken at all for the majority of them, shows that there is no holistic conservation approach for the Anatolian frontier. In addition, the registration of the structures was done at the particle scale, and the relationships of the structures with their environment and each other were ignored. The fact that some of the components (archaological site of Zeugma, and Zerzevan Castle and Mithraeum) and some of the places where they are located (Mardin, and Harran and Şanlıurfa) are on the Tentative List to be included in the World Heritage List is a strategy to protect some of the highlighted areas of the frontier rather than perceiving it as a whole and protecting it. Based on some examples, it can be concluded that a holistic approach was not followed even in a site basis, and different decisions were made within the site with fragmented approaches. While some of the mosaics in Zeugma were moved from the site and preserved in the museum, some of them were protected with a protective shelter as in-situ, and a part of the site was submerged by the Birecik dam. A similar situation is seen in Hasankeyf, a number of monuments selected from the site were relocated to the newly established Hasankeyf, ignoring its relations with the environment, extreme reconstruction was made on the Hasankeyf bridge, while most of Hasankeyf submerged by the Ilısu dam up to the castle at its highest point, excavations are continuing in the castle that is not submerged, to shed light on the history of Hasankeyf which much of that past is lost.

- ***Lack of knowledge and Awareness***

The extensity of the information that the Roman Empire's eastern frontier passes through Turkey is quite low within the country. This causes the lack of local studies in

this field and therefore the difficulty of protecting the frontier. Although the local people live side by side with these ruins, the cultural context of the ruins is not well known. In addition, it becomes difficult to preserve this heritage because Roman culture is seen as different from Anatolian culture and is not adopted locally, and the awareness of the preservation of cultural heritage is low at the public level.

5.2. Comparative Study of the Other Frontier Sections with the Anatolian Frontier in order to Understand its Distinctive Characteristics

5.2.1. Chronological

For the chronological comparison, the period and multilayeredness of the frontier sections were examined. Period covers the production of the frontier through political processes and the beginning of its spatial construction. In multilayeredness, whether there were pre-Roman and post-Roman periods in the frontier region, the cultural and architectural continuity of these periods, and the continuity within the Roman periods were examined.

5.2.1.1. Period

Roman frontiers were not built all at once as a result of a superior imperial plan. There was a periodic layering of conquests and retreats against threats or opportunities that varied according to the regions of the empire. The artificial borders of Hadrian's Wall and The Antonine Wall were completed within a few years. Although the construction of the Upper German- Raetian Limes was also completed in a short time, which is also an artificial border, there is more than one line due to the change of the frontier line over the

periods. The island of Britain was occupied in 43 AD, and in 122 AD Hadrian ordered the construction of Hadrian's Wall.[1231] One generation later, during the period of Antoninus Pius, this wall was abandoned and moved further to the north, and the Antonine Wall was completed between 142-144 AD. However, the Antonine Wall was kept for only a period and was withdrawn by Marcus Aurelius to Hadrian's Wall in 158 AD. The use of the Hadrian's Wall continued until the Empire lost its territory here in 410 AD.[1232] Both Hadrian and Antonine Walls have two construction stages.

During the period of Caesar, the Rhine River was reached in Germania. Troops were stationed in the region from the Augustus period, but the construction of the artificial border in Upper German- Raetian Limes started in the 90s AD. In order to reduce the land route between the Rhine and Danube, this frontier was shortened in the following periods, and different frontier lines were built, sometimes overlapping with the previous frontier, during the periods of Trajan, Hadrian and Antoninus. After the crisis of the 3rd century, the Romans abandoned these lands.[1233]

Compared to artificial borders, the chronology for natural borders spreads over a much longer time in terms of both construction period and lifespan with the advances and retreats. After the division of the Empire into western and eastern parts, the Byzantine Empire lasted longer, and Roman control was maintained in the eastern provinces until the Arab invasions in the 7th century (for Constantinople and Trapezus, until the Ottoman Empire in the 15th century).

For the Lower German Limes, although the Gaul lands were occupied during the period of Caesar, the Rhine River was accepted as the border in the 80s AD. New fortifications were built during the period of Trajan, and the frontier collapsed with the rise of the Franks in the 5th century.[1234] The Danubian territories were protected by Danubian tribes who acted as clients of the Romans before the Augustus period. From the 40s AD, the provinces of Raetia, Noricum, Pannonia and Moesia were created, and the first forts were established. The open frontier policy, which was carried out with local client tribes, was replaced by the close frontier policy during the Flavians period, and the frontier was fortified. The frontier system and structures underwent various changes, both

[1231] Breeze, *Frontiers of the Roman Empire: Hadrian's Wall,* 48-59; Ployer, Polak, and Schmidt, *A Thematic Study,* 28-29.

[1232] Breeze, *Frontiers of the Roman Empire: Hadrian's Wall,* 48-59; Breeze, *Frontiers of the Roman Empire: The Antonine Wall,* 39-48; Keppie, "The Antonine Wall 1960-1980," 91-111.

[1233] Thiel, Roth, and Becker, *Frontiers of the Roman Empire: The Upper Germanic Limes,* 43-69.

[1234] Graafstal, Willems, and Bödecker, *Frontiers of the Roman Empire: The Lower German Limes,* 52-89.

organizational and structural, during Trajan's conquest of Dacia, the withdrawal from Dacia in the 270s AD, the crisis of the 3rd century, and the 4th century, and remained in use until the end of the 6th century.[1235]

It can be considered that the Dacia frontier is one of the regions that joined the Empire later (others are Parthia, Mesopotamia and Armenia in the east, which was conquered by Trajan in 104-107 AD). After two Dacian wars during the period of Trajan, the Dacia province was included into the Empire in 108 AD. The Dacia province was reorganized both administratively and militarily under Hadrian, Marcus Aurelius and Septimius Severus, but the conquest of the province was short-lived, and it was abandoned in the 260s AD by retreating to the Danube frontier.[1236]

Similar to the Danube frontier, the Near Eastern frontier was protected by client kingdoms consisting of the Kingdom of Colchis in the Caucasus and Nabataeans in Arabia. While Syria became a province in 64 BC, Egypt in 31 BC, and Arabia in 107 AD, the Caucasus was still protected by the Colchis Kingdom, but forts were built here, probably from the time of Vespasian. Starting from the Nero period, military structures began to be built to the south of the Euphrates in Syria. Forts were built during the Vespasian and Domitian periods. After the short-term conquest of Trajan, Mesopotamia and Osroene provinces were re-established during the Severus period. The frontier was crossed by the Umayyads in the 7th century. Arabia, which became a province during the Trajan period, underwent regulations during the period of Diocletian, but lost its importance in the 6th century.[1237] The Kingdom of Palmyrenians was established in Egypt in 270 AD, but the Romans regained control during the reign of Diocletian. It was lost to the Arabs in the 7th century.[1238]

The Africa Proconsularis province is the oldest province that was created in Africa frontier in 146 BC. The client kingdom of Cyrenaica in 96 BC, Tripolitania province in 46 BC, and the client kingdom of Mauretania in 39 AD were added. Cyrenaica was later merged with Crete in 27 BC. During the Diocletian period, organizational changes were

[1235] Conrad and Stancev, "Archaeological survey on the Roman frontier on the lower Danube between Novae and Sexaginta Prista. Preliminary report (1997-2000)," 673-684; Jilek, *Frontiers of the Roman Empire: The Danube Limes,* 41-60; Mocsy, *Pannonia and Upper Moesia. A History of the Middle Danube Provinces of the Roman Empire, 31*-52; Schmitz, *Roman Conquests: The Danube Frontier,* 65-83.

[1236] Marcu and Cupcea, *Frontiers of the Roman Empire: The Roman frontiers of Dacia,* 39-45, 70-78; Schmitz, *Roman Conquests: The Danube Frontier,* 131-153.

[1237] Lewin, "Diocletian: Politics and limites in the Near East," 91-101; Lewin, "The New Frontiers of Late Antiquity in the Near East. From Diocletian to Justinian," 233-263.

[1238] Abudanah et al., *Frontiers of the Roman Empire: The Eastern Frontiers,* 26-28, 36-46, 48-60, 69-81; Redde, *Frontiers of the Roman Empire: The Roman Frontier in Egypt,* 37-93.

made in all African provinces. Although the Germanic Kingdom was established in Africa in 429 AD, Africa came under Roman control again in 533 during the Justinian period. At the end of the 7th century, African lands were captured by the Arabs.[1239]

The acceptance of the Euphrates as the eastern frontier of the Romans in Anatolia dates back to the policies of the Sulla period in the 80s BC. There were the local Hellenistic kingdoms of Armenia, Commagene, Sophene, Osroene and Corduene in Anatolia, which served as a buffer zone against the Parthian Empire. In the north, there was the Pontus Kingdom, which was also a troublesome enemy. It is thought that forts began to be built on the banks of the Euphrates during the Nero period. After the province of Cappadocia was created in 17 AD, the Pontus Kingdom was included in the combined Galatia-Cappadocia province at the latest in 64 AD. Starting from the Vespasian period, a systematic frontier line protection began. During Trajan's eastern campaigns, the Euphrates frontier was crossed, and the Armenia Kingdom and the Mesopotamia region were included in the Empire, but this conquest was short-lived. During the Hadrian period, the Romans retreated to the Euphrates frontier, and during the periods of Severus and Caracalla, the empire was expanded eastward again, and Mesopotamia and Osroene became provinces. During the Dicoletian period, the provinces were reorganized. Towards the end of the 7th century, the frontier collapsed, first with the Sasanians and then with the Arab raids, and the Byzantine Empire retreated into Anatolia.

5.2.1.2. Multilayeredness

Roman Frontiers are multilayered in some regions, as there is a stratification due to the establishment of Roman frontiers in different periods, as well as the presence of local communities that previously lived in the frontier areas, and the new powers that emerged in those regions after Rome continued to use Roman structures.

Hadrian's and Antonine Walls were built in a short time. However, two walls have two stages of construction.[1240] Although Upper German- Raetian Limes is an artificial frontier, its construction did not last as short as Hadrian's and Antonine Walls, and in the

[1239] Mattingly et al., *Frontiers of the Roman Empire: The African Frontiers,* 58-62.
[1240] Bennett, "A revised programme and chronology for the building of Hadrian's Wall," 825-834.

following periods, more changes were made not only in the architectural elements but also in the frontier line of Upper German- Raetian Limes.[1241] Although the line of the Rhine and Danube rivers, has not changed, the organizational, architectural, and military structure of these frontiers has undergone changes in different periods. In the Dacia frontier, there is a situation where the Danube frontier was crossed for a while; a new Dacia province encircled by Dacia frontier was established (which also underwent organizational, architectural, and military regulations in different periods) and then retreated to the Danube frontier. Therefore, all European frontiers are administratively, architecturally and militarily multilayered. However, in the regions where the frontier passes in Europe, the Welsh, German and Dacian tribes lived before the Romans, and since these tribes did not have permanent structures due to tribal life, there is no multi-layeredness in terms of architectural continuity, although there is cultural continuity. Only in Dacia, which was included into the Empire later, Dacia forts were used by the Romans. Although the European frontiers did not have the continuity of the period before the Romans, they were used in the Medieval period after the Romans. Especially the forts on the Danube frontier were strengthened and re-used in the Medieval period.

It took a long time for the Near Eastern and African provinces to be included in the Empire. Accordingly, the formation of frontiers spreads over a long period of time. After all the provinces in the Near East and Africa were shaped, the provinces underwent administrative, architectural and military changes in the following periods, therefore, there is a multilayered Roman periodization. In addition, the structures of the Nabataeans, Palmyrenians, Ancient Egypt kingdom, Carthaginians, Numidian Kingdom and Mauretanian kingdom (some of which were built for the Roman frontiers during the client period) that were in the region before the Roman Empire and some of which were client kingdoms, were used by the Romans. After the end of Roman rule in these regions, these structures were used by the Arabs, and some of them were converted into civilian settlements.[1242]

[1241] C. Sebastian Sommer, "Recent developments in south-west Germany (eastern Germania Superior- western Raetia)," in *Limes XVIII Proceedings of the XVIIIth International Congress of Roman Frontier Studies held in Amman, Jordan (September 2000),* ed. Philip Freeman, Julian Bennett, Zbigniew T. Fiema, and Birgitta Hoffmann. BAR International Series 1084 (Oxford: Archaeopress, 2002), 441-452.

[1242] David F. Graf, "Nomads and the Arabian frontier: the epigraphic perspective," in *Limes XVIII Proceedings of the XVIIIth International Congress of Roman Frontier Studies held in Amman, Jordan (September 2000),* edited by Philip Freeman, Julian Bennett, Zbigniew T. Fiema, and Birgitta Hoffmann. BAR International Series 1084 (Oxford: Archaeopress, 2002), 153-160.

A similar situation exists in Anatolia frontier as in the Near Eastern and African frontiers. It took a long time for the Anatolian provinces to be included in the Empire and be organized as frontiers. After the Euphrates was accepted as the border for a long time, during the periods of Trajan and Severus, the Euphrates border was crossed and the Tigris border was reached, and the provinces in Southeastern Anatolia were organized. Among the forts and cities through which the frontiers pass, there are those built on Hellenistic period cities, client kingdom cities or Bronze Age cities. For example, while Trabzon and Zeugma were important Hellenistic city centres, Samosata was the capital of the Commagene client kingdom and also a Hittite city. There were also important Bronze Age Assyrian cities such as Hasankeyf, or Urartian cities in Southeastern Anatolia. Just as the civilian or military structures of these civilizations were re-used in Roman military structures, forts were re-used by the Seljuks, Artuqids and Ottomans after the Roman period, and some of them were continued as civilian settlements. Therefore, there is a multilayered administrative, architectural, military and cultural structure both in terms of the Roman periods and in other civilizations periods.

5.2.2. Socio-Political

For the socio-political comparison, the purpose, military organization and civilian settlements of the frontier sections were examined. Purpose covers the reason why that frontier section was built for political reasons, military organization covers what kind of military structures the frontier section is organized with and what kind of troops it consists of, and civil settlements covers the formation of civilian settlements in the frontier area and their integration into the frontier system.

5.2.2.1. Purpose

Frontiers were built because of the Romans need to demarcate, control and defend. And these needs correspond to political and topographic situations that differ across the

frontier that spread geographically and culturally different regions. On the opposite side of the Roman frontiers, there were mostly local tribes that caused problems for Rome, as in Europe, or desert nomads with whom trade was carried out, as in Africa.[1243] However, in the east, this situation becomes different, and Rome finds itself up against the Parthian Empire, an equally sophisticated power.

Hadrian's Wall and the later built Antonine Wall in further north, were built against the local Welsh and Caledonian and later the Pict tribes in the north of Britain. Similarly, the Upper German- Raetian Limes were built against the Celtic tribes in the north. Through the Upper German- Raetian Limes in the 1st century AD, commercial and military transportation on the Rhine and Danube were protected and also the important Roman power centre of Mainz was secured.[1244]

The Lower German and Danube Limes were created by accepting the Rhine and Danube rivers as borders, both to create a frontier against the local tribes in the north and to transport commercial goods through the rivers.[1245]

The Dacian Kingdom in the north, together with the Parthian Kingdom in the east, is one of the biggest enemies of the Romans. Since there were constant problems with the Dacia Kingdom, Dacia was conquered and annexed to Roman territory during the Trajan period. Considering the Parthian campaigns in the east during this period, and thus the Empire reaching its largest limits, it can be suggested that the conquest of Dacia was also used as a symbol of power. Additionally, gold, which was important for the Empire, was provided from Dacia.[1246]

The coastline frontier in Colchis was to secure the Black Sea supply route. The desert frontier in the Near East was for the protection of trade routes from the Far East and Iran to the Roman Empire. Additionally, precious minerals and stones were mined and transported within the borders of the Empire, in Egypt. Egypt was also the most

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[1243] Zsolt Visy, "Similarities and differences in the late Roman defence system on the European and eastern frontiers," in *Limes XVIII Proceedings of the XVIIIth International Congress of Roman Frontier Studies held in Amman, Jordan (September 2000),* ed. Philip Freeman, Julian Bennett, Zbigniew T. Fiema, and Birgitta Hoffmann. BAR International Series 1084 (Oxford: Archaeopress, 2002), 71-75.

[1244] Breeze, *Hadrian's Wall. A study in archaeological exploration and interpretation,* 158-159; Breeze, *Frontiers of the Roman Empire: Hadrian's Wall,* 48-59; Breeze, *Frontiers of the Roman Empire: The Antonine Wall,* 39-48; Hodgson, *Hadrian's Wall. Archaeology and History at the Limit of Rome's Empire,* 266-275; Thiel, Roth, and Becker, *Frontiers of the Roman Empire: The Upper Germanic Limes,* 43-69.

[1245] Graafstal, Willems, and Bödecker, *Frontiers of the Roman Empire: The Lower German Limes,* 52-89; Jilek, *Frontiers of the Roman Empire: The Danube Limes,* 41-60.

[1246] Marcu and Cupcea, *Frontiers of the Roman Empire: The Roman frontiers of Dacia,* 39-45, 70-78.

important grain source of the Romans since the republic period. Although there was a danger of attacking the trade routes of local tribes here, they did not pose as great a threat as the Welsh, Germanic or Dacian tribes on the northern frontier.[1247] As in the Eastern frontier, in addition to protecting trade routes, the desert frontier in Africa was established also to control maritime traffic in the Mediterranean, in a way that did not penetrate too far into Africa hinterland but penetrated enough to keep the Mediterranean coastline safe.[1248]

The Anatolian and Northern Syrian frontier was a heavily armed frontier created against the Parthian threat in the east. There were constant wars and agreements with the Parthians and their successors, the Sassanians. It was necessary to secure the border for the safe transportation of people, soldiers and goods on the north-south axis and towards the interior of Anatolia within the borders of the Empire.

5.2.2.2. Military Organization

Since the frontiers spread across different geographies of the Empire served different purposes, the military organization on the frontiers differed from each other. There are no legionary fortresses on the Hadrian's and Antonine Walls. The auxiliary forts were attached to the walls at the points where the walls had to be crossed, probably due to smaller units could move more mobile. Legionary fortresses were located rather inland and connected by road networks.[1249] The fact that there is also no legionary fortress on the Upper German- Raetian Limes, but in its hinterland, may indicate that the tribes in these regions were believed to be a lower-level danger and that the obstacles on the artificial frontiers to be difficult to overcome. The frontier line was protected by auxiliary

[1247] Abudanah et al., *Frontiers of the Roman Empire: The Eastern Frontiers*, 26-28, 36-46, 48-60, 69-81; Kolb and Speidel, "Perceptions from Beyond," 152-179; Redde, *Frontiers of the Roman Empire: The Roman Frontier in Egypt*, 37-93.

[1248] Mattingly et al., *Frontiers of the Roman Empire: The African Frontiers*, 58-62.

[1249] Breeze, *Frontiers of the Roman Empire: Hadrian's Wall,* 48-59; Breeze, *Frontiers of the Roman Empire: The Antonine Wall*, 39-48; David J. Breeze, "The army of the Antonine Wall: its strength and implications," in *The Antonine Wall. Papers in honour of Professor Lawrence Keppie*, ed. David J. Breeze and William S. Hanson (Oxford: Archaeopress, 2020), 287-299.

forts and watchtowers and, where geographically necessary, additional elements such as ditch and palisade.[1250]

Unlike artificial barriers, there were legionary fortresses located on the frontier line in natural frontiers. In the Lower German Limes legionary fortresses were placed at natural crossing points for control purposes. They guarded valleys or river crossings. Double legionary fortresses were placed at points where the threat from Germanic tribes was more intense. Auxiliary unit forts were more numerous than legionary fortresses and were placed according to topography. While infantry units were deployed in areas with low mobility, cavalry units were deployed in plain areas. In addition to the land army, there was also a fleet on the river for both transportation and war purposes.[1251]

The Danube frontier, one of the longest frontiers, had the highest number of legionary fortresses, which was eight. In addition to the legionary fortresses, there were many auxiliary forts, watchtowers and bridgeheads that strengthened the frontier system. The density of the watchtowers varies depending on the topography. The Danube frontier was heavily armed, and the forts, which varied in size, contained cavalry or mixed units, depending on the suitability of the landscape. In addition to the land army, the fleet also maintained river control.[1252]

On the Dacia frontier, the four legionary fortresses were concentrated in the southwest. For this reason, it is thought that this is the main centre of the supply line that goes around the entire frontier. The density of forts and watchtowers varies according to landforms and needs. While forts had less density in the west, they were concentrated in the east, and watchtowers were the densest in the north. The military system in Dacia was generally established with auxiliary forts. Although these could accommodate both cavalry and infantry, the cavalry was generally located further inland. Additionally,

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[1250] D. J. Woolliscroft, "Signalling and the Design of the German Limes," in *Roman Frontier Studies 1995. Proceedings of the XVIth International Congress of Roman Frontier Studies,* ed. W. Groenman- van Waateringe, B. L. Van Beek, W. J. H. Willems, and S. L. Wynia. Oxbow Monograph 91 (Oxford: Oxbow Books, 1997), 596-602; David J. Breeze, "Regiments and Frontiers: Patterns of Distribution on Rivers and Artificial Frontiers," in *Roman Frontier Studies 1995. Proceedings of the XVIth International Congress of Roman Frontier Studies,* ed. W. Groenman- van Waateringe, B. L. Van Beek, W. J. H. Willems, and S. L. Wynia. Oxbow Monograph 91 (Oxford: Oxbow Books, 1997), 73-74; Thiel, Roth, and Becker, *Frontiers of the Roman Empire: The Upper Germanic Limes,* 43-69.

[1251] Graafstal, Willems, and Bödecker, *Frontiers of the Roman Empire: The Lower German Limes,* 52-89.

[1252] Jilek, *Frontiers of the Roman Empire: The Danube Limes,* 41-60, 67.

during the occupation of Dacia, temporary camps were established within a day's walking distance of each other.[1253]

As far as is known, there are no legionary fortresses in the Caucasus region; instead, legions were sent from Anatolia when necessary. Alternately to legionary fortresses, there were auxiliary forts in the form of a chain along the Black Sea coast. The northern Syrian frontier is a region with three known legionary fortresses were placed due to the Parthian danger in the east. Apart from the legionary fortresses, there were auxiliary forts following the Euphrates and Khabur. As going south, a scattered cluster of fort and watchtower network appeared. The reason why there was no chain of forts and watchtowers as in Europe is that the desert could be crossed at certain points, and since caravan routes followed these passes, it was sufficient to have forts at these passes. There were legionary fortresses and forts in Egypt to control both the cosmopolitan local population and the trade routes. Forts were built near quarries, but these forts were not permanent locations of specific units; they were guarded by detachments of soldiers who came out from the valley for a given time.[1254]

Despite the forts spread over a wide geography in African regions, there were no fortresses where legions were regularly stationed. Control of African Limes was achieved by small auxiliary units with the help of local communities. Rather than a single legionary base, Legio III Augusta was divided into several vexillations and placed in Capsa, Tacapae, and Ammaedara. In the 1st century, this legion was united at Theveste (Tebessa) and smaller forts, in the Trajan and Hadrian periods, a new legionary fortress was established at Lambaesis. Many auxiliary units consisted of cavalry alae or mixed infantry and cavalry cohorts. After the disbanding of Legio III Augusta, the army was formed of two distinct classes of troops with separate command structures and different pay and conditions. The first of these two units was the battle units, comitatenses consisting of both infantry and cavalry, while the other was the limitanei, consisting of former frontier troops who mostly carried out policing duties.[1255]

[1253] Marcu and Cupcea, *Frontiers of the Roman Empire: The Roman frontiers of Dacia*, 47-59, 60-69.

[1254] Abudanah et al., *Frontiers of the Roman Empire: The Eastern Frontiers*, 41-44, 48-60, 62-63; Redde, *Frontiers of the Roman Empire: The Roman Frontier in Egypt*, 37-93; S. Thomas Parker, "Geography and Strategy on the Southeastern Frontier in the Late Roman Period", in *Roman Frontier Studies 1995. Proceedings of the XVIth International Congress of Roman Frontier Studies*, ed. W. Groenman- van Waateringe, B. L. Van Beek, W. J. H. Willems, and S. L. Wynia. Oxbow Monograph 91 (Oxford: Oxbow Books, 1997), 115-122.

[1255] Mattingly et al., *Frontiers of the Roman Empire: The African Frontiers*, 58-66, 70-78.

Anatolia was the frontier where four different legions were permanently stationed in four bases due to the Parthian danger and the problematic Armenia Kingdom in the east. A fleet was positioned in Trabzon in the early period to control the supply route in the Black Sea, and towards the interior of Anatolia and Caucasus, and in the late period, Trabzon also became a legionary centre. Legionnaires were sent to eastern campaigns and short-term missions from these bases. In order to control the Black Sea coast, the auxiliary unit forts were located on the coast, and they probably travelled by the sea due to the presence of mountains in this region. There were auxiliary forts arranged in a chain between the legionary bases. Although it is thought that the Euphrates and Tigris rivers were used for river transportation, the existence of a fleet or pier-like structures has not been found yet.

5.2.2.3. Civilian Settlements

The presence of military units affected the civilian life around them. While some frontiers were established by attaching them to pre-existing civilian cities, it is also seen that civilian settlements were later formed around the frontier due to the economic and social opportunities at the frontier. This situation is related to the fact that there were pharaonic, Hellenistic, Carthaginian, Numidian and Mauretanian cities and infrastructure belonging to formerly empires in Near Eastern and African frontier regions before the Romans, or that the Romans were the first to establish cities in those regions that earlier tribes' settlements in a nomadic way of life in European frontiers.

The areas where Hadrian's and Antonine Walls were located were rural areas where there were no big cities. After the forts were built on those frontiers, civilian towns were established around them, and civil life began with Roman soldiers. It is thought that the soldiers' wives stayed in these civilian settlements, not in the forts. Besides the houses, there were also shops, temples, inns and taverns. Some civilian settlements were surrounded by banks and ditches, just like forts. Civilian settlements were connected to

forts by roads. The graves of soldiers and civilians were located together in the cemeteries near the forts and settlements.[1256]

In the Upper German- Raetian Limes, civil settlements consisting of relatives of soldiers, merchants, craftsmen, etc., were established on the main roads outside the Roman forts as close as possible to the forts. Thus, direct access from the fort to the settlement was possible. Its surroundings were not protected, as was the case with some settlements on the Hadrian's and Antonine Walls. There were baths built close to the fort in the settlements, open to the use of both soldiers and civilians. In some settlements, amphitheatres were also built.[1257] Similarly, in the Lower German Limes, there were civilian settlements formed around forts, benefiting from the economic aspect and commercial traffic of the military.[1258] In Danube Limes, civilian settlements were built adjacent to many legionary fortresses and forts, some of which also had amphitheatres.[1259] Civilian settlements in Dacia Limes were developed especially on the main north-south route, where important fortresses and forts were located. Apart from this, there were also civilian settlements around the gold mining area and the Olt River.[1260]

In the Eastern Limes, there were civil settlements that developed around the fortresses and forts, as in Europe, as well as forts established adjacent to pre-existing civil settlements, including long-settled tells. These fortifications in Syria were built by converting civil housings to military base into the centre of civilian settlement, rather than playing-card planned forts in Europe that were planned regularly and symmetrically and had military functions from the beginning. In these combined fortifications, the civilian part was re-organized by dividing into insulae with Roman urban planning principles. By establishing military facilities, some of the earlier structures were re-used, new military structures were added when necessary. At the intersection of civilian settlement and military sector, there were structures such as amphitheatre and baths that were used as common. Civil people also had access to the temples inside the military section. Some of

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[1256] Breeze, *Hadrian's Wall. A study in archaeological exploration and interpretation*, 137-147; Breeze, *Frontiers of the Roman Empire: Hadrian's Wall,* 72; Breeze, *Frontiers of the Roman Empire: The Antonine Wall*, 52-54; William S. Hanson, "Civil settlement and extra-mural activity on the Antonine Wall," in *The Antonine Wall. Papers in honour of Professor Lawrence Keppie*, ed. David J. Breeze and William S. Hanson (Oxford: Archaeopress, 2020), 333-345.

[1257] Thiel, Roth, and Becker, *Frontiers of the Roman Empire: The Upper Germanic Limes,* 64-69.

[1258] Graafstal, Willems, and Bödecker, *Frontiers of the Roman Empire: The Lower German Limes,* 102.

[1259] Jilek, *Frontiers of the Roman Empire: The Danube Limes,* 57, 60, 67, 78, 87; Wells, "Creating an Imperial Frontier: Archaeology of the Formation of Rome's Danube Borderland," 49-88.

[1260] Marcu and Cupcea, *Frontiers of the Roman Empire: The Roman frontiers of Dacia,* 56, 65, 84, 86.

the Roman soldiers living together with civilians in these combined settlements were also local people.[1261] New settlements were built near the quarries for workers in quarries in Egypt. It is thought that soldiers and civilians stayed together in these fortified structures called praesidia. However, it was the workers' duty to work with the stones, the soldiers were responsible for monitoring and organization. It is thought that when the number of workers increased, they were relocated to new locations near the praesidia.[1262]

In Africa, in addition to the cities of local kingdoms such as the Carthaginians, Numidians and Mauretanians in Northern Africa, there were also local cultures such as Garamantes, and other oasis farming communities and transhumant pastoral groups in interior regions. Pre-Roman cities and Roman colonies, especially concentrated on the coast, were included in the frontier system and connected to each other by Roman roads. In some fort examples, towns of veterans and local migrants from the surrounding countryside were developed adjacent to the forts. There were also large villages developed around the Roman forts, built on fertile lands in the north and engaged in agriculture. In later periods, fort-like structures based on self-defence called fortified farms, where rural communities lived, emerged.[1263]

While research on the Roman frontier in Anatolia is still very limited compared to other frontiers, research on civil settlements and settlement planning continues. However, it is possible to suggest that local people lived in the frontier areas before the Roman military establishment. In these regions, legionary fortresses and centres were added later. In Zeugma, the place where most research has been done on the legionary settlement, it was suggested that the legionary base first established a conventional style outside the Hellenistic city walls, but later on, together with the auxiliary legions, it was turned into an urban military settlement with the characteristics of a military Roman colony (colonia).

[1261] Abudanah et al., *Frontiers of the Roman Empire: The Eastern Frontiers,* 47, 52, 62-64.

[1262] Redde, *Frontiers of the Roman Empire: The Roman Frontier in Egypt*, 52-54; Sidebotham, "The Roman empire's southeastern-most frontier; recent discoveries at Berenike and environs (Eastern Desert of Egypt) 1998-2000," 361-378.

[1263] Broekaert and Vanacker, "Raiders to Traders? Economics of Integration among Nomadic Communities in North Africa," 96-122; Mattingly et al., *Frontiers of the Roman Empire: The African Frontiers,* 48-54, 61, 66, 68, 78, 82, 90.

5.2.3. Spatial

For the spatial comparison, the type, geography, components, and material of the frontier sections were examined. In type, which frontier type the frontier sections are, such as artificial or river, desert; in geography, what kind of different geographies the frontiers pass through and how they were shaped accordingly; in components, which components the frontier section consists of, such as legionary fortresses, forts, watchtowers, and the unique components specific to that frontier section; in material, the types of materials used in the frontier sections were examined.

5.2.3.1. Type

In the Thematic Study, the frontier sections were categorized as artificial barrier, river frontier, desert frontier, mixed frontier and Parthian frontier.[1264] Hadrian's Wall, Antonine Wall and Upper German- Raetian Limes, which are built as human-made in cases where there are no natural topographic obstacles such as mountain ranges or rivers, are in the category of artificial barriers. A number of topographic barriers have been created on these frontiers to prevent the passage between the two sides or to ensure controlled passage. Hadrian's Wall consists of milecastles and forts attached to the stone wall that divides the mainland in the middle.[1265] A system of ditch and mounds was dug behind the wall to increase the barrier level. The Antonine Wall is formed in a similar system, but this time from an earthen wall, and a ditch is in front of it. In the Upper German- Raetian Limes, there are palisade ditches and ramparts between the system of forts and watchtowers. Legionary fortresses are not found in artificial barriers, and they were built at a certain distance behind the frontier.[1266]

[1264] Ployer, Polak, and Schmidt, *A Thematic Study*, 87.
[1265] Breeze, *Frontiers of the Roman Empire: Hadrian's Wall,* 48-59.
[1266] Breeze, *Frontiers of the Roman Empire: The Antonine Wall,* 39-48; Thiel, Roth, and Becker, *Frontiers of the Roman Empire: The Upper Germanic Limes*, 43-69.

In the Rhine and Danube River frontiers, it was benefited from the fact that the river itself was a major topographic barrier. A fort and watchtower system was established behind the river to control and monitor the river traffic. The connection to the opposite shore was provided by bridges or river crossing systems built at convenient points.[1267] In the African and Eastern frontiers, which are desert frontiers, have benefited from the fact that the desert is an obstacle that is difficult to overcome, similar to the river frontiers. The Romans created checkpoints via forts on the axes of trade routes where the desert could be crossed and already used by local communities.[1268] The Dacia frontier consists of a fortresses, forts and watchtowers system behind the mountain range, and artificial barriers have been built in the places where natural obstacles create openness, so the Dacia frontier is a mixed border.[1269] Similarly, there are sections on the African frontier where artificial barriers are constructed when the desert or hills are insufficient to create the desired barrier. For this reason, the African frontier can also be considered as a mixed border. The desert frontiers in Syria, Arabia and Africa were protected by the collaboration of local tribes as well as Roman soldiers, positioned on the desert boundary relying on the impenetrability of the desert, and protecting trade routes with fortresses naturally built in oases in the desert.[1270]

The frontier categorized as the Parthian frontier in Anatolia and Northern Syria is a frontier that benefits from different topographic obstacles. In the Black Sea, forts were located on the short plain made possible by the mountain ranges parallel to the sea. The Euphrates has been the frontier from where it starts, but since the Euphrates between Erzincan and Malatya, flows between gorges, it creates a much more uncrossable obstacle than the Rhine and Danube. However, a network of forts and watchtowers was established on the hills behind the river to control the dangers that may come from the opposite shore. Starting from Adıyaman, the Euphrates reaches the plain and river crossings were provided here, allowing the trade axis coming from the southeast to reach central and

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[1267] Graafstal, Willems, and Bödecker, *Frontiers of the Roman Empire: The Lower German Limes,* 52-89; Hodgson, "Relationship Between Roman River Frontiers and Artificial Frontiers," 61-66; Jilek, *Frontiers of the Roman Empire: The Danube Limes,* 41-60; Symonds, *Protecting The Roman Empire,* 36-46.

[1268] Abudanah et al., *Frontiers of the Roman Empire: The Eastern Frontiers,* 26-28, 36-46, 48-60, 69-81; Redde, *Frontiers of the Roman Empire: The Roman Frontier in Egypt,* 37-93.

[1269] Marcu and Cupcea, *Frontiers of the Roman Empire: The Roman frontiers of Dacia,* 39-45, 70-78.

[1270] Abudanah et al., *Frontiers of the Roman Empire: The Eastern Frontiers,* 26-28, 36-46, 48-60, 69-81; Mattingly, *Imperialism, Power, and Identity. Experiencing the Roman Empire,* 146-166; Mattingly et al., *Frontiers of the Roman Empire: The African Frontiers,* 58-66, 70-78; Redde, *Frontiers of the Roman Empire: The Roman Frontier in Egypt,* 37-93.

northern Anatolia. The Tigris River in Southeastern Anatolia was benefitted in the frontier that was shifted in the Late Roman period. However, rather than protecting just one line, it can be considered that the entire region behind the Tigris has been fortified. In the Tur Abdin region, which is a mountainous region, fortresses were located on hills, and trade here plays a major role in the relationship between the settlements. Fortresses were placed on the Euphrates and Tigris line, which continued in northern Syria as well. Towards Southern Syria, the frontier divided into two: the river and the desert line, due to the beginning of the desert. As on the Rhine, Danube and Dacia frontiers, legions were densely deployed in the frontier region due to the serious enemy danger there.

Since the places of rivers do not change, it was suggested that river frontiers in Europe are more static than artificial barriers.[1271] As artificial barriers, the Upper German-Raetian Limes lines were changed in different periods, the Antonine Wall was built to the north of Hadrian's Wall and then retreated to the Hadrian's Wall. However, there is also a change in the river bed at the river frontiers or as in the case of Anatolia; there are two river lines. If evaluated in the context of open-close frontier policy rather than staticness, it can be thought that serious closed obstacles have been built to prevent crossing artificial barriers. River and desert frontiers have a more permeable structure, considering the commercial routes there. While northern Anatolia and the Euphrates have more difficult geography, southern Anatolia is suitable for passage and trade routes.

5.2.3.2. Geography

The types of Roman frontiers are directly related to the geography they pass through. While determining the Roman demarcation line, natural obstacles such as rivers, mountain ranges and deserts were used as much as possible, and artificial borders were built at the points where these obstacles did not exist or were insufficient. In Hadrian's Wall and later in the Antonine Wall, two necks were preferred, connecting to the river mouths on the Britain island, which ends at the seas on two sides, where the width of the continent narrowed. Although there are some hills in the geography, walls were built between the forts because these hills were not too high and not difficult to overcome.

[1271] Jilek, *Frontiers of the Roman Empire: The Danube Limes*, 41.

Both the Hadrian's and Antonine Walls continue as forts located on the seaside in the east, independent from each other, with no walls between them. Due to the river beds in Scotland, the Antonine Wall was built on marshy land. Towards the western end, it abandons its topographically suitable line and moves in zigzags to keep more points under control. Both frontiers passed through rural areas devoid of major cities. Although Roman towns were later shaped around the forts, today, these frontiers mostly pass through rural lands.[1272] The Upper German-Raetian Limes passes between Rheinbrohl on the Rhine River and Eining on the Danube River in Germany in a dense woodland. Like Hadrian's and Antonine Walls follow the topography as much as possible, the palisades in the Upper German- Raetian Limes were also built with the help of topography. The palisades were passed through on the hills and continued as a straight line in the valleys.[1273]

In river frontiers, the strategy of building a frontier behind the river by taking it as a reference was followed. The Lower German limes were built south of the Rhine, from Remagen in Germany to Katwijk in the Netherlands. Lower German Limes can be divided geographically into three parts, and today's administrative borders are divided according to these sub-regions: states of Rhineland-Palatinate, and North Rhine-Westphalia, and the Netherlands. While the Middle Rhine had a steep-sided valley that prevented river traffic until modern times, this situation changed in the Lower Rhine. However, the river had a different appearance in ancient times than it does today due to the regulations in the 19th and 20th centuries.[1274]

The Danube frontier, which was established by following the Danube course, was approximately 2400 kilometres long. It starts in Eining in Bavaria and ends in the river delta in Romania. In Germany, the frontier passes rather a flat land. In Austria, it starts to pass through narrow gorges and side plains. The Slovakia section of the frontier is very short and retreats behind the river in some places. The Hungarian section is one of the longest sections of the frontier, and as the river changes direction here, the frontier turns sharply south. In the Croatia section, Danube Limes passes through flat countryside and moody ground closer to the Danube, then passes a high cliff and narrow river bank. The Serbian part is another long part of the Limes and extends from the Croatia border to the mouth of the Timok River. The Bulgarian part is the longest part after Serbia and starts

[1272] Breeze, *Frontiers of the Roman Empire: Hadrian's Wall,* 48-59; Breeze, *Frontiers of the Roman Empire: The Antonine Wall,* 39-48.
[1273] Thiel, Roth, and Becker, *Frontiers of the Roman Empire: The Upper Germanic Limes,* 43-69.
[1274] Graafstal, Willems, and Bödecker, *Frontiers of the Roman Empire: The Lower German Limes,* 52-89.

from the intersection of the Danube and Timok and mostly follows the modern border between Bulgaria and Romania. The Romanian section is the last and longest section and starts from the Durostorum (Silistra) and ends in the river delta at the Black Sea.[1275]

Dacia frontier passes through both rivers and mountainous terrain. Dacia has fertile valleys in terms of both agriculture and mining, surrounded by the Carpathian Mountains in the east and north. Saline and gold extracted from here were important raw material sources of the Romans, and forts and civilian settlements were placed on important trade routes to ensure control of raw materials. It is possible to cross the Carpathian Mountains through the Timiş- Cerna corridor in the east. Taking advantage of the hills in the north, the watchtowers were placed on strategic hills overlooking each other.[1276]

Near Eastern frontier passes through different geographies. Starting from the Black Sea coast in the north, coastal forts were established in the coastal region between the Caucasian mountains and the Black Sea. The Darial pass in the Caucasus Mountains was important for the northeastern defence of the Romans. After Anatolian lands, the frontier continues to follow the line of the Euphrates in northern Syria. As going south, the frontier divides into two branches and continues behind the Euphrates in the east while following the desert line and mountain massif in the west. Before reaching Arabia, it passes the basalt desert of el-Leja and the fertile Hauran plateau. The frontiers of Syria and Arabia were established on the caravan routes passing through the oases where water sources could be found. Then the frontier passes through Egyptian territory at the point where it meets the Red Sea in the south of the Sinai Peninsula. It extends from the seaside to the Nile to control the trade routes coming and going from the east in Southern Egypt, and continues north along the Nile.[1277]

African frontier starts from the coast of the Atlantic Ocean in the west and moves towards the east, following the coast of the Mediterranean Sea. In the westernmost province of Mauretania Tingitana, the forts were built on the plain between the mountain ranges of the Rif Mountains in the northeast and the Atlas Mountains in the south. Mauretania Tingitana is separated from Mauretania Caesariensis in the east by mountains and passage is provided by the Taza gap. In Mauretania Caesariensis forts were located

[1275] Jilek, *Frontiers of the Roman Empire: The Danube Limes*, 41-60.
[1276] Marcu and Cupcea, *Frontiers of the Roman Empire: The Roman frontiers of Dacia*, 47-59.
[1277] Abudanah et al., *Frontiers of the Roman Empire: The Eastern Frontiers*, 41-44, 48-63; Redde, *Frontiers of the Roman Empire: The Roman Frontier in Egypt*, 37-93.

between two mountain ranges parallel to the coast, on the coast, and behind them. There are also Aures Mountains in the province of Numidia. In the Tripolitana region, which is a hilly region, passages were provided by natural corridors. The Romans preferred to control the area up to the line where the desert begins rather than advancing into the interior of Africa. Limes were established in the region where the Sahara Desert begins in the south. While cities were located on the coast, especially in Libya and Tunisia, where the desert reaches the Mediterranean coast, rural settlements in which nomadic people live were concentrated inland, on the desert boundary.[1278]

The Anatolian frontier passes through different geographies within itself. In the north, there are Eastern Black Sea Mountains that extend parallel to the Black Sea coast, leaving a narrow strip on the coast where cities and forts can be settled. Starting from Trabzon, the frontier goes south into Anatolia and begins to follow the Karasu River, a branch of the Euphrates, then the Euphrates. The Euphrates flows in a deep valley between Erzincan and Malatya, surrounded by mountains on both sides. From Adıyaman, it reaches a flat area and continues south. In Southeastern Anatolia, the frontier spread within the region surrounded by the Tigris River in the east and the Euphrates River in the west. In this region, there is the Şanlıurfa plateau and the fertile Harran plain in the western region, which is closer to the Euphrates. When going east, the Tur Abdin region around Mardin, which is a mountainous plateau, begins. Both rivers continue in Syrian territory. Although the frontier passes through metropolitan cities, especially in the southeastern Anatolia region, such as Diyarbakır and Şanlıurfa, it is mostly located in rural areas.

5.2.3.3. Components

Although it is possible to suggest that the system of forts that shelter soldiers and watchtowers that provide surveillance is common to all frontier sections, they also have unique components that differ from each other according to their types and geography. The most unique component of the Hadrian’s and Antonine Walls is a linear wall separating the two sides. On Hadrian's Wall, there were fortlets called milecastles at every

[1278] Mattingly et al., *Frontiers of the Roman Empire: The African Frontiers,* 62-66.

mile and two towers called turrets between them. In addition, to increase the obstacles, a vallum system consisting of mounds and ditch was created behind the wall, and the vallum could be crossed at certain points through vallum crossings.[1279] In the Antonine Wall, there were expansions near the forts, which are thought to have been used as beacon platforms.[1280] In between the forts in Upper German- Raetian Limes, there were entirely timber, or stone or timber on stone foundation watchtowers. In places where additional precautions were required geographically, ditches were carved, and timber palisade was erected in some places. During the Severan period, ditches and ramparts were built as additional precautions, and the surroundings of the forts were protected by ditches and ramparts.[1281]

Unlike artificial barriers, instead of a linear wall on natural borders, there was a chain of forts and watchtowers reinforced with legionary fortresses. In addition to these components, Lower German Limes had many harbours/ quays and a fleet base, as there was a fleet used on the Rhine River. For river crossings, pontoon bridges, as in the Danube and Euphrates, were preferred instead of permanent bridges due to the danger of the bridges being taken over by the opposite sides. There were also bridgeheads to protect river crossings.[1282]

In addition to the legionary fortresses that existed in large numbers in the Danube frontier, there was also a forts and watchtower system that also appeared on other frontiers. Similar to the Rhine frontier, the bridgeheads where the river was crossed were very important. Due to the danger on the other side of the Danube, no permanent bridge was built; the river was crossed with pontoon bridges. However, during Trajan's conquest of Dacia, a bridge was built in Drobeta to facilitate the passage of soldiers. Unlike other frontiers, fan-shaped and u-shaped towers were built on the Danube while strengthening the frontiers in the 4th century.[1283]

Dacia Frontier is a frontier where both legionary fortresses, forts and watchtowers, and artificial barriers built of ditch, rampart and palisade were used where necessary. A complex system was developed due to the difficulty of controlling Dacia lands and the human population. In addition, temporary camps built before permanent garrisons, which

[1279] Breeze, *Frontiers of the Roman Empire: Hadrian's Wall,* 48-59.
[1280] Breeze, *Frontiers of the Roman Empire: The Antonine Wall,* 39-48.
[1281] Thiel, Roth, and Becker, *Frontiers of the Roman Empire: The Upper Germanic Limes,* 43-69.
[1282] Graafstal, Willems, and Bödecker, *Frontiers of the Roman Empire: The Lower German Limes,* 52-89.
[1283] Jilek, *Frontiers of the Roman Empire: The Danube Limes,* 41-60.

played an important role in Trajan's conquests, are a distinctive feature. There were also forts controlling the passes in the Carpathian Mountains.[1284]

In addition to many forts located on the desert border in the Near Eastern frontier (some forts were strengthened with earthen ditches and ramparts, as in European frontiers), water collecting cisterns and water distribution systems were important in the desert geography. Additionally, in Syria, from the 4th century onwards, square planned forts with symmetrical layouts with projecting quarter-circular towers at the four corners emerged called "quadriburgium". Forts in Egypt were also strengthened with towers, and some of the pharaonic temples were used as forts. These tetrarchic forts with similar plan features to the quadriburgium in Syria but with square towers began to be built during the Diocletian period. Bridgeheads that protect the river crossings in Syria and the Nile were also important structures. In Egypt there was also a special type of structure, praesidia. These structures were built near stone quarries for staying soldiers and workers together.[1285]

African frontier consists of a network of forts and watchtowers. This network, instead of following a regular line like those in Europe, was established where the topography allows, such as on the coast line or in the valleys between the mountains and where the oases exist as in Syria and Arabia. Additionally, in Numidia, there were outpost forts to control both fixed (oasis cultivators) and mobile (transhumant and trading) people living across the frontier, also quadriburgus were built in the Late Roman period. Probably during the Hadrian period, the network of forts was reinforced with linear walls which have irregular gates and towers on it, called "the fossatum Africae". These linear barriers were built in natural corridors between mountain passes. As some oasis communities became a threat in the Late Roman period, many local communities built fort-like structures for their own protection.[1286]

There were four legionary bases (probably fortresses), and forts and watchtowers between them on the Euphrates frontier, and probable legionary fortresses in the Tigris frontier. The chain of forts and watchtowers were connected to each other and to the interior of Anatolia by the frontier road. Considering the two river lines followed by the frontier, although it was not possible to build on the Euphrates, there were many bridges

[1284] Marcu and Cupcea, *Frontiers of the Roman Empire: The Roman frontiers of Dacia*, 47-59, 60-69.

[1285] Abudanah et al., *Frontiers of the Roman Empire: The Eastern Frontiers*, 41-44, 48-63; Redde, *Frontiers of the Roman Empire: The Roman Frontier in Egypt*, 37-93.

[1286] Mattingly et al., *Frontiers of the Roman Empire: The African Frontiers*, 62-82.

and abutments built on its branches and on the Tigris. River crossings played an important role at the point where the Euphrates became shallow in the south. It is thought that pontoon bridges were used during the eastern campaigns, as in Europe, rather than permanent bridges. Although lack of water was not a major problem as in Syria and Arabia, there were water collection and distribution structures on the southeastern frontier where the arid climate is observed. Further, in addition to fortresses and forts used only by soldiers, there was a network of large cities fortified with city walls and fortified citadels located on hills.

In addition to these structures, there were also structures that served both military and civilians and are common in many frontier sections, such as bath house in Hadrian's Wall, Antonine Wall, Upper German- Raetian, Danube, Dacia, Near Eastern and African; amphitheatre in Upper German- Raetian, Danube, Dacia, Near Eastern, and African; temple in Hadrian's Wall, Lower German, Danube, Near Eastern, and Anatolia; forum in Lower German, Dacia, and Africa; cistern in Near Eastern and Anatolia; water irrigation system in Near Eastern and Africa; cemetery in Hadrian's Wall, Antonine Wall, Upper German- Raetian, Lower German, Danube, and Anatolia (Table 5.1).

Table 5.1. Comparison of the components of Anatolian frontier with other frontier sections

Hadrian	Antonine	Upper German- Raetian	Lower German	Danube	Dacia	Near Eastern	African	Anatolia
			irregular large base standard large base Late Roman large base	legionary fortress	legionary fortress	legionary fortress	legionary fortress	legionary fortress
auxiliary fort	auxiliary fort	Ala fort Cohort fort Numerus fort	irregular fort delta type fort standard fort Late Roman fort	auxiliary fort	auxiliary fort	auxiliary fort	auxiliary fort	auxiliary fort
			bridgehead fort	bridgehead		bridgehead		bridgehead
				hillfort				
	expansion							
	small enclosure							
	fortlet	fortlet	fortlet	fortlet	fortlet	quadriburgium	quadriburgium	fortlet
milecastle								
turret								
rampart	rampart	Upper German barrier: rampart			rampart			
ditch	ditch	Upper German barrier: ditch Upper Germans barrier: stake ditch			ditch		ditch	
		Upper German barrier: palisade			palisade			
Vallum Vallum crossing								
stone wall	stone wall	Raetian barrier: stone wall				stone wall	stone wall	
turf wall	turf wall						turf wall	
pre-wall tower								
signal tower		watchtower	tower/ burgus	watchtower/ burgi	watchtower	watchtower	watchtower	watchtower
								signal station
	camp		temporary camp	temporary camp	temporary camp			
military road	military way	Limes road	Limes road	Limes Road	Limes Road	Limes Road	Limes Road	Limes Road
				road station				
				fortified storage base				
				counter fortifications				
supply base								
military base								
bridge							bridge	bridge
bridge abutment					bridge abutment			bridge abutment
	temporary enclosure							
			fleet base			fleet base		fleet base
			harbour/ quay	harbour	harbour			harbour
			canal					
			waste deposit					
			lime kilns					
			tile/ pottery kilns	brick/ pottery kilns				
civil settlement	civil settlement	civil settlement	civil settlement	civil settlement	civil settlement	civil settlement	civil settlement	civil settlement
			town					
			palace	Governor's palace				
cemetery	cemetery	cemetery	cemetery	cemetery				cemetery
temple			sanctuary	sanctuary		temple		temple
			aqueduct					aqueduct
bath house	bath house	bath house		health spa	bath house	bath house	bath house	
		amphitheatre		amphitheatre	amphitheatre	amphitheatre	amphitheatre	
				Early Christian installation		Early Christian installation		Early Christian installation
			forum		forum		forum	
						cistern		cistern
						water irrigation system	water irrigation system	
						praesidia		

5.2.3.4. Material

In the construction of Roman frontiers, local materials were used, which were specific to the place and sometimes differed from each other. These building materials may differ not only due to geographical differences but also because of structural differences. In Hadrian's Wall, the wall was mostly built of stone and there were also turf walls in places, while the Antonine Wall was built of turf on a stone foundation, but in later periods the entire wall was intended to be stone. In the first scheme of Hadrian's Wall, it was considered that the stone wall part had facing stones with earth or clay with stones core. The forts, milecastles and turrets were built of stone. It was considered that the turf wall of the Antonine Wall may have been covered with timber breastwork also, there are parts built of clay or clay-covered earth blocks. As in Hadrian's Wall, the forts

were built of stone and the structures inside the forts of timber in the Antonine Wall.[1287] There were rows of ditches around the forts for protection. There are three types of watchtowers in the Upper German- Raetian Limes, which differ according to geography. These could be entirely timber, entirely stone or timber on a stone foundation. During the later construction phases, the watchtowers were rebuilt from stone. Similarly, due to the excess timber material in the region, the palisade erected was also made of timber. The forts were built of stone, with earthwork ditches and ramparts around them. Simple materials such as wattle and daub were used in the civil settlements built outside the forts.[1288]

While earlier forts were constructed with timber and wattle-and-daub panels and earth ramparts with timber revetments or turf cheeks were driven around them, in later periods, timber walls were replaced with stone walls built on rafts of driven piles in Lower German Limes. Watchtowers could be timber or stone. In addition, due to the availability of materials in the region, abundant timber remains were found in the harbour and quay structures and road infrastructure.[1289]

In Danube Limes, while the forts and watchtowers of the early Roman period dating back to the 1st century AD, had earth and timber construction, the fortifications were rebuilt from stone since the Hadrian period, as in the Lower German Limes.[1290]

On the Dacia frontier, auxiliary forts were first built of timber and then rebuilt with stone. The ditch and rampart on the artificial barrier were earth, and the palisade was made of timber, as in Upper German- Raetian Limes. A stone wall was also built in places within the linear barrier. It is thought that the early watchtowers were probably built of timber, while the later ones had timber roofs on stone walls.[1291]

Most forts in Near Eastern Limes were built of stone. While early period forts were built of cut stone, rubble stone was used in late period forts. There were also forts built from mudbrick walls on rubble stone in the late period in Syria. The use of mudbrick

[1287] Breeze, *Frontiers of the Roman Empire: Hadrian's Wall*, 48-59; Breeze, *Frontiers of the Roman Empire: The Antonine Wall,* 39-48; Hodgson, "Why was the Antonine Wall made of turf rather than stone?," 301-312.

[1288] Thiel, Roth, and Becker, *Frontiers of the Roman Empire: The Upper Germanic Limes,* 43-69.

[1289] Graafstal, Willems, and Bödecker, *Frontiers of the Roman Empire: The Lower German Limes,* 52-89.

[1290] Jilek, *Frontiers of the Roman Empire: The Danube Limes,* 67, 79.

[1291] Marcu and Cupcea, *Frontiers of the Roman Empire: The Roman frontiers of Dacia,* 47-59, 60-69.

is also seen in the reinforcement of structures that were re-used in the late period in Egypt and in tetrarchic forts.[1292]

Cut stones were used in the construction of forts in African frontier. Linear barriers which were built in natural corridors in mountain passes were made of cut stone or earth works. "*The fossatum Africae*" consisted of stone or earthen wall with gates and towers, and earthen ditch.[1293]

The material used in Anatolian frontier is mainly stone. Different local stones, such as limestone, sandstone and basalt were used in different regions. The use of timber as on the European frontiers or mudbrick as on the Near Eastern and African frontiers has not been widely seen. However, mudbrick remains have been found in some forts. The ruins, thought to be watchtower structures were also built of stone material. However, there are also remains of bridges whose superstructure is thought to be timber. Considering that the excavations have only been achieved in a small number and the level of late period ruins has been reached, it is possible that timber materials were used in the construction of the early forts and other structures (Table 5.2).

[1292] Abudanah et al., *Frontiers of the Roman Empire: The Eastern Frontiers,* 41-44, 48-63; Redde, *Frontiers of the Roman Empire: The Roman Frontier in Egypt,* 37-93.

[1293] Mattingly et al., *Frontiers of the Roman Empire: The African Frontiers,* 62-82.

Table 5.2. Comparison the characteristics of Anatolian frontier with other frontier sections

	Chronological		Socio-Political			Spatial			
	Period	Multilayeredness	Purpose	Military organization	Civil settlements	Type	Geography	Components	Material
Hadrian's Wall	Constructed in 122 AD by Hadrian, short period of time. Moved norther to Antonine Wall, then retrated, ultimately abondoned in 410 AD	Two construction periods. Advanced to the Antonine Wall, then retreated. Welsh tribes beforehand	Against Welsh and Caledonian, later Pict tribes	No legionary fortress. Auxiliary forts were attached to the walls with small units	No big cities before the Romans. Civilian towns established around the forts, and fortified by ditches	Artificial	Built in two river mouths were the continent narrowed. Lack of mountain ranges and suitable river	Forts, milecastles, turrets, signa towers, rampart, ditch, stone wall, turf wall, vallum consists of ditch and mounds, vallum crossings, bridge, military road	Stone, turf, earth, clay, timber
Antonine Wall	Constructed in 142-144 AD by Antoninus Pius, short period of time. Abondoned 158 AD	Two construction periods. Retreated to Hadrian's Wall. Welsh tribes beforehand	Against Welsh and Caledonian, later Pict tribes	No legionary fortress. Auxiliary forts were attached to the walls with small units	No big cities before the Romans. Civilian towns established around the forts, and fortified by ditches	Artificial	Built in two river mouths were the continent narrowed. Lack of mountain ranges and suitable river	Forts, fortlets, expansions, turf wall, rampart, ditch, military road	Stone, turf, earth, clay, timber
Upper German-Raetian Limes	Began frontier in 90 AD. Alterations in Trajan, Hadrian, Antoninus periods. Abondoned after the 3rd century crisis	Several frontier lines in different periods. German tribes beforehand	Against Celtic tribes, to secure the Rhine and Danube routes, and to secure the Mainz	No legionary fortress. Auxiliary forts with small units	No big cities before the Romans. Civilian towns established near the forts, connected to forts by main roads. Baths and amphitheatres for common use	Artificial	Built on the land between Rhine and Danube rivers. Dense woodland	Forts, fortlets, watchtowers, stone wall, palisade, rampart, ditch, limes road	Stone, timber, earth, wattle and daub
Lower German Limes	Accepted frontier in 80s AD, new structures in Trajan, collapsed in the 5th century	Organizational, architectural, and military changes in different periods. German tribes beforehand. Medieval castles afterward	Against German tribes, to monitor Rhine traffic	Legionary fortresses at crossing points. Also auxiliary forts, bridgeheads and fleet base. Cavalries were placed according to topography	No big cities before the Romans. Civilian towns established around the forts	River	Starts from the river delta, follow the Rhine. Steep-sided valley and plain valley	Fortresses, forts, fortlets, watchtowers, brid-geheads, fleet base, harbour/ quay, canal, temporary camps, limes road	Stone, timber, wattle and daub
Danube Limes	Transition from open frontier to close frontier in 40 AD by establishing new provinces. Changes in Trajan's campaign, retreat, 3rd and 4th centuries. Lasted until the end of 6th century	Organizational, architectural, and military changes in different periods. Advanced to Dacia frontier then retreated. German tribes beforehand.Medieval castles afterward	Against German tribes, to control Danube traffic	High number of legionary fortresses at crossing points. Also auxiliary forts, bridgeheads and fleet base. Cavalries or mixed units were placed according to topography	No big cities before the Romans. Civilian settlements built adjecent to legionary fortresses and forts, some with amphitheatres	River	Starts in Bavaria, ends in river delta in Romania by following the Danube. Flat countryside, moody ground, high cliff and narrow river bank time to time	Fortresses, forts, fortlets, watchtowers, bridgehead, harbour, temporary camp, limes road	Stone, earth, timber
Dacia Limes	Conquered in 108 AD. Changes in Hadrian, Marcus Aurelius, Septimus Severus periods. Abondoned in the 260s AD	Organizational, architectural, and military changes in different periods. Retreated to Danube frontier. Dacian tribes beforehand. Medieval castles afterward	To control Dacia Kingdom, symbol of power and for gold mines	Legionary fortresses on the main centre of supply. Fort and watchtower density according to needs and topography. Cavalries generally in the interior. Temporary camps during the invasion	No big cities before the Romans. Civilian settlements on the main supply axis and around the gold mining area	River + mountain + artificial	Both rivers and mountainous terrain. Fertile valleys for agriculture and mining	Fortresses, forts, fortlet, watchtower, rampart, ditch, palisade, bridge abutment, harbour, temporary camp, limes road	Stone, earth, timber
Near Eastern Limes	Province of Syria in 64 BC, Egypt in 31 BC, and Arabia in 107 AD. Military structures starting from Nero period. Trajan's eastern conquests. Mesapotamia and Osroene provinces in Severus and Caracalla periods. Regulations during the Diocletian period. Lost to Arabs in the 7th century.	Provinces annexed in different periods. Organizational, architectural, and military changes. Local client kingdoms and cities beforehand. Arabs afterward	Against northern tribes and Parthia Empire, to control caravan routes in the east and transportation of grain, mineral and stone in Egypt	Legionary fortresses. Auxiliary forts on the rivers, the desert crossing points, caravan routes and quarries. Local soldiers besides the Romans.	Both settlements developed around forts and forts established at long settled tells and cities. Civil housing converted to military bases. Civilian part were reorganized in combined fortifications. Baths, temples and amphitheaters for common use. Workers and soldiers together in praesidia in Egypt quarries	Coastal + river + mountain	Coast, mountains, desert, rivers. Mountain massif and oases in the desert	Fortresses, forts, quadriburgiums, watchtower, stone wall, bridgeheads, fleet base, cisterns, water irrigation systems, praesidia, limes road	Stone, mudbrick
African Limes	Province of Africa Proconsularis in 146 BC, Cyrenaica in 96 BC, Tripolitania 46 BC, Mauretania in 39 AD. Organizational changes during the Diocletian period. Germanic Kingdom in 429 AD, later Justinian control. Lost to Arabs in 7th century	Provinces annexed in different periods. Organizational, architectural, and military changes. Local client kingdoms and cities beforehand. Arabs afterward	To protect trade routes and to secure the Mediterrenean	No regular legionary fortresses, a legion was divided. Auxiliary forts on the desert crossing points and caravan routes. Cavalries or mixed units. Local soldiers besides the Romans.	Both pre-Roman cities included in frontier and settlements developed around the forts. In later periods, fortified farms	Desert + mountain + artificial	Coast, mountains and desert. Hilly region with natural corridors. Oases in the desert	Fortresses, forts, quadriburgiums, watchtowers, ditch, stone wall, turf wall, bridge, water irrigation systems, limes road	Stone, earth
Anatolia Limes	Euphrates accepted as the frontier in the 80s BC with client kingdoms. Firtst forts in the Nero period. Chain of forts by Vespasian. Eastern expansion in Trajan, later Severan period. Organizational changes during the Diocletian period. Collapsed in 7th century by Arabs	Provinces annexed in different periods. Organizational, architectural, and military changes. Hittites, Urartians, Hellenistic, Assyrian cities beforehand. Ottoman, Artuqids, Seljuks afterward	Against northern tribes and Parthia Empire, to secure the supply lines in Anatolia	Legionary fortresses. Auxiliary forts on the rivers and coast, and a fleet on the sea.	Legionary fortresses were annexed to pre-Roman cities	Coastal + river + mountain	Coast, mountain ranges, high cliff of river. Rather flat and hilly ground in the south	Fortresses, forts, fortlets, watchtowers, bridgeheads, harbour, bridges, bridge abutments, cisterns, limes road	Stone, mudbrick, timber

5.2.4. Conservation

For the conservation comparison, conservation level, conservation regulations, conservation problems, conservation implementations, ownership and community engagement/ adoption of the frontier sections were examined. In conservation level, the conservation status of frontier sections; in conservation regulations, what kind of cultural and natural protection laws and regulations for the protection of the frontier sections on national and federal basis in the countries where they are located; in conservation problems, existing conservation problems of frontier sections such as agriculture, de-forestation, and floods; in conservation implementations, the conservation practices such as protective shelter, consolidation and reconstruction; in ownership and community engagement/ adoption, different and fragmented private and public ownership of frontier sections, and what kind of studies are held to include local communities in the frontier heritage were examined.

5.2.4.1. Conservation Level

The visible majority of Hadrian's Wall is at the plan level, not at the elevation. Although the entire wall cannot be excavated and revealed, it is thought to be preserved underground. For this reason, it has been suggested that the loss in the Wall is quite small and partial. The best preserved part is the middle part, where the height is high, and farming is not that possible. The remaining rural parts of the Wall are under the influence of intensive agricultural activities. In the urban part, although some parts of the Wall remained under the settlements, a part of it managed to survive. There have been losses in coastal areas where erosion occurs and in areas where roads and railways pass.[1294]

In the Antonine Wall, beside the sections of the turf wall itself, two sections of the Military Way have survived and are visible. 17 forts are known, but one of them has been destroyed, 3 of them were wholly or partially built over, 8 annexes are known next to these forts. 9 fortlets are known, but only one of them was excavated; the others were

[1294] Hadrian's Wall Country, *Hadrian's Wall Management Plan 2008-2014,* 14-15.

confirmed through aerial photography. 6 expansions, and 3 small enclosures are known; however, one small enclosure was destroyed. 20 camps were located through aerial photography, but 16 of them have survived.[1295]

Of the 507 kilometres long the Upper German- Raetian Limes, 27 % of the Upper German- Raetian Limes are visibly on the surface, 21 % are in modern border lines and road courses, and 43 % are underground, invisibly. The authenticity of some structures has decreased due to reconstructions were carried out on them.[1296]

It has been stated that the conservation status of Lower German Limes is between very good and good. Although later stone structures were robbed and used as quarries in the Middle Ages, early timber structures and organic materials were well preserved under the alluvium of the Rhine. For this reason, the components included in the WHL are nearly or largely completed. Reconstruction was carried out in 5 sites.[1297]

Although very little of Danube Limes are on the surface (8,1 %), some parts of it have been opened to the public through excavations (12,4 %), and some parts are under infrastructure (13,7 %) or historical and modern buildings (10 %). However, Danube Limes are not that much visible; it was stated that they are well preserved underground, and the preservation status is stated as very good for Germany, good for Austria, and good for Slovakia.[1298]

The components in Anatolia are currently mostly ruined. There are fewer moderately well preserved, and very few well preserved components. Conservation implementations were realized for some of them, but no protection measures were taken for most of them. While there are components those that submerged after the implementation, there are also examples that were totally or partially submerged after excavation or submerged without any implementation, even excavation.

[1295] UNESCO, *Nomination 430ter: The Antonine Wall Volume I,* 15, 20-21, 79, 101-103.
[1296] Deutsche Limeskommission, *Upper German-Raetian Limes. Management-Plan 2019 – 2023,* 39.
[1297] UNESCO, *Frontiers of the Roman Empire – The Lower German Limes. Part I – Nomination file,* 13, 126.
[1298] UNESCO, *Frontiers of the Roman Empire – The Danube Limes. Volume I: Nomination File,* 395-397.

5.2.4.2. Conservation Regulations

The registered components of Hadrian's Wall are protected by the Ancient Monuments and Archaeological Areas Act of 1979, and in the WHL as of 1987. The remaining components that are placed in buffer zone are protected by the Town and Country Planning system. In creating the buffer zone, the wall and the setting in which it is located were considered together by creating a band 1-6 kilometres around the wall. Since it is owned by many private partners as well as the public, many local institutions are involved in the decision-making process, such as The Ministry of Agriculture, Fisheries and Food and the Forestry Authority, city and district councils, local planning agencies, highway authorities, Government Regional Offices, trusts and funders, and specialist government agencies. Besides the archaeological heritage of the Wall and its landscape, two sections of the Wall are National Parks and one Area of Outstanding Natural Beauty. The National Park Authorities are the Local Planning Authorities for these areas. Also, Natural England contributes to land management along Hadrian's Wall.[1299] For Frontiers of the Roman Empire property that consists of Hadrian's Wall, Upper German- Raetian Limes, and the Antonine Wall) the Inter-Governmental Committee (IGC) was formed with the delegations of the State Parties. IGC is responsible for the co-ordination of the joint international management of the FRE WHS.[1300]

The Antonine Wall is protected by the Ancient Monuments and Archaeological Areas Act in 1979 and the Town and Country Planning (Scotland) Act in 1997. The Antonine Wall was inscribed in the WHL in 2008. The protection of the surviving parts of the Wall by two laws and the determination of a buffer zone provided continuous protection for the Wall. While determining the buffer zone, a strip of approximately 2.5 kilometres along the Wall was determined, and the buffer zone was created by taking into account the landscape in order to understand the relationship between the Wall and its setting. The landscape characterization assessment around the property was conducted by Scottish Natural Heritage, and the Historic Landuse Assessment was conducted by Historic Scotland and the Royal Commission on the Ancient and Historical Monuments

[1299] Hadrian's Wall Country, *Hadrian's Wall Management Plan 2008-2014*, 7-8, 21, 24, 58; Young, "The Management of Hadrian's Wall, 1989-99," 65-72.
[1300] Historic Scotland, *The Antonine Wall Management Plan 2014-19*, 10.

of Scotland[1301]. For Frontiers of the Roman Empire property that consists of Hadrian's Wall, Upper German- Raetian Limes, and the Antonine Wall) the Inter-Governmental Committee (IGC) was formed with the delegations of the State Parties. IGC is responsible for the co-ordination of the joint international management of the FRE WHS.[1302]

Lower German- Raetian Limes was inscribed in the WHL in 2005. While creating the bufferzone, the landscape and the possibility of archaeological remains under the ground in the immediate vicinity of the property were taken into account. Due to the federal structure of Germany, the federal states of Baden-Württemberg, Bavaria, Hesse, and Rhineland-Palatinate are responsible for the protection of the Upper German- Raetian Limes. The state's conservation regulations have similar approaches. The Limes is also protected by planning legislation, land use and nature conservation laws. Management plans were developed by The Limes Commissioners of the State of Hesse and the Free State of Bavaria, the Limes Information Centre Baden-Württemberg and the General Directorate of Cultural Heritage in Rhineland-Palatinate for the limes sections of Rhineland-Palatinate, Hesse, and Baden-Württemberg. Where the Limes pass through forest areas, forestry authorities are involved in the protection and presentation of the Limes components.[1303] For Frontiers of the Roman Empire property that consists of Hadrian's Wall, Upper German- Raetian Limes, and the Antonine Wall) the Inter-Governmental Committee (IGC) was formed with the delegations of the State Parties. IGC is responsible for the co-ordination of the joint international management of the FRE WHS.[1304]

Lower German Limes was inscribed in the WHL in 2021. While determining the buffer zone, areas containing archaeological remains that have not been fully preserved or destroyed and areas that are included in the views and elements of the setting were taken into account. Since Lower German Limes consists of components in two countries, the property is protected by two conservation regulations: the national conservation law of the Netherlands and state's conservation laws of North Rhine-Westphalia and Rhineland-Palatinate in Germany. The Roman military sites were started to be protected

[1301] UNESCO, *Nomination 430ter: The Antonine Wall Volume I,* 15, 20-21, 79, 86, 101-103.

[1302] Breeze, "The Antonine Wall – The Making of a World Heritage Site," 87-93; Historic Scotland, *The Antonine Wall Management Plan 2014-19,* 10; UNESCO, *Nomination 430ter: The Antonine Wall Volume I* (1987, 2005, 2008), 15, 20-21, 79, 101-103.

[1303] Thiel, Roth, and Becker, *Frontiers of the Roman Empire: The Upper Germanic Limes,* 3-5, 70-89; Deutsche Limeskommission, *Upper German-Raetian Limes. Management-Plan 2019 – 2023,* 39.

[1304] Historic Scotland, *The Antonine Wall Management Plan 2014-19,* 10.

since 1969 in the Netherlands, and since the 1980s in Germany by the acceptation of conservation laws. Properties are conserved by not only conservation laws, but their settings are also conserved by Natural Protection Acts, Water Act, Forest Preservation Act, Environmental Impact Assessment Act, Environmental Planning Act for both countries. Management of the nominated property is coordinated by a joint Dutch-German Management Group (MGLGL), which is overseen by an Intergovernmental Committee (IGC-LGL).[1305]

Danube Limes was inscribed in the WHL in 2021. In determining the buffer zones, the visual relationship of the component parts to each other, and areas where archaeological remains are presumed to be found were taken into consideration. Buffer zones are subject to existing land use plans. Due to its transnational serial structure, Danube Limes is protected by three State Party's laws. In Germany, the preservation of heritage sites is the responsibility of the individual states due to its federal structure. In Austria, all component parts are under the national Monument Protection Act; however, only definite monuments are protected, and there are no protection regulations for archaeological sites. For Slovakia, the Protection of Monuments and Historic Sites Act is the basic legal document. Besides, in Germany Building Code, Spatial Planning Act, Nature Conservation Act, Water Act, and The Act to Protect German Cultural Property Against Removal for both the federal government and federal states; in Austria, Building Law, Regional Development and Nature Protection regulations; in Slovakia Building Act, Museums and Galleries and on the Protection of Items of Cultural Value Act, Conservation of Nature and Landscape Act, and Water Act are the other legislative measures. The State Parties have a management system consisting of two integrated bodies, The Intergovernmental Committee for the Frontiers of the Roman Empire – Danube Limes (IGC DL), and the Management Group for the Frontiers of the Roman Empire – Danube Limes (MG DL).[1306]

Since the Anatolian frontier have not yet been included in the UNESCO WHL, they do not have a protection status and defined buffer zones in this context. However, some frontier components and the places where these components are located (without emphasis on frontier and without considering that they are frontier components) are on

[1305] UNESCO, *Frontiers of the Roman Empire – The Lower German Limes. Part I – Nomination file*, 11, 14, 92, 145, 159-172, 178, 180.

[1306] UNESCO, *Frontiers of the Roman Empire – The Danube Limes. Volume I: Nomination File,* 512-524, 275.

the Tentative List to be included in the WHL. These are Zerzevan Castle and Mithraeum (only here there is an emphasis on the Roman frontier), Archaeological Site of Zeugma, Mardin, and Şanlıurfa and Harran. Cultural and natural assets, including archaeological sites in Turkey, are protected by 2863 numbered Cultural and Natural Assets Protection Law, which is the main protection law. An archaeological site was defined in the law and the triple grading of archaeological protected areas were determined by Enactment no. 658 on Archaeological Protected Areas, Term of Protection and Use. In addition to this main protection law, there are Village Law, the Law on Establishment of Metropolitan Municipalities in Fourteen Provinces, Zoning Law, Planned Areas Zoning Regulation, Unplanned Areas Zoning Regulation, Rural Neighbourhood and Rural Settlement Area Regulation which determines the status of rural settlements and deals with the construction codes in rural areas. Also, there are legal regulations of Law on Waters, Forest Law, Law on Groundwaters, Environmental Law, National Park Law, Coastal Law, Pasture Law, Soil Conservation and Land Use Law, Protection, Use and Planning of Agricultural Lands Regulation, Law on Improvement of Olive Growing and Grafting of Wild Olive Trees, Regulation on the Protection of Wetlands which deals with the protection of various natural or human-made landscape elements.

5.2.4.3. Conservation Problems

The main conservation problems of Hadrian's Wall are the prolonged decision-making processes due to its multi-ownership structure and the agricultural activities since it is mostly located in rural areas. However, instead of banning agricultural activities or expropriating all lands, farmers are encouraged to practice traditional agriculture. There are also electrical and telephone lines and wind turbines that affect visual integrity. In some places, there are torrential rain, fluvial erosion, coastal erosion, infectious diseases in animals, and the searching with metal detectors problems.[1307]

Due to the shorter structure of the Antonine Wall, it has fewer stakeholders than Hadrian’s Wall, which speeds up the decision-making processes in conservation and management. However, as in Hadrian's Wall, the main preservation problem in the

[1307] Hadrian’s Wall Country, *Hadrian’s Wall Management Plan 2008-2014,* 11, 22.

Antonian Wall is agricultural activities. Especially the ploughing activity damages the Wall since the Wall itself is built of turf. Besides agricultural activities, urban growth, erosion, and dense visitor numbers pose threats. An old mining collapse affected the Wall.[1308]

The most important factors that threaten the Upper German- Raetian Limes are new construction in the countryside, industrial buildings and roads. In addition, agricultural activities in rural areas and forestry in forest areas affect the property. Although visitor density is not a problem currently, in some places, walking paths pass directly over the property rather than near it. In addition, there are losses of authentic materials of the structures where reconstructions were performed.[1309]

The main conservation problems of Lower German Limes are urban and rural development and infrastructure, agricultural activities, forestry, flooding and groundwater level reduction. Small housing projects are controlled by planning agents and are directed in a way that will not damage possible archaeological remains. Road and infrastructure constructions are risks that are difficult to avoid. Additionally, as in other frontiers, wind turbines affect visual integrity. In places where there is a flooding threat, attempts are made to reduce the risk with artificial protection structures. Although trees provide protection against erosion in wooded areas, forestry activities pose a threat. In addition, grasslands are being converted into agricultural areas, and efforts are being made by authorities to prevent this by purchasing arable areas and recycling them into grasslands. The reduction of groundwater level in the Netherlands has caused damage to the materials that are preserved under soil.[1310]

The main conservation problems in Danube Limes are dense urbanization, Danube floods, vegetation and erosion, and the high number of visitors. Efforts are being made to control construction through planning studies. Danube floods are under control with protection structures built in the 19th and 20th centuries. Vegetation and erosion are monitored. Efforts are made to distribute the number of visitors equally among the sites. Reconstructions have also been made in some places.[1311]

[1308] UNESCO, *Nomination 430ter: The Antonine Wall Volume I,* 82-83; Historic Scotland, *The Antonine Wall Management Plan 2014-19*, 24.

[1309] UNESCO, *Nomination 430ter: Upper German- Raetian Limes Volume I,* 36-37.

[1310] UNESCO, *Frontiers of the Roman Empire – The Lower German Limes. Management Plan 2021-2027*, 28-31; UNESCO, *Frontiers of the Roman Empire – The Lower German Limes. Part I – Nomination file,* 133-134.

[1311] UNESCO, *Frontiers of the Roman Empire – The Danube Limes. Volume I: Nomination File,* 179.

The main conservation problem of the Anatolian frontier is dams. Due to the dams built on the Euphrates and Tigris, only limited rescue excavations could be carried out in the area that would be submerged. Besides cultural heritage, also local people living there and the environment were affected by the dams. The gold mine, established very close to the Euphrates, has caused two environmental disasters in the last two years. Euphrates and its surroundings were polluted due to cyanide leakage from the mine and cyanide-containing soil. Urbanization, infrastructure and new constructions threaten the frontier. The fact that the frontier is mostly located in remote areas creates difficulties for excavation and conservation works. The ongoing struggle against terrorism in the region not only creates an unsafe environment for research, but also has the potential to directly damage cultural heritage. Excessive reconstruction implementations carried out on the components of the frontier caused the loss of the original qualities of these elements. Instead of developing holistic approaches for the entire frontier, individual implementations were made and architectural elements were handled independently of their landscape.

5.2.4.4. Conservation Implementations

Excavation, research and conservation work on Hadrian's Wall started relatively early. The wall section that was first restored in the 19th century (even though it is not in accordance with current contemporary conservation practices) is called "Clayton Wall". Apart from this, some parts were preserved by burial, while others were consolidated. Areas in danger of erosion are carefully monitoring. However, there are also reconstructed elements such as the gate and house at South Shields, the wall and bath-house at Wallsend, the wall and turret, the turf wall and milecastle gate at Vindolanda. There are museums in some places where the finds are preserved or organized as open-air museums. A 135 kilometres National Trail route was which includes remains, museums and towns along the Wall was organized for hikers.[1312]

One third of the Antonine Wall is visible. The best preserved parts of the Wall are the ditch and rampart sections with stone bases in some places. Some fort ruins, such as

[1312] Breeze, *Frontiers of the Roman Empire: Hadrian's Wall,* 78-79.

Rough Castle, Bar Hill, Castlecary, bath house at Bearsden, and fortlet at Kinneil are also preserved and exhibited in-situ. Distance slabs specific to the Antonine Wall are exhibited in some of the museums built along the frontier.[1313] Different trail routes along the Wall were organized for hikers.

The most common application in Upper German- Raetian Limes is reconstruction. These practices were carried out on 25 watchtowers and some parts of the artificial barriers, and 5 forts extensively in the 1970s and 1980s, but while some of them were carried out on empty land, those carried out on original ruins caused the loss of original materials. In order to avoid the fort from being built over, the archaeopark was designed in Welzheim and the fort was arranged to be perceived at the plan level. There are also museums in many parts of the Limes. Applications that provide visual animation instead of physical reconstruction were developed. German Limes Road route was organized for hikers, motorists and cyclists. After the WHL inscription, research has been shifted to documentation and mapping rather than archaeological excavation.[1314]

There are very few remains of Lower German Limes that are visible on the surface. This is due to the river delta filling up over time, and as the structures were used as stone quarries. However, there are structures preserved in-situ. A Roman fort is displayed in the cellar of the Römisches Museum at Remagen. Two watchtowers near Rheinbrohl and Marsdijk were reconstructed. Xanten fortress was organized as an archaeological park, a partial reconstruction of the amphitheatre, and the fortification walls were made, and some structural remains can be seen in on-site museum. A Roman street in Groesbeek was reconstructed. The ruins of the headquarters building and ramparts of the fort at Meinerswijk and the fort at Bunnik were reconstructed with contemporary material at plan level. An exhibition and interpretation centre was built on top of the Roman fort remains at De Meern. There are partial reconstruction of the earth and timber rampart of the local fort in Museumpark Archeon at Alphen aan den Rijn; reconstruction of ramparts and gate buildings of the local fort in earth and steel in Park Matilo at Roomburg; reconstruction of the Roman road at Valkenburg; reconstruction of five beacons in Park Arentsburgh at Leidschendam-Voorburg. Also, as a visual

[1313] Breeze, *Frontiers of the Roman Empire: The Antonine Wall*, 50-68.
[1314] Thiel, Roth, and Becker, *Frontiers of the Roman Empire: The Upper Germanic Limes*, 70-92.

reconstruction, an installation was made with the light arrangement in the DOMunder at Utrecht. There are also museums along the Limes.[1315]

Although many sections of Danube Limes are in used areas such as city centres and rural areas, many of them have managed to survived until present day. This is partly possible because some of the structures continued to be used in later periods and were preserved up to the second storey; these can be seen in the historical buildings. In Germany, the remains of the bath at Bad Gögging at Neustadt a. d. Donau were preserved and presented under the St. Andreas church. The remains of the late Roman fort can be seen in the museum of Römermuseum Boiotro at Passau. In Austria, there are nearly 20 museums and exhibition arrangements for ruins. Inside the churches of Traismauer, Zeiselmauer, and St. Laurenz at Enns, the Roman remains are preserved and can be seen. The fort (civil town part), amphitheatre, baths and a late Roman triumphal monument at Carnuntum Petronell was reconstructed and arranged as an archaeological park. One of the small settlements of Germanic tribes beyond the Danube was reconstructed at Elsarn. The east gate of the Roman fort at Tulln was protected in the plan level under a protective shelter. In Slovakia, an abstract reconstruction with timber was made on top of the remains of the south gate of Iza Fort. In Hungary, the southern gate of the legionary fort at Aquincum, some inner buildings of the fort at Dunaújváros, and the remains of the fort at Tokod were reconstructed. In Serbia, some parts of the Singidunum fortress were represented in the basement of the Belgrade City Library. The legionary fortress at Viminacium was organized as an archeopark, the amphitheatre was partially reconstructed with a timber structure, and the bath and Mausoleum were preserved under the protective shelters. The remains of the fort at Diana were reconstructed at the plan level. In Bulgaria, the remains of the fort of Tutrakan, and the fort, Roman basilica, and Jupiter Temple within the town of Oescus were consolidated. Consolidation and reconstruction at the plan level of the legionary hospital, bath, and Bishop's palace, and abstract reconstruction on headquarters were conducted in Novae fortress. In Romania, some of the remains of the fort at Noviodunum are protected under a protective shelter. The fort at Sucidava was consolidated. The fort at Drobeta site was organized as archaeopark.[1316]

[1315] de Bruin, Renger, Astrid Hertog, and Roeland Paardekooper. "The Roman Limes on the Lower Rhine: A European Border's Visibility in Landscape and Museums," 114-125; Graafstal, Willems, and Bödecker, *Frontiers of the Roman Empire: The Lower German Limes*, 124-136.

[1316] Czysz et al., *Frontiers of the Roman Empire: The Danube-Limes in Bavaria,* 26-32; Dyczek, *Frontiers of the Roman Empire: The Lower Danube Limes in Bulgaria,* 52-95; Harmadyova,

The most commonly performed implementation in the Anatolian frontier is partial reconstruction with 15 implementations. The structures that carried out partial reconstruction are bridges and fortifications. Reconstruction was realized only on the abutments of the Süpürgüç, Kırık, Köprüköy, Harap, Hasankeyf and Şeyhosel bridges, and moreover, 4 of these bridges (Kırık, Hasankeyf, and Şeyhosel) were subsequently submerged under the dam waters. For this reason, although it can be argued that these implementations were carried out for the purpose of strengthening the bridge abutments that will be submerged, there is no definitive information on this subject. Göksu and Nasreddin bridges have undergone a larger partial reconstruction. Mostly partial reconstruction was carried out on the fortifications, and the ruined walls/ wall parts were completed. However, in the case of Battalgazi, partial reconstruction was carried out at full height in the section where the fortress gate is located, and the remaining parts of the walls were not interfered with. Other applications are as follows: superstructure of one bridge is renewed (Perre); a protective shelter was built for the mosaics (Zeugma); completion (Rize Fort), partial completions (Ongözlü Bridge and Dara), and consolidations (Karaköprü Bridge and Zağnos Bridge) were realized; the inscripted stones were dismantled and removed to the museum (Karamağara Bridge). Excavations continue in 11 components (Satala, Perre, Dülük, Zeugma, Karkamış, Zerzevan, Hasankeyf, Dara, Mardin, and Harran). The number of completed excavations is 17 (Kilise Yazısı, Ağın-Hoşrik, Kalecikler, Pağnik, Muratçık, Örencik, Kaleköy, Şemsiyetepe, Köşkerbaba, Geldibuldu, Horis Kale, Lidar, Samsat, Çattepe, Diyarbakır, Üçtepe, Şanlıurfa), and in 1 component (Nusaybin) partial excavations have been carried out in the city. However, among them Kilise Yazısı, Ağın-Hoşrik, Kalecikler, Pağnik, Muratçık, Örencik, Şemsiyetepe, Köşkerbaba, Geldibuldu, Horis Kale, Lidar, Samsat, Çattepe completely; Kaleköy, Zeugma, and Hasankeyf partially submerged.

Rajtar, and Schmidtova, *Frontiers of the Roman Empire: Slovakia,* 52-81; Jilek, *Frontiers of the Roman Empire: The Danube Limes,* 61-65; Jilek, Kuttner, and Schwarcz, *Frontiers of the Roman Empire: The Danube Limes in Austria,* 76-83; Korać et al., *Frontiers of the Roman Empire: Roman Limes in Serbia,* 58-87; Marcu and Cupcea, *Frontiers of the Roman Empire: The Roman frontiers of Dacia,* 84-93; Tentea and Matei-Popescu, *Frontiers of the Roman Empire: Between Dacia and Moesia Inferior. The Roman forts in Muntenia under Trajan,* 19-53; Visy, *Frontiers of the Roman Empire: The Roman Limes in Hungary,* 41-57.

5.2.4.5. Ownership and Community Engagement/ Adoption

Only ten percent of Hadrian's Wall was under protection managed by eight bodies for conservation and public access, while the remaining ninety percent was within the ownership of some public and private bodies. The Wall has a complex and multi-stakeholder structure for the parts both owned by the public and private. Most of these areas, apart from urban lands, were rural and used for agricultural activities. In Northumberland and eastern Cumbria tenants of large estates farm most of the land, and in west of Brampton there are a great number of owner-occupied farms. The other owners are city and district councils such as Northumberland County Council, North Tyneside Council, South Tyneside Metropolitan Borough Council, Newcastle City Council, Allerdale Borough Council, Carlisle City Council, Northumberland National Park Authority, Cumbria and Northumberland County Councils, Lake District National Park Authority; trusts and funders such as The Vindolanda Trust, Senhouse Museum Trust, and The National Trust; and specialist government agencies such as Historic England and Natural England.[1317] For the trails, a 135 kilometres National Trail route was organized. Also, since 1849, conferences called "pilgrimages", have been organized by academics. Additionally, to strengthen the community's ties with the frontier, the National Trail has launched a warden program, choirs from communities perform in the baths with Hadrian Arts Trust's Singing in the Bath project, writers and poets are brought to the Wall contribute to literature with the Writing on the Wall project, the legionary reenactment team was established, education given in schools and museums, and documentaries, series and films about the Roman period in the UK prepared and broadcast on TV.[1318]

The ownership status of the Antonine Wall is much simpler and has fewer stakeholders than Hadrian's Wall. 17 kilometres out of the total length of 60 kilometres of the Antonine Wall in the public ownership by central or local government bodies, and 12 kilometres of it on the care of Historic Scotland for behalf of the state. The other sections of the Wall are in the ownership of Falkirk Council, North Lanarkshire Council,

[1317] Hadrian's Wall Country, *Hadrian's Wall Management Plan 2008-2014*, 23-24; Young, "The Management of Hadrian's Wall, 1989-99," 65-72.

[1318] Bishop, "Re-enactment and Living History – Issues about Authenticity," 23-30; Hadrian's Wall Country, *Hadrian's Wall Management Plan 2008-2014*, 75-80; Hingley, "Hadrian's Wall as Artscape," 1-20; Mills et al., "Applying the Hadrian's Wall. Interpretation Framework," 181-192; Witcher, Tolia-Kelly, Hingley, "Archaeologies of Landscape: Excavating the Materialities of Hadrian's Wall,"105-128.

East Dunbartonshire Council, West Dunbartonshire Council, and Glasgow City Council. Except these, there are also parts of the Wall owned by individuals and organizations such as public and private landowners, tenants and land managers.[1319] To strengthen these private landowners and other local communities' ties to the Roman frontier heritage, many events were organized, such as lectures, visits and publications. For the education of children, frontier was included in school education and additional education was provided by museums. In addition, many events such as theatres, workshops and Roman garden designs were organized by the local communities, Roman names were included in modern settlement names, copies of distance slabs were placed in local authorities, 5 Roman theme parks were established and a volunteer legion reenactment team was formed. Parts of the wall were integrated into daily life by being used as recreation areas, and many people living in the surrounding area have stated that they are proud of the ruins in their gardens.[1320]

The most visible and well-preserved parts of the Upper German- Raetian Limes are owned by the state government or local authorities. Private individuals mostly own lands in agricultural areas. Great part of the land used for forestry is in state or local authorities' ownership. It is planned to transfer more sites to public ownership in the future.[1321] In order to increase community engagement, trips to the frontiers are organized through museums and educational events are organized for school-age children. A team of volunteers has been established with the Association of Limes Cicerones, and this team is trained to inform tourists throughout the Limes. In addition, reenactments of the Roman period are made.[1322]

Ownership of Lower German Limes in rural and urban areas in Germany is mixed, although private ownership is predominant. While some of the important sites are public ownership, there are also ecclesiastical ownership sites. Forest areas are mostly in public ownership and in the responsibility of the State Forest Management Service. The parts of Limes in the Netherlands are under mixed ownership. Public ownership includes the State, provinces, municipalities and water boards, and is sometimes related to

[1319] Breeze, *Frontiers of the Roman Empire: The Antonine Wall,* 50-68; Historic Scotland, *The Antonine Wall Management Plan 2014-19,* 10-14.

[1320] Breeze, *Frontiers of the Roman Empire: The Antonine Wall*, 69; UNESCO, *Nomination 430ter: The Antonine Wall Volume I,* 62-64; Weeks, "The Antonine Wall as a World Heritage Site: People, priorities and playparks," 456-462.

[1321] UNESCO, *Nomination 430ter: Upper German- Raetian Limes Volume I,* 26.

[1322] Thiel, Roth, and Becker, *Frontiers of the Roman Empire: The Upper Germanic Limes,* 74, 82-92.

infrastructure and public space, while private ownership includes the private citizens, and also by churches and other legal bodies such as associations for nature management, foundations, and museums.[1323] To strengthen local communities' ties to heritage, Roman period and frontiers were included in the primary and secondary school education curriculum in the Netherlands. There is an education portal that provides support to schools regarding this education, and museums also provide support with additional training. The Limes cicerones programme was established for adult education in Germany. The Public Awareness working group also carries out studies to raise the awareness of different target audiences.[1324]

For the sites of the Danube Limes- western segment, there is a mixed ownership situation in Germany. While there are very limited sites owned by the state, the majority of the sites are owned by the relevant community, private, or church. However, it is planned to transfer more sites to public ownership in the future to reduce management problems. There is also a mixed ownership situation in Austria. Most sites in the Austria countryside are privately owned. While most agricultural lands belongs to farmers or farmers' associations, there are also sites owned by churches or local communities. Most of the built-up surrounding sites are under municipal or private ownership. In Slovakia, frontier components are in state and municipality ownership.[1325] For community engagement, museums of Danube Limes in Austria, Germany and Slovakia organize various educational events. In addition to reenactment groups in Austria and Germany, events such as "Long Night of the Museums", "Monument Day", or "Roman Delicacies Day" are organized. Museums in Slovakia aim to raise awareness about Roman frontiers through various projects, as well as "Roman Games", and "the Limes Day" events for education and promotion. With the "Community Initiative Programme Interreg IIIA Austria – Slovak Republic –Rusovce Gerulata – Petronell Carnuntum" project, it is aimed to introduce the Roman fort at Rusovce, to make this monument a trademark with Roman-themed products, Roman plays and renovation of the monument, and to use the brand in promotional materials. With the "The Frontiers of the Roman Empire" project, street names in Rusovce were named with Roman names and the names of archaeologists

[1323] UNESCO, *Frontiers of the Roman Empire – The Lower German Limes. Part I – Nomination file,* 156.
[1324] UNESCO, *The Lower German Limes. Part III – Annex 2: Management Plan 2021-2027,* 47-50.
[1325] UNESCO, *Frontiers of the Roman Empire – The Danube Limes. Volume I: Nomination File,* 499-507.

working in the region, and local residents were informed about the history and context of these names.[1326]

As in other frontier sections, the region where the Roman frontier passes in Anatolia has multi-stakeholder ownership both by public and private. During excavation works, expropriation is first carried out and then the expropriated lands can be excavated. For this reason, long legal processes are followed before excavations. Considering that even the efforts to uncover the Anatolian frontier are at a limited level, the communities' level of knowledge, recognition and connection with this heritage is also insufficient. The situation of not adopting and not establishing ties is valid not only for the Roman frontier in Anatolia, but also for other Ancient Greek, Roman and Byzantine period heritages in Turkey[1327] (Table 5.3).

[1326] Jilek, Kuttner, and Schwarcz, *Frontiers of the Roman Empire: The Danube Limes in Austria,* 85-87; UNESCO, *Frontiers of the Roman Empire – The Danube Limes. Volume I: Nomination File*, 645-665.

[1327] Seda Nehir Gümüşlü, "A Long-Neglected Past Between the Roman and Ottoman: A Re-Assessment, Valorization and Re-Presentation of Byzantine Cultural Heritage in Turkey" (PhD dissertation, Middle East Technical University, 2021).

Table 5.3. Comparison the conservation of Anatolian frontier with other frontier sections

	Conservation				
	Conservation Level	Conservation Regulations	Conservation Problems	Conservation Implementations	Ownership and Community Engagement/ Adoption
Hadrian's Wall	Majority preserved underground. Best preserved part is in the middle. Preserved at the plan level. Partial losses coastal and urban areas.	Registered components are protected by the Ancient Monuments and Archaeological Areas Act of 1979. Remaining components in buffer zone are protected by the Town and Country Planning system. Private and public partners as stakeholders. Besides the archaeological heritage of the Wall and its landscape, two sections of the Wall are National Parks and one Area of Outstanding Natural Beauty. Inter-Governmental Committee (IGC) for the co-ordination of the joint international management of the FREWHS.	Prolonged decision-making processes due to its multi-ownership, agricultural activities, electrical and telephone lines and wind turbines, torrential rain, fluvial erosion, coastal erosion, infectious diseases in animals, and the searching with metal detectors.	19th century conservation of "Clayton Wall". Preservation by burial, and consolidation. Monitoring for erosion. Reconstructions of the gate and house at South Shields, the wall and bath-house at Wallsend, the wall and turret, the turf wall and milecastle gate at Vindolanda. Museums and National Trail route along the Wall.	Mostly privately owned multiple ownership including city and district councils, trusts and funders, government agencies. National Trail route and "pilgrimages" congress are organized. Warden program with the National Trail, choirs performances in the baths with Hadrian Arts Trust's Singing in the Bath project, contribution to literature with the Writing on the Wall project, the legionary reenactment team, education in schools and museums, and documentaries, series and films on TV.
Antonine Wall	Section of the wall, two sections of the Military Way preserved. 16 forts, 8 annexes, 9 fortlets, 6 expansions, 2 small enclosures, 16 camps survived.	The Wall is protected by the Ancient Monuments and Archaeological Areas Act in 1979 and the Town and Country Planning (Scotland) Act in 1997. Public and private ownership. The landscape characterization assessment by Scottish Natural Heritage, the Historic Landuse Assessment by Historic Scotland and the Royal Commission on the Ancient and Historical Monuments of Scotland. Inter-Governmental Committee (IGC) for the management of the FREWHS.	Agricultural activities, ploughing, dense visitor numbers, mining areas.	Rough Castle, Bar Hill, Castlecary, bath house at Bearsden, and fortlet at Kinneil are preserved and exhibited in-situ; the ditch and rampart sections with stone bases in some places. Distance slabs are exhibited in some of the museums built along the frontier. Different trail routes along the Wall.	Mostly privately owned multiple ownership including central or local government bodies and trusts. Lectures, visits and publications are organized. Education in schools and museums. Events such as theatres, workshops and Roman garden designs, Roman names in modern settlement names, copies of distance slabs in local authorities, 5 Roman theme parks, a volunteer legion reenactment team. Use of the wall as recreation areas.
Upper German- Raetian Limes	27 % are visibly on the surface, 21 % are in modern border lines and road courses, and 43 % are underground.	The federal states of Baden-Württemberg, Bavaria, Hesse, and Rhineland-Palatinate are responsible for the protection. Protected by states' conservation laws, planning legislation, land use and nature conservation laws. Inter-Governmental Committee (IGC) for the management of the FREWHS.	New construction in the countryside, industrial buildings and roads, agricultural activities, forestry, walking paths on top of the property, losses of authentic materials in the reconstruction works.	25 watchtowers and some parts of the artificial barriers, and 5 forts were reconstructed. Archaeopark to prevent from built over at Welzheim fort. Museums in many parts of the Limes, applications that provide visual animation instead of physical reconstruction were developed. German Limes Road route was organized for hikers, motorists and cyclists.	Mostly privately owned multiple ownership, but most visible parts are owned by the state government or local authorities. Trips to the frontiers, educational events, a team of volunteers with the Association of Limes Cicerones to inform tourists, reenactments of the Roman period.
Lower German Limes	Preservation level is between good and very good. Timber structures preserved under alluvium, later stone structures were robbed.	Protected by the national conservation law of the Netherlands and state's conservation laws of North Rhine-Westphalia and Rhineland-Palatinate in Germany. Also Natural Protection Acts, Water Act, Forest Preservation Act, Environmental Impact Assessment Act, Environmental Planning Act for both countries. Joint Dutch-German Management Group (MGLGL), and an Intergovernmental Committee (IGC-LGL) for management of the property.	Rural development, road and infrastructure constructions, agricultural activities, forestry, flooding and groundwater level reduction, wind turbines, grasslands convertions into agricultural areas.	A Roman fort is displayed in the cellar of the Römisches Museum at Remagen. Reconstrcutions of Rheinbrohl and Marsdijk watchtowers. Xanten fortress as an archaeological park; a partial reconstruction of the amphitheatre and the fortification walls; some structural remains in on-site museum. Reconstruction of a Roman street in Groesbeek, headquarters building and ramparts of the Meinerswijk fort and Bunnik fort with contemporary material at plan level. An exhibition and interpretation centre on top of the De Meern fort. Partial reconstruction of the earth and timber rampart in Museumpark Archeon at Alphen aan den Rijn; reconstructions of ramparts and gate buildings of the local fort in earth and steel in Park Matilo at Roomburg; Roman road at Valkenburg; five beacons in Park Arentsburgh at Leidschendam-Voorburg. A visual reconstruction and light arrangement in the DOMunder at Utrecht. Museums along the Limes.	Mostly privately owned multiple ownership including ecclesiastical ownership, State Forest Management Service in Germany; State, provinces, municipalities, water boards, churches in the Netherlands. Roman period and frontiers education in schools, additonal training by museums, and education portal in the Netherlands. The Limes cicerones programme in Germany. The Public Awareness working group to raise the awareness of different target audiences.
Danube Limes	Preservation level is good for Austria, very good for Germany, good for Slovakia. 8,1 % on the surface, 12,4 % opened to the public through excavations, 13,7 % are under infrastructure, 10 % are under historical and modern buildings.	Protected by the national Monument Protection Act of Austria, federal states' conservation laws of Germany, and Protection of Monuments and Historic Sites Act of Slovakia. Also protected by Building Law, Regional Development and Nature Protection regulations of Austria; Building Code, Spatial Planning Act, Nature Conservation Act, Water Act, and The Act to Protect German Cultural Property Against Removal for both the federal government and federal states of Germany; Building Act, Museums and Galleries and on the Protection of Items of Cultural Value Act, Conservation of Nature and Landscape Act, and Water Act of Slovakia. The Intergovernmental Committee for the FRE– Danube Limes (IGC DL), and the Management Group for the FRE– Danube Limes (MG DL) for the management of the property.	Dense urbanization, Danube floods, vegetation and erosion, high number of visitors, reconstructions.	The bath at Bad Gögging at Neustadt a. d. Donau is presented under the St. Andreas church; late Roman fort in the museum of Römermuseum Boiotro at Passau in Germany. Nearly 20 museums and exhibition arrangements for ruins in Austria including the Roman remains inside the churches of Traismauer, Zeiselmauer, and St. Laurenz at Enns; reconstructions and archaeopark of the civil town part, amphitheatre, baths and a late Roman triumphal monument at Carnuntum Petronell; reconstruction of settlements of Germanic tribes at Elsarn; a protective shelter for the east gate of the Roman fort at Tulln. An abstract reconstruction with timber for the south gate of Iza Fort in Slovakia. Reconstructions of the southern gate of the Aquincum legionary fort, some inner buildings of the Dunaújváros fort, and the Tokod fort were reconstructed in Hungary. Singidunum fortress in the basement of the Belgrade City Library; archaeopark of the legionary fortress and partial reconstruction with timber of the amphitheatre, and protective shelters for the bath and Mausoleum at Viminacium; reconstruction of the Diana fort at the plan level in Serbia. Consolidation of the Tutrakan fort, Roman basilica, fort, and Jupiter Temple at Oescus; consolidation and reconstruction at the plan level of the legionary hospital, bath, and Bishop's palace, and abstract reconstruction on headquarters of Novae fortress in Bulgaria. Protective shelter for the Noviodunum fort; consolidation of the Sucidava fort; archaeopark for the Drobeta fort in Romania.	Mostly privately owned multiple ownership, relevant community, private, or church in Germany; farmers' associations, churches or local communities in Austria; municipality and private ownership in Slovakia. Reenactment groups and events such as "Long Night of the Museums", "Monument Day", or "Roman Delicacies Day" in Austria and Germany; various projects, as well as "Roman Games", and "the Limes Day" events to raise awareness in Slovakia; the "Community Initiative Programme Interreg IIIA Austria – Slovak Republic –Rusovce Gerulata – Petronell Carnuntum" project to introduce the Roman fort at Rusovce, to make this monument a trademark with Roman-themed products, Roman plays and renovation of the monument, and to use the brand in promotional materials. With the "The Frontiers of the Roman Empire" project, street names in Rusovce were named with Roman names and the names of archaeologists working in the region.
Anatolia Limes	Remains are mostly underground. There are sections which built over, excavated, excavated and submerged, and visible on the surface.	Registered sites and monuments are protected by the national 2863 numbered and 1983 dated Cultural And Natural Assets Protection Law. Also there are there are Village Law, the Law on Establishment of Metropolitan Municipalities in Fourteen Provinces, Zoning Law, Planned Areas Zoning Regulation, Unplanned Areas Zoning Regulation, Rural Neighbourhood and Rural Settlement Area Regulation, Law on Waters, Forest Law, Law on Groundwaters, Environmental Law, National Park Law, Coastal Law, Pasture Law, Soil Conservation and Land Use Law, Protection, Use and Planning of Agricultural Lands Regulation, Law on Improvement of Olive Growing and Grafting of Wild Olive Trees, Regulation on the Protection of Wetlands.	Dams, environmental disasters, urbanism, remoteness, security problems, lack of holistic conservation decisions, extreme reconstructions, lack of knowledge and awareness.	Partial reconstructions of several bridges and forts; reconstruction at Melitene; protective shelter at Zeugma; consolidations at Dara.	Mostly privately owned multiple ownership.Tthe communities' level of knowledge, recognition and connection with this heritage is also insufficient as well as research and conservaton works.

CHAPTER 6

EVALUATION

When the frontiers of the Roman Empire, which span three continents and many modern countries today, are evaluated together, it is not possible to mention an ultimate border policy and the construction of these frontiers in a single planned period. However, these frontiers reflect the different policies of the Romans in different periods and were shaped differently depending on the geography they passed through. The Roman frontier passing through Anatolia was the eastern frontier of the Romans for a long time. When considering the Anatolian frontier, not by discussing its “the first”s and “the most”s, but by taking into account that it is part of a whole with other frontier sections, it has some features that it shares with other frontier sections, and the combination of these features creates the character of the Anatolian frontier.

The Romanization process of Anatolia started during the Roman Republic period, more than 100 years before it was turned into an empire. During the Romanization process, the westernmost provinces, earlier kingdoms of Asia and Bithynia, joined the Republic through inheritance, the central provinces such as Galatia joined the Republic by the settling of the Celts, Cappadocia and Commagene were annexed after a while, and Pontus was included as the result of long-term wars. Therefore, the Romanization process is a layered process in which different policies were followed in different periods. A similar situation is seen in the gradual annexation of the provinces in the Near East and Africa to Rome. With the joining of these provinces in Anatolia, the natural border of Euphrates was reached, and Augustus' policy was to keep the Empire at this border and not move further east. However, although most of Anatolia was annexed to Rome and a border that was relatively easier to defend was reached, this protectionist policy was abandoned from time to time in the later stages of the Empire, and from time to time, it retreated back to the safe Euphrates border. During the period of Trajan, when the Empire reached its widest borders and the conquest of Dacia was turned into propaganda, its widest borders were also reached in the east. Trajan crossed the Euphrates and annexed

the province of Mesopotamia, which also had territories in Anatolia, conquered the Armenia Kingdom, and extended the borders of Rome to the Caspian Sea. However, this border in the east could be held for three years, and after the death of Trajan, it was drawn back to the Euphrates frontier by Hadrian, who also followed a protectionist policy in Britannia and had Hadrian's Wall built. The greatest significant expansion in the following periods was achieved by Severus, who stabilized the 3rd century crisis, and the Euphrates frontier was crossed again in southeastern Anatolia, by annexing the Mesopotamia province to Rome again. During the Diocletian period, a new regulation was made in the provinces in Anatolia as well, as in all parts of the Empire, and a different administrative scheme and dioceses were established than before. Therefore, there is no single fixed frontier line in Anatolia. Although the Euphrates was the frontier for a long time, the Euphrates was crossed from time to time, and the Tigris was accepted as the frontier, and a network of fortresses was established in the southeast, which became the frontier region. The frontiers where the fixed frontier is maintained for a long time are river frontier and artificial frontiers. In fact, even these can be considered partially fixed because the river frontier of Danube was crossed to the north with the conquest of Dacia, and the artificial frontier of Upper German- Raetian Limes had several frontier lines from different periods.

The Romanization of Anatolia, which took over from the previous Hellenistic kingdoms, ensured cultural and infrastructural continuity. As in other parts of Anatolia, the use of cities in the frontier region continued during the Roman period, and even large cities on the frontier and important for river crossing, such as Zeugma and Samosata, were transformed into large military centres where legionnaires were settled, and civilians continued to live. The approach of adding legion centres or smaller military forts to existing cities is also seen in the Near East and Africa, where there were large civilian cities previously. However, there were no large settled cities in the European frontier region, so the frontier was built from scratch. Urban development later grew around the forts on the frontier and became the major cities in Europe today. Continuity of use in Anatolia is not limited to civilian settlements. Hittite or Urartian forts have been identified under many Roman forts. In addition, some of the Roman roads are based on the previous Hittite roads and the Persian Royal Road. In this way, there is a continuity of use between periods and different civilizations, as well as multilayeredness within the Romans itself. The Anatolian frontier was not established in a single period; new structures were built, and previous ones were repaired through expansion and regression. In addition, due to

constant wars during the same period, the buildings were first captured and used by the Parthians, and then the Sassanians or their buildings were captured by the Romans. Therefore, in Anatolia, there is a multilayering within the same empire; a continuity between opposing sides in the same period; and a situation of multiple layers due to inheriting from different civilizations.

Even though all of Anatolia joined the Roman Empire as a result of the Romanization of Anatolia, there was a cultural situation quite different from the Roman centre. Although the information gathered about rural life outside the urban centres is limited to inscriptions, the information can be obtained about rural communities. The people who adopted Greek language in the pre-Roman period, along with the Hellenistic culture, also preserved their indigenous language.[1328] However, the inscriptions in the Roman period were generally bilingual, Latin and Greek[1329]; it is seen that local dialects were incorporated into Greek, especially in place and person names. Before Rome, this bilingualism can be traced in inscriptions such as Greek-Lycian[1330], Greek-Lydian[1331] and even trilingual Greek-Lycian-Aramaic[1332] inscriptions. Therefore, although Anatolia hosted imperial powers, it was also a place where local culture was always preserved. The local cultural importance and diversity of Anatolia continued after Rome. In the authority vacuum that emerged during the decline of the Byzantine, Anatolia became an area of conflict between various Christian and Muslim powers in the 11th-12th centuries. The Armenia Kingdom was established around Cilicia, including Zeugma; Edessa County was established by the Crusaders in Şanlıurfa and its surroundings, Danishmends settled around Sivas, Artuqids settled around Mardin and Diyarbakır, and central Anatolia was the centre of the Seljuk Sultanate of Rum.[1333] After the sack of Constantinople in the 13th

[1328] Mitchell, *Anatolia. Land, Men and Gods in Asia Minor/ I*, 170-176.

[1329] Ekrem Akurgal, "Augustus Tapınağı ve Yazıtlar Kraliçesi," *Ankara Dergisi* 1 (1990): 16-27.

[1330] Ş. Recai Tekoğlu, and Taner Korkut, "A Lycian-Greek bilingual funerary Inscription from Tlos," in *New approaches on Anatolian linguistic* (Barcelona: Edicions de la Universitat de Barcelona, 2023), 253-263.

[1331] Enno Littmann, *Sardis Volume VI: Lydian Inscriptions, Part I* (Leiden: E. J. Brill, 1916), 38-40.

[1332] Peter Frei, "Die Trilingue vom Letoon, die lykischen Zahlzeichen und das lykische Geldsystem," *Schweizerische Numismatische Rundschau* 55 (1976): 5-16.

[1333] Cemal Kafadar, "A Rome of One's Own: Reflections on Cultural Geography and Identity in the Lands of Rum," *Muqarnas* 24, no. 1 (2007): 7-25. https://doi.org/10.1163/22118993_02401003.; Cemal Kafadar, *Kendine Ait bir Roma: Diyar-ı Rum'da Kültürel Coğrafya ve Kimlik Üzerine* (İstanbul: Metis Yayınları, 2017); Clifford Edmund Bosworth, *The New Islamic Dynasties. A Chronological and Genealogical Manual* (Edinburg: Edinburg University Press, 1996), 215-216, 194-196, 213-214; Jacob G. Ghazarian, *The Armenian Kingdom in Cilicia during the Crusades: The integration of Cilician Armenians with the Latins, 1080-1393* (Routledge, 2018); Joseph Tarzi, "Edessa in the Era of Patriarch

century, one of the two empires that succeeded the Byzantine Empire was founded in Trabzon. The Empire of Trebizond continued to exist for a while, even after the conquest of Constantinople by the Ottomans, and was one of the last powers to join the Ottoman Empire in Anatolia.[1334] Today, there is a multicultural picture in the Roman frontier region where Turks, Kurds, Armenians, Lazis, Assyrians and, with the recent immigration, Syrians live together. Therefore, it is possible to suggest that the multiculturalism that existed in Anatolia before the Romans is still maintained today, together with previous cultural accumulation, with different but still by many cultures.

The Anatolian border was initially protected by client kingdoms of the Romans, such as Cappadocia and Commagene. The client kingdoms were buffer region that prevented the Romans from direct contact with the Parthians in the east. A similar situation exists in the Near East and Africa, where even the client kingdoms provided soldiers for the Roman army, but in Europe there was a struggle with many small local tribes. After the client kingdoms in Anatolia joined Rome, the Euphrates became a direct frontier with the Parthians, one of the greatest enemies of Rome. Other great powers that the Empire struggled with were the Germanic and Dacian tribes, but it is a difference that the others were in tribal order, and the Parthians were an empire equivalent to the Romans. The policy of securing the eastern frontier not only through war but also through various agreements was followed by the Parthians and their successors, the Sassanians. The enemies fought against, and policies followed also caused the frontier fortifications to differ. While there were no legionary fortresses on the artificial frontiers and the legions were stationed in inner regions, the frontier system on the natural frontiers was strengthened with intermittent legionary fortresses, and the legions were placed directly on the frontier line. Compared to its length, the Anatolian frontier was the frontier with the most legionary centres and possibly legionary fortresses, with legion centres at Satala, Melitene, Samosata and Zeugma, and in the later period at Trapezus and possibly Hasankeyf and Eğil. Apart from the Anatolian frontier, there are legionary fortresses on the river frontiers of the Danube and Rhine for similar purposes. There are legionary fortresses in the north of Syria due to the Parthian danger, but from the south, other legionary fortresses in Near Eastern, including Egypt and African frontiers, were

Michael the Syrian," *Hugoye: Journal of Syriac Studies* 3, no. 1 (2010): 205-224. https://doi.org/10.31826/hug-2010-030113.

[1334] Anthony Bryer, *The Empire of Trebizond and the Pontos* (London: Variorum Reprints, 1980).

established for monitoring the trade routes and movements of the nomads there, rather than for war and defence purposes.

The Anatolian frontier is a mixed natural frontier that benefitted from coasts, rivers and mountains. The forts built on the thin coastline along the Black Sea in the north were important in the struggle against pirates to ensure coastal security in the Black Sea and the sea route to Colchis. The route, which extends from Trabzon into Anatolia and crosses the Pontic Mountains, was for the transportation of the supplies coming to Trabzon by sea to the interior of Anatolia along the frontier. The existence of the Euphrates between the steep mountains in the Cappadocia region created an insurmountable obstacle. As going south, the bed of the Euphrates becomes flat and river crossing becomes possible here. In the Mesopotamia region, the frontier was created with a network of fortresses built on the hilly land within the area surrounded by the Tigris, which has a relatively shallow bed and the smaller streams in between. The Euphrates, the Khabur, and the Arabian Desert on the natural frontier of the Near East; the Sahara Desert, the Atlantic Ocean and occasionally artificial barriers on the natural frontier of Africa; mountains, rivers and artificial barriers on the Dacia frontier; and the rivers on the natural frontiers of the Rhine and Danube were benefitted. Thus, the landscape itself was used as a boundary in natural frontiers. Hadrian's Wall, the Antonine Wall and the Upper German- Raetian Limes are the frontiers where artificial barriers were created in the absence of natural barriers. However, even in them, the Romans tried to benefit from the landscape as much as possible, in Hadrian's and Antonine Walls, the region where there were two isthmi was chosen for the walls; the ends of the two walls ended at the seas, and in the presence of small hills, the walls were passed through those hills; and in Upper German- Raetian Limes, dense forest cover and swamps were benefitted. Also, ditches, ramparts and mounds were created by organizing the landscape as an artificial intervention.

Whether the frontier is natural or artificial also affects its physical structure. There is a linear lane that can be followed in the artificial frontiers of Hadrian's Wall, the Antonine Wall, and Upper German- Raetian Limes (there are even different lines built in different periods in Upper German- Raetian Limes). There is only one linear lane in the Rhine and Danube frontiers due to the river. However, in Anatolia, the Near East, and Africa, the frontiers are not linear but rather areal. If the Anatolian frontier consisted only of the Euphrates and then the Tigris rivers, it could be a linear frontier, but in the expansion in Mesopotamia, Tigris was not a fixed and continuous frontier that did not

change, and a frontier region was created where a frontier network was established with the fortresses in the region. In the Near East, there is a bifurcated line based on both the Euphrates and Khabur rivers in Syria, and remote outposts were established to control the caravan routes not only at the beginning of the desert in the south but also in the inner regions of the desert. In Africa, in addition to the bifurcated network of forts on the ocean coast, there are irregular forts that do not form a line in the region following the Mediterranean coast and remote outposts in the desert; furthermore, there are no forts in the transition from Mauretania Tingitana to Mauretania Caesarensis due to the presence of mountains. Thus, it is possible to suggest frontier regions instead of single and linear frontier lines on frontiers, except artificial frontiers and rivers.

The fact that the Anatolian frontier consists of different natural borders is due to its geographical diversity perceived even at short distances. The frontier is located in eastern Turkey, in a region where the altitude is quite high and there are many mountain ranges. After the narrow coastal section that is limited by the Pontic Mountains along the Black Sea coast, the frontier goes south and follows the Euphrates and proceeds by drawing large arcs between the Antitaurus and Taurus Mountains extending in the east-west direction. It reaches the relatively plain area just before the Syrian border, and there are the Şanlıurfa plateau and the fertile Harran plain to the east. The Mardin- Midyat threshold, located to the east of the Şanlıurfa plateau, is located within the arc of the Tigris River, which has small streams. Although components such as fortress, fort, watchtower and frontier road are common elements for all frontiers, some components and material selections that vary depending on geography were also encountered. In Anatolia, where rivers determine the frontier, river crossings and bridges are important and numerous. The structure of the Euphrates flowing between steep mountains makes it difficult to cross, and taking advantage of this feature, and due to geographical difficulties, the Romans did not build a permanent bridge over the Euphrates. They probably provided river crossings on the Euphrates with pontoon bridges, but they built bridges on the branches of the Euphrates at points that were easy to control and cross. Since the Tigris remains within the Roman territory and can be crossed due to its shallower structure, many bridges were built on it and on its branches. As another important component of Anatolia, safeguarded citadels were built in places with natural elevations, such as Trabzon and Mardin. Other frontiers also have spatial arrangements based on geography (although not solely due to that), such as: constructing a continuous wall along with topographic obstacles such as ditches, ramparts and mounds, and protecting these walls with frequent forts in Hadrian's

and the Antonine walls; having Upper German- Raetian Limes many watchtowers controlling the frontier as well as obstacles such as ditch and palisade; Rhine and Danube having many harbours and quays to benefit from the river; placing the forts in the deserts in oases in the Near East and Africa; and Egypt having worker accommodation units close to quarries. Geographical differences also naturally affect the use of materials. The majority of the Antonine Wall was built of turf, plenty of wood was used in Upper and Lower German Limes, and mudbrick was used in the Near East. Although there are still few studies on material usage in Anatolian frontier, it is possible to argue that local stones with different characteristics, mudbrick and timber were used.

Although the Anatolian frontier is a very important Roman period heritage for Turkey, the fact that it has been neglected for a long time has also affected its preservation. Even without excavations, there are components such as bridges and forts that are well-preserved on the surface. With excavations, although most of these excavations were rescue excavations and they were carried out in short periods, the Roman frontier components could be reached in a very well-preserved situation. The remains of the Roman period are also in good condition in the ongoing excavations currently. However, the lack of maintenance of the remains on the surface and the failure to take the necessary protection measures have led to a rapid deterioration process in the last century, compared to the period when the Roman frontier studies in Anatolia began to attract attention for researchers. Especially the ruins that are intertwined with settlement areas are disappearing day by day. The reason why the information about the European frontiers is much higher than the Anatolian frontier is that the European frontiers has been studied for many years. This has enabled even the frontier sections built with materials such as turf or timber, which are more easily decayable than stone, to survive well-preserved. The rapid documentation of the remains in the Near East and Africa, which are well-preserved due to the climate, has made them better known than the Anatolian frontier, despite all the deprivation.

In the conservation discipline, first the protection of historical objects with high artistic value gained importance, and then the protection of monuments and sites was included in the discussion. In the earlier period, the protection of these more singular, striking and masterpiece formations came to the forefront, and the protection of heritage such as vernacular architecture, landscape or modern architecture has been included in the discipline relatively late. Although attention is drawn to the protection of natural heritage as well as cultural heritage in the current UNESCO World Heritage Convention,

mostly untouched natural wonders are included in the World Heritage List; even in mixed areas, cultural heritage and natural heritage are handled separately, and the environment shaped by humans is not taken into consideration. For this reason, the issue of protecting the rural/cultural landscape has been adopted quite recently. In Turkey, affected by this deficiency in the conservation discipline, the protection of the landscape has not been included in the legal regulations. There is a national conservation law for cultural and natural assets in Turkey (but only for registered assets). However, in addition to the fact that landscape protection is not included in the law, the definitions in the law also pose a problem for the protection of cultural assets. In the national conservation law, the separation between monuments and sites in the UNESCO convention was maintained and subjects of the law were divided into three: cultural assets, natural assets and protected areas.[1335] Although the concept of "site" does not even have an exact equivalent translation in Turkish[1336] (the word is used as "sit" by Turkishized), the concept of "ören yeri" (can be translated as "archaeological area") was created and defined as places where historical, archaeological or artistic cultural assets and natural assets intersect. Therefore, a conceptual dichotomy has emerged between archaeological sites and "ören yeri" which are mostly formed by archaeological heritage. Moreover, protected areas were grouped as archaeological, urban, historical, urban-archaeological, and mixed (archaeological and urban, archaeological and historical, archaeological-historical-urban, and historical and urban).[1337] Although it is another controversy that the difference between urban-archaeological, and archaeological and urban protected areas is not fully grasped, it is understood that only the overlap of archaeological protected areas with historical and urban protected areas was taken into account. However, the archaeological and landscape elements of some heritages, such as the Roman frontiers that cannot be considered separately from topography therefore, should be handled together. Moreover, the fact that a definition was made for the archaeological heritage in urban areas but not in rural areas is a great lack of understanding, considering that archaeological sites are mostly located in rural areas.

[1335] UNESCO, *Convention Concerning the Protection of the World Cultural and Natural Heritage,* 1972.

[1336] Mehmet Özdoğan, *Türk Arkeolojisinin Sorunları ve Koruma Politikaları: 2- Arkeolojinin Politikası ve Politik bir Araç olarak Arkeoloji* (İstanbul: Arkeoloji ve Sanat Yayınları, 2006), 18-23.

[1337] "Türkiye Geneli Sit Alanları İstatistikleri," Kültür Varlıkları ve Müzeler Genel Müdürlüğü, accessed May 14, 2024, https://kvmgm.ktb.gov.tr/TR-44973/turkiye-geneli-sit-alanlari-istatistikleri.html.

In addition to the deficiencies in the conservation law in Turkey, there are also some problems in the registration process. When registering, the structure and the parcel on which it is located are registered separately. This is one of the obstacles to a holistic evaluation of the structure, its area and its surroundings. Moreover, archaeological protected areas are divided into first-, second-, and third-degree archaeological protected areas. While the structure is a first-degree archaeological protected area, the parcel can be registered as a third-degree archaeological protected area. In addition to such a legal distinction, it is the restrictions in these protected areas that determine the protected degrees. Although the construction of some infrastructure structures for the use of the archaeological site for tourism purposes is allowed even in the first-degree archaeological protected area, it is possible to argue that there are still more restrictions in the first-degree compared to the third-degree archaeological protected area. In this case, different scale applications may be allowed in two archaeological protected areas that are actually very close or intertwined. Roman frontier sections in Europe are under protection because they are on the World Heritage List (in the conditions of being included in the List, the property must be under legal protection status and management plans). Buffer zones created around the frontier sections are also subject to various conservation and planning laws, and these areas were created by taking into consideration of the relationship of the property with the setting. Although buffer zones in rural areas are wider and in urban areas are narrower due to the built environment, the immediate surroundings of the frontier sections are still subject to some conservation and planning restrictions, considering the relationship within the surroundings. However, while the Lower German Limes were included in the WHL, the Rhine River was not registered by arguing that its current state did not reflect the appearance of it in the Roman period. Thus, there is the problem of separation of the landscape that constitutes the frontier, from the architectural elements.

In Turkey, although there is a law for the protection of cultural and natural assets (with its definition gaps and contradictions), there is a building code for built-up areas. In addition, protected areas and registered assets/ sites must be included in conservation development plans. In rural areas, there is a village law that define the villages and their boundaries. In addition, although there are laws such as Law on Waters, Forest Law, Law on Groundwaters, Environmental Law, National Park Law, Coastal Law, Pasture Law, Soil Conservation and Land Use Law, Protection, Use and Planning of Agricultural Lands Regulation, Law on Improvement of Olive Growing and Grafting of Wild Olive Trees,

Regulation on the Protection of Wetlands for natural or human-made landscapes that are not settled and have different land uses, there are no building code or development regulations for rural settlements. This leads to uncontrolled construction in rural areas and the deterioration of the rural environment and the landscape. On the other hand, in European sections, the protection of frontier sections and their surroundings is secured not only by the national protection law and buffer zone definitions but also by a number of additional laws such as planning legislation, land use laws, natural protection acts, water acts, forest preservation acts, environmental impact assessment acts, environmental planning acts, regional development regulations, building codes, spatial planning acts, protection of cultural property against removal acts, monument protection laws in both national and state level.

In addition to not considering the Anatolian Frontier as a whole with the landscape, the fact that the frontier is not considered as a single asset that consists of a system with a large geographical spread is one of the main conservation problems. Although there are sites are considered to be included in UNESCO WHL (Archaeological Site of Zeugma, Zerzevan Castle and Mithraeum, Mardin, Şanlıurfa and Harran) is an important step in conservation (the frontier identity is highlighted in only one of them-Zerzevan Castle and Mithraeum), it shows that a fragmented approach was taken, far from a holistic understanding. This situation is also reflected in conservation practices. While some villas and mosaics in Zeugma were preserved in situ with a protective shelter, a large part of mosaics from Zeugma and its surroundings were preserved in the mosaic museum in the city centre, and a part of Zeugma site was submerged with the completion of the Birecik dam. In this case, it is not possible to say that an approach has been followed to preserve the entire Zeugma, which stands out with its mosaics and plays a very important role in the promotion of Turkey's cultural heritage.[1338] Similarly, a part of the Battalgazi walls was partially reconstructed (the implementation resulted poorly), while the majority of the remains were neglected in empty lands within the district, or there are modern buildings on them, or are they are indistinguishable from grass in the river bed. One of the reasons why this reconstruction implementation seems foreign to the area is that the parts of the property that have been implemented and those that have not been implemented are so alien to each other due to lack of maintenance. Therefore, even at the

[1338] "Zeugma Mozaik Müzesi ziyaretçi rekoru kırdı," Sözcü, accessed April 12, 2024, https://www.sozcu.com.tr/zeugma-mozaik-muzesi-ziyaretci-rekoru-kirdi-p39825.

scale of a single area, conservation approaches are not yet holistic, and the entire frontier is not considered as a whole.

The partial reconstruction implementation in Battalgazi is not the only implementation carried out on frontier components with poor results. Partial reconstructions were carried out on many bridges and forts. In some of these implementations, such as Süpürgüç Bridge, the principle of the new implementation being distinguishable from the original material, mentioned in the Venice Charter and supported by many other charters, was followed, thus ensuring that the reconstructed parts were separated from the original parts. However, this time, since the principle of visual integrity was ignored, the newly built parts became dominant, and the structures created the perception of being newly built. In other examples, the original parts and the newly made parts are difficult to distinguish. For example, the parts of the Kızılin Bridge that survived were too many intervened parts; thus, the original parts and the newly built parts are difficult to distinguish from each other. In both types of implementations, there is a problem of visual integrity, as well as the fact that the implementation is not based on reliable sources and was not carried out correctly. In addition, since partial reconstruction practices were applied to the original remains, they both reduced the authenticity of the remains and also became irreversible practices. Moreover, the implementations carried out on bridge abutments such as the Şeyhosel Bridge are applications whose purpose is even more questionable, as they do not contribute to the perception of the whole mass of the bridges. There are also reconstruction implementations in European frontier sections. In Germany, which stands out with the most reconstruction implementations, some watchtower examples were built as replicas in an empty area near the original remains (as in Bendorf watchtower), rather than directly on them (as in Butzbach watchtower). In addition to watchtowers, partial or full reconstructions were carried out in many forts. In these examples, stone materials similar to the original were chosen to replicate the estimated original structure (Saalburg fort), or contemporary (Castellum Hoge Woerd at De Meern) and abstract (Iza fort) applications were also carried out with different materials to create the perception of the original volume. Unfortunately, in the applications carried out on the original remains, there are problems of damaging the original material and restricting the possibility of working on it in the future. However, it is still possible to argue that these applications are more qualified than the applications in Turkey.

Excessive reconstructions are not the only problem threatening the Anatolian frontier. One of the main conservation problems is the dams on the Euphrates and Tigris rivers. Many dams have been built and continue to be built in the region since the 1970s to produce electricity on a national scale and meet the water needs of the region. Although rescue excavations were carried out before the completion of the dams, they could only be carried out in very limited areas, and many of the cultural assets in the surrounding area were submerged without being detected; many villages were evacuated, and the appearance of the region, along with its flora and fauna, changed forever. Another issue is that the Euphrates basin was negatively affected by two environmental disasters that occurred due to cyanide leakage and the landslide of the cyanided mound in the gold mine established close to the Euphrates. Frontier components located in city, district or village centres are under threat of construction, which may be in the form of these structures gradually swallowed by dense urban construction in cities or the use of building members as quarries in villages. The fact that the frontier is mostly in rural areas and that these rural areas are sometimes difficult points where vehicle transportation is not even possible is one of the major obstacles in the identification and protection efforts of the frontier. The struggle against terrorism, which has been going on for many years in the Eastern and Southeastern Anatolia regions, both poses a physical threat to cultural heritage and creates an environment of insecurity for research in the region.

Since the Roman frontier in Anatolia extends over a long geography, its ownership extends to many private and public areas. The problem of multiple ownership may also be a problem in smaller heritage areas that are not as large as the Anatolian frontiers. Although individuals in privately owned heritage sites are obliged not to damage heritage assets or to notify the relevant authorities when they find an artefact on their land, there are few processes in which they are directly involved in protecting cultural heritage in management decisions. In archaeological excavations, expropriation is done before the excavations begin, and excavations can only begin after the land is expropriated. Thus, a centrist attitude is followed, and attempts are made not to leave the initiative of cultural assets to private individuals. However, in the future, it will become clear that it is impossible to expropriate all the lands through which the Anatolian frontier passes. Due to the impossibility of this, the frontier sections in Europe, which are shorter compared to the Anatolian frontier, have not been entirely expropriated. Although Germany has a more public approach than the UK and aims to expropriate more lands in the future to reduce management problems, the frontier sections in Germany are currently

mostly privately owned. In order to ensure integrity among the conservation approaches on the large number of privately owned lands in the UK and to ensure that all stakeholders, whether public or private, participate in the conservation and management process, intermediary institutions that organize and represent stakeholders have been established. For the maintenance and protection of frontiers on private lands, the land owner is made aware and held responsible for the maintenance of the property, and their direct participation in the conservation implementation process is ensured. Direct participation in this way can also serve to tighten the ties between heritage and the local community. In addition to cultural and religious ties, giving importance to local awareness strengthens the ties of the community with heritage in the European frontiers. For this purpose, Roman heritage and frontier education are included in the curriculum starting from young age groups, and additional training and activities are organized by museums. Thematic Roman events or games are organized for other age groups living in the surrounding area, volunteer groups are formed for heritage patrolling or promotion to tourists, and the interaction of the Roman frontier heritage with other cultural and artistic branches is increased through various projects. In addition, reenactment groups that require serious training, organization, costumes, decorations and commitment are formed to convey life during the Roman period, and sometimes Roman place names are given to the names of streets and settlements in the region, keeping the history of the region and its connection with the past alive. In Turkey, due to cultural and religious discontinuity, the community connection with the Greek, Roman and Byzantine heritage is already weak; the majority of the people see themselves close and identify with the Seljuk or Ottoman heritage. When belonging to the Roman period is weak, conservation awareness at the public level is also weak. Moreover, no serious efforts are being made to reveal, promote and embrace this heritage. For example, the Roman period is only briefly included in the history course curriculum in primary and secondary education and is taught only in relevant departments at universities. The issue of heritage conservation also does not find a place in the curriculum at the primary and secondary education levels. However, the relationship of the Roman heritage with the Anatolian lands should be emphasized, and it should not be forgotten that the Roman frontier passing through Anatolia is a part of a larger whole.

CHAPTER 7

CONCLUSION

When considered the Anatolian frontier among all Roman frontiers, its distinctive features come to the fore. Since the Romans had a border policy that changed over time, the frontiers were established in different periods. The eastern frontier in Anatolia is also one of the first frontiers of the Roman Empire, and even the first political arrangements regarding the frontier started in the pre-imperial period. However, the creation of the Anatolian frontier did not occur in a single period, and even after the Euphrates was accepted as the border, it was moved to the further east and retreated during the periods of Trajan and Severus. Through this diachrony, it can be seen that the Anatolian frontier is not a single line with a single period. Furthermore, even during the periods when the Tigris was accepted as a border, unlike the linear frontiers, the Tigris was not a line, and the entire southeastern Anatolia region became a frontier region. Since the Tigris was not a fixed and continuous frontier that did not change, a frontier network was established with the fortresses in the frontier region.

Rome gained power in Anatolia not only through conquests but also through agreements made with local Hellenistic kingdoms and through inheritance. The process of Romanization, which started as the protector of the Anatolian kingdoms, resulted in the Romans becoming the sole power in Anatolia by eliminating all its rivals. Traces of this takeover can also be seen in the Anatolian frontier policy and structures of the Empire. Unlike the European frontiers, the Anatolian frontier was not built from scratch; existing military and civil structures and roads were reused, and strengthened where necessary, or new ones were added. Legionary fortresses were also built in existing large civil cities and were integrated into the previous urban fabric. Thus, the multilayeredness and multiculturalism that existed in Anatolia continued during the Roman period. In the post-Roman periods, Roman defence structures continued to be used with similar functions during the Seljuk and Ottoman periods. It is possible to follow the traces of this multilayeredness in rural communities as well. Local cultures, which were fused with the Greeks before the Romanization process, continued after the decline and fall of the

Roman Empire, and many different cultures settled in Anatolia. Today, this multiculturalism still continues in the region, albeit with different cultures.

The Anatolian frontier is a mixed frontier where the coastal forts on the narrow coast of the Black Sea, in the middle part benefiting from the impassability of the steep rocks on both sides as well as the Euphrates, and the Tigris determines the border in southeastern Anatolia. Since the obstacles in the topography constitute the frontier itself, the Anatolian frontier cannot be considered independent of the landscape in which it is located. The fact that the Parthians and their successor, Sassanians, one of the greatest enemies of Rome, were on the eastern frontier caused the Anatolian frontier to be politically and militarily different. The Anatolian border was initially protected by client kingdoms by creating a buffer region that prevented the Romans from direct contact with the Parthians in the east. After the Romans took direct frontier control, where wars frequently took place alongside the agreements, it was the frontier with the most legionary centres and possibly legionary fortresses compared to its length, with legion centres at Satala, Melitene, Samosata and Zeugma, and in the later period at Trapezus and possibly Hasankeyf and Eğil. Between the legionary fortresses, smaller fortresses, forts and watchtowers were placed. Bridges were not purposely built over the Euphrates, as in the Danube also, geography did not allow this at some points, and crossings were provided with pontoon bridges in the shallow points of the river or bridges built on the branches of the Euphrates. It was possible to build bridges over the Tigris and its branches, which have a shallower bed.

The Roman frontier heritage is very important for Turkey as it is one of the modern countries where Roman frontiers pass. However, despite this importance of this heritage, it is unfortunately not possible to say that its awareness and protection level is high. There are very few studies on the Anatolian frontier compared to the European frontiers, and even the frontier sections in Africa and the Near East are better documented than Anatolia, despite all their disadvantageous situations. The Anatolian frontier is neglected even compared to the other Roman period heritage in Turkey. Roman studies in Turkey have remained at the level of research on the major Roman city centres in the west, and the Anatolian frontier, which is already neglected and located in a difficult geography, has been little studied. As a result, unfortunately, conservation efforts are insufficient. The dams built within the scope of *GAP* endangered the Anatolian frontier and caused some parts of it to be submerged under dam waters. The only positive contribution of the *GAP* in terms of cultural heritage is the rescue excavations started

before the dams were completed and thus the unearthing of some parts of the Anatolian frontier. However, even the centres where rescue excavations were carried out were quickly excavated and documented and had to be abandoned before the dams were completed. The ongoing construction of dams in the region is one of the main problems in terms of protecting the Anatolian frontier heritage.

Another serious conservation problem is that the Anatolian frontier is not considered holistically, both as a system and with the landscape that forms the frontier itself. Excavations and conservation practices, if any, regarding the frontier are on a singular scale. Of course, it is positive that regular excavations on the Anatolian frontier have gained momentum in recent years. As the Roman frontier heritage gained visibility in the world, the number of sections included in UNESCO increased, and two sections were included in the List in 2021. However, among the components that constitute the frontier in Anatolia, Zerzevan Castle and Mithraeum; and the Archaeological Site of Zeugma, Mardin, and Şanlıurfa and Harran (without emphasizing their importance for the frontier) are on the Tentative List as singular places. Therefore, it is not possible to say that the frontier is considered holistically in the efforts to be included in UNESCO. While conservation implementations were applied to some of the components, some remained under the dam, and no protection measures were taken for most of it, which proves that the frontier was neglected. While there is no pattern among conservation practices, the implemented components appear to have been chosen randomly, and the quality of the practices is open to debate. Implementations carried out as partial reconstruction are excessive interventions, and the original characters of the structures cannot be perceived. However, a holistic conservation approach needs to be developed, considering that the Roman frontier is a system consisting of structures of different scales and functions that shaped by taking advantage of topography, and its inseparable ties with the landscape.

Considering the overlap of archaeological sites with different areas in Turkey, urban archaeological, archaeological and urban, archaeological and historical, archaeological-historical-urban protected areas have been defined. However, there is no archaeological-rural protected area definition for the archaeological heritage in rural areas. This creates legal problems for the Anatolian frontier, which is mostly located in rural areas and overlaps with village settlements. In Turkey, there are protective laws for both archaeological sites and landscape elements such as forests, agricultural lands and wetlands, but the integrity of archaeological areas with the landscape is not taken into

account in the laws. Moreover, despite the laws, there are cases where damage is caused to the landscape with special permissions and projects claimed to be carried out for the public benefit by not considering the balance of protection and use. In addition, in the registration process, the archaeological remains and the land on which they are located are registered separately, and these separate registrations can be at different archaeological protected area levels. Additionally, some historical landscape elements may not be included in protected areas. This is an understanding that disrupts the integrity of the site in archaeological sites and prevents holistic conservation approaches. Therefore, a new rural-archaeological protected area definition that prioritizes the integrity of archaeological sites and a related legal regulation can be made.

The Anatolian frontier, like the European frontiers, has a multi-owner land distribution in public and private ownership. In Turkey, areas where archaeological excavations will be carried out are first expropriated. However, it does not seem possible to completely expropriate such a large land on which the frontier spreads. While Germany expropriates as much as possible and tries to put the protection of archaeological sites at a centre-oriented approach, in the UK, there are many privately owned areas, so citizens play a role in protecting the frontier. By adopting a similar understanding in Turkey, local people can be expected to directly contribute to the preservation of the frontier. However, this time, the problem of awareness and belonging arises. Despite the multilayered historical structure of Anatolia, and perhaps because of the confusion and national politics in this diversity, there is a tendency to identify with Seljuk and Ottoman culture rather than Hellenistic and Roman culture. Thus, a different situation emerges in Turkey when compared to the local cultural identification and adoption of the Roman heritage in Europe. There are no awareness-raising activities carried out to protect this heritage, and the Graeco-Roman period finds little place to itself in the education curriculum. Community engagement and public participation in decision-making processes are important in current discussions of the conservation of cultural heritage, but for this, national and local studies on knowing and protecting the Roman heritage should be initiated first.

This study has made contributions in different perspectives. In the thesis, an interdisciplinary study was carried out based on the fields of architecture, conservation of cultural heritage, archaeology, and history. In the light of these different disciplines, a methodological reading of the Roman frontier in Anatolia was made. Thus, the characteristic features of the Anatolian frontier were discussed, which will be discussed

in more detail later. The thesis is based on a precise scientific literature review. The scanned sources are mostly from outside the field of architecture, and the study has contributed to the fields of architecture and architectural history with this detailed scanning and documentation. With the catalogues and maps created as a result of the literature review, the holistic readability of the Anatolian frontier was increased, and a basis was created for subsequent studies. In the thesis, an in-depth and historical discussion of the concept of frontier provided a broad overview. For the protection of archaeological heritage, the development of international conservation charters on archaeological assets and rural landscapes, and the conservation principles or legal gaps of national conservation laws were discussed by considering the archaeological heritage, most of which is located in rural areas, without making an urban/rural distinction. For the holistic protection of the Anatolian frontier for the first time, this study was carried out to draw attention to conservation problems and the current state of the Anatolian frontier heritage.

In future studies, surveys of the Anatolian frontier components can be done, and more detailed inventory and documentation can be prepared. Documenting a heritage spanning a geography of this size requires teamwork so that detailed documentation will be possible. In addition, it will be feasible to address the Anatolian frontier in a versatile and more detailed manner through teamwork with experts from the disciplines of architecture, conservation of cultural heritage, archaeology, history and geography. A digital database similar to the ones made for European frontier sections can be prepared, especially for the Anatolian frontier sections that are under dams and cannot be seen today. Such a database will also be useful for perceiving the Anatolian frontier as a whole. Geographic and spatial analyses regarding the Anatolian frontier can be made by using GIS techniques. Thus, the complex relationships of Anatolian frontier components, frontier strategy, and priorities in location selection, which cannot be understood at first glance, can be revealed. More excavations can be carried out at strategic points to reveal the system of the Anatolian frontier and to understand its topographic solutions in different geographies. In this way, it may be possible to conduct an architectural typology study by revealing more component examples in more numbers and locations. Considering that the Euphrates and Tigris rivers continue in northern Syria, studies can be carried out in cooperation with Syria to explore and fully understand the eastern frontier without being bound to the modern country boundaries. With such international cooperation, the way can be paved for further studies, through special permits, in places

such as the south of Nusaybin, which is located in the Syrian border region of Turkey and is inaccessible. This and future collaborations with the countries where European frontier sections are located will help bring Turkey's Roman frontier heritage to the forefront at the international level. Furthermore, they also contribute to the understanding of Roman frontiers as a whole system spanning different countries. A site management plan to be carried out in a holistic framework can be prepared to protect the Anatolian frontier. Thus, a holistic conservation approach that focuses on the relationship of components with each other and with the place can be achieved instead of partial approaches in conservation implementations.

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