ARCHAEOLOGY OF THE GALATIANS AT ANCYRA FROM THE HELLENISTIC PERIOD THROUGH THE ROMAN ERA

A THESIS SUBMITTED TO
THE GRADUATE SCHOOL OF SOCIAL SCIENCES
OF
THE MIDDLE EAST TECHNICAL UNIVERSITY

BY

DERYA ULUSOY

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR
THE DEGREE OF MASTER OF SCIENCE
IN
DEPARTMENT OF SETTLEMENT ARCHAEOLOGY

JULY 2006

Approval of the Graduate School of Social Sciences

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ABSTRACT

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July 2006, 118 pages

Galatians who entered into Anatolia in about 280 B.C., in order to help the Bithynian king Nicomedes I against his brother Zipoetas, had a significant role in the history of the ancient Asia Minor. Archaeological material that were recovered from different sites such as Gordion, Pessinus and Tavion and fort settlements mostly dating to the late Hellenistic Period are the most important sources that provide information on their presence in Galatia region named after them.

The main purpose of this thesis is to bring together all the archaeological, historical and epigraphical data to present in a coherent way and examine the fort settlements around Ancyra attributed to the Galatians. It both aims to understand the Galatians archaeologically and also by applying new methods such as Visibility Analysis through GIS studies, it hopes to materialize some of the assumptions regarding settlement systems.

In order to achieve these, after a thorough presentation of the archaeological and historical data, the forts surveyed around Ancyra are described individually and then studied as a system with the help of Visibility Analysis. The thesis also confirms the presumed relationship between the location of the forts and the topography as well as identifying criteria for choice of location for ancient settlements.

Key Words: Galatia, Galatians, Geography, Archaeology, Forts, Visibility Analysis

ÖZ

ANKARA'DA HELLENİSTİK DÖNEM'DEN
ROMA DÖNEMİ BOYUNCA VARLIĞINI GÖSTEREN
GALAT ARKEOLOJİSİ

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Temmuz 2006, 118 sayfa

M.Ö. 280 yılında Anadolu'ya Bitinya kralı I. Nicomedes'e kardeşi Zipoetas'a karşı yardım etmek amacıyla giren Galatlar'ın Küçük Asya tarihinde önemli rolleri vardır. Gordion, Pessinus ve Tavion gibi değişik merkezlerden ele geçirilen ve ağırlıkla geç Hellenistik Dönem'e tarihlenen arkeolojik malzeme, onlardan sonra adını alan Galatya bölgesindeki varlıklarıyla ilgili bilgi veren en önemli kaynaklardır.

Bu tezin amacı, tüm arkeolojik, tarihi ve yazılı kaynakları anlamlı bir biçimde sunabilmek amacıyla bir araya getirmek ve Ankara çevresinde yer alan ve Galatlar'a atfedilen kale yerleşimlerini inceleyebilmektir. Galatlar'ı arkeolojik olarak anlayabilmek ve Coğrafi Bilgi Sistemleri kapsamında Görünürlük Analizi gibi yeni metodlar uygulayarak kale yerleşimleri hakkındaki bazı fikirlerin doğruluğunu incelemektir.

Bu amaca ulaşmak için tamamıyla arkeolojik ve tarihi bilgi verildikten sonra Ankara çevresinde yüzey araştırmaları kapsamında incelenen kaleler, tek tek tanıtılmış, ve Görünürlük Analizi yardımıyla bunlar bir sistem olarak çalışılmıştır. Bu tez ayrıca kalelerin tahmin edilen yerleri ve topoğrafya arasındaki ilişkiyi teyit etmekle birlikte bu eski yerleşimlerin yerlerinin seçimindeki kriterleri de tanımlamaktadır.

Anahtar kelimeler: Galatya, Galatlar, Coğrafya, Arkeoloji, Kale, Görünebilirlik Analizi

To My Parents

ACKNOWLEDGMENTS

I am really pleased to have worked with my advisor Asst. Prof. Dr. D. Burcu Erciyas during my thesis. It was great to feel her support, patience, encouragements and hear her precious advice at every stage of my study.

I would like to express my special thanks to Prof. Dr. Vedat Toprak and Asst. Prof. Dr. Geoffrey Summers for their valuable contributions, sharing their ideas and spending their precious time for me. It was wonderful to get advice from Prof. Dr. Vedat Toprak while doing visibility analysis. I would like to thank Asst. Prof. Dr. Geoffrey Summers for taking me on trips and sharing valuable ideas.

Many thanks are for Levent Vardar for his valuable guidance, suggestions, comments that made the continuation of this study.

I also would like to thank Deniz Gerçek, K. Ervin Aydın, N. Pınar Özgüner for spending their precious time teaching me how to use the necessary software which was one of the biggest problems for me.

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CHAPTER 1

1. INTRODUCTION

Turkey, between Asia and Europe, has always had an important place in the history of the region. It was settled by various cultures in different periods of the history. The focus of this study is Central Anatolia which was called 'Galatia' in the Hellenistic Period (in about 280 B.C.) and is located at the center of Turkey. This area was inhabited by the migrant Galatians, or the Tectosages, Trocmi and Tolistobogii, the Galatian tribes, settled in Ancyra, Tavion and Pessinus respectively.

Although not extensively studied, the arrival of the Galatians had a significant impact on the region and cultural history. This study aims to bring together all the archaeological, historical and epigraphical data and re-evaluate them and examine fort settlements that were built around Ancyra mostly dating to the late Hellenistic Period. It is significant to understand archaeology of the Galatians and to question some issues concerning fort settlements with the way of doing Visibility Analysis. The second chapter, is divided into three parts. Firstly, the physical and then the historical geography of the area are explained to define the study area more clearly. The topography of the area with all its features (mountains, rivers, plateau, plants, etc.) are described. The three Galatian tribes (Tectosages, Trocmi and Tolistobogii), their most important centers, such as Gordion, Tavion, Pessinus, their neighbours, administrative system, the boundaries of the region, ancient roads that passed from Ancyra, the hegemony of the Galatian kings are evaluated both in the late Hellenistic and early Roman periods. In the third part of the second chapter, archaeological materials (e.i. inscriptions, coins, gold ornaments, swords, torques, iron objects, lion sculptures, terracotta horse figurines) identified as Galatian with their excavated centers such as Gordion, and Pessinus are described. The artefacts are separated according to where they were recovered. The architecture of the Galatian tombs in important centers such as Karalar, Taşoluk- Hırdışlar, Gordion and other possible

architectural remains discovered at Gordion, and Yalıncak are included. Their religious, economic, administrative life, spread of their hegemony, the geography of Asia Minor, Galatians' relation with their neighbours such as Bithynia, their campaigns and wars are considered through a study of this archaeological material.

In the third chapter, the forts characteristic to Galatians (in the late Hellenistic Period) that were located in Ancyra's districts (Çamlıdere, Kızılcahamam, Beypazarı, Kazan, Güdül, Çubuk, Ayaş, Sincan, Çankaya, Yenimahalle, Keçiören, Gölbaşı, Polatlı, Bala, Haymana) and villages are studied. These forts were selected with the help of L. Vardar who has been doing surveys at Galatia forts for more than ten years. Every fort is described one by one with all their features. The geography (mountains, rivers, etc.) of their locations, their environs, the hills on which they were built are explained in detail. Dimensions, plans of the forts, height of fortifications, whether the forts had two enclosures or not, construction materials, architectural elements such as towers, the architecture around the forts are all included.

Surveys and excavations are undoubtedly most important for approaching these forts however, new technologies also have a lot to offer to the study of settlements. Among these one of the most significant contribution comes from GIS (Geographic Information Systems). In this context, Visibility Analysis is conducted in the fourth chapter in order to acquire more accurate and different sorts of information. In conducting this study, 1:100.000 topographical maps were used to locate the forts in the TNT 6.4 program. Then, all the points with ancient roads and rivers were positioned on SRTM (Shuttle Radar Topography Mission). Global Map software was used to do visibility analysis of forts in 10 and 25km radius'. The boundaries of the visibility areas were decided according to L. Vardar's suggestions. Thus, the geography of the forts' locations, and their environs, the effects of geography to the visibility results, the importance of roads in the location of forts, the probable criteria or criterias for forts' locations, the position of forts according to each other, whether forts could see each other or not, visible percentages of forts, the directions of visibilities, etc. were judged

in detail. Besides, the distances between the forts are calculated with Distance Analysis.

L. Vardar has been the only one who studied Galatian forts so far. Galatian archaeology in general has received attention from very few scholars among whom are S. Mitchell and G. Darbyshire. This thesis is a significant contribution since it brings together all the known studies on the Galatians until today, and attempts to give a new vision with this way. It is hoped that, this study will encourage researchers to focus on Galatian culture more carefully, help understand their position in Anatolian archaeology, and share this with further publications.

CHAPTER 2

2. PHYSICAL AND HISTORICAL GEOGRAPHY AND ARCHAEOLOGY OF GALATIA IN THE CLASSICAL PERIOD

2. 1. Physical Geography

Modern Turkey is located between Europe and Asia. It is surrounded on three sides by the sea: the Aegean, the Black Sea and the Mediterranean. Thrace is the Europen part of Turkey. It is separated from the Asian part, Anatolia, by the Marmara Sea and the Bosphorus. Thrace is bordered by Bulgaria and Greece; Anatolia is bordered by Georgia, Armenia, Iran, Iraq and Syria.

Turkey, in general is a mountainous country with an average elevation over 1100m above sea level (Fig. 1).[1]

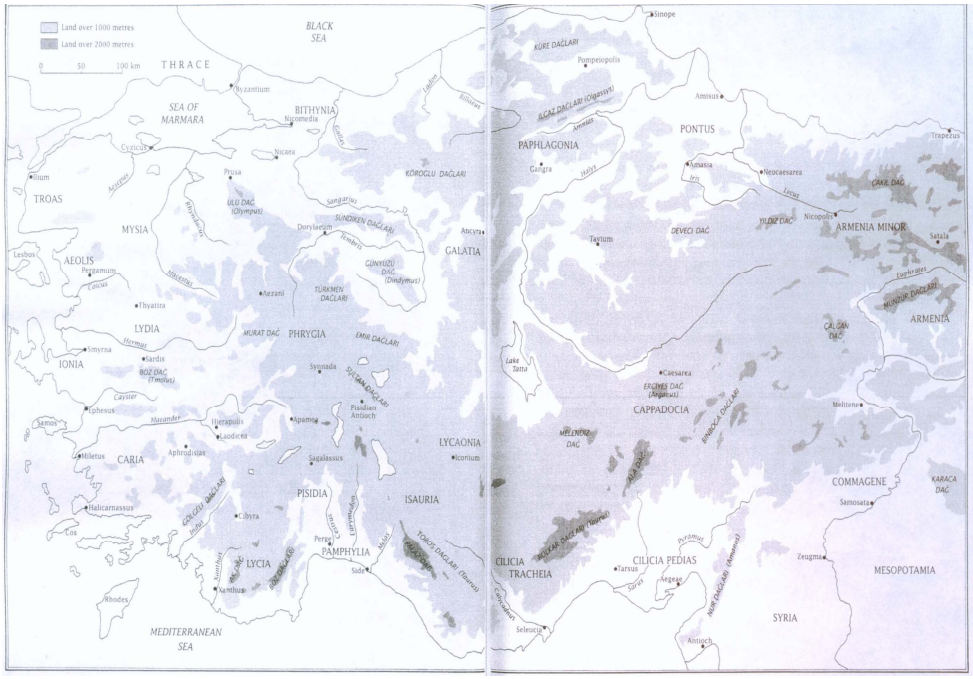

Fig. 1: Geography of Asia Minor (Mitchell 1993, Map 2)

[1] Yaras 1997,8.

Coastland and interior of Anatolia are not clearly divided, but it is separated by gradual zones of transition.[2] The North Anatolian mountain chains and the Taurus Mountains in the south form parallel borders to the Black Sea and the Mediterranean.[3] The Pontic mountain chains and the Taurus might be seen as barriers between the sea and the Central area. On the contrary, the boundaries to the east and west cannot be precisely drawn. In the west, the land rises from the Aegean. The boundary between the Mediterranean zone and the continental interior is not regular. Some of the major rivers such as Menderes allow a Mediterranean style of cultivation through the interior. The mountainous country that separates them takes the inner Anatolia close to the coast.[4]

The area in Central Anatolia between Sangarios (the modern Sakarya) and Halys (the modern Kızılırmak) Rivers (today the region includes Upper Sangarios) and some parts of Middle Halys (Fig. 2-3)) was the land of the Galatians.

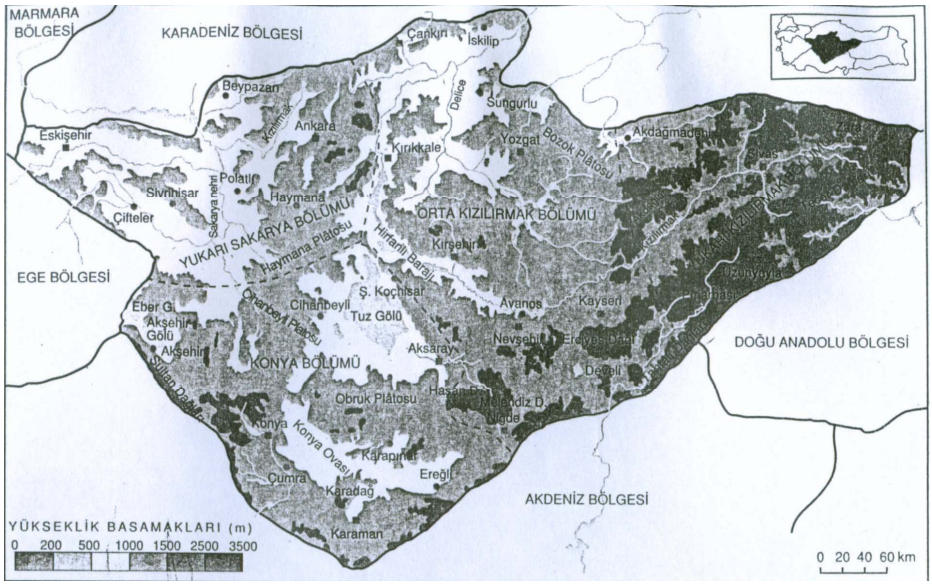

Fig 2: Physical map of Central Anatolia (Atalay & Mortan 1997, 350)

[2] Mitchell 1993,7.

[3] Yaras 1997,8.

[4] Mitchell 1993,7.

[5] Strabo XII.4.10; Plin. Nat. V.41.145; V.42.146.

[6] Vogelmann 1975,666.

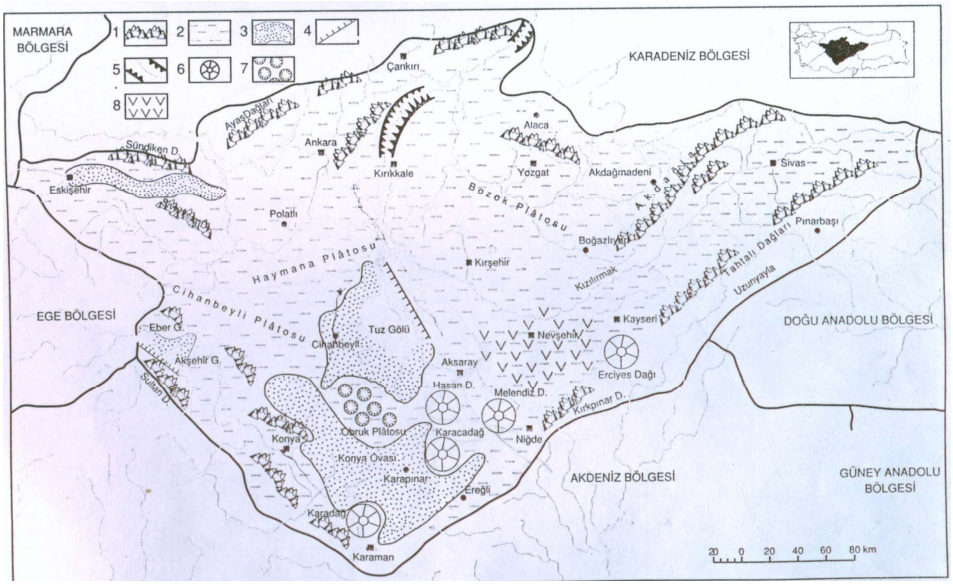

Fig. 3: Morphology map of Central Anatolia (Atalay & Mortan 1997, 350)

The region was surrounded by Phrygia Epictetus to the west; Bithynia to the north-west; Paphlagonia to the north; Pontus to the north-east; Lycaonia and Pisidia to the south-east; Cappadocia to the east. (Fig. 4).[5] The region is approximately 350 km in length and 160 km in width.[6]

Salt Lake called as 'Tatta' in ancient times, is the only lake in the region. The wide plains and plateaus are suitable for wheat and barley cultivation.[7] North of Galatia is fertile, well-watered and forested. The plaetau toward the south is inhospitable.[8] While going along steppes and high plateaus, mountains can be encountered. Thus, Galatia region does not have a different topographic characteristic than the other regions of Asia Minor.[9]

[7] Arslan 2000,61.

[8] Kuniholm 1971,8.

[9] Arslan 2000,61.

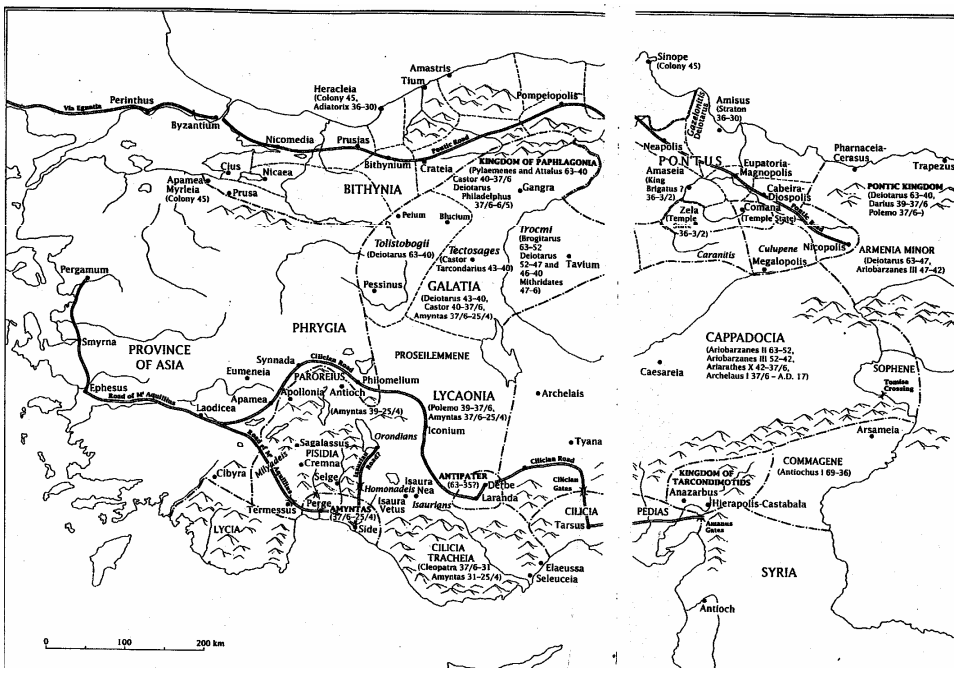

Fig. 4: Roman provinces of Anatolia in the first century B.C. (Mitchell 1993, Map 3)

Central Anatolia has a terrestrial climate with cold winters and hot and arid summers. Flora is shaped according to the climate. Central Anatolia belongs to the Irano-Turanian flora region, so plants are mostly in steppe characteristics.[10] The upper boundary of steppe reach to 1200 m towards the south. Steppe is seen between 1000-1200 metres. Oak-tree and Austrian pine are frequent in higher places of the region.[11]

Upper Sangarios is the north-western part of Central Anatolia. It includes the province of Eskişehir and extends into northern Konya and western Ancyra. The upper drainage basin of the Sangarios river is located here. The broad plains of the Sangarios and its tributary, the Porsuk, are seperated by rolling uplands. They reach to the highest part at the peaks of Sivrihisar and Sündiken ranges. Köroğlu mountains constitute the northern boundary of the region. The plains are cultivated for cereals and sugar-beet. Wide areas of pasture are suitable for animal

[10] Cic. Flacc. XXV.51; Jones 1971,112; Atalay & Mortan 1997,363-364.

[11] Atalay & Mortan 1997,362.

husbandary, especially sheep.[12] While Yazılıkaya (Bayat) Plateau is located at the western part of the district between Afyon and Eskişehir, Haymana Plateau extends between Sangarios and Halys rivers.[13]

Broad open plains with a lower land use extend from the Sangarios towards Ankara and Konya.[14] The capital Ankara is located on the south side of the Ankara river (Bent, İncesu and Çubuk streams form Ankara river) near the confluence of the Çubuk.[15] The floor of the valley is about 1000m wide, flat and badly drained. The hills rise above it at first and then more steeply far from the confluence.[16]

Çubuk Plain is situated at the northern part of Ankara. It is a suitable area for cultivation.[17]

Some 50km west of Ankara a number of mountains, containing the Ayaş and Elmadağ ranges extend southward from the Köroğlu mountains. The Ankara river flows from east to west across this area. It reaches its tributaries from the mountains to the north. This zone is mostly the settled part of Ankara province. Agriculture is widely varied with some areas of fruit, vegetables, etc.

When it comes to Middle Halys, at the east of the Salt Lake, a fault line scarp about 300m (1000 feet) high separates the lake flats from the Koçhisar uplands, that run for 150km (90 miles) from northwest to southeast and in the volcanic mountains such as Hasan (3253m/10.670 feet) and Melendiz (2935m/9627 feet). This upland forms the watershed between the inner drainage basins and the basin of the Upper Halys. Also, it causes the continuation of the same line through a northerly direction by passing east of Ankara and west of Çankırı. Thus, the Middle Halys, is separated from the Upper Sangarios. A big part of Central

[12] Dewdney 1971,187.

[13] Atalay & Mortan 1997,386.

[14] Dewdney 1971,189.

[15] Dewdney 1971,190; Atalay & Mortan 1997,388.

[16] Dewdney 1971,190.

[17] Atalay & Mortan 1997,388.

Anatolia to the east of this division lies in the catchment of the Halys, that follows a horseshoe-shaped line of more than 700km (420 miles) before it breaks through the Pontic ranges in the province of Çorum.[18] Bozok Plaetau is located at the bend of Halys.[19]

Beyond Kayseri, the Halys continues its way through north-west and then north in order to pass 50km (30 miles) east of Ankara at Kırıkkale. The valley is fairly wide and the plains are more open in this area. Agriculture is restricted to extensive cereal and livestock production. Big hydro-electric plant was constructed at Hirfanlı and Kesikköprü at 70km (43 miles) south of Kırıkkale. They are linked by high-voltage transmission lines to the Marmara, Black Sea, Aegean regions and cities such as Ankara, Konya and Kayseri.

The Halys continues its way through north-east and passes an upland basin together with the valley of the Delice at the north of Kırıkkale. It has better characteristics for agriculture.[20]

2. 2. Historical Geography

Under the Persian domination and in the Hellenistic Period there were two famous overland routes: *the royal road* from Sardis to Susa (Fig. 5) and the **'***koine hodos'*, the common highway, that followed a more southerly line from Ephesus to the river Euphrates and beyond.[21]

The roads maintained their importance in the Roman times. The roads that passed from the ancient city of Ancyra (Fig. 6) were:

1. The road towards Juliopolis (today, it is the main road that goes to Emir Yunus ruins). Milestones of this road were found at Emir Yaman Irkaksı stream and Bayram village.

[18] Dewdney 1971,194.

[19] Atalay & Mortan 1997,356.

[20] Dewdney 1971,189-195,196.

[21] Herodotus 5.52-53; Strabo XIV.2.29

2. The road that goes to Pessinus (today it is in the north of Balahisar) and Şar Höyük that is on the north of Eskişehir. Milestones were found in Alaca Altı, Balık Koyuncu Mülk.

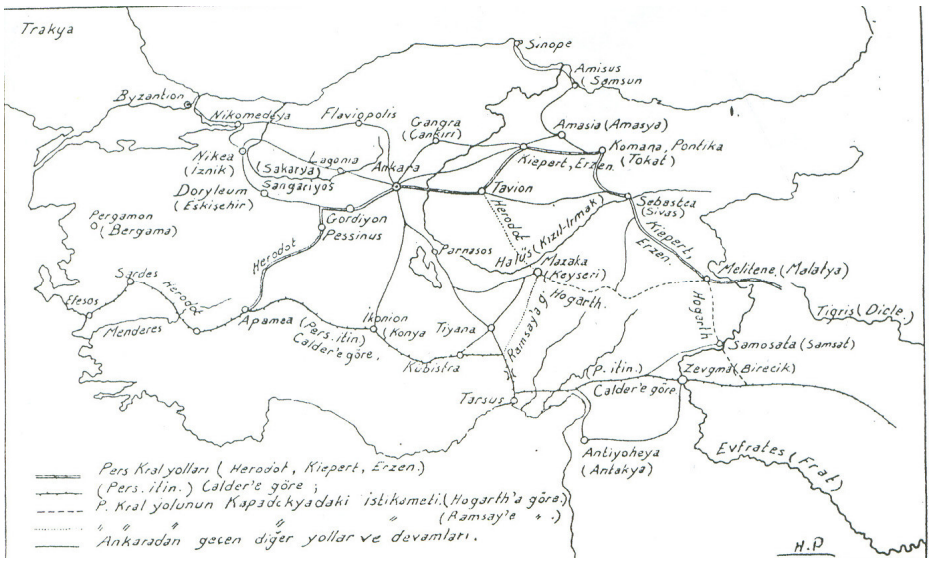

Fig. 5: The royal road from Sardis to Susa (Erzen 1946, Map II)

3. The road in the east that runs through Parnassus (today, Parlasan). Also this main road is the continuation of number 1. Milestones were found around Çamlıkaya, Örencik, Çalthöyük, Karalı, Avşar, Şeidhöyük and Parnassus.

4. The road that goes through Tavion (today, Büyüknefes Köy). Milestones were found in Ortaköy and Tavion.

5. The road that goes to K. Flaviopolis. Milestones were found around Ancyra.

6. The road that goes to the south, Ikonion (today, Konya). Milestones were found around Çalthöyük and Konya.

7. The road that goes towards north-east to Amasya. Milestones were found around Kalecik.

8. The road that goes towards north-east to Gangra (today, Çankırı). Milestones were found around Iravlı, Topoğlu farm, Elecik Şemseddin and Martköy.[22]

[22] Erzen 1946, 31-32

After 275 B.C. three Celtic tribes –the Tolistobogii, the Tectosages and the Trocmi- settled in Galatia.The boundaries of the area where these tribes occupied is not clear. The boundaries between the three Galatian tribes and their neighbours changed over time.

According to Strabo, the Trocmi settled at the eastern part of Galatia, near Pontus and Cappadocia in the middle of the first century B.C. Tavion, Mithridatium and Posdala (according to Strabo it was called 'Danala') were their three fortified points. Tavion (Büyük Nefes Köy) was located to the west of Yozgat.[23] According to literary and archaeological sources originally it was not a Celtic foundation. Tavion was a trade center in the region. Moreover, Zeus' great bronze statue and shrine were constructed there. Pompey took Mithridatium and gave it to Brogitarus. Danala or Posdala was the place where Pompey and Lucullus gave their speeches.[24]

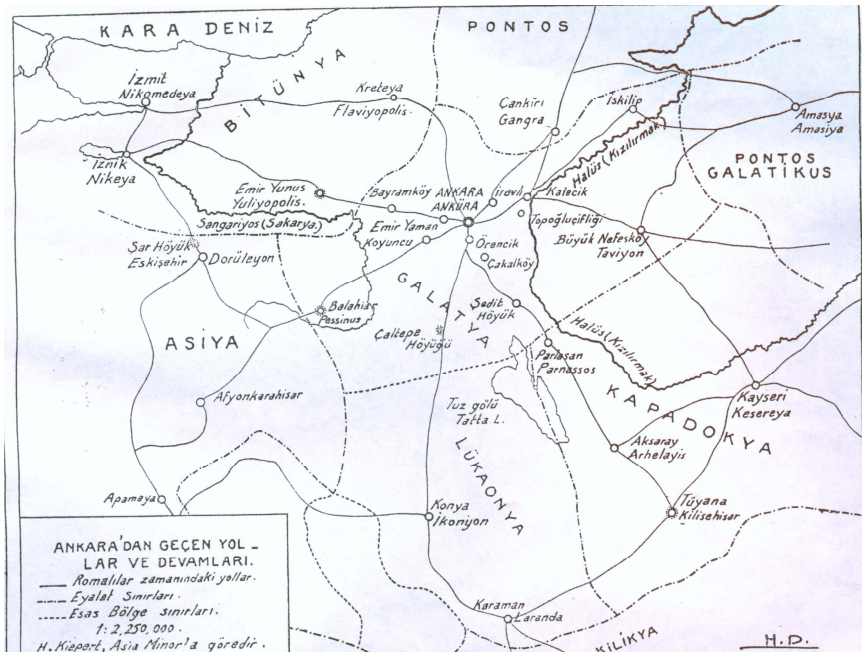

Fig. 6: Roman roads that passed from Ancyra (Erzen 1946, Map III)

[23] Mitchell 1993,51; Darbyshire, Mitchell, Vardar 2000,79; Strabo XII.5.2.

[24] Strabo XII.5.2.

River Halys was the western boundary of Tavion in the Roman Period.[25] The Trocmi were outside of their own region all the time during Manlius Vulso's campaign.[26] They joined the Tolistobogii in the west part of Galatia at Mount Olympus. They kept their women and children on Mount Magaba where the Tectosages territory was located to the east of Ancyra. In the second century B.C., they were unsuccessful in annexing land from Ariarathes of Cappadocia.[27]

According to Strabo, the Tectosages' territory adjoined Great Phrygia around the temple-state of Pessinus and the Orcaorci.[28] The Orcaorci were settled in the south and east of the Sangarios region.[29] Ancyra was their fortified stronghold. The area of Tectosages extended from the Halys to the Sangarios, at the southern border of Galatia.The Tectosages extended their territory to the south into Proseilemmene. It was the added land and consisted parts of Lycaonia.

The Tolistobogii landed in northern and western Galatia. The area extended west across the Sangarios, on either side of the Tembris river (modern name is Porsuk), to Phrygia Epictetus; their southern lands probably included or bordered Çile Dağı at some time. At the north, their territory stretched towards Bithynia and Paphlagonia.

Gordion was an important emporium in the area. It was also the royal residence of Castor.[30] The classical writers indicate that Gordion and Tavion were located at the intersection of main trans-regional routeway and engaged in inter-regional trade.

Pessinus was located within the band of the Sangarios at Ballıhisar. The head priests that were in (Great Mother) the Cybele Temple in Pessinus were dependent on the Pergamene Kingdom. Members of the Tolistobogian aristocratic family

[25] Darbyshire, Mitchell, Vardar 2000,79.

[26] Livy 38.19.I; 26.3.

[27] Mitchell 1993,51.

[28] Darbyshire, Mitchell, Vardar 2000,7; Strabo XII.5.1.

[29] Mitchell 1993,54.

[30] Darbyshire, Mitchell, Vardar 2000,79-88.

leaders became priests in Pessinus as early as the 3rd century B.C. Then, the Romans began to have profound influence on the priests of Pessinus at the end of the second century B.C. According to Strabo it was also the biggest emporium in that part of the world.[31]

Strabo also refers to the country of Gaezatorix who was a Galatian noble. It was located at western Paphlagonia, in the upper valley of the Siberis (the modern Kirmir Çayı) river. Galatian territory was even larger after 63 B.C. following the defeat of Mithridates VI of Pontus by Pompey. The Galatian rulers were rewarded after their military duties. Deiotarus (tetrarch of the Tolistobogii) took the lands of Pontus and (later at least) Armenia Minor; Brogitarus (tetrarch of the Trocmi) was given Mithridatium (a fortress in Pontus). Both were Galatian kings. The third Galatian king Amyntas gained the control of Pisidia, Lycaonia, Galatia, Phrygia Paroreius, and part of Pamphylia.[32]

After the death of the Galatian king Amyntas, Augustus included the Galatian kingdom into the Roman boundaries and established the 'Galatian Province' in this area.[33] M. Lollius was the inaugural governor of province Galatia. He probably had responsibility in the first years of transforming Ancyra into an urban center for the Galatian Tectosages: establishment of a suitable territorium, a political constitution and infrastructure.[34]

It seems that while Augustus was establishing provincial administration in Ancyra, he was also considering to transform the tetrarchy system of Galatia into an urban system. Drynmeton, the religious Galatian council, was transformed into a new religious council called *'koinon'*. At these times, worship of Augustus and Roma were established.[35] Ancyra, Tavion and Pessinus were called Sebaste (Augusta), people who were living in these centers were named as Sebastanes

[31] Arslan 2004,23; Strabo XII.5.2.

[32] Darbyshire, Mitchell, Vardar 2000,79.

[33] Erzen 1946,52; Mitchell 1993, 62.

[34] Bosch 1967,35; Mitchell 1993, 88.

[35] Magie 1950,459.

(Augustani).[36] The council was began to be seen as the 'Galatian council' or the 'Galatian council who supported Augustus'.[37]

Augustus Temple's construction began during the reign of Augustus and was completed during the reign of Tiberius in about 19/20 A.D. [38] Augustus' achievements were carved on its walls both in Greek and Latin language. The supervision of the cult was given to a 'Commonality of the Galatians'.[39]

Archiereus was the headpriest and manager of the koinon. *Sebastephontes*, *Hierophantes*, and *Galatarches* were the other constant members of the council administration. These priests were chosen by the Galatians who accepted Roman citizenship and were aristocrat and rich. At least, they were chosen by the governor of province with the name of the Roman king. One person couldn't be headpriest more than three times. Having the fame of *Galatarches* was very attractive to young people who were dreaming to gain upper status of the priesthood.[40]

It is clear that Ancyra was the main location for the koinon of the Galatians. Tiberius probably established the organization and the imperial cult and its associated festivals were continued. The latter included the *archiereus* in substantial and lavish expenditure mainly on benefactions that were not long. e.i. public shows and banquets and donations of olive oil and grain to the populace. The Galatian koinon changed this method of largesse with the *megala Augusteia Actia*. It was directed by a chosen or nominated *agonothotes*. At least two further *agones* were seen in later years. The first was the *agonesmystikoi* which was an artistic festival dedicated to Hadrian. The other was *megala Isopythia Asclepieia*

[36] Mitchell 1993,113; Bosch 1967, 53(nr 56), 90(nr 92), 288(nr 225).

[37] Arslan 1990,68; Bosch 1967,53,288; Mitchell 1993,113.

[38] Halfmann 1986,35; Mitchell 1993,103.

[39] Magie 1950,459.

[40] Ramsay 1922,155; Mitchell 1993,122.

Sotereia (Antoneineia). It was probably established during the reign of Caracalla on the initiative of Titus Flavius Gaianus.[41]

How many members koinon had is not clearly known. The registration on an inscription dated to 102 B.C., found near Arslan Mosque, indicates 92 priests including Archieros, Sebastephotes and Hierophantes.[42]

The Galatian province was administrated by a proconsul named *Legatus Propraetore* or Roman governors who had the rank of *propraetore.*[43]

Duties of the governors who were the representatives of the Roman king, were judical and military. Governor of province was living in *palation* with consultative committee (*cosilium*) and other people. City directors controlled all works except judical and military duties. They consulted the governor when they couldn't handle some of the problems such as starvation.[44]

The tetrarchy system of the Galatians did not change when Ancyra had the status of a province.[45] It was the city of the Tectosages. The Tectosages were involved in the administration of the city. While the Roman administration was deciding on the boundary of the province of Ancyra (territorium), it tried to maintain the ethnic structure of the tetrarchy system. Ancyra was surrounded by Sangarios in the south-west; Halys in the east; Gangra in the north; and Salt Lake in the south.[46]

When it comes to Ancyra's political constitution, the inscriptions indicate that it was based on the Hellenic model with a *demos.*[47] *Demos* was formed from among its free-born citizens. The people were divided in terms of geographical grounds

[41] Bennett 2003,4.

[42] Erzen 1946,68; Bosch 1967,94.

[43] Sherk 1980,954.

[44] Bosch 1967,369-371; Mitchell 1993,65.

[45] Bosch 1967,35.

[46] Arslan 1990,168; Erzen 1946,73; Mitchell 1993,88.

[47] Bosch 1967,no. 72; Mitchell 1982,no. 178.

into 12 *phylai* for administrative purposes. There were six initiatory *phylai,* the Maururagene, II Pakalenle, III Menorizeiton, IV Hiermene, V Dios Trapezon and VI Sebaste; than two more were added under Claudius, the VII(?)-mene and VIII Claudia Athenaea; another two under Nerva, the IX Hiera Bulaia and the X Nerva; and then, probably under Hadrian, a final two were formed, the XII Nea Olympias and XII Dios Taeron. If this sequence really shows the real situation, Ancyra must have increased its population between its foundation and during the reign of Hadrian. Some of the phylai were renamed for some reasons.[48] Every *phyla*i had a number and these numbers indicated the proximity of the fort (that was the oldest settlement) to them. 12th phylai was the farthest one. IVth phylai was established by Augustus in order to service to Goddess Roma and Augustus Temple.[49] Each phylai was headed by an elected *phylarchon*. Phylarchon didn't have to be a Roman citizen. Also, an elected astynomos was responsible for keeping the streets and sewers in his ward (region).

Boule was the principle administrative organ of the Roman Ancyra. It had at least 500 *bouleutai*.[50] While the *bouleutai* in the Hellenic poleis were elected by the phylai, they were elected from a strict social class in Ancyra. This can be demonstrated by the *boulographoi*. The censors listed those citizens who qualified for the boule by property. This situation indicates that the government of Ancyra was firmly dependant on the wealthy citizens.

An *archon* was the chairman of Ancyra boule. Probably, he was elected annualy. The executive arm was also elected on an annual basis. Inscriptions show that there were three regular junior magistracies: the *agoranomo***s**, the *boulographos*, the *einearchon*. These men were rewarded with Roman citizenship during the reigns of the first four Julio-Claudian princepes. The *tamiai*, an *ekdikos* and a *gymnasiarchon* were some of the other magistracies in Ancyra.[51]

[48] Bennett 2003,4.

[49] Erzen 1946,54; Mitchell 1977,80.

[50] Bosch 1967,no. 72.

[51] Bennett 2003,4.

Thus, Galatia had a significant role in the historical geography of Asia Minor. It was located at the center of Anatolia, between Sangarius and Halys rivers. It is not a very mountainous country. When Ancyra was made the capital of Galatia, the region continued to prosper and expanded its importance. Ancyra was located on the main trans-regional routeways. Bithynia, Pergamene Kingdom, Pontus which were neighbours of Galatia, wanted to take the control of the area, but they couldn't. The region was administrated with tetrarchy system in the Hellenistic Period. Ancyra, Pessinus and Tavion were the important centers in this period. The land of Galatia was extended during the reign of the Galatian kings in the Hellenistic and early Roman Periods. Pisidia, Lycaonia, Phrygia Paroreius and part of Pamphylia were included in the land of Galatia. When the area was extended, it was remodelled in terms of administration according to the Roman system. Galatians who settled in Galatia in the Hellenistic Period, had the rights in the administration with the Roman people. At this time, people who were living in Galatia were not only influenced by the administrative system of the Romans, but also they began a new life and got accustomed with their traditions and customs.

2. 3. Archaeology of Galatia

Ancyra, Pessinus, Tavion, Gordion and Hattusha are some of the significant centers that were settled in the Hellenistic and the early Roman Periods. The archaeological material dating to these periods is recovered mostly from these centers in Central Anatolia. However, the archaeological material is very scarce due to the lack of surveys or excavations in these areas. The artifacts from these centers can be grouped as architectural remains, burials, small finds, coins, inscriptions and forts as settlements.

2. 3. a. Architectural Remains

University of Pennsylvania Museum under the direction of Rodney S. Young excavated Gordion for 16 seasons between 1950 and 1973. In 1988 a new cycle of excavations began under the direction of Mary M. Voight and G. Kenneth Sams. Their main aim has been to record a detailed stratigraphic sequence for all periods of occupation on the Citadel Mound and understand the life of the people.

The information about YHSS (Yassıhöyük) 3A occupation levels from the Northwest Quadrant of the Citadel Mound in Gordion can now be assessed with historical information in the 3rd and 2nd century B.C. of Anatolia. According to this, the belief that the Hellenistic (Galatian) settlement in Gordion was previously a short-term and relatively primitive community (usually seen as a 'village') had to be revised. The earliest Galatians in Gordion constructed a stone-walled, tile roofed public building. It was enclosed/protected by a strong stone wall. The date of their arrival in the area is not clearly understood. It may have been after the Tectosages began to raid Central Anatolia in 270s B.C.

Secondly, there are two abandonments in the YHSS (Yassıhöyük) 3A settlement at Gordion (Fig. 7). At least some parts of the initial settlement (e.i. within the Northwest Quadrant) was abandoned for unknown years. Then, probably the Northwest Quadrant buildings were remodelled at the end of the 3rd century B.C.

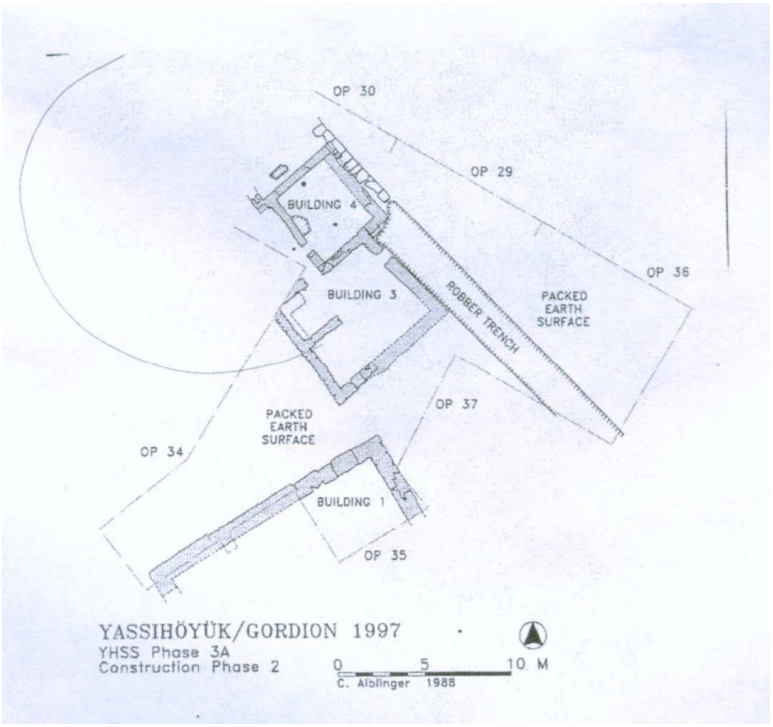

Fig. 7: Late Hellenistic/YHSS 3A structures in the northwest quadrant, Construction Phase I (Sams & Voigt 1998, 568)

This occupation phase (Construction phase 2) ended due to a fire in Building 1 and probable looting of Building 4. According to the ceramic sequence for YHSS (Yassıhöyük) 3A, the end of the Construction Phase 2 correlates with the arrival of the Roman army in 189 B.C.[52] Thus, Gordion was not abandoned between 189 B.C. and in Augustan times. Years later but still in the Hellenistic Period, a new structure was built on the Citadel Mound. The size of the settlement was probably reduced. Although large areas were cleared on the Citadel Mound by Rodney Young, this mid-2nd-century occupation has not been previously recognized.[53]

Yalıncak near Ancyra, is the second excavation center that has architectural remains from the Hellenistic Period. It was excavated between 1962 and 1964 under the direction of Burhan Tezcan (Fig. 8).[54] Rectangular buildings with stone footings were recovered during these excavations.

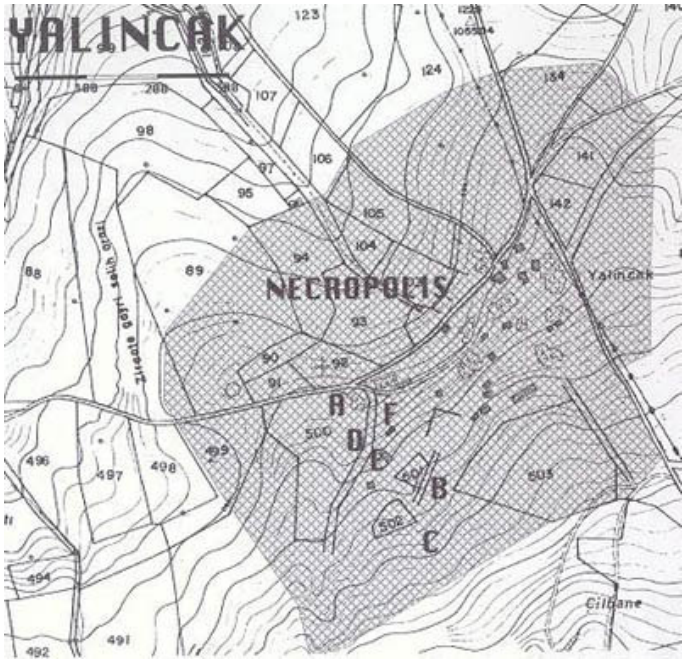

Fig. 8: Yalıncak excavation area
http://www.metu.edu.tr/home/wwwmuze/yalıncak.html)

[52] Livy 38.12.2-4.

[53] Sams & Voight 1998,559-564.

[54] Darbyshire, Mitchell,Vardar 2000,88.

Architectural remains including building materials such as stone from Yalıncak and Gordion excavations have similar features with the Hellenistic and the Roman periods in Anatolia. This might suggest that people who were living in these centers influenced each other.

2. 3. b. Burials

Stone chambered tombs, stone cist graves, burials of children in jars etc. are the known grave types in Galatia.[55]

Stone chambered tombs beneath earthen tumuli are interesting due to their architecture in this category. In general, the quadrangular-plan chambers are built by using large ashlar blocks. They were shaped and fitted together without the use of mortar. In at least one case (for example at Karalar Tomb C) iron clamps were used to hold the blocks together more safely. The chambers had one door.

In Galatia, nine examples of such a grave type are known three from Karalar (excavated by R. O. Arık in 1933), two from Taşoluk-Hırdışlar (ca. 8km. south of Bolu), two from Gordion, two near Eskişehir, at Iğdır (excavated by Dündar Tokgöz in 1974) and Yalacık (located in Ankara and excavated in 1989 by Doğu Mermerci and Remzi Yağcı). Also, an unpublished tomb at Çimşit near Karalar is dated to later Hellenistic or Roman Periods.

These tombs can be divided into three basic types according to their roof construction. The first type has a corbelled roof. Some of these tombs have an *antechambe*r and/or *dromos* (Karalar Tomb C, one of those at Gordion, Iğdır, Yalacık). The second type has a peaked roof and a *dromos* (Karalar Tomb B and the east tumulus at Taşoluk-Hırdışlar). The third type has a barrel-vaulted roof and a *dromos* (Karalar Tomb A). Majority of these tombs were robbed before academic investigation, so details of the arrangement of the corpses and the grave goods are uncertain.[56]

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[55] Darbyshire, Mitchell,Vardar 2000,85-86.

[56] Darbyshire, Mitchell, Vardar 2000,85-86; Arık 1934,102-167; Yağcı & Mermerci 1990,163-176; Tokgöz 1975,151-157.

Rock-cut tombs were encountered in the necropolis of Tavion. Stone cist graves and pithos burials as well as earthenware coffins were recovered in all eastern Trocmian Galatia (at Tavion and its environs). The stone cist graves were partly covered with earth to form small tumuli.[57]

In Boğazköy, that is in the Trocmian territory, similar types of burials are known from a Hellenistic cemetery: extended inhumations in stone cist graves (some of them probably under small tumuli) and interments of children in jars.The graves have been dated to the first century B.C.[58]

2. 3. c. Small Finds

Lion sculptures, jars, pottery, vessels, human and animal bones, pyramidal and oval loomweights, etc. were recovered from some of the architectural remains in Gordion/YHSS (Yassıhöyük) 3A.

It has been suggested that deposits of human and animal bones might be the remains of Celtic rituals including human and animal sacrifice and decapitation in Gordion.[59] The skeletal assemblage (YH 35741) (Fig. 9) indicates arrangement of both human and animal bones.[60]

The position of human cranium with the first two vertabrae in anatomical position can be considered a sign of decapitation. The vertabrae were also damaged. The head might have been cut off. According to the archaeological context as well as physical examination, it seems that the adolescent was decapitated. The human remains have been carefully arranged with the dog skeleton. Terracotta horse figurines from Ulus (located in Ankara and excavated in 1995 under direction of İlhan Temizsoy)[61] and Yalıncak[62] (Fig. 10) excavations, were recovered.

[57] Strobel 2002,19-20.

[58] Darbyshire, Mitchell, Vardar 2000,57; Bittel 1969, 35-49.

[59] Dandoy, Selinsky, Voigt 2002,46.

[60] Kealhofer 2005,117,118,122.

[61] Temizsoy 1996, 15.

[62] Tezcan 1964,6-7.

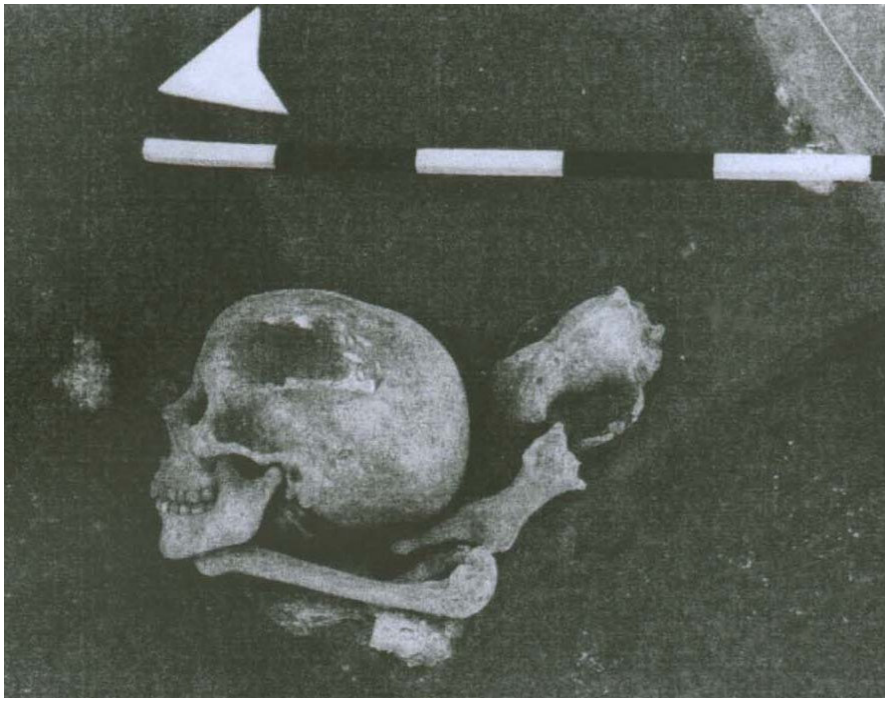

Fig. 9: Skeletal assemblage at Gordion (Kealhofer 2005, 122)

Fig. 10: Terracotta horse figurines recovered from Yalıncak excavations (http://www.metu.edu.tr/home/wwwmuze/yalıncak.html)

Large numbers of horse figurines, lion sculptures, pottery might indicate that there were workshops in these centers. Besides, pottery, human and animal bones show that these places were inhabited. Locally manufactured pottery gives a better chronology in the Hellenistic Period including changing settlement patterns in Gordion. The reason for their human and animal sacrifice is not known clearly. It might be a traditional Celtic custom for these people who were living here at this time.

Torques, swords, iron objects, coins, gold ornaments, fibula etc. are among the grave goods that were gathered from excavation areas in Karalar, Taşoluk-Hırdışlar, Boğazköy, Pessinus, etc. For instance, in Karalar the corbelled tomb yielded fragments of a gold torc, set with precious stones; the barrel vaulted chamber, perhaps a woman's grave, a golden necklace set with stones, a gold floral diadem, and a bronze fibula; the tomb of Deiotarus itself included a porphyry offering table, a glass vase with gold ornament, and pieces of purple cloth, as well as the remains of a sculptured lion and trophy outside. The Celtic torc may show that this royal cemetery was Galatian.[63]

Architecture of stone chambered tombs and their valuable artifacts such as gold, fibula, etc. indicates that representation of health was important in the Hellenistic and the Roman periods. This type of graves and their artefacts might have belonged to the elite and they must have valued high quality metalwork. It is not clear why people put these valuable materials in graves. It might be a sign of respect to their dead or to show their importance. Maybe, people who had lower status were buried with less valuable things. Now, there is no evidence to prove this.

A similar example is seen at Taşoluk & Hırdışlar (about 8 km south of Bolu) (Fig. 11). Here, various burial gifts were found in the grave. A gold buckle with relief, two torques (one of straight, the other of twisted gold wire), a pair of gold bracelets that terminate in dogs' heads, a pair of earrings (or finger rings) that was

[63] Mitchell 1993,57; Arık 1934, 102-67; Fıratlı 1965, 365-367;Bittel 1969,36-37; Devreker, Thoen, Vermeulen 2003, 391.

made of gold wire, a smaller patera with leaf ornaments and ampholos, a silver Megarian bowl with relief decoration, a bronze horse bit and some iron objects were recovered from one of the burials.[64]

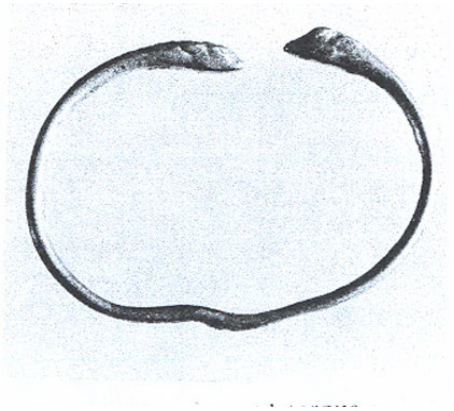

Fig. 11: Gold jewellery from Bolu (Fıratlı 1965, Pl. 93)

Finds from Gordion and the Galatian chamber tomb A at Karalar[65] prove that Anatolian style fibulae continued to be used through the Later Hellenistic Period.

In Boğazköy some burials with weapons (sword, scabbard, spearhead) have similarities with 'warrior burials' in many parts of La Tene Europe.[66] Galatians may have carried their metal craftsmanship skills with them as they moved to Anatolia.

A coin that belongs to the Galatian king Deiotaros was recovered from one of the burials in Pessinus.[67]

Absence of a well-characterized ceramic framework (recovered from excavations) that might give a chronology for sites in the area in Hellenistic, Roman and Byzantine times is an important problem. A few of the pottery can be attributed to one or other of these periods. But, it is not possible to make finer chronological

[64] Fıratlı 1965,366.

[65] Arık 1934, tablet 9.

[66] Darbyshire, Mitchell, Vardar 2000,57; Bittel 1969,35-49.

[67] Devreker 1994,106.

subdivisions. For instance, Megarian bowls, black-glazed wares and fine red-slipped wares can be dated to the 3rd-1st centuries B.C.

2. 3. d. Coins and Inscriptions

Coins and inscriptions had an important role in people's life. They are the signs of communication between cultures. They give information about economy, political history, cultural, religious life of people in ancient times. Coins dated to the reigns of the Galatian kings Deiotarus, Brogitarus and Amyntas provide information about the spread of the Galatians in the Hellenistic and early Roman periods.

In the Hellenistic Period, Deiotarus, who was a Galatian king, minted many types of bronze coins. It is not yet known whether he also minted silver coins. In terms of bronze coins, only four types are known. King Deiotarus' name can be seen only on one of the bronze coins. The others had only monograms (Also, see BMC 20, 1, no 1; SNG von Aulock, no 6099-6101; SNG France 3, no. 2332).

Brogitarus who was the king of the Trocmi minted silver tetradrahmi in about 50 B.C. Brogitarus' silver coin that is unique in the numismatic world is exhibited in Paris (Also see BMC 20,p. XVII; SNG France 3, no.2336).

Amyntas who was the last Galatian king minted silver[68] and bronze coins.[69] All the silver coins were produced from only six front and thirty-three back face molds. One front mold was the same with Side coin and indicates that Side was the place where Amyntas minted his silver coins (Fig. 12). Side's latest coins might have been minted during or before his reign. Half of the back molds carry letters 'IB'. This is a sign of Amyntas' 12th administration year or 26/25 B.C. (Also see BMC 20,2 no. 1-7; SNG cop. No. 94; SNG von Aulock ; no. 6104-05;SNG France 3, no. 2343-53). Side coins prove that King Amyntas extended his hegemony from Galatia through Side.

[68] Atlan 1975,575-611.

[69] Arslan 2004,29-31.

Fig.12: Amyntas' silver coins that were minted in Side (Arslan 2004, Pl. 1)

Amyntas' bronze coins were divided into two groups: full legend and monograms. Full legend series might have been minted at different mints in Amyntas' Kingdom. Some of them were attributed to Cremna, because they have similarities with Cremna coins. Series that had monograms resemble Deiotaros' coins which were minted in Pessinus. Thus, these coins might have been minted in Pessinus. All of meaning of which is not clear today.[70]

Besides, hoards of the coins in this group had (5 and 6) numbers the exact coins from raids or mercenary activities were recovered from Gordion excavations. For instance, in 1961 excavation season, in the architectural remains, a coarse jar of 100 silver tetradrachms, including coins of Lysimachus, Demetrius, Antiochus, Nicomedes of Bithynia and his successor, Prusias was recovered.[71]

These coins help to understand who minted them, spread of kings' hegemony, good and bad relations between kingdoms.

Inscriptions from and concerning Galatia in the Hellenistic and the early Roman Period provide information about the historical geography of Asia Minor,[72] Manlius Vulso's campaign over the Galatians,[73] relations between the Roman and

[70] Arslan 2004,28-31,185-187.

[71] Young 1962,153-154.

[72] OGIS 1903-1905, no: 338-438.

[73] Robert XIII 1965, no: 261.

the Galatians in 1 B.C.,[74] relations between the Galatians and the Cappadocia Kingdom,[75] Galatian's role over Asia Minor and thier raids,[76] letters between Pergamene kings (Eumenes II and Attalus II) and Attis who was the headpriest of Cybele Temple,[77] religious life of the Galatians,[78] the meaning of name Amyntas and its importance,[79] etc.

A Greek inscription (Fig. 13) from Tomb B at Karalar indicates that it was the resting place of Deiotarus the Younger.[80] The funerary inscription together with the grave goods and the elaborate architecture of the tomb proves that this class of burial belonged to the Galatian aristocracy.[81] It can be translated as 'King Deiotarus Philopator, tetrarch of the Galatian Tolistobogii and Trocmi, the son of king Deiotarus Philoromaios, tetrarch of the Galatian Tolistobogii and Trocmi, and of Queen Berenice'.

2. 3. e. Forts and Settlements

Galatians settled mostly in the forts and also at some centers such as Gordion, Pessinus in the late Hellenistic and early Roman periods respectively.

In general, the forts were built on small-crowned steep-sided hilltops (usually between ca.1000 and 1400 asl). They were surrounded by fertile areas and natural routeways. These are small enclosures and some of them may not have had military purpose. In these small forts only a chieftain's family and his entourage of followers and clients could stay and continue their life.

[74] Robert VI 1948, no: 46.

[75] OGIS 1903-1905, no:299-763.

[76] OGIS 1903-1905, no: 222-223-748-765.

[77] Welles 1934, no: 55-61.

[78] Robert XI-XIII 1960, no:350.

[79] IGRom III 1906-1928, no: 157.

[80] French 2003, 82-83.

[81] Mitchell 1982:no 188.

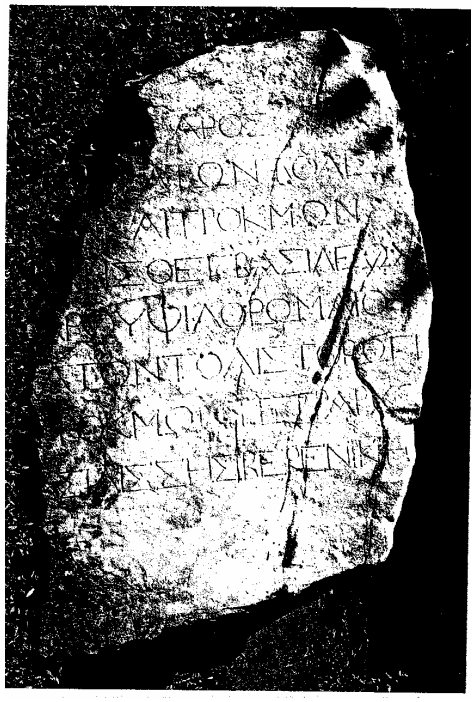

Fig. 13: An inscription that belonged to the Galatian king Deiotarus (French 2003, 82)

In some of the rare occasions, the Galatians settled on big hillforts. These forts could take all of the tribes.[82] Karalar (Fig. 14), Hisarlıkaya, Gorbeus etc. are some of the known Galatian forts. People who lived in forts in the Hellenistic Period, abandoned these and settled at city-centers such as Ancyra in the Roman Period. Today, the archaeological material is not enough to evaluate the life of people in Galatia. When the reasons for their preference of forts and their abandonment in the following years are understood, many questions (functions of forts, stratigraphy, etc.) about these people and Galatia region will be more clear than today.

[82] Mitchell 1993,58.

Fig. 14: Entrance of Karalar fort

CHAPTER 3

3. PROBABLE FORT SETTLEMENTS IN GALATIA

Forts are considered and used as settlements by many cultures in ancient times. The aims (military, economic, religious, trade, etc) and the criterias (closeness to water sources, ancient roads, etc.) for their construction differ from culture to culture. The dimensions of the forts and strength of their sections such as towers, gates change according to their function. For instance, the garrisons are not very huge structures.

In this study, thirty-five forts that were built in Ankara's districts (Çamlıdere, Kızılcahamam, Beypazarı, Kazan, Güdül, Çubuk, Ayaş, Sincan, Çankaya, Yenimahalle, Keçiören, Gölbaşı, Polatlı, Bala, Haymana) have been studied. Unfortunately, the precise coordinates of all of these forts are not available. These thirty-five forts were analysed according to districts, and their architectural features were described.

L. Vardar and his team have been carrying out surveys of these forts for more than ten years. Therefore, their reports are our main source in understanding and evaluating these fort settlements. Unfortunately, the information is very scarce due to lack of excavation in these areas (Fig. 15-16-17-18-19-20).

3. 1. Çamlıdere District

Akkaya was constructed on a hill that is 1.5km from the Akkaya village on the northeast and 1080m in elevation and 40m in height.[83] It is 1km from Kavaklı Mount (1983m) on the east. The Kurt stream valley is also located on the east part of the fort. Today, the hill on which the fort is located is covered with trees. It is not possible to see the fort from surrounding. It shows nearly a circular plan that is 25m in diameter. Huge and middle walls have been used for construction without mortar. The width and height of the wall is more than 2m.

[83] Vardar 2001,300.

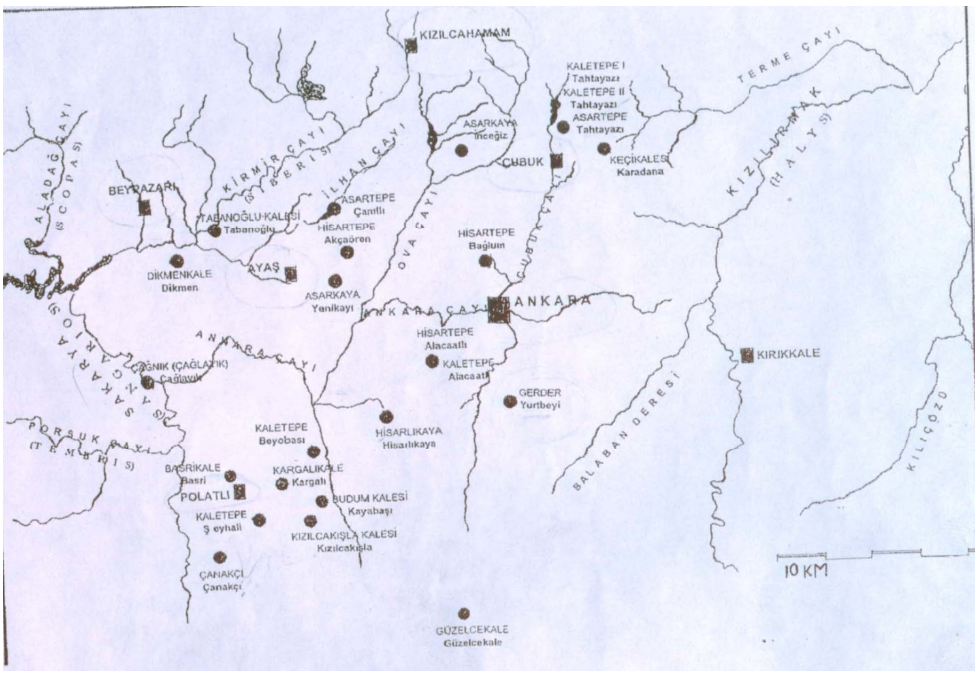

Fig. 15: Galatia forts that were searched in 1996 (Vardar 1997, 265)

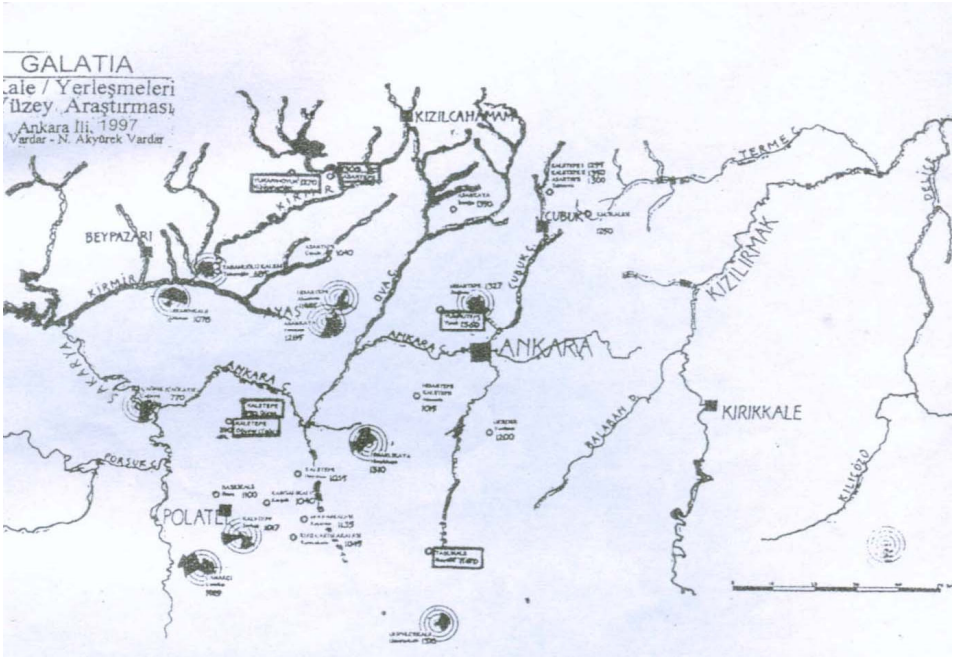

Fig. 16: Galatia forts that were searched in 1997 (Vardar 1998, 292)

Fig. 17: Study area of forts in 2000 (Vardar 2001, 303)

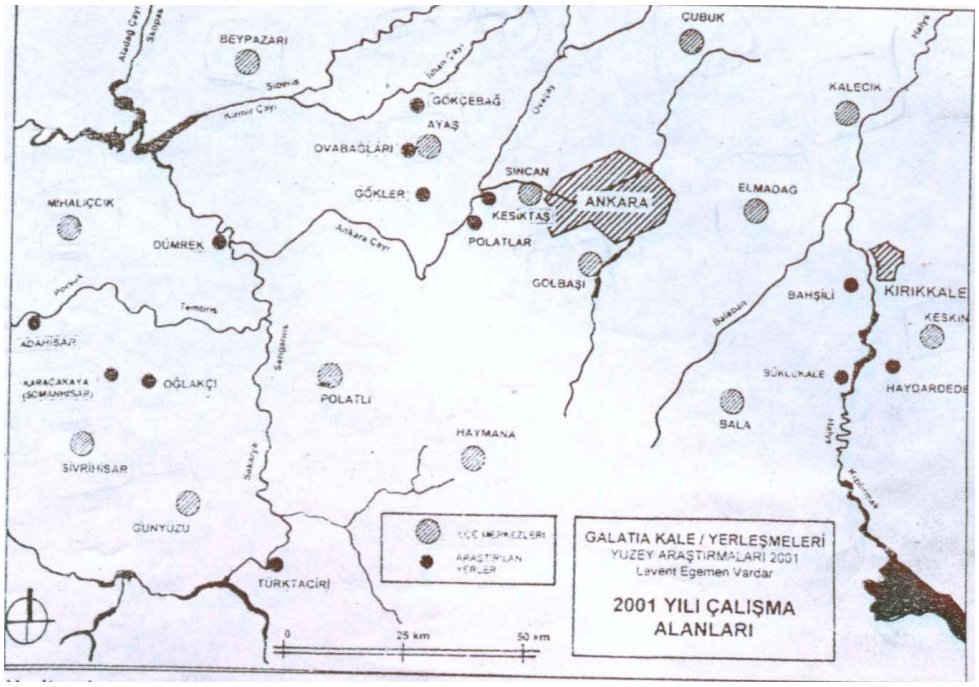

Fig. 18: Study area of forts in 2001 (Vardar 2002, 211)

Fig. 19: Study area of forts in 2002 (Vardar 2003, 127)

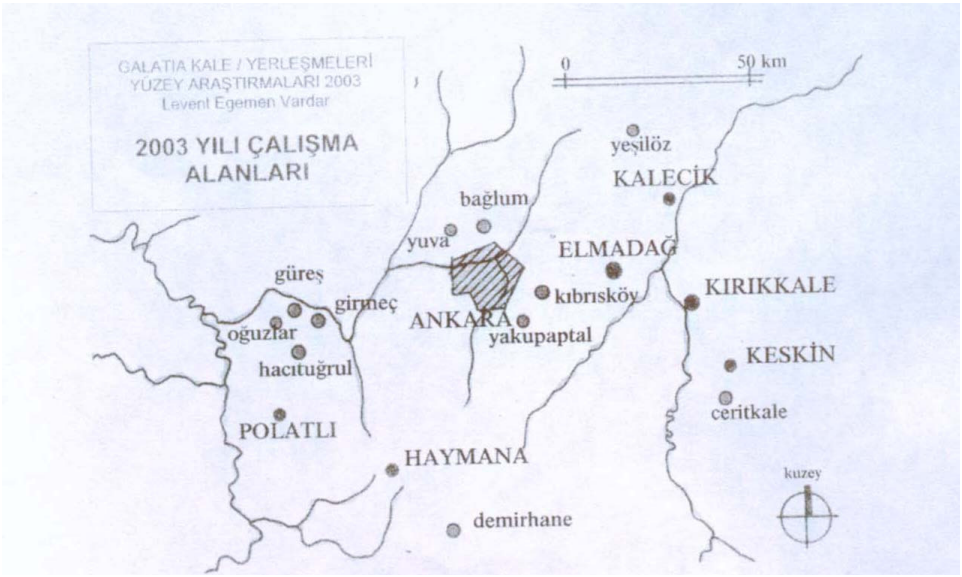

Fig. 20: Study area of forts in 2003 (Vardar 2004, 331

There is also a second enclosure that is 6m from the former in the area. The inner enclosure has two gates on the west (that is the main entrance) and on the east. The outer enclosure also have a gate on east-southeast direction. There are many architectural arrangements that might be towers or buttresses on the inner enclosure. It seems that the fort (Fig. 21-22) was constructed in the Roman period.

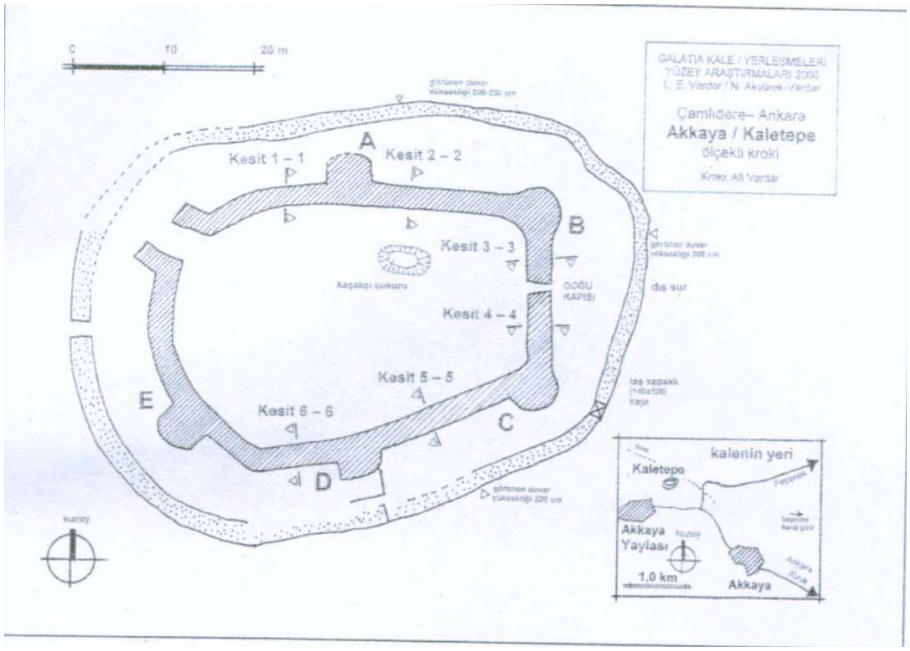

Fig. 21: Sketch of Akkaya fort (Vardar 2001, 304)

Fig. 22: 'E' Tower and south enclosure wall of Akkaya fort (Vardar 2001, 307)

3. 2. Kızılcahamam District

Pazar (Fig. 23) was positioned on a hill that is 1050m in elevation and 3km from the Pazar village and 1km from E5.[84] Besides, it is 1km from the Mera stream and 100m high from its bed. The fort that was built on top of the hill is semi-circular in plan. The rocks on the south and west of the fort might have been used for construction. The width of the enclosure on the west is 2.20m. There is also a roughly quadrangular tower on the north.

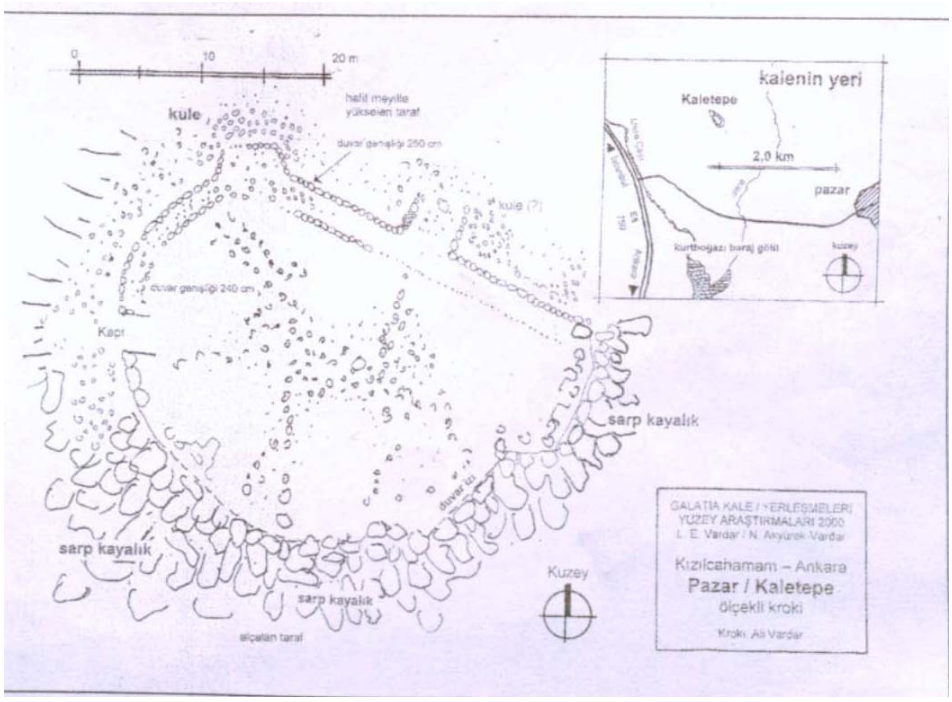

Fig. 23: Sketch of Pazar fort (Vardar 2001, 303)

3. 3. Beypazarı District

Dikmenkale (Fig. 24-25) is located 750m northwest of the Dikmen village.[85] The fort is built on top of the hill at 1078m and is 100m high. Especially, the southern part of the hill that faces the village is very rocky. The fort has wide visibility in all the directions, especially on the north and west. An area with a radius of about

[84] Vardar 2001,299.

[85] Vardar & Vardar 1997,246-247; Ankara 50 1973,59.

20-25km is visible from the site. Oak trees cover the western part of the hill. The fort is roughly triangular in plan. The plan is clearly visible. The distance between the corners of the fort is no less than 20m. There are three circular towers on the western part of the wall. The entrance to the fort that is contiguous to one of the towers is at the south. It's 1.40m wide. The average width of the enclosure wall is approximately 2.20m. The area inside the enclosure is roughly 200m². Huge blocks and rubbles were used inside and outside of the enclosure. The face of the polygonal stones are roughly worked. Mortar or other kinds of bonding material were not used and it was built by dry stone technique. The wall's height at its north part is approximately 2.70m. The foundations were placed on bedrock. The walls that were coming from south and north were united on a strong block on the east. The plan of the fort has similarities with the other Galatian forts. Dikmenkale has good defences. It might be claimed that the fort was built in order to protect and control the ancient road in the east-west direction. A few ceramics dating to the Hellenistic Period were encountered outside the enclosure at the south.

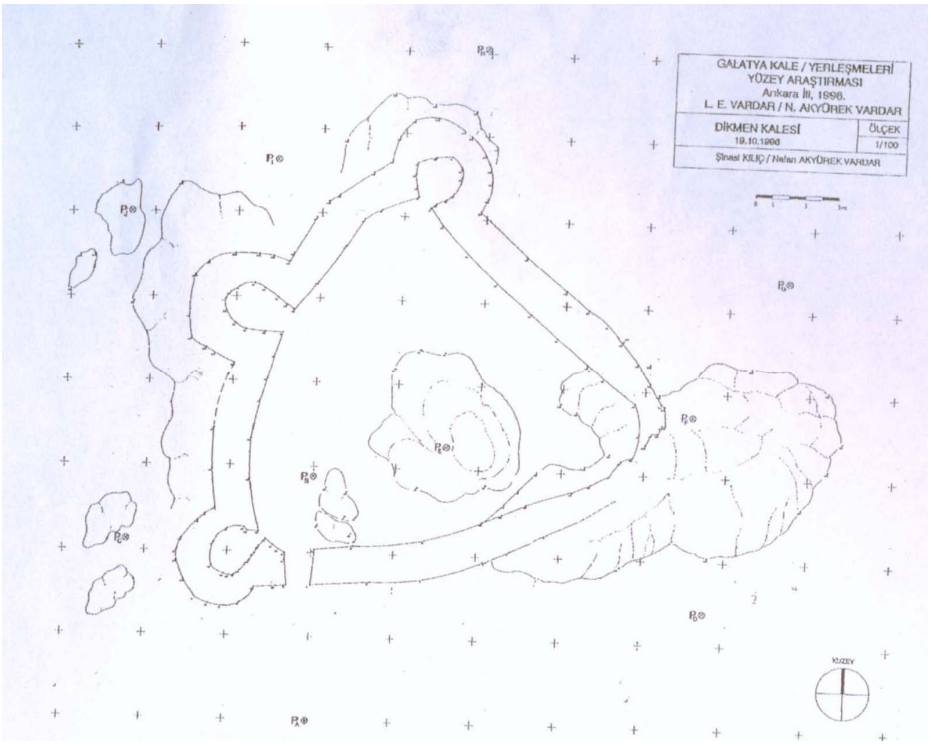

Fig. 24: Plan of Dikmenkale fort (Vardar 1997, 266)

Fig. 25: Dikmen Kale (with west and north wall) and Girmir valley (Vardar 1997, 273)

Tabanoğlu (Fig. 26-27) is one of the strongest and best defensive Tolistobogian (Galatian) sites where Deiotaros' treasure was kept.[86] This fort lies about 4km north of the Ankara-Beypazarı road on the east bank of the Kirmir stream and has a strong position. The river cuts a deep valley through the surrounding hills in a meandering course. Then, it makes a great loop forming a horse-shoe shape on one part. The fort was built 130m above the stream.

Communication is available only at its east. Different periods can be identified at the fort through the use of different construction materials.[87] The remains of the enclosure that are 8m high located at the east are well-preserved. The walls were built by oblong blocks without use of mortar.[88]

Although the Byzantine building conceals much of the Hellenistic wall, the reconstruction of the ground plan is easy to understand. The arched gateway that

[86] Strabo XII.5.2.

[87] Ankara 50 1973,50.

[88] Vardar & Vardar 1997,254.

is 2.65m wide is flanked by two hexagonal towers, A and B. Towers A and B are about 14-50m apart. Tower B has a maximum width of ca. 11m and depth of ca. 8.20m. The southern tower A is covered completely by later additions. Although the northern gate tower B mostly shows Byzantine work, its lower courses seem to be Hellenistic. The original plan of the tower did not change. Tower C is a completely later addition. The northernmost tower D is encased by later additions like tower A. The lower courses of tower A are bonded to the terrace wall and block access from a gully on the north side of the hill and reinforce the whole structure.[89]

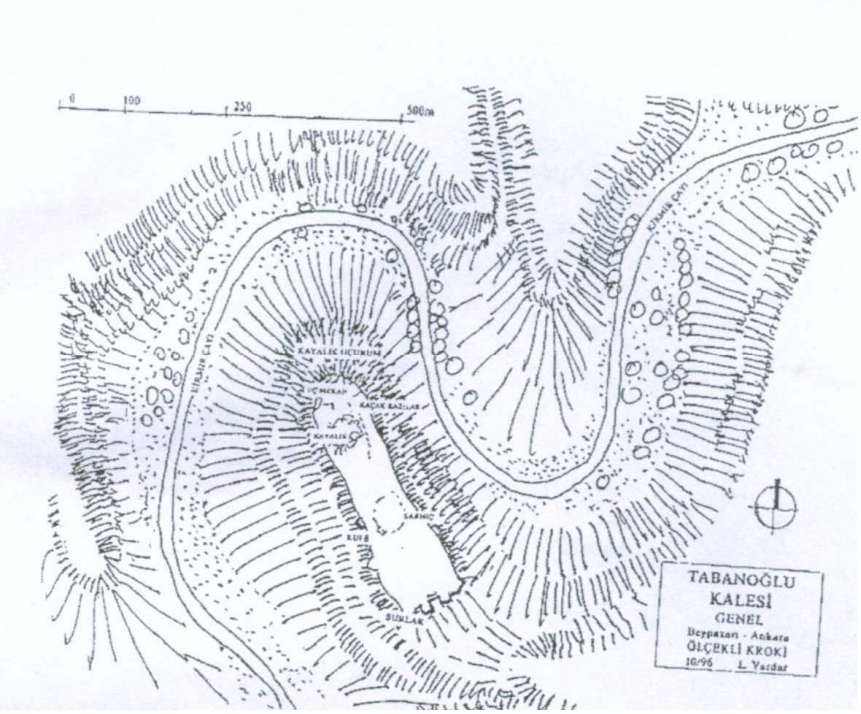

Fig. 26: Sketch of Tabanoğlu fort (Vardar 1997, 270)

The terrace that is inside the enclosure might have been settled. It's 300-350m in length and not more than 50m in width. There might have been a spring at the middle of the terrace. There are many architectural remains that are not clearly understood. The arrangement that is at the southwest of the terrace attract attention. A street and a narrow corner of a structure were recovered here. These walls have double faces and were built by polygonal blocks without use of mortar.

[89] Mitchell 1974a,68-69.

The ceramics that were found on the surface were mostly dated to the Roman and later periods.[90]

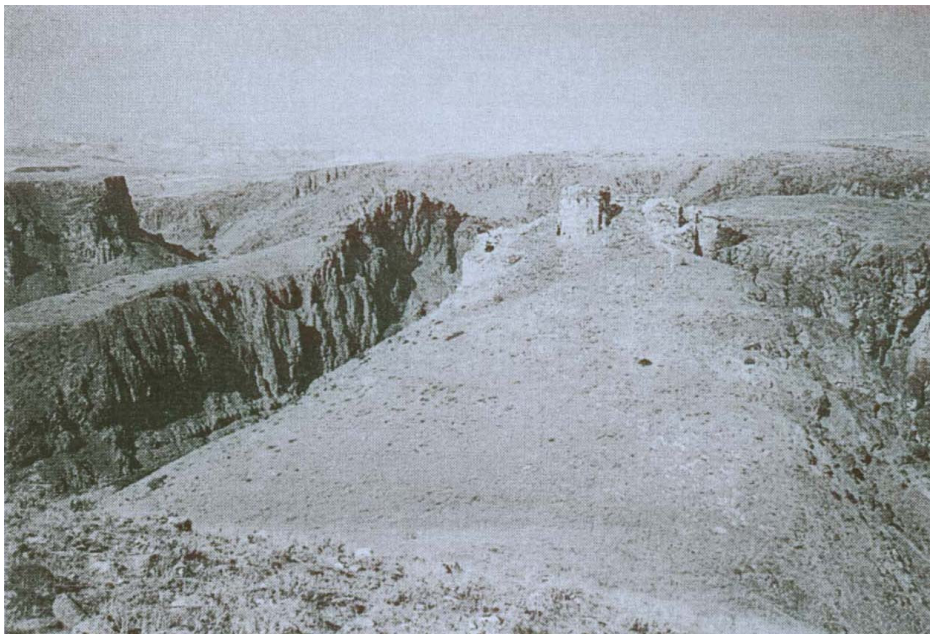

Fig. 27: Tabanoğlu fort with Girmir valley and stream (Vardar 1997, 277)

The fort called *Yalnızçam (Kepir)* is located on the Ankara-Eskişehir city boundary, 39km south of Beypazarı district next to the Sangarios river. Aladağ lies opposite of the site. [91]

The fort was built of rough, huge blocks without use of mortar, 26 x 32m in dimension. The real measurements and architecture of the fort could not be gathered due to the destruction. The masonry of the walls are better preserved at north and south than east and west. Although the fort does not show a strong stone masonry, defence was the main aim for its construction.This fort might have been a garrison dated to the Roman Period.

At the back of the main stronghold, some cut pieces of stones were discovered. These might have been part of a building here, on and beyond the partially

[90] Vardar &Vardar 1997,254.

[91] Albustanlıoğlu 1996,216-217.

collapsed outer cliff. There is also a cistern on the site. Large numbers of pottery including imported Hellenistic pottery, i.e. bowls, were found here. The pottery can be dated to the 3rd and 2nd centuries B.C. The architectural remains in front of the stronghold might indicate that this area was also settled.[92]

3. 4. Kazan District

The palace of the Galatian king Deiotaros was located at a place called *Karalar* (Fig. 28-29) 35km west of the Karalar village. R. O. Arık excavated in and around the Karalar village as well as the west side of Murtad plain in 1933.[93] As a result of the excavations a fortified site called 'Assar' and a group of tumuli were recovered.

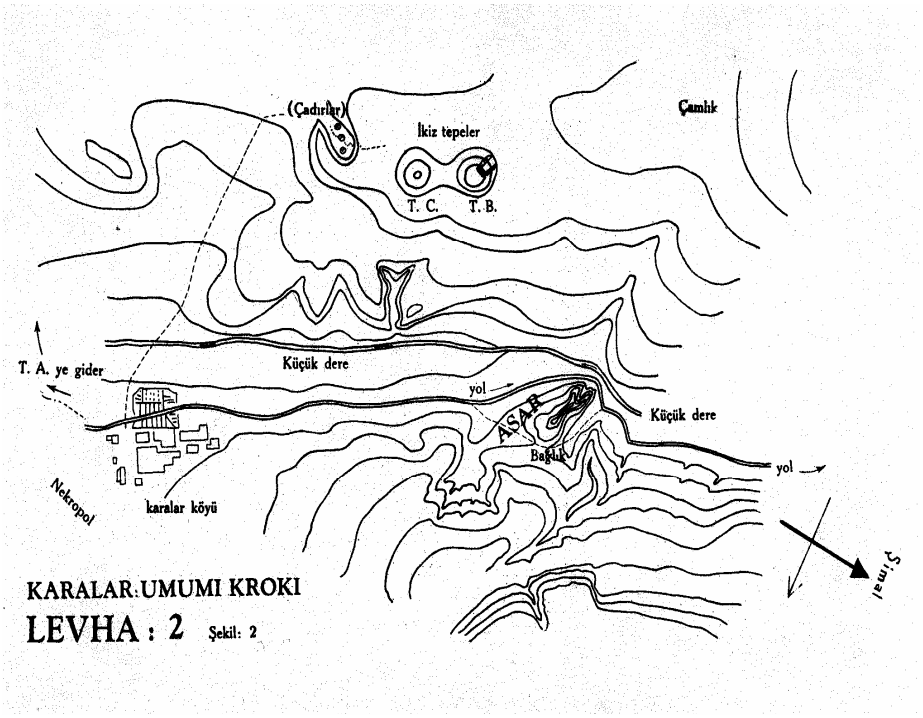

Fig. 28: A sketch of fort Assar and royal burials (Ankara 1950, 52)

The entrance of the fort Assar opens to the Murtad plain from the west. The fort does not have the view of any route but is located on a very strong defensive

[92] Strobel 2002,31-32.

[93] Mitchell 1974a,61; Strabo XII.5.2.

position that overlooks a wide area to the east. Traces of fortification wall and ceramics were found on the surface. For instance, rectangular blocks of volcanic stone are still visible on the north side. There is an extensive rock-cutting and a well-cut tunnel of 54 steps leading down to a spring on the summit and south side of the hill. The fort's defensive circuit ran outside the shaft. The workmanship of the shaft is very good and it shows that probably Greek craftsmen worked here. The steps are steep. The shaft and the spring are considered a holy place today. Offerings (in the form of rugs and pieces of cloth) were tied to the tree at its head. It is remarkable that this kind of tunneling and rock-cutting are also relatively common on Pontic and Paplagonian sites around the same period.[94]

Fig. 29: Royal burials in Karalar

At the end of the excavation, it was revealed that the fort had been divided into a complex of rooms and small courtyards. The remains are not available today to draw the exact plan of the fort. The site was surrounded by a substantial wall. It was constructed by large blocks of reddish trachyte. The blocks of the wall mostly tumbled down the hill. The faces were cut square and hammer-faced. The other parts of the blocks have only been roughly shaped.[95] Besides, the tumuli that were

[94] Leonhardt 1915,232; Osten 1929,123.

[95] Anderson 1910,55-56; Leonhardt 1915,234.

recovered by R. Oğuz Arık in 1933 excavation season, carry importance due to their closeness to the fort in the area.

3. 5. Güdül District

Güzelçiftlik (Küçükkale Tepe) is located approximately 800m west of the Güzelçiftlik village, at 900m high.[96] There is a stream bed to the south of the village. Güzelçiftlik is 40m above this bed. Kirmir valley can be seen from the east. The top of the hill is wooded. A wall on the ground level is visible at the south side of the hill in the northwest direction. Huge stones (that are 0,4-0,5m in dimension) and rubbles were used to build the wall. The width of the probable gate is 1.80m. This wall might have been used for defensive purposes. Similar remains were also recovered at the northwest of the hill. Unfortunately, there is no more information concerning the plan of Güzelçiftlik. Ceramics that are small in number might be dated to the later periods.

3. 6. Çubuk District

Sirkeli is located near Sirkeli village.[97] There are remains of rock-cut terracing and pottery on top of the hill on which the fort was built.

3. 7. Ayaş District

Gökçebağ (Kedikale, Tiske) (Fig. 30) lies some hundred metres north-east of Gökçebağ village on an elevation of 1150m.[98] The highest western part of the mountain is 1420-1440m. If the structure is divided with a line from north to south, the preserved part will stay on the east half. 35m of the enclosure is visible at this part. The length from north to south is more than 57m with probable walls. The western wall was destroyed, so the plan of Gökçebağ cannot be properly understood. The distance between the northern and the southern walls is 36m and the enclosure must have been more than 50m in length at the western part. The height of the enclosure is more than 1.7m at the north. The other parts of the

[96] Vardar 2000,237-238.

[97] Mitchell 1982,25.

[98] Vardar 2001,210.

enclosure can only be followed at the ground base. Huge quadrangle blocks (i.e. 1.15m in dimension) were used for the construction of the structure. Thickness is visible at two parts of the enclosure. While the width is 3.1-3.2m at the northeastern part of the wall, it's approximately 3.5m at the southern part. It's a fairly wide and strong wall. Gate is clearly visible at the southern side of the fort. It's located almost in the middle and it's 0.7m wide. The western half of the southern enclosure is built 1m to the front in contrast to its eastern part. This might indicate that the gate in the middle of the southern enclosure was hidden from the enemy who might approach from the south. Therefore, a more functional and monumental gate must have been present at Gökçebağ. The villagers told the researchers that there was a gate at the north of the fort under the garden wall. The enclosure is tied to rock with a projecting wall that is 2m long. This also suggests that there could have been another gate. Few ceramic fragments were found on the surface.

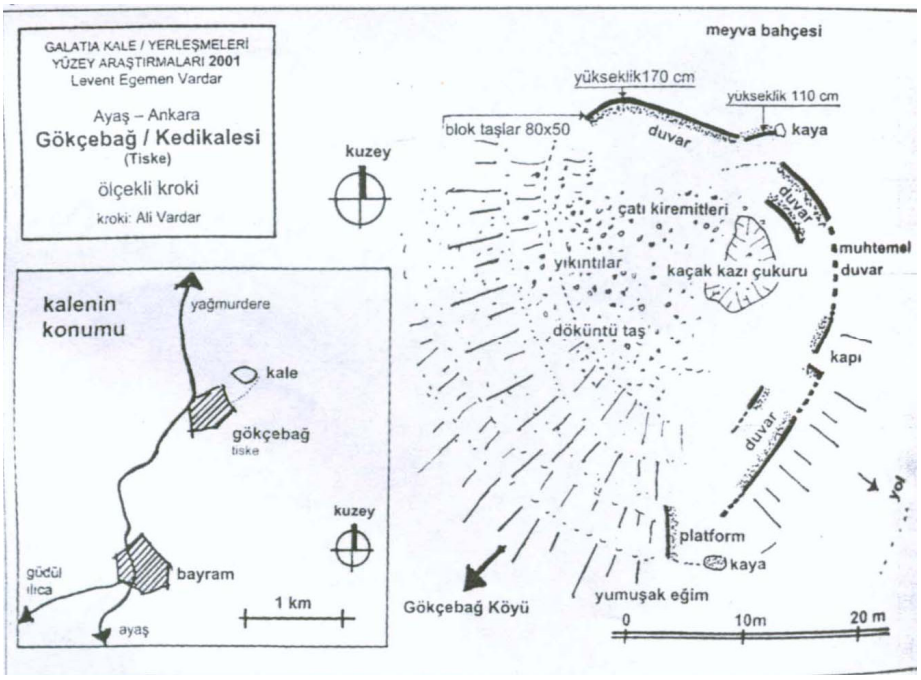

Fig. 30: Sketch of Gökçebağ (Kedikale) fort (Vardar 2002, 218)

Çanıllı (Asartepe) (Fig. 31) fort is positioned 1km south of the Çanıllı village, between the İlhan stream on the north and the Endil Strait on the south.[99] The elevation of the hill where the fort was built is 1040m and the fort is 125m above the rivers around it. The fort is in harmony with the topography. It especially controls west and north. The fort was built on top of the hill, in southwest-northeast directions. The dimensions of the fort is approximately 30-50 x 60-70m. The height of the fort is nearly 2m on the west. The walls of the enclosure were constructed by huge and middle blocks without use of mortar. The enclosure walls follow linear lines on the north and south. The semi-circular towers that are located on the south might be dated to earlier periods. The gate is probably situated contiguous to one of these towers. The measurable width of the gate is 1.20m. There are also two rectangular towers on the north. There is a defence wall 100m from the enclosure in the area. Architectural remains have been found inside of the enclosure. Ceramics that were found dated to the Phrygian, Hellenistic, Roman and Byzantine periods.

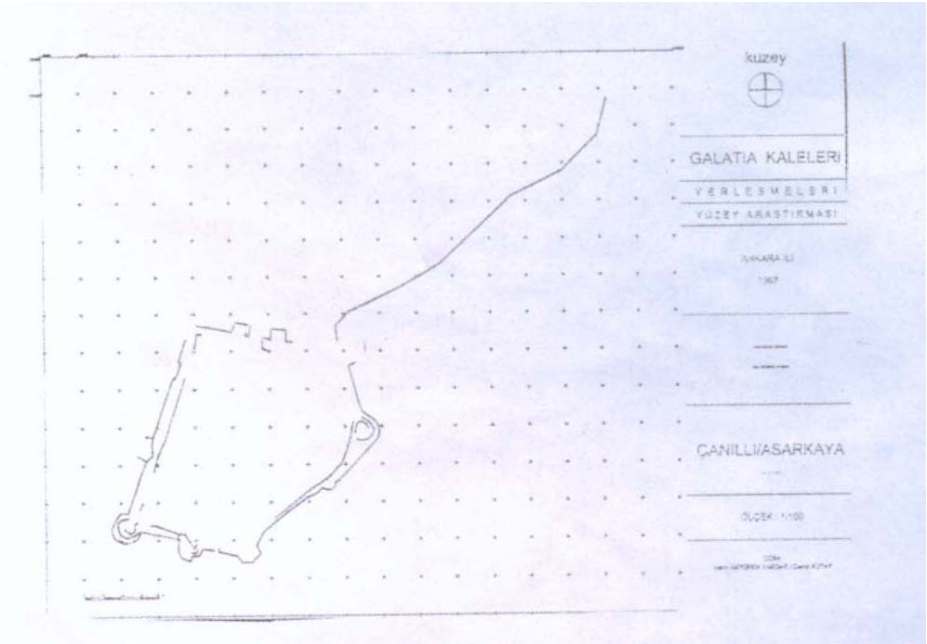

Fig. 31: Plan of Çanıllı (Asartepe) fort (Vardar 1998, 295)

[99] Vardar & Vardar 1997,260-261; 1998,291.

Ovabağları (Fig. 32) is located on a hill that is 860m in elevation and 2km west of the Ayaş district.[100] It is also 60m above the Ayaş stream that flows from the fort's east and north. A wall surrounds an area that is located on top of the hill, is 71m in length and 48m in width. The wall is nearly 185m in length and traces of the enclosure can be followed at other parts. There is no tower on the enclosure. The height of the wall is not more than 0.4m. It is not possible to designate the width of it. It was built with huge blocks without use of mortar. It is nearly oval in plan. A gate cannot be seen on the enclosure. There are two parallel walls on the southeast. These two walls might have been a passage that gives way to entrance to the fort. Rocks give a defense advantage to the fort on the north. There is a spring and rooms which were constructed with rubbles and mortar. The spring is 6 x 8m in dimension. The ceramics are dated to the Roman and Byzantine periods.

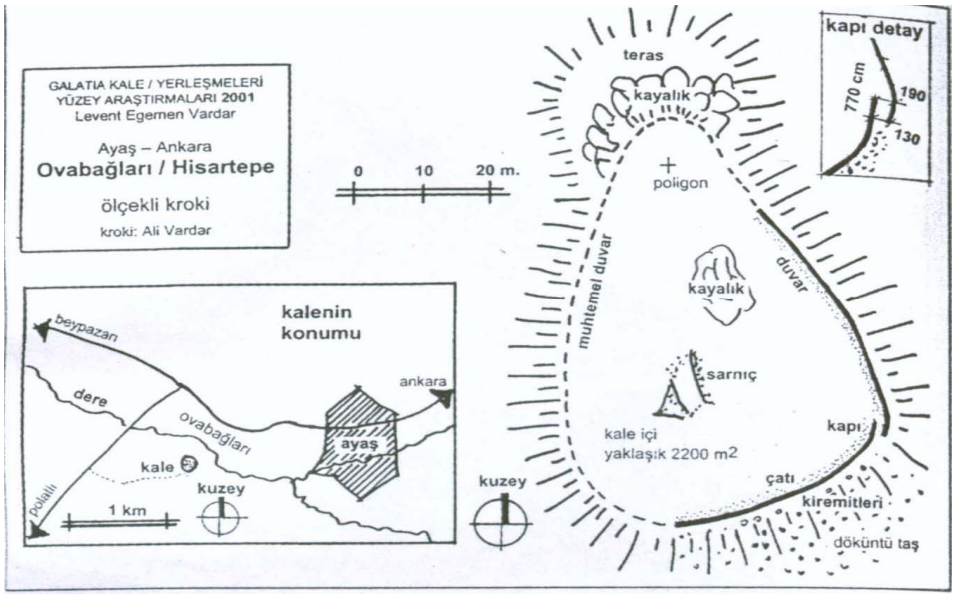

Fig. 32: Sketch of Ovabağları (Vardar 2001, 218)

3. 8. Sincan District

Asarkaya (Yenikayı) (Fig. 33) is located 2km west of Asarkaya village.[101] The hill where the fort was built is 30m in height at an elevation of 1285m. The hill has

[100] Vardar 2001,301; 2002,309.

[101] Vardar & Vardar 1997,257-258.

hegemony over its north, east and south. Asarkaya is situated on a passage where Ankara-Ayaş road functioned once. The passage is not used today. The fort might have controlled this ancient road. Murtad plain and Ova river are also visible at the north-west of the hill.

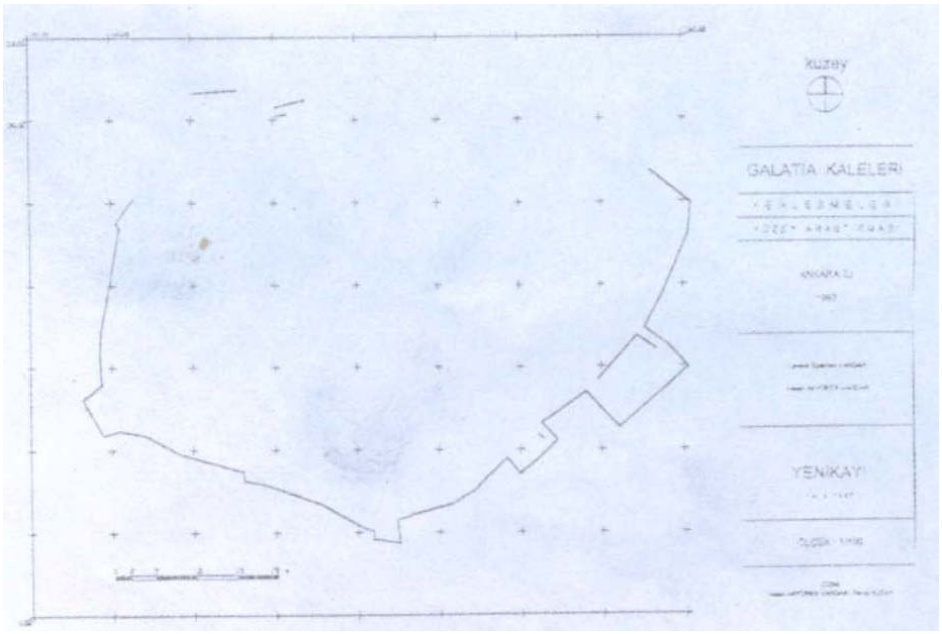

Fig. 33: Plan of Yenikayı (Asarkaya) fort (Vardar 1998, 295)

The fort was constructed on a terrace that is on top of the hill. The widest part of the structure is 35 by 85m . The northern part of the hill is rocky and is 4-6m high. The terrace slopes down from this rock. All of the enclosure can easily be followed. The enclosure continued on a rock that is at the north side. A natural passage that is roughly 15 x 56m in dimension opens towards the north. It might have been a natural gate with natural advantages in terms of defense. A section on the north side of the fort might have been a gate.

The enclosure walls were made of big blocks (0.60-0.70m in dimension) without use of mortar. It makes curved corners. The enclosure was constructed on the bedrock and made corners in the south-west. Two quadrangular towers were constructed in order to make the defences stronger in the south-east. The towers are 5.60m by 7m. This enclosure may be dated to the Roman period due to

building techniques. There seems to have been another enclosure inside of it. The masonry of this wall is rough (0.40-0.50m in dimension) and the stones are small. It was built without use of mortar. It is in harmony with the topography, so it is not linear and follows curved contours. This enclosure might be dated to the Galatian Period.

The hill where the *Hisartepe (Akçaören)* (Fig. 34-35) was built is located 2km west of the Akçaören village.[102] The elevation of the hill is 1180m. It has a good command of the north, east and south directions. It also controls the Murtad plain and Ova river on the north, east and south directions. The fort is surrounded by an enclosure which is not linear on the northeast-southwest directions. The enclosure is approximately 79 x 31.80m long. The hill where the fort was built is bounded by two streams at the north and south. The masonry of the walls could not be clearly understood because it's badly destroyed to the ground level. It might have been built with rough stones (approximately 0.40 x 0.50m in dimension) without use of mortar. The thickness of the enclosure is between 1.40m and 2.40m. There are two semi-circular towers (7.15 x 4.50m and 6.20 x 4.50m) at the northeast and southwest. There are probably two similar towers in the west. Besides, seven structures that resemble the towers are partially visible on the east side of the fort. Their base diameter is between 3.70 and 6.95m; their height is approximately 4-5.50m and the distances between them change from 0.40m to 9m. Further study is required to understand their functions. They might have been used to make the enclosure stronger or they are real towers. In both cases, they might have been built to make the enclosure stronger against attacks. The area inside the enclosure is like a terrace that is nearly flat, but the north-western part is lower than the other parts. It's not possible to see a gate on the enclosure. Also, the enclosure walls don't go continuously. One of the pierced sections of it that is located on the north-west might have been a gate. Some architectural remains that are circular in plan might indicate that the area was settled. The ceramic fragments would mostly be dated to the Byzantine Period.

[102] Vardar & Vardar 1997,256.

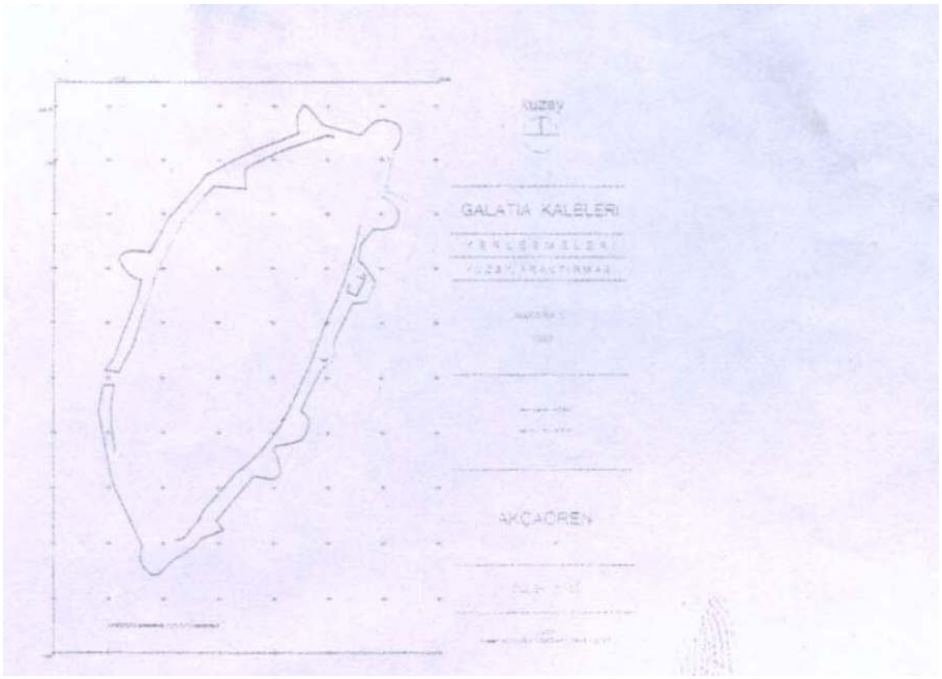

Fig. 34: Plan of Akçaören (Hisartepe) fort (Vardar 1998, 295)

Fig. 35: Akçaören (Hisartepe) fort from south (Vardar 1997, 278)

3.9. Yenimahalle District

Yuva is located 2km north of the Yuva village (Fig. 36).[103] The remains of the fort are seen at the northern slope of Yumrukaya Tepe (1363m in height) that is located 1km west of this area. The hill is 70m in height at an elevation of 1120 m. Kıyam stream is located in the east-west direction at the north of this hill. Heavy erosion was seen at the north-west slope of the hill. For this reason, the topographic form changed a lot and the settlement on the fort was badly effected. There are pits on the hill that were opened as a result of illegal excavations. An area that is 40-50m in dimension was destroyed as a result. Big quadrangular blocks that are approximately 1m high were found in this area. The enclosure wall that was built by use of similar blocks can easily be followed for 60m at the foundation level. The wall begins on the west at the top of the hill and goes down to south. The end of the wall was destroyed by illegal excavation. The morphological changes in the north-west direction does not allow discovery of archaeological fragments. According to L. Vardar, an area that is 3500m² belonged to the fort and was used as the settlement. The ceramics on the surface were dated to the Hellenistic and Roman Periods.

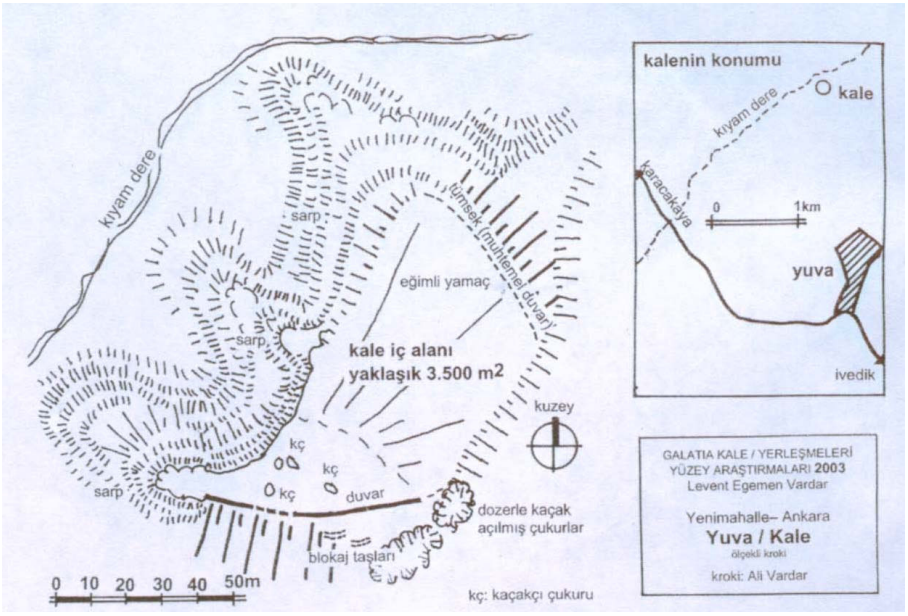

Fig. 36: Sketch of Yuva fort (Vardar 2004, 335)

[103] Vardar & Vardar 1998,289; Vardar 2004,323-324.

3. 10. Keçiören District

Hisartepe (Bağlum) (Fig. 37) was built on top of a hill that is 80m in height at an elevation of 1327m, located 1km southwest of Bağlum village.[104] Today, the highway passes from its south and full Ankara view including the Ankara castle can be seen at the back. The area is included in the Orman Bakanlığı, Bağlum Hisar Parkı İşletmesi. The fort was constructed in northeast-southwest direction, approximately 60m in length and 30m in width. The rectangular area (1800m²) was surrounded by an enclosure. There are terraces on the southwest and northeast of the fort. Terraces are located parallel to the fort's short sides, at least 20m long. Gates might have been built between these terraces and the fort. Small stones indicate the line the enclosure follows. The faces of the walls can be seen only at some parts. It's not possible to measure the width of the wall. The remains of the structure inside the enclosure is available at the level of its foundations. Bedrock on the hill might have been used for defence. There are no traces of mortar on the walls. There are piles of rubbles that might have been towers at some parts of the walls.

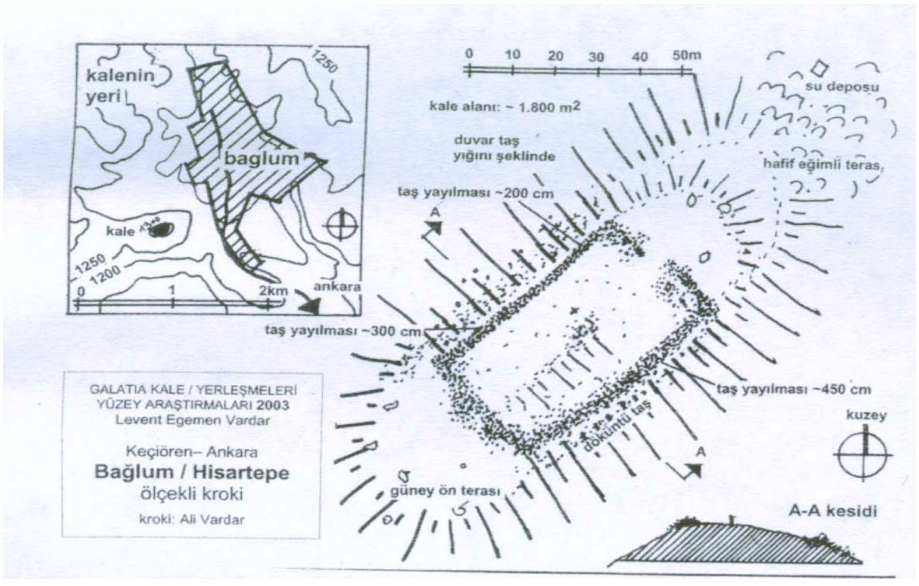

Fig.37: Sketch of Bağlum (Hisartepe) fort (Vardar 2004, 332)

[104] Vardar & Vardar 1997,258-259; Vardar 2004,317-318.

3. 11. Çankaya District

Yakupabdal (Fig. 38) lies on Asar rock that is located 1.5km south of the Yakupabdal village and on the northeast of Elmadağ is 1350m high.[105] Asar rock is a rocky hill and 40-50m from the stream that lies on the north. While the length of the area is 100-120m on the east-west direction, the width on the north-south direction is not more than 40m. Although the terrace like area at the top is more suitable for settlement than other parts, there is no trace of architecture. The ceramic fragments were dated to the late Chalcolithic, Phrygian, Roman and late Antique periods.

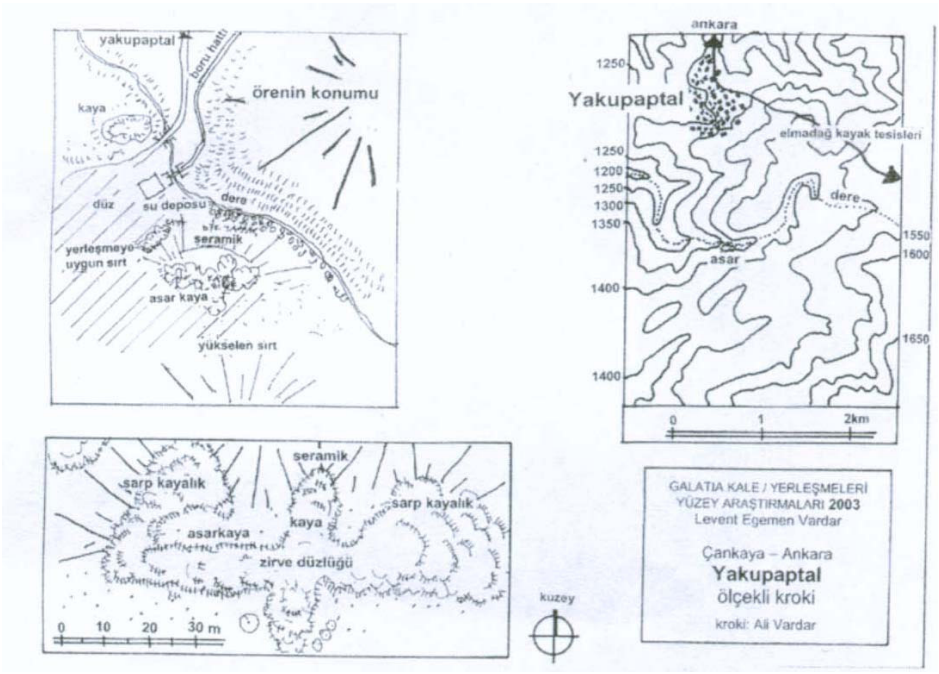

Fig. 38: Sketch of Yakupabdal fort (Vardar 2004, 334)

3. 12. Gölbaşı District

Gorbeus (Oğulbey) is a Hellenistic (Galatian) site on a small rock.[106] It was the site of the Tectosagan tetrarch, Castor. The fort and the settlement around it was destroyed by Deiotarus who was the Galatian king in 43 B.C. It's located

[105] Vardar 2004,312,322.

[106] Strabo XII.5.3.

immediately south and west of Kırşehir junction on the Ankara-Konya highway. A few traces of the fort wall can be followed in the area. Also, there is a late Roman site of uncertain extent at the west foot of the hill.[107]

Selametlikale (Fig. 39) lies 3km northwest of the Selametli village and 2.5km south of the Kırıklı village.[108] The hill where the fort was built is 20-30m high at 1125m. Some rivers flow in the east-west direction on the south of the Selametli fort. The fort was rougly built in northwest-southeast direction. It is 80 x 20m in a 1600m² area and oval in plan. The walls were constructed without use of mortar. The width of the walls is not more than 1m. There are five towers (four on the east, one on the west) that are semi-circular in plan on the enclosure. The length of the tower walls are 2.20-6.50m. There are two gates (one of them is on the east, the other is on the west) on the enclosure. There are large number of ceramic fragments on the north and southwest of the fort. They might be dated to the Middle Bronze, Iron, Hellenistic, Roman and Byzantine periods.

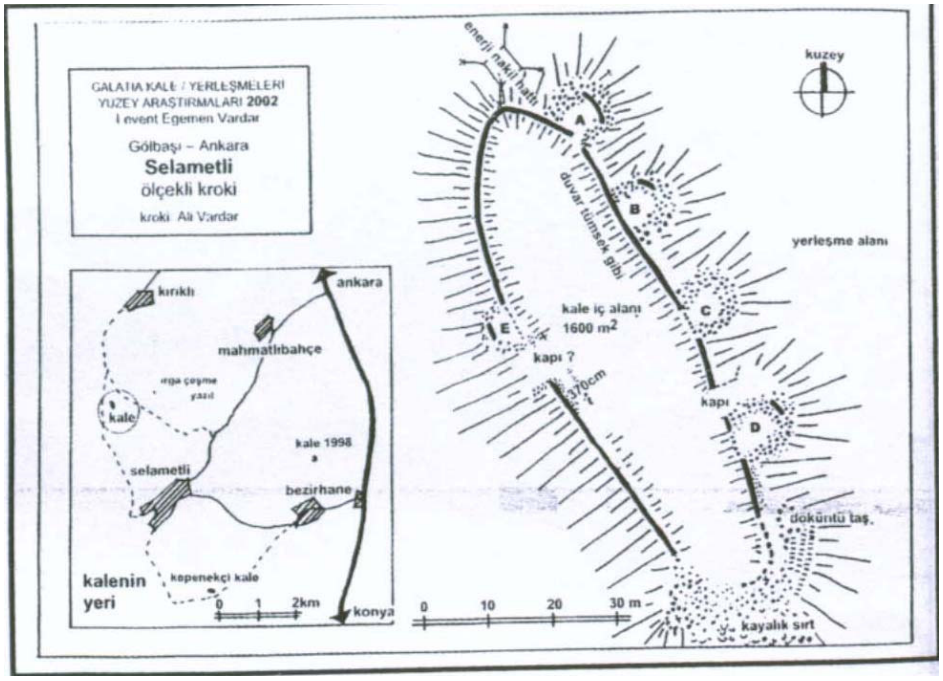

Fig.39: Sketch of Selametlikale fort (Vardar 2003, 132)

[107] Mitchell 1982,27; 1974b,451.

[108] Vardar 2003,125-126.

İncekkale (Fig. 40) was built 1250m west of the İncek village, 1150m in elevation.[109] The fort is located on the west part of the valley that was created by the Göllü-Eşkincek stream and it is 30m high from the stream bed. It controls the north. East and partly north side of the hill on which the fort was built is very rocky. The fort seems as if it was hidden on the valley rather than controlling the area with this topography. The fort is roughly polygonal in plan and 35 x (more than) 45m in dimension. It is not possible to designate the width of the walls. The clearest length of the wall is 18m on the northwest. Quadrangular blocks (1m in dimension) have been used on outer faces of the wall. It is not possible to designate a tower on the enclosure. There is also a second enclosure on the west. It is 3.60m from the former. Large number of ceramic fragments were found between fort and stream. The place of the İncekkale fort might have been hided or it might be protected by Kale that is located in Gölbaşı-Yenimahalle District. The ceramic fragments are mostly dated to the Hellenistic and Byzantine periods.

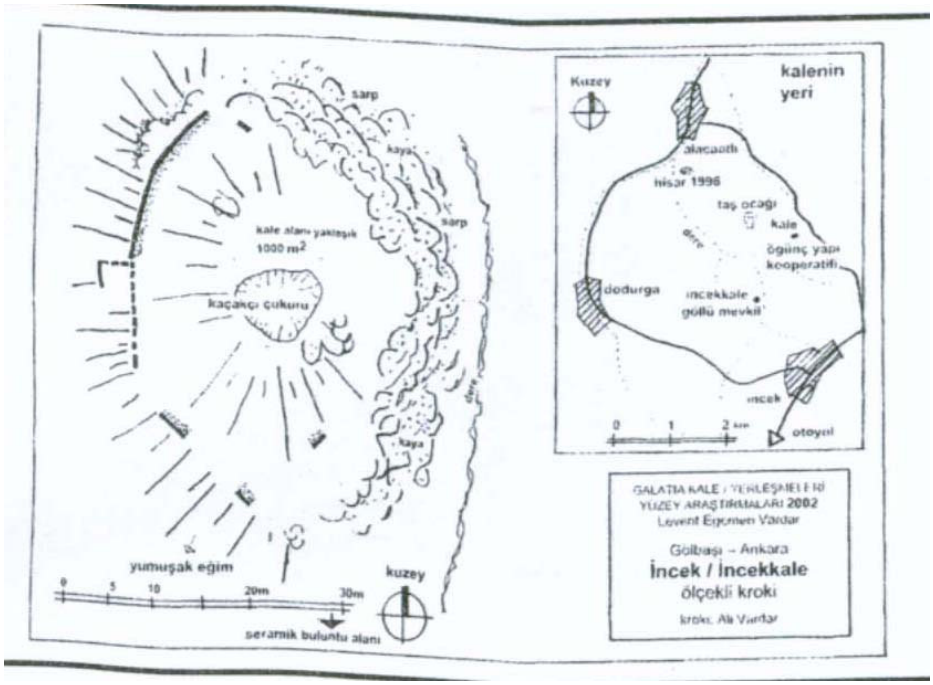

Fig. 40: Sketch of İncekkale fort (Vardar 2003, 130)

[109] Vardar 2003,120-121.

3. 13. Yenimahalle-Gölbaşı District

Kale (Fig. 41) was built between the Alacaatlı and İncek villages that are in Yenimahalle and Gölbaşı districts.[110] The fort/garrison lies 2km southeast of the Alacaatlı village and 2.5km north of the İncek village. The elevation of the hill where the fort/garrison was built is 1125m. The surface that is on the west and south of the fort/garrison is rocky. The fort/garrison is roughly circular in plan with 25m in diameter. The area where the fort was built is 500m². Huge blocks and rubbles were used for construction without mortar. The width of the enclosure is not more than 2.40m. There are at least six semi-circular towers on it. The ground dimensions of the towers change from 4.70 to 5.50m. The distance between the two nearest towers are 4.60m. There are huge rocky blocks inside of the fort/garrison. It is not possible to settle here. The ceramics might have been dated to the late Roman and Byzantine periods.

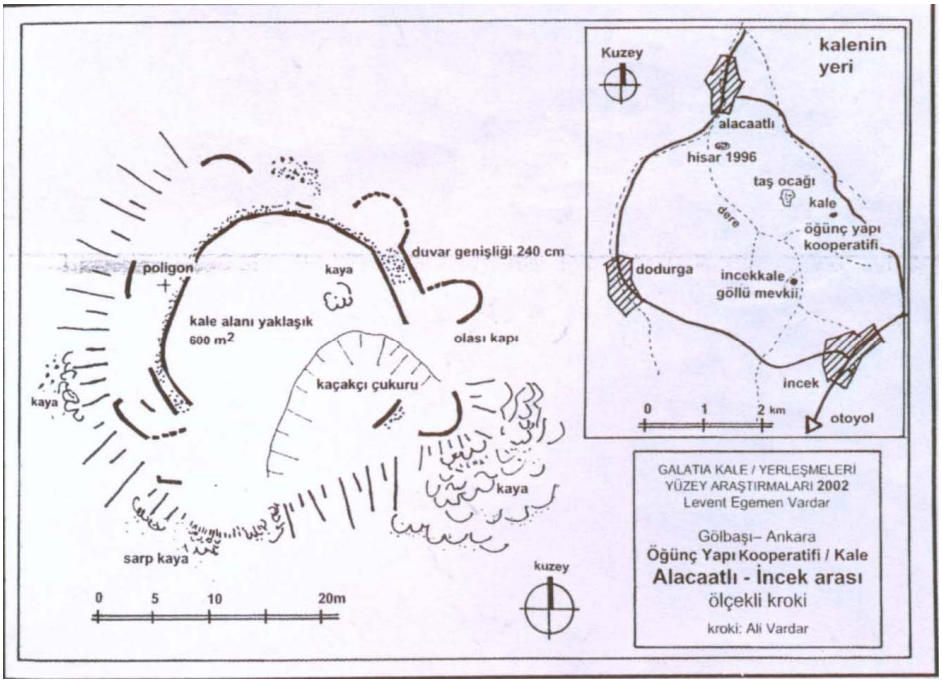

Fig. 41: Sketch of Kale (between Alacaatlı and İncek villages) (Vardar 2003, 129)

[110] Vardar 2003,120.

3. 14. Polatlı District

Basrikale lies 1.5km southwest of the Basri village.[111] The elevation of the hill is 1100m and the height is 35-40m. It has a strong command to its south (today Polatlı-Sivrihisar road and ancient road) and also to its west (Gordion and Sangarios river valley). This may indicate that it had a strategic importance. Botaş constructed Basri Röle Station at the top of the hill where the fort was once built. The station is approximately 15 x 30m in dimension. Although some structural remains of the fort are visible, it is not possible to clearly understand the architectural form. There are a few fragments of ceramics. Ceramic dispersion can be followed on a terrace that is on the south direction 5-6m down the hill. The ceramics are mostly Byzantine.

Hisarlıkaya (Fig. 42-43) is located 750m west of the Hisarlıkaya village.[112] It was constructed on a hill that is 50m in height and at an elevation of 1310m. It is surrounded by an oval enclosure at the highest point in a north-south direction. The fort especially commands to its north. The interior dimensions of the fort is approximately 25 x 36m. The thickness of the wall is not less than 2.20m and at some parts it's approximately 2.50m. The entrance of the fort is on the east and it looks through the Hisarlıkaya village. The width of the gate is 3.05m. There is another but a thinner wall (1.50-1.80m) surrounded by the inner wall. The distance between these two enclosures is 5-6m. The outer wall is in harmony with rocks in the area. This indicates that, the rocks were also used for defence. This is a common feature of several forts from the Galatian times. Mortar was not used in the walls. Perpendicular corners and oval areas are seen inside of the enclosure which may prove there was a settlement in this area. Ceramic fragments help date the rooms inside of the enclosure to the Byzantine Period.

Çanakçı is located 1.5km south of Çanakçı village.[113] Çanakçı was built on a hill that is nearly 100m high at 1029m. The area that is 1.5-2km north of Yıldız

[111] Vardar & Vardar 1997,248.

[112] Vardar & Vardar 1997,247-248; Ank 50 1973,57-58.

[113] Vardar & Vardar 1997,249-250.

Mountain (1112m) is the highest point in the region. Oak trees are seen in the surrounding area. The slope of the hill is very steep except its west direction. It has a wide view over the Sangarios river valley (that is 7.500m west of it) and its north. The view is around 30km to the northwest direction. Gordion that is 25km north of the hill can easily be seen.

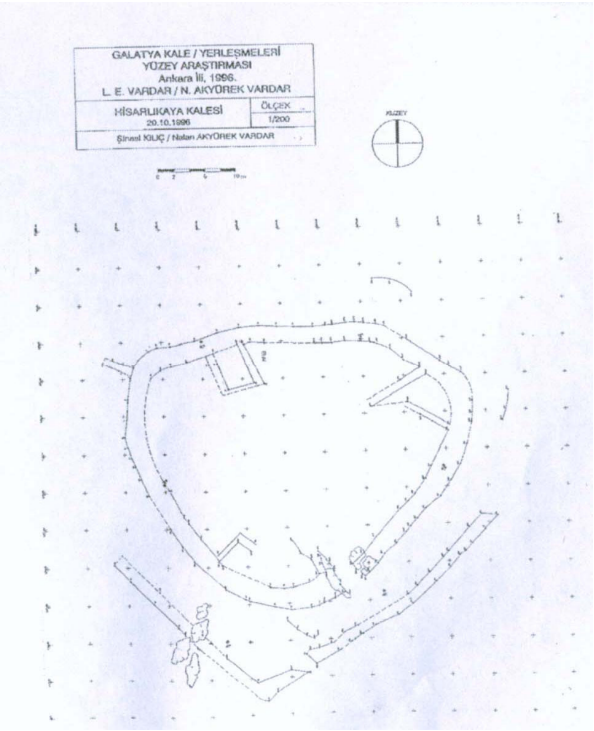

Fig. 42: Plan of Hisarlıkaya fort (Vardar 1997, 267)

Fig. 43: Northeast of Hisarlıkaya fort (Vardar 1997, 274)

The architectural remains and ceramic fragments were recovered on top of the hill. There are two different types of architectural remains (Fig. 44):

a) Places that were formed by cutting and shaping the blocks: Probably dating to the Hellenistic Period.

b) An enclosure that is linear and makes sharp corners, built of rectangular blocks (e.i. 0.95 x 0.45 x 0.60m in dimension): dating to the Roman Period.

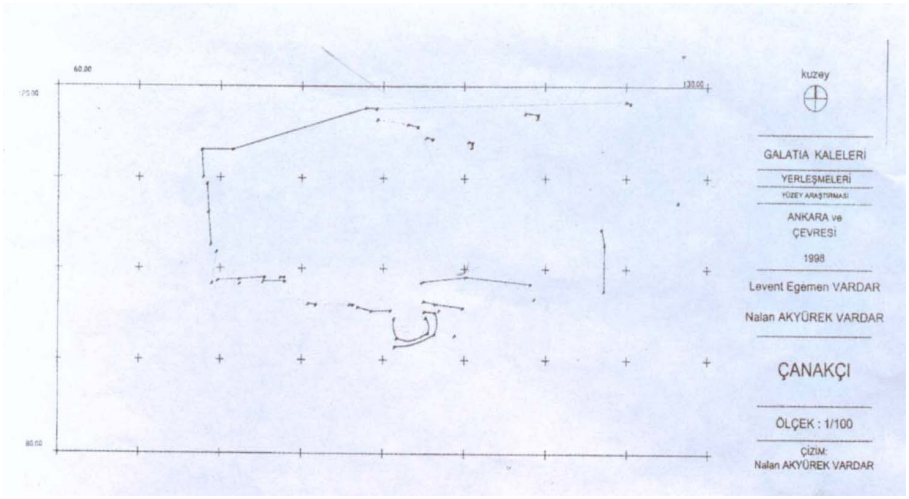

Fig. 44: Plan of Çanakçı fort (Vardar 1999, 167)

The ceramics that were recovered on the surface represent both of these periods. The structure that was made by cutting the rock is in the east. L. Vardar suggested that this structure would have been an 'open air holy area'. There is also a courtyard that is approximately 4.20 by 7.85m, in the same area. A relatively higher platform (5.30 x 4.50m) was built next to it. The third structure in this group is again contiguous to the other structures and it's quadrilateral in plan (4.80 x 4.40m).

There are two terraces which is 11 and 14m in length to the east of this structure group. The south of the terrace is rocky. Beds were carved to place the quadrangular blocks on the rock. These beds are 0.50m in width. This indicates that the enclosure was built by blocks on a single line on the rock. Besides, the enclosure makes a corner on the rock. The length of the enclosure on the west is

14.70m and on the north it is more than 70m. Also, 25m of the enclosure is visible at the east. Thus, in general it gives a trapezoidal plan.

There are stone quarries to the south side of the fort. It is nearly 15m below the fort. The blocks that were used to build the fort might have been taken from here. Besides, on the east of the hill, there are steps that were made by cutting the rocks. It is not clear whether they were used as quarry or had some relation with the open air sacred area that is located on the hill. Large number of ceramics dated to the Roman Period were found in the area between the village and the fort.

Oğuzlar (Fig. 45) is positioned 5km east of Oğuzlar (Yağır) village.[114] Oğuzlar is built on a hill that is 150m high at 1100m. While the distance between the fort and the Ankara river (that is located at the north) is roughly 10km; the distance to Sangarios river and valley (that is located at the northwest) is about 8km. Çile Mount (1440m) is located at the east. The hill where Oğuzlar is located is very steep. It is easy to go down to the plain that is around Sangarios river over the valley. These parts are suitable for agriculture. East and south parts are wooded. The flat area on top of the hill was surrounded by a wall. This can be deduced from the remains in the area. Huge, quadrangular worked blocks were used to build the south wall. It is difficult to estimate the height or the width of the wall. Small stones were also used together with huge blocks to build the enclosure. The big blocks' height is 1m and the smaller ones' height is approximately 0.30m at the outer face of the wall. The enclosure is not visible in all directions except only partially in the south. Scattered stones can give a clue about the approximate dimension of the fort. It seems that the length in the north-south direction is 45m and the width in the east-west direction is no less than 27m. Thus, an area approximately 1000m² must have been used. The slope in the south isn't very steep. For this reason, it's easier to reach the hill from this direction. The break at the south-east corner of the south wall might indicate that there was a gate or tower here. There is no structural remains inside the enclosure. The ceramics found were dated to the Late Antiquity.

[114] Vardar & Vardar 1998,288-289; Vardar 2004,316-317.

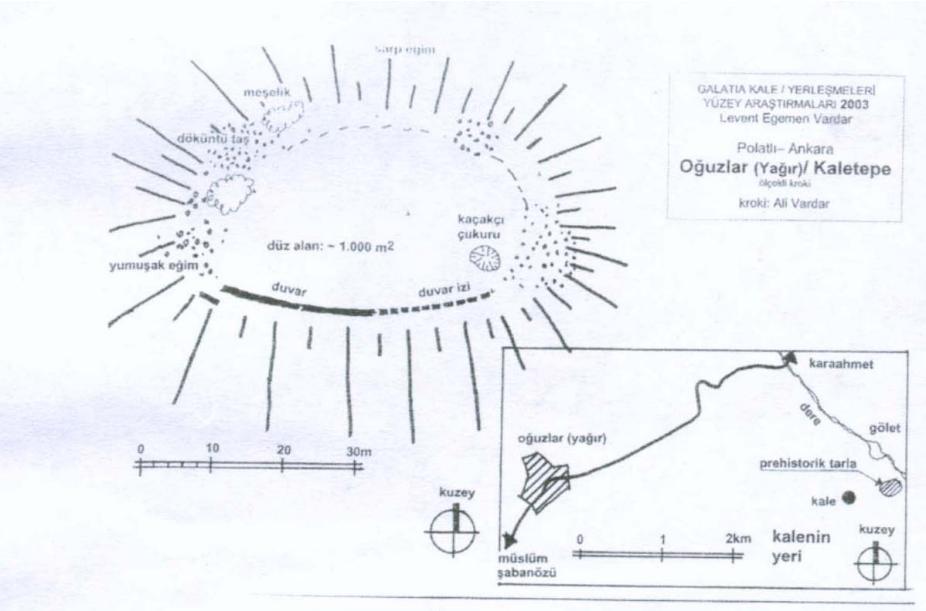

Fig. 45: Sketch of Oğuzlar (Yağır) fort (Vardar 2004, 332)

Kargalıkale (Fig. 46) lies 1.5km southwest of Kargalı village.[115] The hill, 50m high at 1400m is very rocky and is dominant to its south and west. Polatlı which is 8-9km from the site can easily be seen. Basrikale (in the north-northwest) and Çanakçı (in the southwest) have a visual relation with Kargalıkale. East of the rock is 10-15m high and is very steep. This feature can be regarded as advantageous, but the density of the rock groups, their dimensions and closeness to each other do not create a suitable environment for settlement in the area. The top of the area which is surrounded by rocks and approximately 60m in length in east-west direction would have been more suitable for settlement. There seems to be an exceptional arrangement on the east side of the rock. It seems that this part was flattened in order to make a base for wall construction yet, there is no stone that might have belonged to a wall at the top of the hill. On the other hand, the area might have been settled by people without interfering to its natural position. Also, a wall might have been constructed around the area for defense. Ceramics that were dated to the Chalcolithic, Hellenistic, Roman and Byzantine periods were found on the surface. The communication is easier in the north-east

[115] Vardar 2003,117-118.

direction. The gate of the structure might have been in the north part of the rock that is not very steep. The area where the fort was built is like a garrison. Also, large numbers of stones were encountered on a terrace at the south side of the hill. Ceramic fragments were larger in number in this part. This area also might have been settled. The ceramic fragments here can be dated to the Iron Age, Hellenistic and Roman periods.

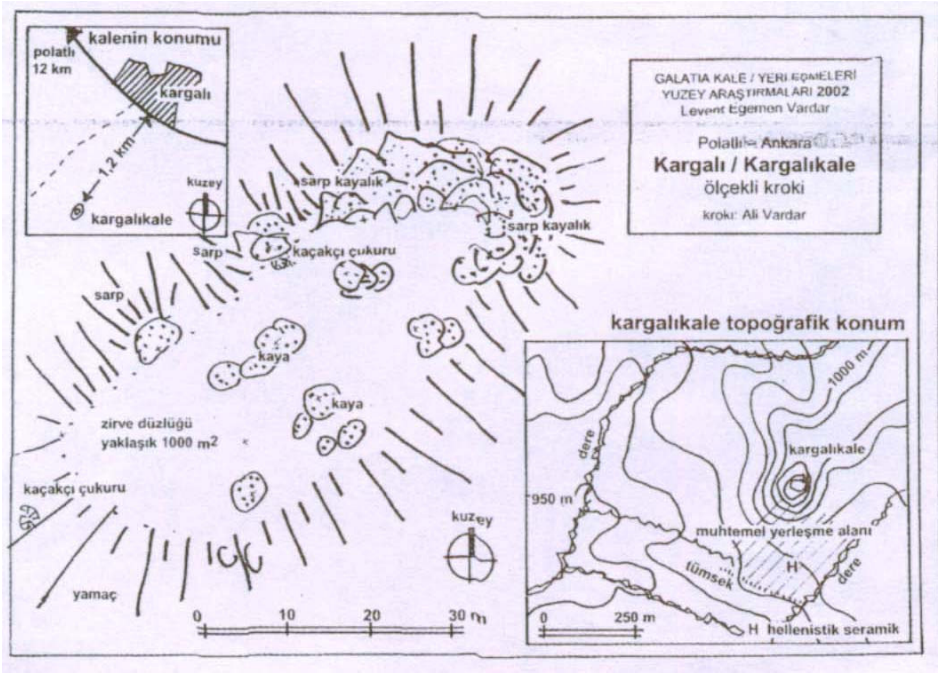

Fig. 46: Sketch of Kargalıkale fort (Vardar 2003, 127)

Kale Tepe(Türktaciri) (Fig. 47) is 2km north of Türktaciri village.[116] It's at 882m and is 140m above the Sangarios river. There is a perpendicular slope in all directions except the south. Walls and their foundations can be followed at the top of the hill on the east side. Their height is nearly 60m. This kind of structural remains might have been present on the other sides. Unfortunately, it's not possible to follow it due to erosion. The wall on the east is 36m high might indicate it was an enclosure. This wall makes a perpendicular corner at the north and continues 7m further. The fort does not have a regular plan. The walls were

[116] Vardar 2002,207.

divided into rooms on the east part of the enclosure, inside the fort. Five of them are clear. The walls at the south east corner might have belonged to a monumental gate. The fort has been dated to the Roman period depending on its plan and building techniques.

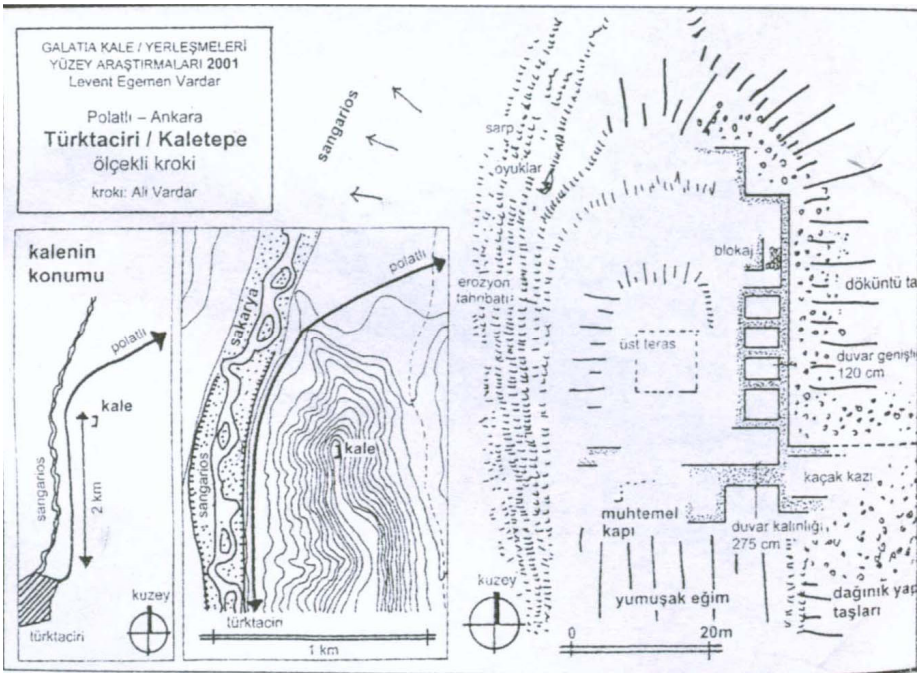

Fig. 47: Sketch of Türktaciri (Kale Tepe) fort (Vardar 2002, 214)

Çağnık (Çağlayık) (Fig. 48-49) is at an elevation of 770m lies 4km south, at the junction of the Sangarios river and the Ankara stream.[117] It is 110m higher than the Sangarios river and commands especially Sangarios river valley to east and north. The view distance at these directions is nearly 25-30km. The fort that was built at the top of the hill is approximately 90 x 48.50m. While the enclosure that surrounds the fort is 135m in length on north and west, there was no need to build an enclosure on south and east due to huge rocks. The enclosure was constructed by huge polygonal blocks without use of mortar. The height of the enclosure is nearly 2.20m on the north direction. While the gate that is located in this direction is 2.65m in width, the width of the enclosure is nearly between 1.80-2.30m. The defence advantage of the enclosure was increased by constructing it on rocky

[117] Vardar & Vardar 1997,255.

blocks. There is also an outer enclosure that is approximately 8-12m and parallel to inner one. This enclosure is nearly 0.90m in width. The area between these two enclosures is like a terrace. A spring is also designated inside of the fort.

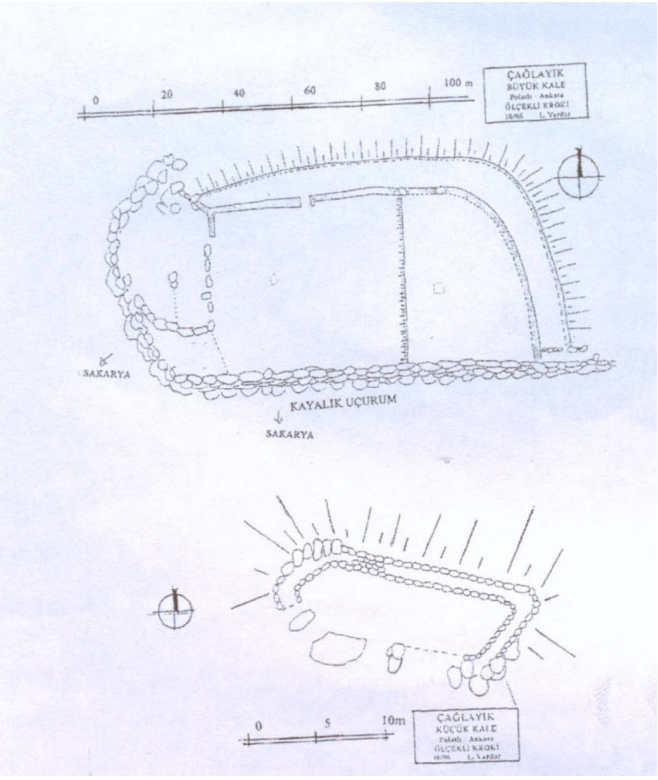

Fig. 48: Sketches of Çağnık (Çağlayık) big and small forts (Vardar 1997, 271)

There is also another *fort* (Fig. 48) 750m east of the Çağnık (Çağlayık) fort.[118] It is 14 x 4.50m and was built on top of a hill that is 15m high at 730m. It has similar features such as building techniques with Çağnık (Çağlayık). While the thickness of the walls change between 1.60 and 1.90, the measurable height of the walls on the north is 1.55m. There was no need to build wall on the west due to rocks.

[118] Vardar & Vardar 1997,255.

Fig. 49: Çağnık (Çağlayık) fort with Sangarios river (Vardar 1997, 278)

Küçükkale (Fig. 50) is located 5km south of the Polatlı district, is 60m high at 900m.[119] Polatlı-Yunak-Akşehir road is seen at 600m to the west of the fort. The fort has a wide view of all directions and commands the Sangarios river valley on the west. Some forts such as Kargalıkale on the east, Basrikale on the north and Çanakçıkale on the south can see each other and Küçükkale easily. It is not possible to follow an enclosure, because north, east and south directions of the fort is rocky so, there is no need to build an enclosure. There are some rooms that were divided by walls inside of the enclosure. The construction is done with and without use of mortar. The ceramic fragments were dated to the Hellenistic and Byzantine periods.

Girmeç (Fig. 51) was built 1km southwest of the Girmeç village.[120] The fort is located on the east slope of the Çile Mount, 1130m high. It has a deep view especially to its east, north and south. Girmeç also commands the Ankara stream and the area around it 5km from the east. While the length of the wall in north-south directions is 70m, the width changes. West and south part of the hill is rocky. There are two enclosures. The outer enclosure is 70m in length. The inner enclosure is 3-3.50m in height, 17.40m in length and 1.10m in width. Polygonal

[119] Vardar 2003,121.

[120] Vardar 2004,318-321.

huge blocks and rubbles were used for construction. The ceramics were dated to the Hellenistic, Byzantine and Middle Age.

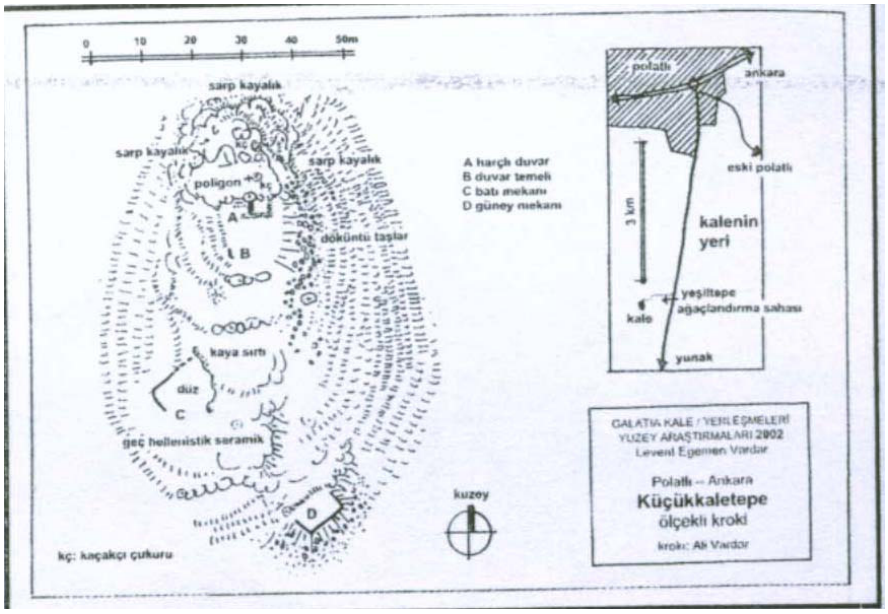

Fig. 50: Sketch of Küçükkale fort (Vardar 2003, 130)

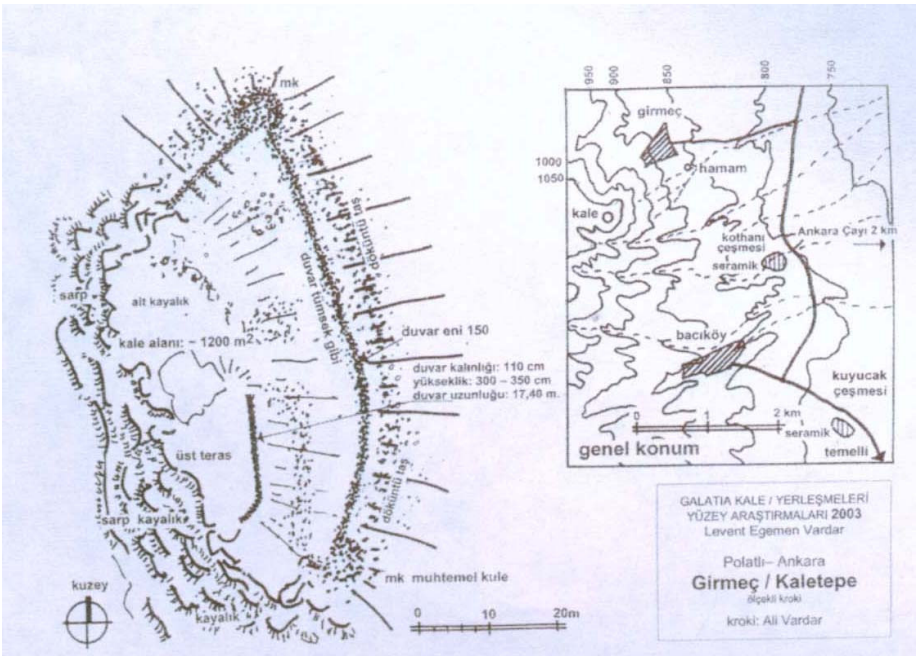

Fig. 51: Sketch of Girmeç fort (Vardar 2004, 333)

3. 15. Bala District

Üçem II is situated near Büyükboyalık and Küçükboyalık villages.[121] The hill where the fort was built is 155m high, at 1310m and is located at the east of Küre Mountain. The distance between the hill and the Halys on the east is 15km and its distance to Küçükboyalık is 1750m. Üçem II is 200-250m higher than the two villages. It has a wide view through the Halys in the east and south.

An area on the hill that is 30m in diameter was surrounded by an enclosure. East and west sides of the fort are longer than the others. Enclosure does not make corners. Rough stones that were not very big were used. Blocks that are approximately 1m in height were used at the foundation of the enclosure. The plan of the enclosure is very clear. The wall can be followed. The southwestern side of the wall is relatively higher and it goes down to the east with a little slope. There is a semi-circular tower at this point in the south-west direction. There are also towers in the middle of the western wall and at the north-west corner. There is a gate which is 1.44m wide. There is a second probable tower that faces north-east. The scattered stones don't give a meaningful information about the interior of the enclosure.

3. 16. Haymana District

Güzelcekale (Fig. 52) lies 1250m south-west of Güzelcekale village. The site was visited and described by Ainsworth:

> At the extremity of the upland of the Heaven Gate spring (Gökçe pınar) we found ourselves above a long valley, stretching north to the fort of Karaoga Tagh, a vast cone of trachyte, now only a few miles from us. Between us and the mountain was a rude rock with an almost equally rude stone fort on the summit. We were much disappointed to hear that this was Kuzilja Kaleh (the red castle), which we were in search of. [122]

Güzelcekale was built on a conical and rocky hill that is nearly 160m in height at 1310m.[123] The hill has hegemony over its north and especially its east. A valley

[121] Vardar 2001,302.

[122] Ainsworth 1842,146.

[123] Vardar & Vardar 1997,250-251.

extends from the fort's north towards its west. The remains examined in the area have been divided into four groups: 1. Fort 2. Fort Bazaar 3. Rock Settlement 4. Rock Cemetery

There is a rock group that is nearly 60m long and 20m wide at the north of the highest terrace. Fort that is 40 x 40m in dimension is positioned at the south of this rock group. The fort is surrounded by an enclosure that is linear in the eastern and western directions, makes perpendicular/sharp corners and was constructed of oblong blocks without use of mortar. The width of the enclosure is 1.80m. This enclosure might be dated to the Roman Period. The entrance to the fort might have been here. It is not possible to date the fort to earlier periods. The ceramics are dated to the Roman Period and the Middle Ages. Springs are the best identifiable architectural feature inside the fort. One of them is located nearly in the middle of the fort, the other one is positioned on the northeast near the rock and the enclosure. The rocks did not probably give permission to build walls longer than 10m.

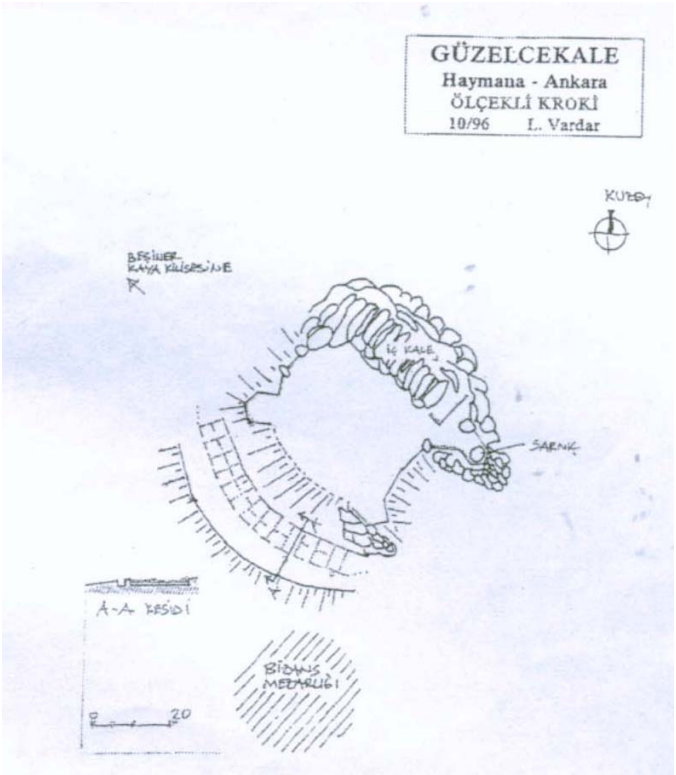

Fig. 52: Sketch of Güzelcekale fort (Vardar 1997, 268)

There is a group of structures, nearly 20km southwest of the fort on the lower terrace. This contiguous structures were constructed of rubbles. While their width is not more than 5m, their length is nearly 7-8m. The total number of the buildings are 12-14. All of the entrances are on the south of these buildings. They might have been used as workshops. Most of their front and back parts are separated through the middle with a wall. These parts might have been used for production and sales. There are springs in front of the second and fourth workshops from the east. They were carved on rocks. The bedrock surface spread over a wide area in front of the workshops. There are some remains that might have belonged to other structures in the same area. Thus, this area might have been used as a 'bazaar'. Also, the stones at the south of this terrace might indicate that there was a cemetery.

The village *Gölbek* (Fig. 53) is 90km from Ankara.[124] It's located 2.5km southwest of Gölbek village. The elevation is 1225m. Gölbek has good command of its surrounding especially its west, north and partly the east. It is 150m higher than the flat area around it. Communication is easier at the east. In general, the structure is oval in plan. The distance between the parallel sides are 25m. The area inside of the wall is rocky and there are also rocks on the eastern and southern sides of the hill. The northern part of the enclosure is approximately 40m long. Big blocks were especially used at the wall's foundation on both the interior and exterior. Small stones were scattered among big blocks. The height is more than 1.5m at this site. The entrance of the fort is on the east. The width of the gate is not more than 1.20m. The enclosure curves from the gate through the west. The widest part of the enclosure is on the west. Huge, flat and wide blocks were used in the foundation. The distance between the rocks that are located to the east and west end of the south side is connected by an enclosure that is approximately 13m long. This section is on the opposite side of the gate.

Çalış is located 1km southwest of the Çalış village and it is 100m high from the village at an elevation of 1260m.[125] It is also 85km from Ankara. Çalış commands

[124] Vardar 2000,241.

[125] Vardar & Vardar 1999,164.

all directions around it. There are some architectural applications such as springs, ladders on the rocks. An enclosure surrounds all of these remains. The ceramics were mostly dated to the Roman Period.

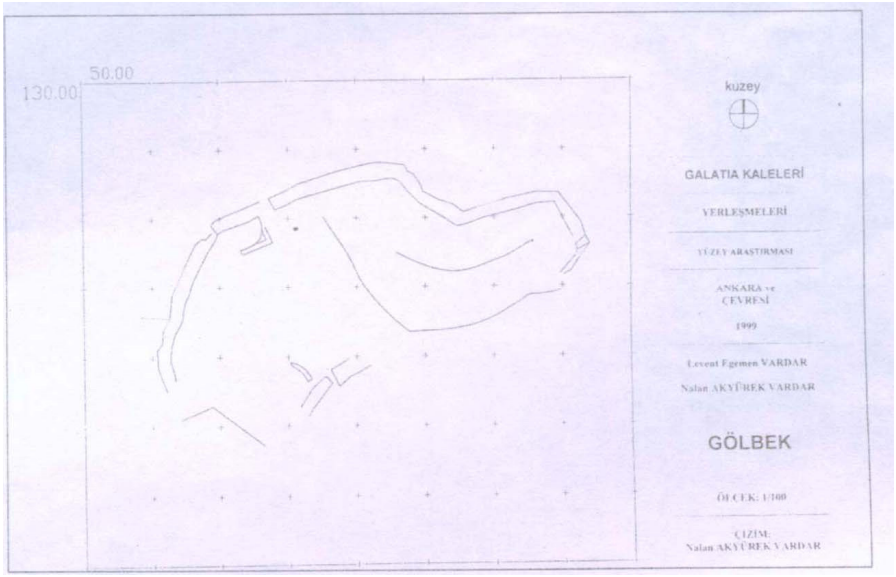

Fig. 53: Plan of Gölbek fort (Vardar 2000, 245)

The hill on which the *Taşlıkale* (Fig. 54) lies 6km from the Boyalık village on the east and is 1160m high.[126] Taşlıkale is 110m above the Sarıkaya stream. It also commands to its north, south and partly west. Polygonal blocks that are more than 1m in length and nearly 0.5m in height were used at the ground base. While the width of the enclosure wall is nearly 2.40m on the east, it is 1.90m on the west. The walls are nearly square in plan. North wall was built on the highest part of the hill. A semi-circular tower and a probable gate was recognized in the enclosure. There is a spring that is more than 5-6m in diameter at the middle of the area. Ceramics were mostly dated to the Roman and later periods.

The forts that were built in Ankara and its environs have strategic positions that helped to control the main roads and provided easier access to natural resources such as water in their environs.

[126] Vardar & Vardar 1998,289.

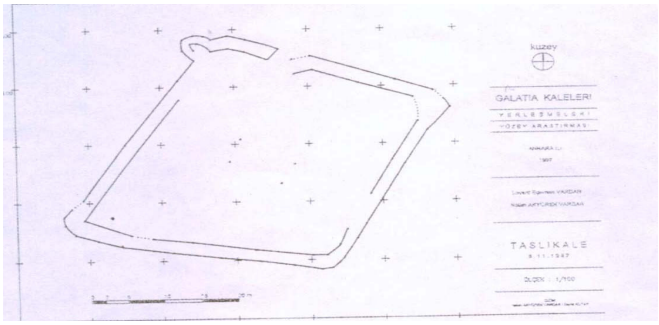

Fig. 54: Plan of Taşlıkale fort (Vardar 1998, 293)

Some forts were situated close to each other, so they could see one an other easily. The hill on top of which the forts were built are approximately 20-150m in height. They are not very huge structures, so it seems that these strongholds could not take large numbers of people. These forts' walls were mostly placed on bedrock in order to make them stronger and increase their defensive ability. This is an important feature of the Galatian fort architecture. The different types of plans (from triangular to oval) might have resulted from this application, so natural position of the rocks are important due to this situation. Some of the forts do not show a clear and understandable architecture. The design and craftsmanship of the forts do not indicate big differences. Generally, they were built of oblong or quadrangular blocks without use of mortar. This kind of construction technique is mostly seen in Galatian times. While the Celts[127] used timber and other kinds of materials for construction for their forts in Europe, only oblong blocks and rubbles were used in Galatia. Also, the Celtic forts in Europe were huge and stronger. It seems that they might have been influenced from native people in terms of building techniques in Galatia and might have not been able to find that kind of construction materials due to natural environment. Some of the forts have two enclosures. In some examples, second enclosures were added in later periods.

The main purpose for all of these forts is not clearly understood except one or two examples. e.i. Tabanoğlu was used to protect the Galatian king Deiotaros' treasure. The people who settled in them permanently or temporarily might have only wanted to protect themselves against their enemies, wild animals, etc. and to

[127] Ankara 50 1973,48.

continue their life. Besides, people might have used interior and exterior of the enclosures for economic activities, trade, religion, etc. Some of them might have been used as garrisons. Unfortunately, there is no clear study concerning ceramics that were recovered inside and outside of these enclosures. Most of these forts were left and people settled in cities in the Roman times.

CHAPTER 4

4. VISIBILITY (VIEWSHED) ANALYSIS

4.1. GIS and Visibility (Viewshed) Applications in Archaeology

Geograhic Information Systems are used in many research areas today. There is no accepted or perfect definition for the structure and capabilities of GIS. In general, in terms of archaeology GIS are considered as simply spatially referenced databases. Points, areas on a map have a direct link to a particular record in a database. They have a capacity (for storing, mathematically manipulating and visually displaying spatially referenced data) that separate them from CAD (Computer Aided Design) and CAM (Computer Aided Mapping) programs. GIS is visually applied to computer systems that can interrelate multivariate spatial data sets.[128]

GIS is a tool that manipulates spatial data. Archaeological spatial data may be viewed at different levels. The distribution of cultural groups, trade networks and the like can be studied at the macro level. Under this, spaces that are designated with a political/socio-economic boundary or a settlement pattern in a region can be analysed. At micro level, a site and spatial analysis of objects in the site may be investigated.[129] e.i. Three dimensional control of archaeological sites allow for the potential of tracing the artefacts and the human behaviour associated with this pattern.[130] All of these levels need different data resolution. While the data in these studies varies, the GIS tools do not change.[131]

Current applications of GIS in archaeology can be divided into two broad areas: *Management* and *Research* (Fig. 55).[132] Each of them also have sub-divisions. Management category has two application areas. One of them stresses upon the

[128] Maschner 1996a,2.

[129] Gaffney, Stancic 1991,30-31.

[130] Allen, Green, Zubrow 1990,385.

[131] Gaffney, Stancic 1991,30-31.

[132] Wheatley, Gillings 2002,201,233-237.

storage, maintenance and analysis of existing Natural and Regional Databases is called *Database Management*. This kind of applications use GIS to provide a two way spatial view into a real database of archaeological information. It helps users to interactively evaluate the data. GIS is used to improve existing database systems while the spatial dimension is articulated. CRM (Cultural Resource Management) is another application that focuses on the management and protection of the archaeological resource. It contains many fields including development planning and predictive modelling. GIS are used to help firmly under-resourced archaeologists to maintain and protect the cultural resource. For instance, spatial technologies give a chance to managers for providing a more continuous notion of the archaeological resource.

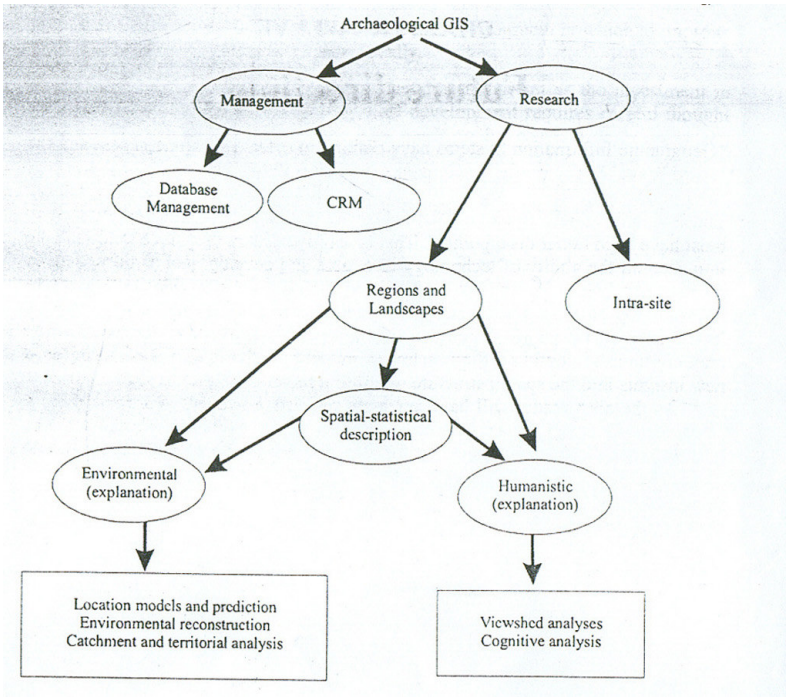

Fig.55: Practical applications of GIS in archaeology (Wheatley & Gillings 2002, 234)

Research part is divided into applications that stress at the inter-site, regional level (*Regional Landscape*) and specific excavation and site-based studies (*Intra-site*). Landscape based studies have a hegemony over intra-site studies in

archaeological-GIS applications from the outset. Landscape-based archaeologists are interested in:

1. re-exploring the quantitative spatial statistical approaches that were characteristic of the 'New' and 'Spatial' archaeologies of the 1960s and 1970s.
2. predictive modelling (privileging environmental information)
3. 'humanistic' analysis (privileging cultural information)

As it is seen on the chart (Fig. 55), Regional Landscape is divided into sub-classes: *Environmental Explanatory* approaches interested in more ecological approaches whether looking for modelling post-depositional change or searching deterministic models to understand and evaluate the patterning in the archaeological record. In contrast, *Humanistic Explanatory* approaches give more importance to social and cultural variables.

While visual phenomena has been regarded effective, the terms 'seeing' and 'looking' are very hard to explain with traditional methods. Some kind of concepts such as 'hidden', 'panoramic' and 'prominent' are useful terms in daily life but it is very difficult to explain them in practice. This kind of visual terms are often mentioned but unfortunately rarely explored in a formal and meaningful way. Thus, incorporation of visibility with archaeological interpretations will give more light to research subject. Although many techniques were developed during 1970s and 1980s, it can be said that the first formal and systematic studies to discover the visual characteristics of locations are seen in the early 1990s with the adoption of Geographic Information Systems by the archaeologists. Giving visibility more importance than other visual factors show the difference between old and new trends in archaeology. Visibility is equated with perception and seen as a significant technique while studying environment.

Viewshed analysis has become one of the significant and widely used spatial data analysis in Geographic Information Systems (GIS) today. Viewshed delineation software is mostly based on binary viewsheds. The main aim of this approach is to estimate whether each point in an area is visible or not from a given observation point. If it is possible to designate a straight line between two points without the

interruption of the surface, these two points are accepted as visible.

Viewshed delineation algorithms need at least two inputs: Digital Elevation Model (DTM) is the first input that describes the topography of the interested area and then divide the area into regions. These regions will be determined as visible or invisible from some of the observation points. The second input has a function of designating the three-dimensional location of the observation point.

The viewshed delineation algorithm accepts each region in the DTMs as a target and decides whether each target is visible or not from the observation point. For every target, the orientation and vertical angle of the line of sight connecting the observation point to the target is decided. All of the surface elevations through this line of sight are then discussed. The target is invisible, if there is one or more intermediate elevation points higher above the line of sight. If the intermediate points do not rise above the line of sight, the target is visible.[133]

There are a number of points that have to be reviewed in viewshed analysis. The basic concern is the relationship between association and causation. Whether the statistical patterns that are seen in the viewshed data are a product of natural environment or not is an important and difficult situation. It is not easy to evaluate this subject because, the amount of processing time for every viewshed makes a huge random sample time-consuming a lot with many computer systems.

'Tree problem' is the other concern in visibility analysis. While doing visibility, the landscape was considered as if it was treeless. In contrast, many landscapes might have been more wooded in ancient times than today. The opposite might also be true. Height-of-viewer problem is also similar type of problem while doing visibility. Both can be more accurately decided by setting the base elevation of the viewer during viewshed operation.

Distance is another issue in viewshed analysis. Weatley suggests that maximum distance can be reduced from infinity because visual resolution is reduced with

[133] Maloy, Dean 2001,1293; Ruggles, Medyckyj-Scott & Gruffydd 1993,126-127.

distance. Curvature of the earth also has to be considered in viewshed operation and find a way for a weighted elevation adjustment with distance from the viewpoint.[134]

Visibility has many applications in archaeology. P. M. van Leusen has used viewsheds for local landscapes of Paleolithic and Mesolithic sites that were located in the Mergelland Oost area of the Netherlands.[135] P. M. van Leusen evaluated possible function of sites as lookout locations. The application is simple and straightforward.

Lock and Harris gave a typical example concerning the spatial-visual distribution of Prehistoric funerary monuments.[136] They used GIS-based techniques to re-examine some ideas that were claimed by researchers (such as Renfrew in 1970s) while studying the Danebury region of southern England. These ideas especially demonstrate the role of such structures as territorial markers. Viewshed calculations were used to designate and interpret supposed territories. They were then compared with territories that were derived from more traditional spatial-analytical techniques (e.i. Theissen polygon analysis) that did not give permission for visual characteristics.

In another study of the pre-Roman town at Nepi in south Etruria, viewsheds were used to prove the liminality of tomb positions with respect to the town -spatially far and inaccessible, yet visually close.[137]

Smith used viewshed analysis to explore author Pausanias' (second century A.D.) conceptual map of the city of Piraeus.[138]

Gaffney's work concerning rock art sites in southwestern Scotland, explored a relationship between cognition, perception, and GIS-based visibility studies.[139]

[134] Maschner 1996a,8.

[135] van Leusen 1993,105-123.

[136] Lock, Harris 1996,214-240.

[137] Belchner, Harrison, Stoddart 1999,95-101.

[138] Smith 1995,239-248.

[139] Gaffney, Stancic, Watson 1995,211-229.

Cumulative viewsheds were used to designate increased monument zones. It is accepted that this kind of information show the socio-symbolic significance. Then according to this cumulative map, intervisibility analysis was done concerning individual classes of monument locations. It is claimed that this kind of approach produces 'a mapable, spatially variable index of perception', that helps to understand the cognitive landscape inluding monument components.

Viewsheds have been most popular in spatial studies of cognition. Gaffney, Stancic and Watson proved the importance of viewsheds in their study that was about locating monuments in northern England.[140] Maschner incorporated viewsheds as a cognitive variable to examine settlement location in his study of hunting and gathering communities in southeast Alaska. He proved that villages were carried to more defensible zones in the middle to late phase transition at approximately 200-500 A.D.[141]

Wheatley tried to evaluate regional variation in the distribution of Neolithic monuments in Wessex, England.[142] He is interested in how humans perceive landscapes and with the spatial scale of that perception-scales 'described in cognitive space'. He tested Renfrew's (1973) model that was about the distribution and the structure of political entities in the region. At the end, he designated important differences concerning the locations of long barrows in two different areas.

Madry and Rakos used viewsheds and optimum path analysis to understand the relationship between Celtic hillforts and Celtic roads in the Burgundy region of France.[143] Optimium path analysis determined the easiest route between two points. This can be done by raster and vector GIS.

Ruggles and Medykyj-Scott used viewshed analysis to understand the relationship between stone monuments and astronomical phenomena of the Isle of Mull,

[140] Gaffney, Stancic, Watson 1996,132-154.

[141] Maschner 1996b,175-189.

[142] Wheatley 1996,75-103.

[143] Madry, Rakos 1996,104-127.

Scotland.[144] They put more emphasis on social and cognitive characteristics of prehistoric human behaviour than on environment. They used multiple viewshed analysis that is done by combining viewsheds from specific points. According to them, for instance the view from a hill top is not culturally important from a single point. The combined views around the top of the hill from different points might indicate a more accurate view of what was seen by the inhabitants.

4.2. Visibility (Viewshed) Analysis of Forts in Galatia

In this thesis, firstly thirty-five forts were plotted on the 1:100.000 scale maps that include Ankara's districts (Çamlıdere, Kızılcahamam, Beypazarı, Kazan, Güdül, Çubuk, Ayaş, Sincan, Çankaya, Yenimahalle, Keçiören, Gölbaşı, Polatlı, Bala, Haymana) and villages. Each forts' visibility area was defined within the buffer zones (10 and 25km in radius) based on Levent Vardar's suggestion. The forts themselves became the viewing points located at the center of the buffers. 12m is used as height and the viewing azimuth is decided as 360º for the calculation. At the end, all visibility areas with ancient roads (red lines) and rivers (blue lines) were situated on SRTM. The statistics of the visibility for every fort were listed.

The main purpose of locating the forts (Fig. 56) on a SRTM is to see how they were situated in the area, the topography of the area, the positions of the forts in relation to each other, the importance of ancient roads and rivers for their construction. One of the other aims in doing visibility analysis is to see the fort settlements' visibility within 10km and 25km radius, to gather all the information that was gathered from the SRTM, the visibility results, the historical sources and to evaluate all the results in order to understand not only the real function of these forts and their environs, but also to predict how and where people were living here (inside or outside the forts?), the relationship between them, communication.

[144] Ruggles, Medyckyj-Scott 1993,125-132.

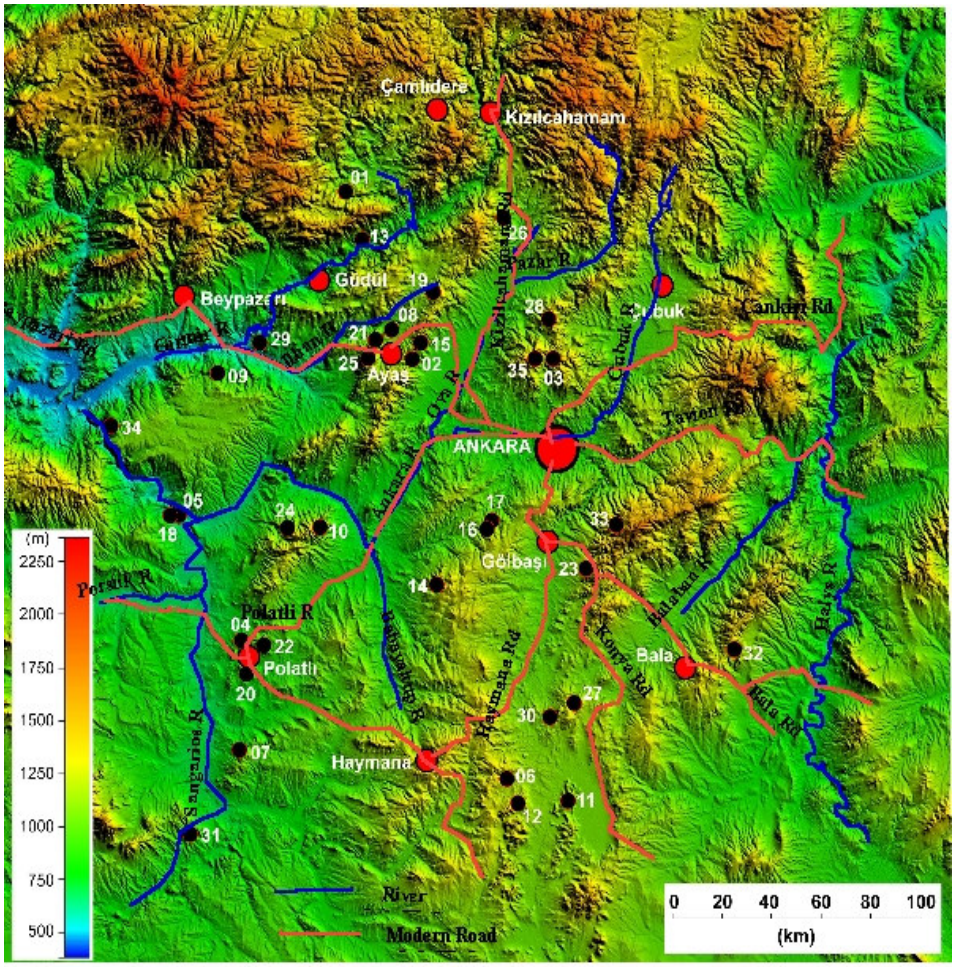

Fig. 56: SRTM of the area that shows location of forts (numbered from 1 to 35), major settlements, rivers (blue), roads (red) is given. Elevation of the area is indicated from low (blue) to high (red) altitudes. Forts: 1. Akkaya; 2. Asarkaya (Yenikayı); 3. Bağlum (Hisartepe); 4. Basrikale; 5. Çağnık (Çağlayık); 6. Çalış; 7. Çanakçı; 8. Çanıllı (Asartepe); 9. Dikmenkale; 10. Girmeç; 11. Gölbek; 12. Güzelcekale; 13. Güzelçiftlik; 14. Hisarlıkaya; 15. Hisartepe (Akçaören); 16. İncekkale; 17. Kale; 18. Kale (next to Çağnık); 19. Karalar; 20. Kargalıkale; 21. Kedikale (Gökçebağ); 22. Küçükkale; 23. Oğulbey (Gorbeus); 24. Oğuzlar (Yağır); 25. Ovabağları; 26. Pazar; 27. Selametlikale; 28. Sirkeli; 29. Tabanoğlu; 30. Taşlıkale; 31. Türktaciri; 32. Üçem II; 33. Yakupabdal; 34. Yalnızçam; 35. Yuva.

Description of each site for Visibility Analysis is made below in accordance with the numbers in Fig. 56:

1. *Akkaya* is located on a rocky area. The visible percent of this fort is 13.3 in 10km radius and 3.7 in 25km radius. Akkaya sees its south, especially southeast and partly west. Also, small part of Güzelçiftlik, that is located on the southeast of Akkaya, is visible from it. Although Ankara-Kızılcahamam road passes from Akkaya's east, Akkaya does not control it. Kirmir stream flows from south, south-east, east to north in a 25km radius.

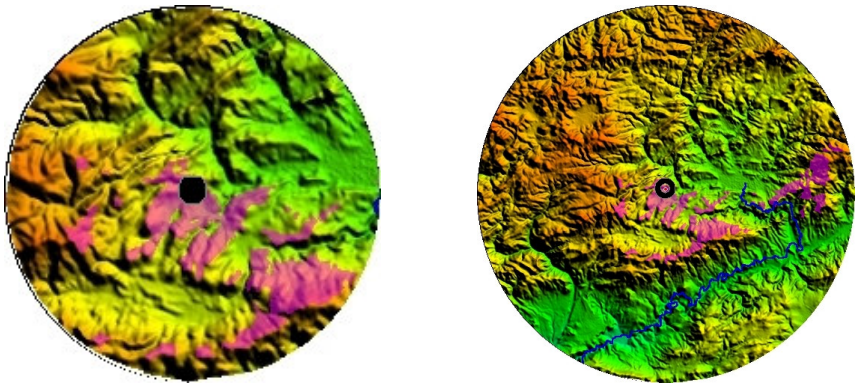

Fig. 57: Visibility of Akkaya fort in 10 and 25km radius

2. *Asarkaya (Yenikayı)* was built on a rocky area. While the visibility percentage of it in 10km radius is 18.9, it's 20.4 in 25km radius. The south and especially the east parts of the fort are visible. It looks through the same direction and also the same area with Hisartepe (Akçaören). Ankara-Beypazarı road passes from its east within the 10km radius. It also controls Ankara-Kızılcahamam and Ankara-Polatlı road in 25km radius. Ova stream that is seen in 10km viewshed area of Asarkaya (Yenikayı) flows in the southeast-northeast direction. Ankara stream is located at the south of it and it unites with Ova stream (that comes from the northeast) in 25km radius. However, İlhan stream, that flows on the northwest of the fort, is not visible.

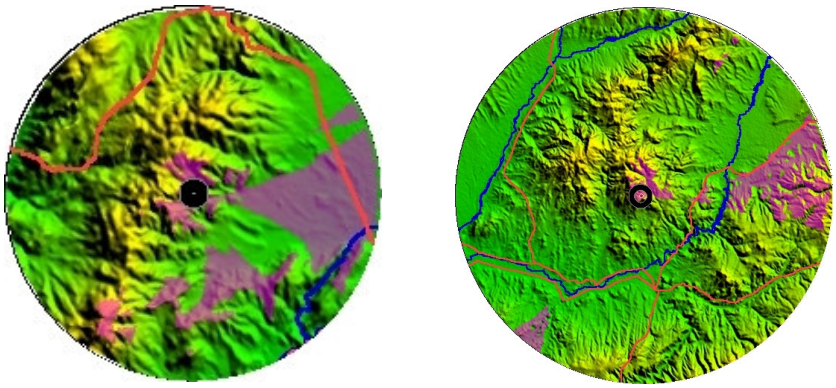

Fig. 58: Visibility of Asarkaya (Yenikayı) fort in 10 and 25km radius

3. *Bağlum (Hisartepe)* is located a little to the northwest of Ankara and is positioned on a partly rocky area. It can see 17.8 percent of the area in 10km radius. East, southeast and partly southwest and west parts are included in the viewshed area of it. It controls Ankara-Çankırı road on the east. The visibility of Bağlum (Hisartepe) looks through the same areas with Yuva that is located on the west of it. The visible percentage of the area is 6.3 mostly on the east and partly southeast directions in 25km radius. Although Ankara-Beypazarı and Ankara-Polatlı roads are included in 25km radius, the fort does not see them and only these roads' south is visible. The area where the roads are located is flat. This might be the reason for their invisibility. Çubuk stream that flows along south-southeast is visible in 10km radius. Ankara stream on the south and Çubuk stream on the east are visible in 25km radius. Pazar stream and Ova stream that come from west to north are not seen in 25km radius.

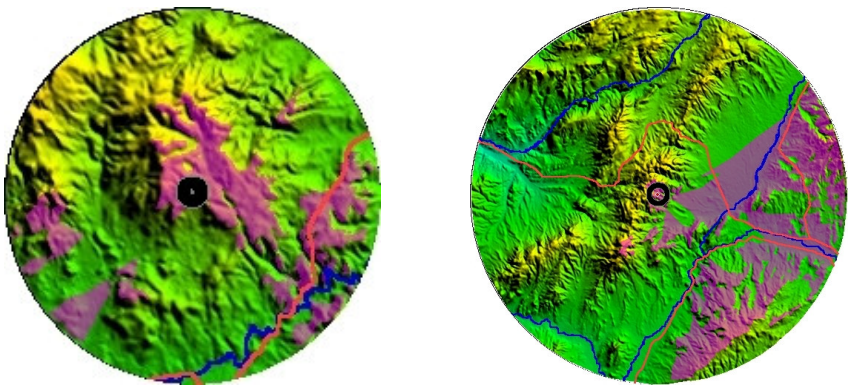

Fig. 59: Visibility of Bağlum (Hisartepe) fort in 10 and 25km radius

4. The hill on which *Basrikale* was built is higher than its surrounding. It has the highest visibility percentage (67.1) in 10km radius among thirty-five forts in this visibility analysis. 32.5 percent of the area is visible in 25km radius. All of the area inside these buffers (10 and 25km in radius) are nearly visible in most directions. While its visibility is dense on north-northwest and south-southeast directions in 10km radius, it sees mostly west and partly northwest and southeast directions in 25km radius. The road that runs from Ankara to Polatlı and from Haymana to Polatlı unite at Polatlı and continue to Mihalıççık. Basrikale controls these roads. Also, Küçükkale is located in the visibility area of it on the southeast. Sangarios is located at the west and its tributary Porsuk is seen on the northwest of Basrikale in 25km radius. However, Babayakup lies on the east of it, and is not visible from the fort.

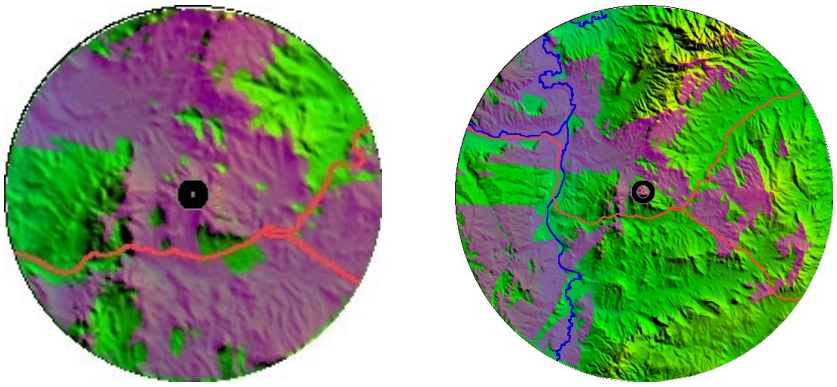

Fig. 60: Visibility of Basrikale fort in 10 and 25km radius

5. *Çağnık (Çağlayık)* is located on a mountainous area. The visible percentage of the fort is 20.4 in 10km radius, it is 16.9 in 25km radius. While southeast direction is visible from it in 10km radius, the fort sees its east, southeast, northwest and north directions in 25km radius. It also controls Polatlı-Mihalıççık road on the southeast in 25km radius visibility. Sangarios comes from north, continues its way along southeast and Ankara stream that is located on the north-northeast are visible in 10km radius. Sangarios river and Ankara river are also seen on the north, northwest directions in 25km radius. Porsuk that flows on the south is not visible.

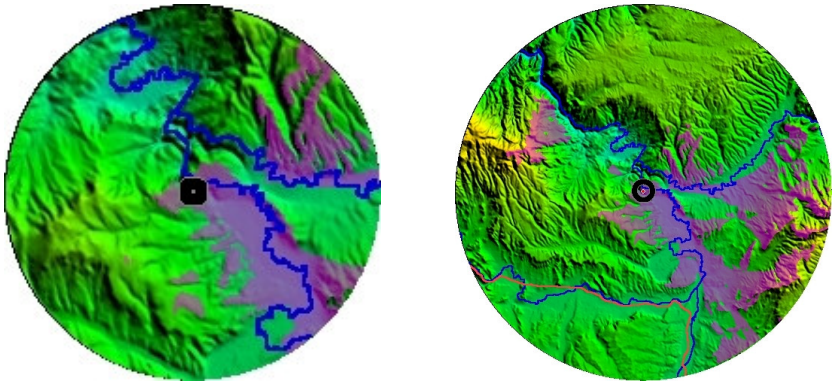

Fig. 61:Visibility of Çağnık (Çağlayık) fort in 10 and 25km radius

6. *Çalış* fort's northeast, east and southeast directions are flat and the hill where the fort is located is a little rocky. 20.5 percent of the area is visible on east, south, southeast directions in 10km radius. Taşlıkale that is located on the northeast and Güzelcekale that is positioned on the southeast are in the visibility area of Çalış. The visible percentage of the area is 9.3 mostly on south, southwest and northeast directions in 25km radius. It also controls Gölbaşı-Konya road on the east.

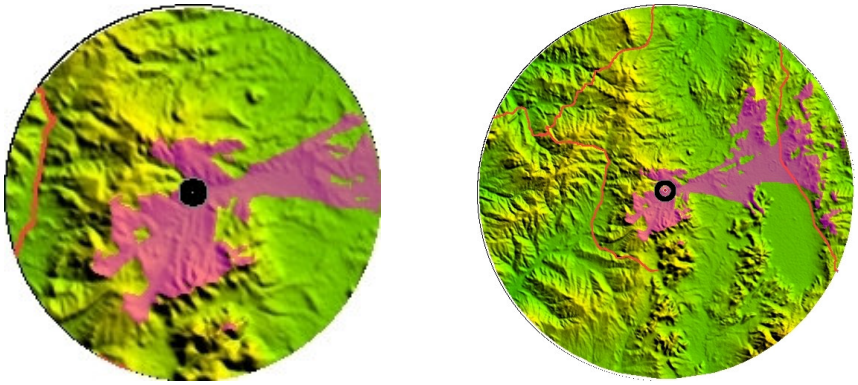

Fig. 62:Visibility of Çalış fort in 10 and 25km radius

7. *Çanakçı* is located in a mountainous area. The western part of the fort is flat. The visible percentage in 10km radius through mostly northwest, north and northeast directions is 27.8. Küçükkale that is located on the northeast is also in the visibility area of Çanakçı. The visible percentage in 25km radius is 21.1. The view of the fort also include the west and it controls Ankara-Polatlı, Polatlı-

Haymana and Polatlı-Mihalıççık roads. Sangarios river that flows from northwest to west is visible in 10km and 25km radius.

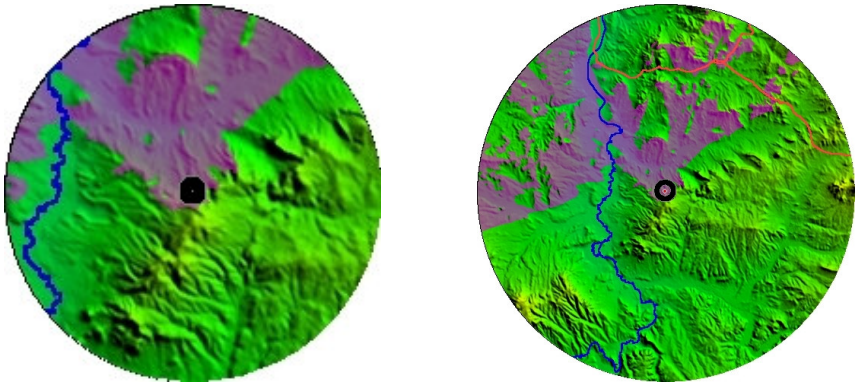

Fig. 63:Visibility of Çanakçı fort in 10 and 25km radius

8. The area where *Çanıllı (Asartepe)* is located is a mountainous area. Also, a high mountain chain rises from east. The visible percentage of the area in 10km is 16.0. It has a view of all the directions. Gökçebağ (Kedikale) that is located on the southwest is partially in the visibility area of the fort. It controls Ankara-Beypazarı road on the south-southeast directions.The visible percentage of the fort in 25km radius is 1.4. İlhan stream on west, northwest directions is visible in 10-25km radius. Kirmir stream that flows along northwest and Ova stream that lies on southeast and east cannot be seen in 25km radius.

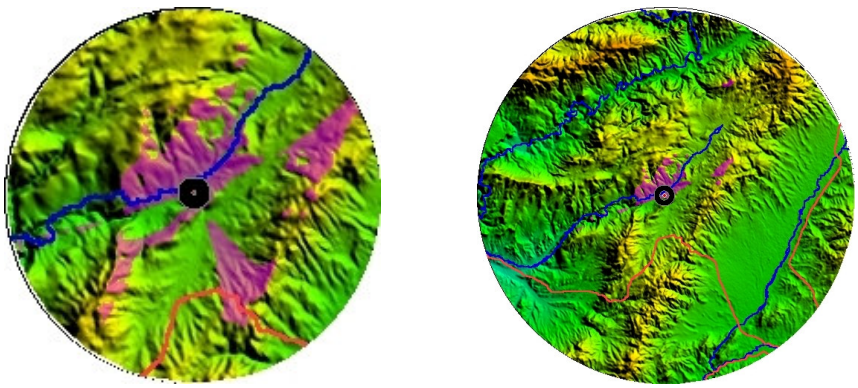

Fig. 64: Visibility of Çanıllı (Asartepe) fort in 10 and 25km radius

9. *Dikmenkale* that is located on the south of Kirmir stream was not built on a very rocky area. The visible percentage of the area in 10km radius is 13.8. It sees mostly north, east, and especially northeast directions. It controls Ankara-Beypazarı road. Tabanoğlu that is located on the northeast of the Dikmenkale is also visible from it. The view percentage of the area in 25km radius is 10.5. Kirmir stream on the north and İlhan stream on the northeast can be seen in 10km radius. Besides, Sakarya and İlhan streams are visible on the north-northwest of Dikmenkale in 25km radius. However, Ankara stream is located on the south, the fort does not see it.

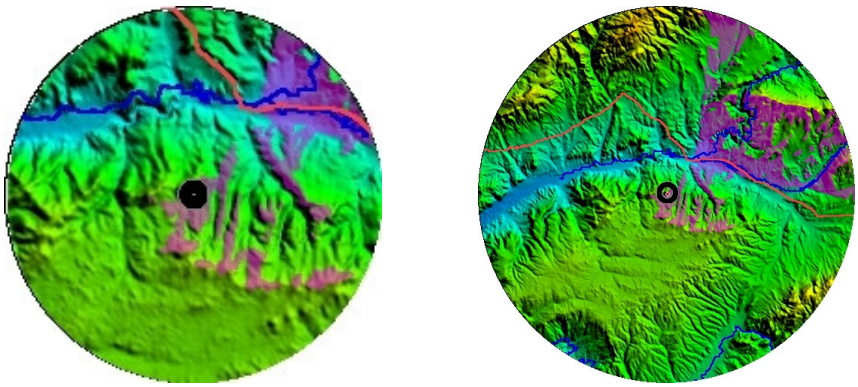

Fig. 65: Visibility of Dikmenkale in 10 and 25km radius

10. *Girmeç* lies on a nearly flat area. While the visible percentage of the area is 34.7 in 10km radius, it is 31.2 in 25km radius. It looks through east, northeast, and southeast directions. Also, the fort partly controls Ankara-Polatlı road. Hisarlıkaya is visible in 25km radius. Ankara stream is visible on northwest, north, east and southeast of Girmeç and also Babayakup river can be seen in 10 and 25km radius.

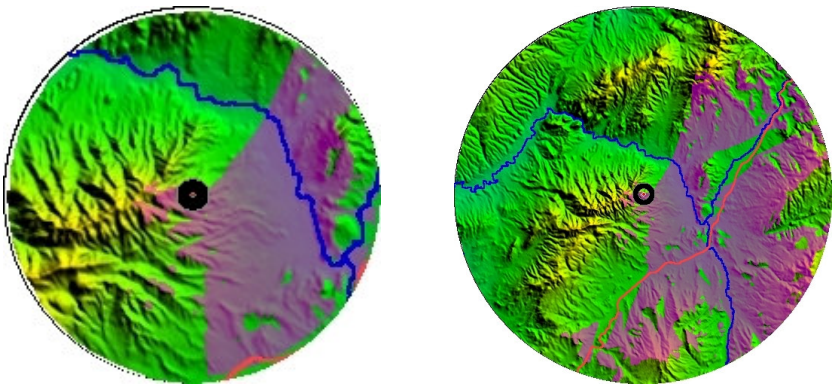

Fig. 66:Visibility of Girmeç in 10 and 25km radius

11. The area where *Gölbek* is located is not very rocky and it seems as if it was hidden. It is positioned between the road that comes from Ankara to Haymana and from Ankara to Konya. The visible percentage of the area on the west in 10km radius is 9.1. Güzelcekale that is located on the west of the fort is also visible from Gölbek. 1.7 percent of the area is visible in 25km radius. It also controls the road that comes from Ankara to Haymana.

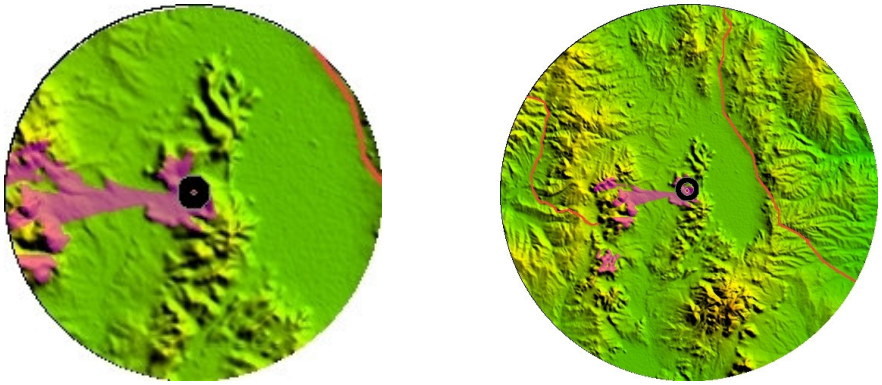

Fig. 67: Visibility of Gölbek in 10 and 25km radius

12. *Güzelcekale* lies on a hill, but the area around it is not very rocky. The visible percentage of the area in 10km radius on east and northeast directions is 26.0. Gölbek is also in the viewshed area of it. 14.6 percent of the area is visible in 25km radius. It controls Gölbaşı-Konya road and also sees Çalış, Gölbek, Selametlikale and Taşlıkale.

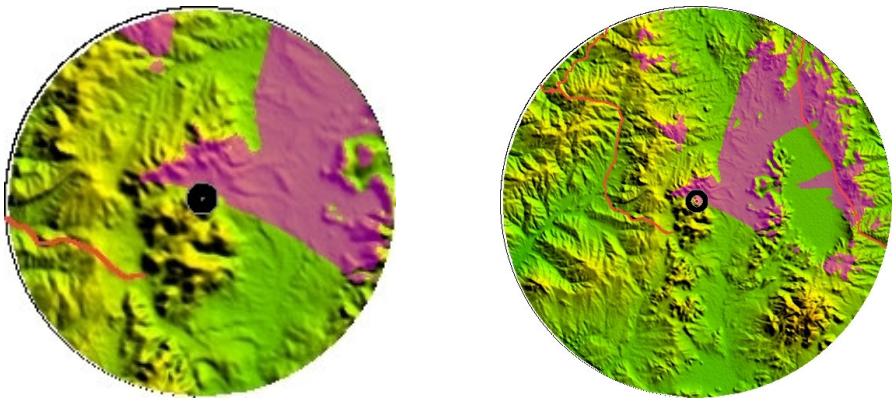

Fig. 68: Visibility of Güzelcekale in 10 and 25km radius

13. G*üzelçiftlik* was built on a mountainous area. While the visible percentage of the area is 42.9 in 10km radius, it is 11.6 in 25km radius. South-southwest and north-northeast directions are mostly in the viewshed area of it. Akkaya is also slightly visible from Güzelçiftlik. The fort does not control any roads within the 10km and 25km radius. Maybe, if the buffer was more than 25m in radius, it might control Ankara-Kızılcahamam road on the northeast and Ankara-Beypazarı road on the southwest. While Güzelçiftlik can see Kirmir stream that flows from southwest to northeast in 10km and 25km radius, İlhan stream is visible only on the southwest, east of the fort in 25km radius.

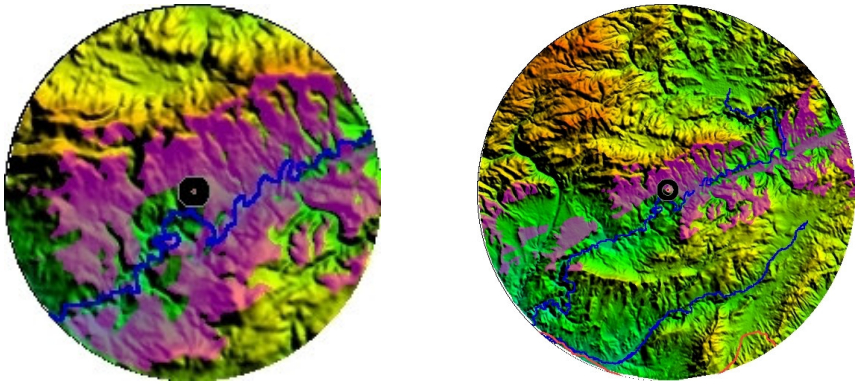

Fig. 69:Visibility of Güzelçiftlik in 10 and 25km radius

14. *Hisarlıkaya* that partly lies on a mountainous area is positioned on the east of

Ankara-Polatlı road. The view percentage of the area in 10km radius is 50.1 (that is the highest one of thirty-five forts in this study) especially on west, northeast, north and partly east and south directions. 25.2 percent of the area is visible in 25km radius and it controls Ankara-Polatlı road. Girmeç is also in the visibility area of Hisarlıkaya with this radius. Ankara stream that flows along northwest and unites with Babayakup river that flows from north to south is visible in 25km radius.

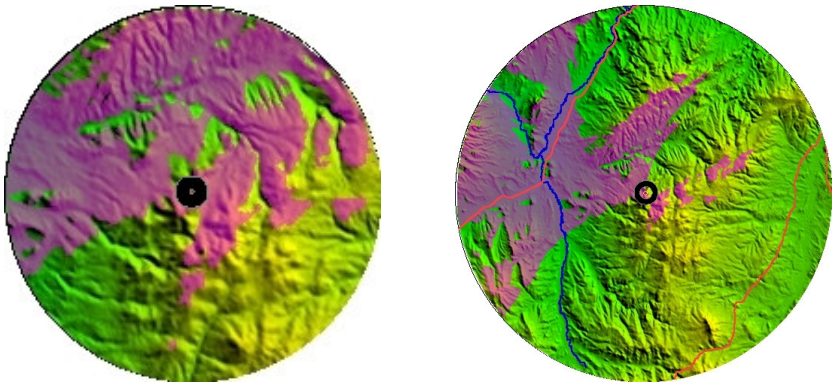

Fig. 70: Visibility of Hisarlıkaya fort in 10 and 25km radius

15. There is a mountain chain on the west of *Hisartepe (Akçaören)* that is located on the northeast of Asarkaya (Yenikayı). It has a visibility percentage of 41.9 in 10km radius. Akçaören (Hisartepe) has a deep view through east, northeast and southeast directions. Yenikayı (Asarkaya) is located very close to it, so they can see each other. It controls Ankara-Beypazarı road. The visibility percentage of the fort in 25km radius is 31.0. It controls Ankara-Beypazarı, Ankara-Polatlı and Ankara-Kızılcahamam roads with this radius. Also, Asarkaya (Yenikayı), Kale, İncekkale, Yuva, Karalar are positioned in the viewshed area of it. Ova stream that lies on the southeast is visible in 10km radius. However, Kirmir stream is located on the northwest of Hisartepe (Akçaören), the fort cannot see it in 25km radius. Ankara stream that flows from south to east and Ova stream that comes from northeast and united on the southeast of the fort are located in the viewshed area of the fort.

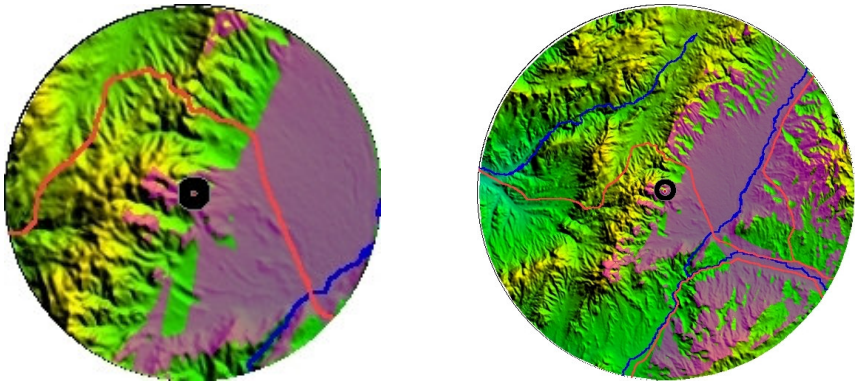

Fig. 71: Visibility of Hisartepe (Akçaören) fort in 10 and 25km radius

16. *İncekkale* was not built in a very mountainous area, so its visibility is not very high. The visible percentage of the area in 10km radius is 11.9. It looks through east and northwest directions. 3.6 percent of the area is visible in 25km radius. Although its visibility continue through northwest, it does not see Ankara-Polatlı and Ankara-Beypazarı roads that pass from the north in 25km radius. The area that is on the north of these roads are visible from İncekkale. Kale is also located in the viewshed area of it. Thus, Hisartepe (Akçaören), Yenikayı and Kale are visible from İncekkale. Ankara stream is visible on the north in 25km radius. However, Ankara stream united with Çubuk, the fort does not see it.

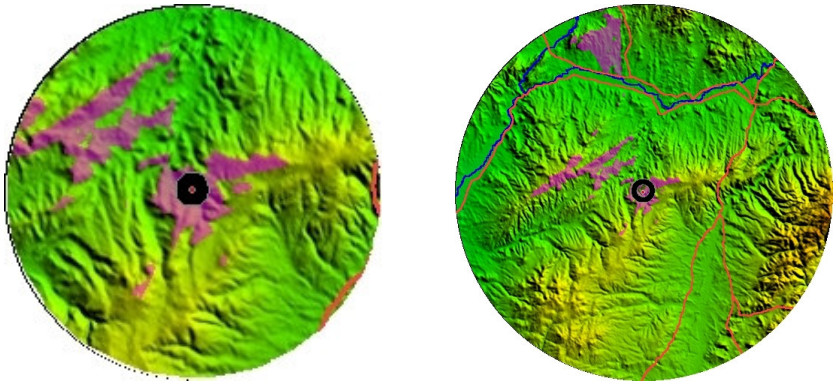

Fig. 72: Visibility of İncekkale in 10 and 25km radius

17. *Kale* that lies on a partly rocky area has a visibility percentage of 25.8 on

north, west and south directions in 10km radius. Kale and İncekkale can see each other. In 25km radius, the visible percentage of the area is 13.5 on northeast. It controls Ankara-Beypazarı, Ankara-Polatlı, and Ankara-Kızılcahamam roads. Hisartepe (Akçaören), Yuva, Bağlum, Asarkaya (Yenikayı), İncekkale are visible from Kale with 25km radius visibility. Ankara stream that flows from north and united with Çubuk stream can be seen in 25km radius**.**

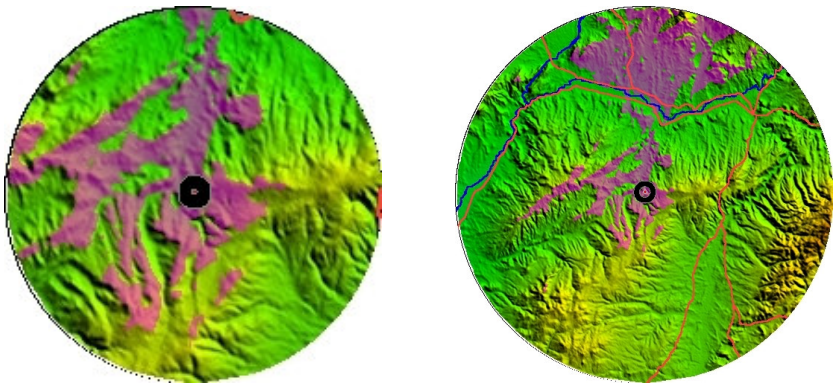

Fig. 73: Visibility of Kale in 10 and 25km radius

18. The area on which *Kale* (that is located 750m east of the Çağnık (Çağlayık)) is positioned is not very rocky. 9.0 is the visible percentage in 10km radius and 10.3 is the visible percentage in 25km radius. Çağnık (Çağlayık) and Kale see each other easily. The visibiliy of Kale increases through its southeast. Although Polatlı-Mihalıççık road passes from its south, it cannot control it neither in 10km nor 25km radius. Sangarios river that passes from north to southeast and Ankara stream on the north and northeast directions are visible in 10km radius. Sangarios river on the northwest, north, southeast and Ankara stream on the northwest are visible in 25km radius. In contrast, Porsuk stream that lies on the south cannot be seen.

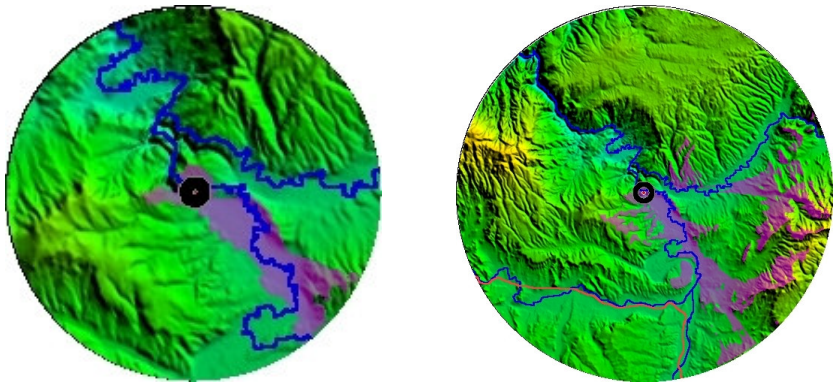

Fig. 74: Visibility of Kale in 10 and 25km radius

19. Karalar is located on a mountain chain that passes from the northwest of Ankara. The viewshed percentage of the area in 10km radius is 11.8. It sees northeast and southeast directions. Also, Pazar is partly positioned in the viewshed area of it. 14.4 percent of the area is visible on the north and especially east, northeast and southeast directions in 25km radius. It controls Ankara-Kızılcahamam road on the east. Hisartepe (Akçaören) and Pazar are also visible from Karalar with 25km radius visibility. While Ova stream on the southwest is partly visible, it is not possible to see İlhan stream on the west in 10km radius. Besides, Ova stream on the south and Pazar stream on the northeast are visible, Kirmir stream that flows from west to north and İlhan stream on the southwest are not visible in 25km radius.

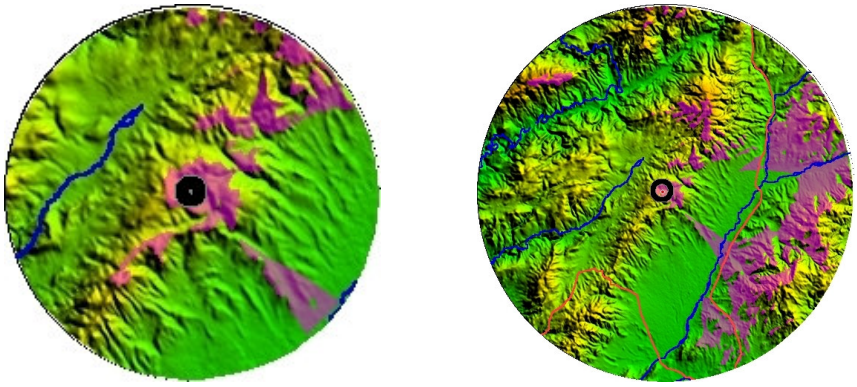

Fig. 75: Visibility of Karalar in 10 and 25km radius

20. *Kargalıkale* that is not positioned on a very rocky area has a visibility percent age of 18.0 through northeast-southwest directions. It controls the road that passes from Haymana to Polatlı on the southwest. It can see Basrikale and Küçükkale with this visibility. 8.5 percent of the area is visible through north-northeast and west-southwest directions in 25km radius. However, Babayakup river is located on the east and Sangarios river lies on the west of Kargalıkale, it does not see them in 25km radius**.**

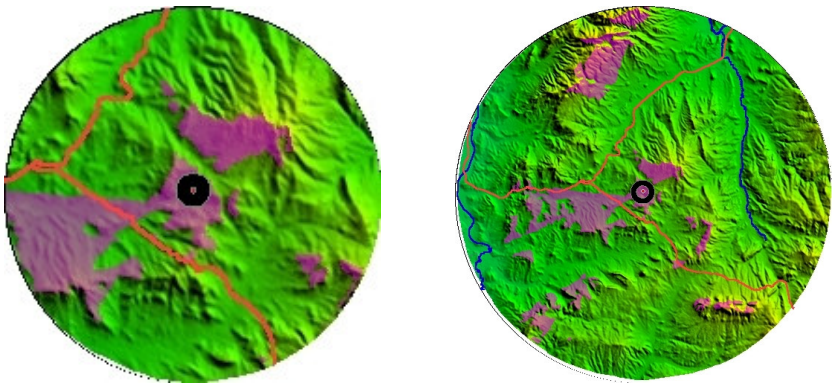

Fig. 76: Visibility of Kargalıkale in 10 and 25km radius

21. *Kedikale* that is located on a rocky area sees 24.3 percent on southwest, north and northwest directions in 10km radius. Ovabağları is also visible from it. 16.0 percent of the area is visible in 25km radius. The visibility continues on north, west and especially on southwest directions. It controls Ankara-Beypazarı road. Dikmenkale, Çanıllı (Asartepe) and partly Tabanoğlu is also located in the viewshed area of Kedikale (Gökçebağ). İlhan stream that flows in the southwest-north direction is located in the visibility area of the fort in 10km radius. İlhan stream and also Kirmir stream are visible in 25km radius. Ova stream lies on the south, northeast and Ankara stream that continues its way along the east are not seen in 25km radius.

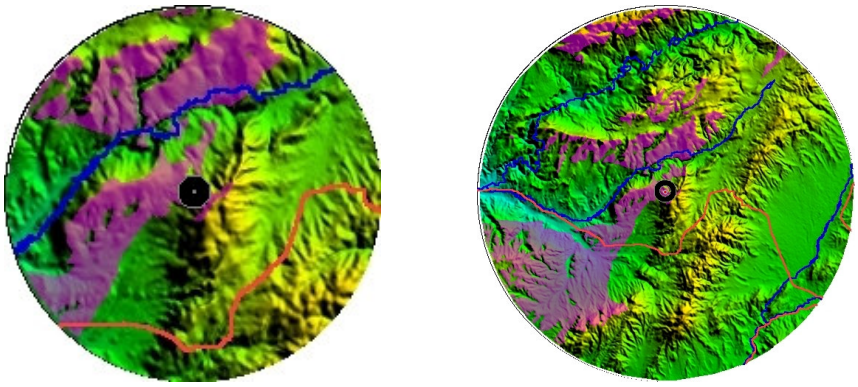

Fig. 77: Visibility of Kedikale (Gökçebağ) in 10 and 25km radius

22. *Küçükkale* lies on the south of Polatlı was not built on a very mountainous area. The visible percentages of the fort is 43.8 in 10km radius and 12.0 in 25km radius. Basrikale and Kargalıkale are included in the visibility area of it. It also controls Polatlı-Haymana, Poltlı-Mihalıççık and Ankara-Polatlı roads in 10km radius. Çanakçı is also visible in 25km radius. While a little part of Sangarios river is visible on the southwest, Babayakup on the east is not seen in 25km radius.

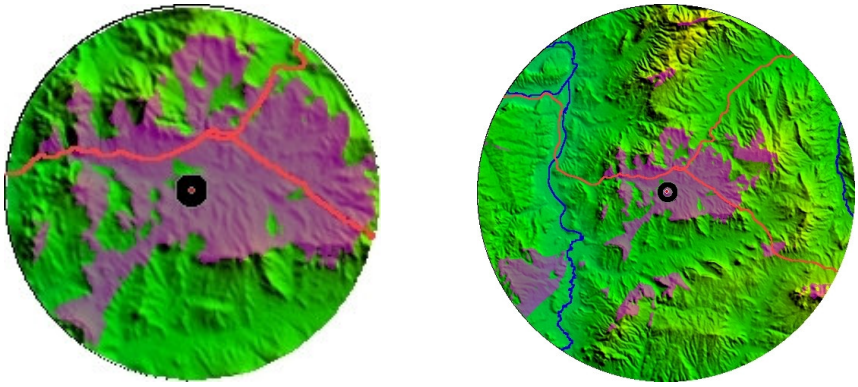

Fig. 78: Visibility of Küçükkale fort in 10 and 25km radius

23. Although *Oğulbey (Gorbeus)* lies on a high hill, the environs of it is not very rocky. While it sees 37.8 percent of the area in 10km radius, it is 15.3 in 25km radius. It controls the Ankara-Haymana, Ankara-Bala and Ankara-Konya roads that pass from west. Yakupabdal is also visible from it.

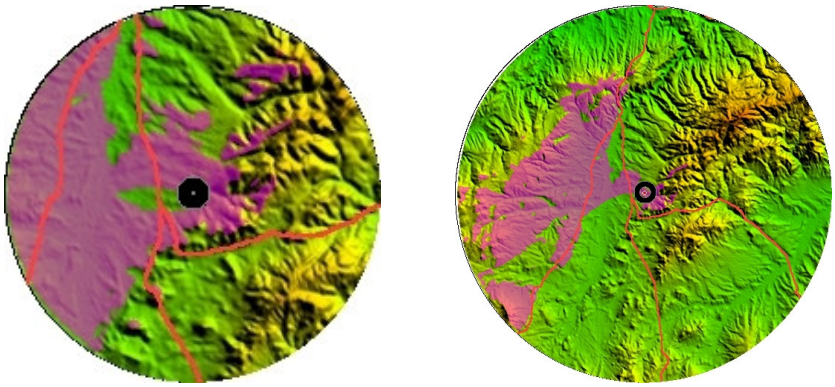

Fig. 79: Visibility of Oğulbey (Gorbeus) fort in 10 and 25km radius

24. *Oğuzlar (Yağır)* was not built on a very mountainous area, so the visibility percentages (6.3 in 10km radius and 4.9 in 25km radius) of it are not very high. Northwest and especially south directions are visible in 10km radius. It sees especially northwest in 25km radius. Basrikale, Kargalıkale and Küçükkale are visible from it. The fort can see some part of Ankara stream on the northwest in 10km and 25km radius. Sangarios on the west and Babayakup on the east are not visible in 25km radius.

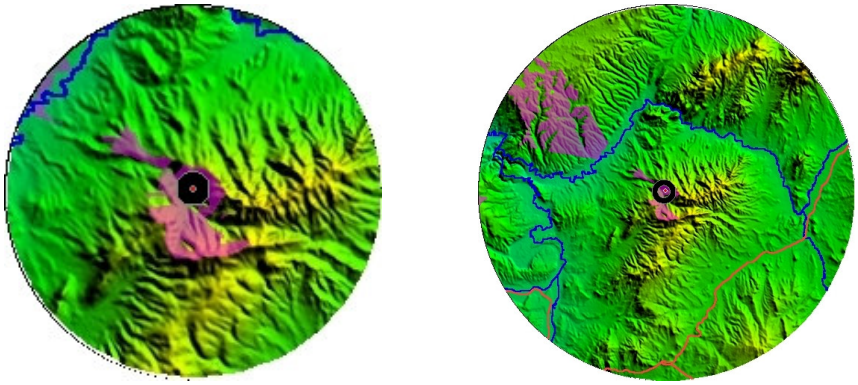

Fig. 80: Visibility of Oğuzlar (Yağır) in 10 and 25km radius

25. *Ovabağları* is located partly on a mountainous area. The visibility percentage of the fort is 15.9 in 10km radius and west, southeast and especially north directions are visible. It also controls Ankara-Beypazarı road on the north. Çanıllı (Asartepe) is partly in the viewshed area of it. 7.9 percent of the area is visible

in 25km radius. North, northwest, west and southwest directions of the fort are mostly seen. Ovabağları can see İlhan stream on the northwest in 10km radius. While Kirmir and İlhan stream are visible on the northwest, Ankara stream on the south and Ova stream on the east are not visible in 25km radius.

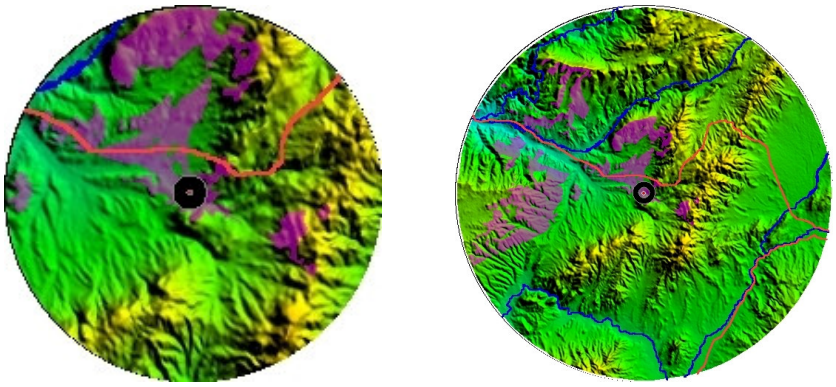

Fig. 81: Visibility of Ovabağları fort in 10 and 25km radius

26. *Pazar* is positioned on the east of Ankara-Kızılcahamam road. The visibility percentages of the area is 43.4 in 10km radius and 10.2 in 25km radius. Its visibility indicates nearly all directions except northwest. Sirkeli and Güzelçiftlik are partly visible from Pazar in 25km radius. Pazar stream that flows from south to northeast is visible in 10km and 25km radius. However, Ova stream is located on the east, Kirmir stream lies on the west, İlhan stream passes from southwest of the fort, it cannot see them.

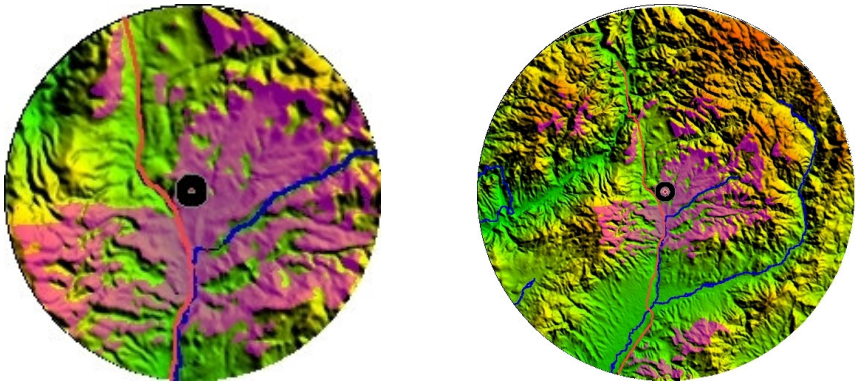

Fig. 82: Visibility of Pazar fort in 10 and 25km radius

27. *Selametlikale* was built partly on a mountainous area. The visible percentages of the area is 30.2 in 10km radius and 19.9 in 25km radius. West and northwest directions of it are mostly visible. Taşlıkale that is located on the southwest of Selametlikale is partly in the visibility area of it in 10km radius. It controls Ankara-Haymana road that passes from west in 25km radius. Taşlıkale, Çalış and partly Güzelcekale is also visible with this percentage.

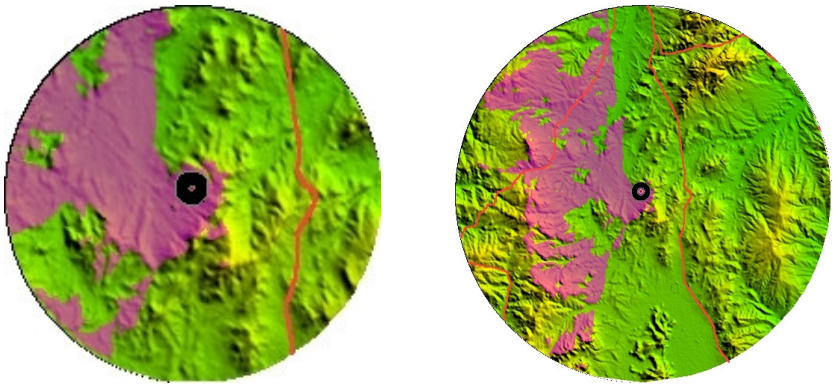

Fig. 83: Visibility of Selametlikale fort in 10 and 25km radius

28. *Sirkeli* is positioned on a mountainous area. 17.1 percent of the area is visible in 10km radius. It looks through northeast and southwest directions. 9.0 percent of the area is visible in 25km radius. East direction of it and Pazar is also visible and the fort controls Ankara-Çankırı road. While Çubuk stream is visible on the east, Pazar and Ova streams on the west are not visible in 25km radius.

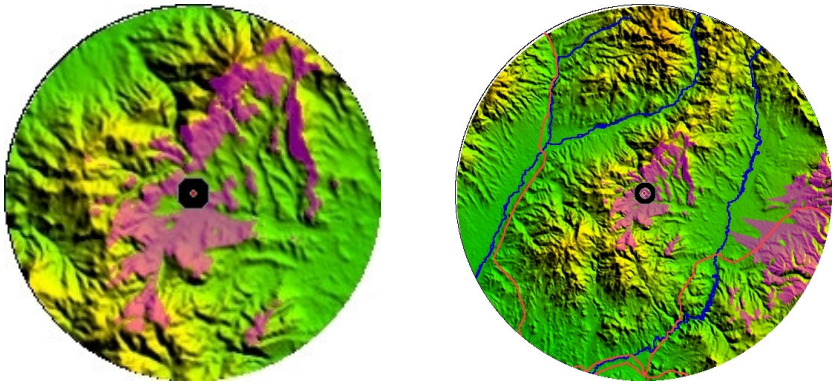

Fig. 84: Visibility of Sirkeli fort in 10 and 25km radius

29. *Tabanoğlu* is located near the Kirmir stream with 15.2 (in 10km radius)

and 0.4 (in 25km radius) visible percentages. The area where the fort was built is not very high. It controls Ankara-Beypazarı road on the southwest. Dikmenkale is also visible from it. Kirmir and İlhan streams are visible in 10 and 25km radius.

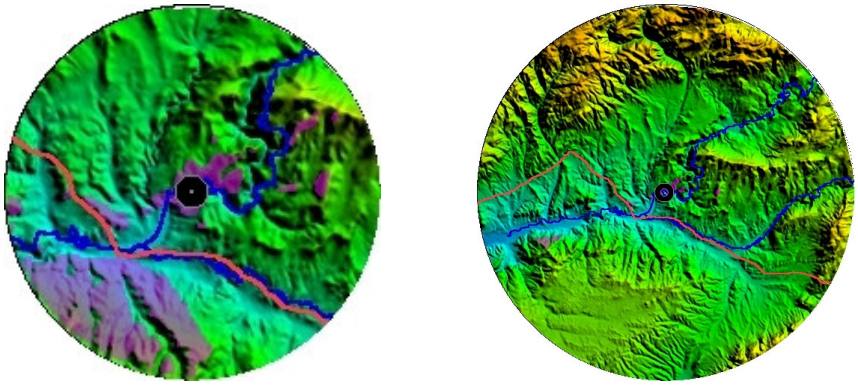

Fig. 85: Visibility of Tabanoğlu fort in 10 and 25km radius

30. *Taşlıkale* is not located on a very rocky area. The visible percentages of the fort is 33.5 in 10km radius and 7.3 in 25km radius. It sees especially west, northwest, south and southeast directions. Çalış, Selametlikale are visible from Taşlıkale in 10km radius. It controls Gölbaşı-Haymana road on the west. Gölbek is also partly in the visibility area of it in 25km radius.

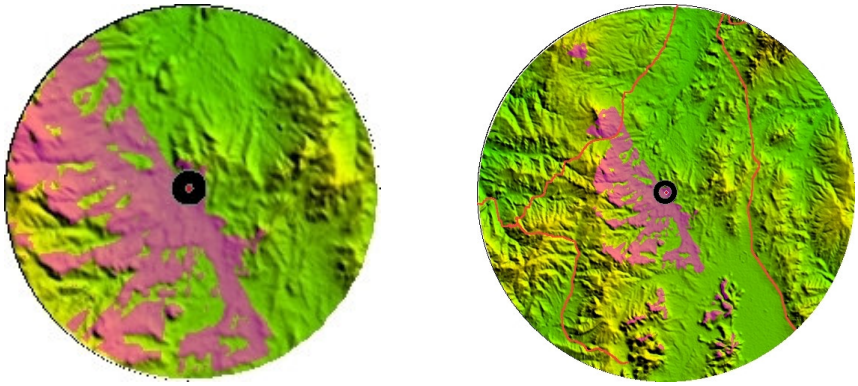

Fig. 86:Visibility of Taşlıkale fort in 10 and 25km radius

31. *Türktaciri* is not located on a very mountainous area. While the visibility percentage of it is 11.2 in 10km radius, it is 1.5 in 25km radius. North-northwest and south-southeast directions are visible from it. Sangarios that comes from north

to south and continues its way along southwest is visible in 10km and 25km radius.

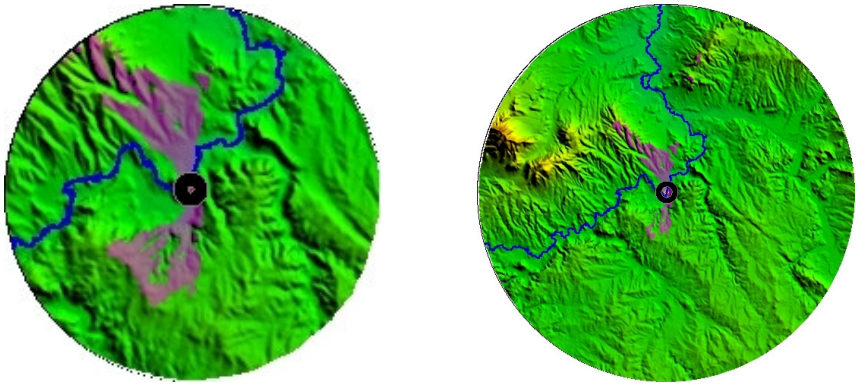

Fig. 87: Visibility of Türktaciri fort in 10 and 25km radius

32. *Üçem II* was built on a partly mountainous area. 45.7 percent of the area is visible in 10km radius. It especially sees east, northeast, south, southeast directions. Also, north and southwest parts of the fort are visible. It controls Ankara-Bala road that passes from its southeast. The visible percentage of the fort is 26.2 in 25km radius and southwest part of it is mostly visible with this percentage. While the Halys on the east is visible in 25km radius, Balaban that flows on the north cannot be seen.

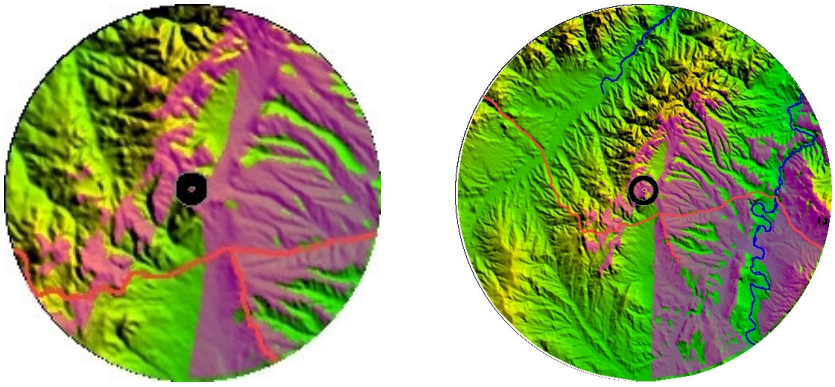

Fig. 88: Visibility of Üçem II fort in 10 and 25km radius

33. *Yakupabdal* lies on a rocky area between Ankara-Gölbaşı and Ankara-Tavion roads. The visible percentages of the area is 25.9 in 10km radius and 21.5 in 25km radius. West, northwest and north directions of the fort are mostly visible in 10km radius. Oğulbey (Gorbeus) is partly in the viewshed area of it. Yakupabdal sees especially southwest and northwest directions and controls Ankara-Konya, Ankara-Haymana, Ankara-Çankırı, Ankara-Beypazarı and Ankara-Polatlı roads with 25km radius visibility. Hisartepe (Akçaören), Asarkaya (Yenikayı), Bağlum (Hisartepe), Yuva, İncekkale, Kale are also visible from Yakupabdal. While Çubuk stream is visible on the northeast, it cannot see Balaban stream on the east in 25km radius.

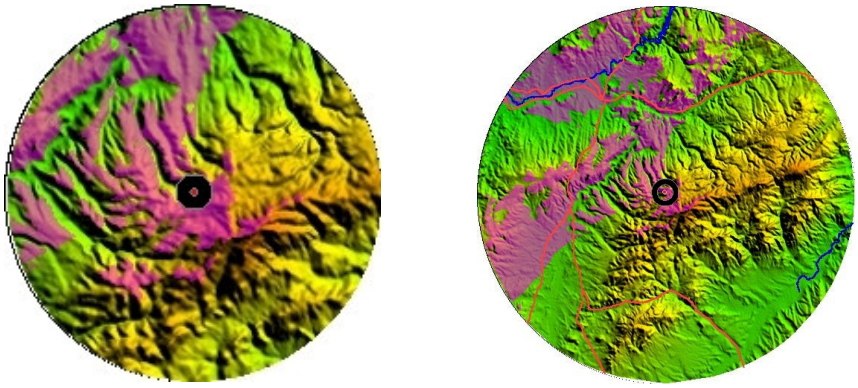

Fig. 89: Visibility of Yakupabdal fort in 10 and 25km radius

34. *Yalnızçam* is located nearly on a flat area. 10.5 percent of the area is visible through south-southwest directions in 10km radius. The visible percentage of the area (15.5) increases in 25km radius. It especially looks through south, southwest, west and northwest directions. It also controls Ankara-Beypazarı road that passes from the north. Sangarios river that flows on the west is visible in 10km and 25km radius.

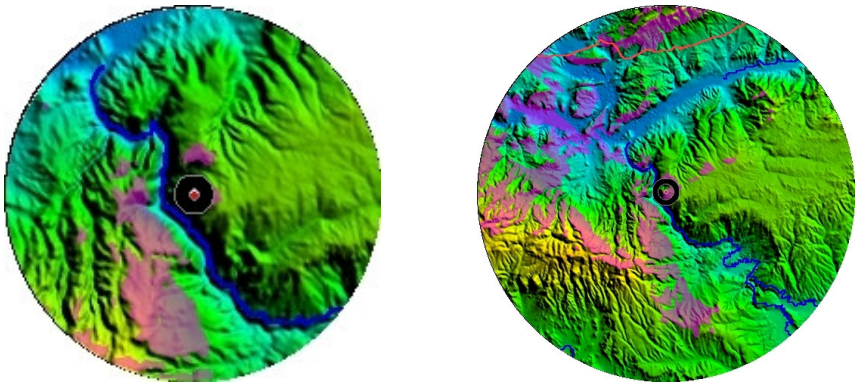

Fig. 90: Visibility of Yalnızçam fort in 10 and 25km radius

35. *Yuva* lies on a mountainous area. While the visible percentage of the area is 55.1 in 10km radius, it is 46.6 in 25km radius. West, south, southwest, east and southeast parts of the fort are visible in 10km and 25km radius. It controls Ankara-Kızılcahamam, Ankara-Polatlı, Ankara-Beypazarı, Ankara-Gölbaşı, Ankara-Çankırı and Ankara-Tavion roads in 25km radius. While Bağlum is visible in 10km radius, Akçaören (Hisartepe), Asarkaya (Yenikayı), Bağlum (Hisartepe), Yakupabdal, Kale and İncekkale are visible in 25km radius. Çubuk stream that passes from south to east and northeast and also Ova stream on the west are visible in 25km radius. Pazar stream on the northwest is not visible in 25km radius.

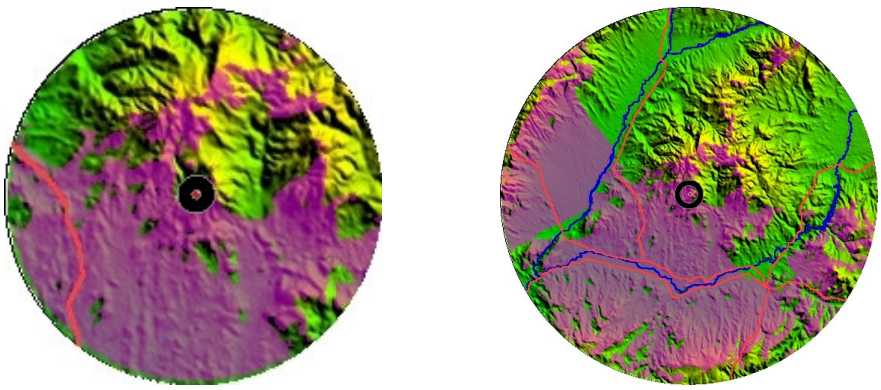

Fig. 91: Visibility of Yuva fort in 10 and 25km radius

4.3. Interpretation of Results

At the end of the Visibility Analysis all of the forts' visibility percentages have been calculated (Table 1).

Table 1 Coordinates and Visibility Results of Forts

FORT	**'x'coordinates**	**'y'coordinates**	**10km radius**	**25km radius**
Akkaya	437661	4471068	13.3	3.7
Asarkaya(Yenikayı)	451259	4429846	18.9	20.4
Bağlum(Hisartepe)	485794	4432838	17.8	6.3
Basrikale	423258	4384551	67.1	32.5
Çağnık (Çağlayık)	406026	4406977	20.4	16.9
Çalış	473314	4358026	20.5	9.3
Çanakçı	420626	4365285	27.8	21.1
Çanıllı (Asartepe)	450761	4445081	16.0	1.4
Dikmenkale	415975	4435153	13.8	10.5
Girmeç	437645	4406266	34.7	31.2
Gölbek	484173	4351658	9.1	1.7
Güzelcekale	475348	4351306	26.0	14.6
Güzelçiftlik	439925	4458692	42.9	11.6
Hisarlıkaya	459818	4397817	50.1	25.2
Hisartepe(Akçaören)	454364	4433231	41.9	31.0
İncekkale	473147	4408752	11.9	3.6
Kale	473159	4409962	25.8	13.5
Kale(next toÇağnık)	406728	4406936	9.0	10.3
Karalar	461212	4449885	11.8	14.4
Kargalıkale	435544	4381182	18.0	8.5
Kedikale(Gökçebağ)	444008	4439400	24.3	16.0
Küçükkale	426087	4379392	43.8	12.0
Oğulbey(Gorbeus)	486580	4395776	37.8	15.3
Oğuzlar(Yağır)	427523	4405408	6.3	4.9
Ovabağları	441108	4430060	15.9	7.9
Pazar	475866	4466031	43.4	10.2
Selametlikale	483213	4374043	30.2	19.9
Sirkeli	487430	4444735	17.1	9.0
Tabanoğlu	422487	4443106	15.2	0.4
Taşlıkale	477391	4369861	33.5	7.3
Türktaciri	414482	4343022	11.2	1.5
Üçem II	519363	4381839	45.7	26.2
Yakupabdal	495901	4407925	25.9	21.5
Yalnızçam	394124	4422102	10.5	15.5
Yuva	477504	4432642	55.1	46.6
TOTAL			**26.1**	**14.3**

When 10km radius visibility results are considered, it's clear that they mostly give lower percentages than 25km radius results. This proves that forts were not located on very high hills. They were built on hills where they could see local areas. Besides, forts were positioned very close in order to see each other. Distance Analysis (Table 2) was carried out to understand this situation more clearly. It showed that while the farthest distance between two fort is 35,085km, the lowest distance is 7,03km. Average distance is designated as 10,497km.

The Visibility Analysis, revealed different possibilities concerning the location of these forts. The following two propositions can be made:

1. Distribution of sites might have depended on political organization. A fort might have been designated as a center and all other forts might have been constructed around it. This prediction could be evaluated depending on other sorts of data. For instance, according to this, the fort that belonged to the Galatian tribe Tectosages must have been built at the center of Ancyra. If so, the other forts around it must have been under the control of the central fort in Ancyra. In this context, cluster or other kind of spatial analysis might have been more useful. These kind of studies were not considered here, because the number of forts were not enough and the results would not have been satisfactory.

2. Distribution of sites might have depended on topography (geographical features). The forts might have been built near ancient roads, rivers and could see them and also each other easily. Under these circumstances, they might have made a system and this system could have had a center that saw most of the possibly visible area.

Table 2 Distance Analysis Results of forts

Fort	Nearest Fort	Distance(km)
Çağnık (Çağlayık)	Kale (next to Çağnık)	703
Kale (next to Çağnık)	Çağnık (Çağlayık)	703
İncekkale	Kale	1210
Kale	İncekkale	1210
Asarkaya (Yenikayı)	Hisartepe (Akçaören)	4593
Hisartepe (Akçaören)	Asarkaya (Yenikayı)	4593
Basrikale	Küçükkale	5884
Küçükkale	Basrikale	5884
Çalış	Güzelcekale	7021
Güzelcekale	Çalış	7021
Selametlikale	Taşlıkale	7168
Taşlıkale	Selametlikale	7168
Bağlum (Hisartepe)	Yuva	8292
Yuva	Bağlum (Hisartepe)	8292
Çanıllı (Asartepe)	Kedikale (Gökçebağ)	8825
Kedikale (Gökçebağ)	Çanıllı (Asartepe)	8825
Gölbek	Güzelcekale	8832
Kargalıkale	Küçükkale	9625
Ovabağları	Kedikale (Gökçebağ)	9780
Girmeç	Oğuzlar (Yağır)	10158
Oğuzlar (Yağır)	Girmeç	10158
Dikmenkale	Tabanoğlu	10279
Tabanoğlu	Dikmenkale	10279
Karalar	Çanıllı (Asartepe)	11502
Sirkeli	Bağlum (Hisartepe)	12009
Akkaya	Güzelçiftlik	12581
Güzelçiftlik	Akkaya	12581
Çanakçı	Küçükkale	15127
Oğulbey (Gorbeus)	Yakupabdal	15313
Yakupabdal	Oğulbey (Gorbeus)	15313
Hisarlıkaya	İncekkale	17241
Yalnızçam	Çağnık (Çağlayık)	19246
Pazar	Karalar	21804
Türktaciri	Çanakçı	23095
Üçem II	Yakupabdal	35085
	AVERAGE	**10497**

When the visibility results are considered, the second situation seems closer. The visibility is dense near Ancyra and it is clearer in 25km radius results. Ancyra, where the Tectosages lived, must have carried a strategic importance in ancient times. The reasons for the forts' closeness to each other and ancient road might be to control everything in the area around them.

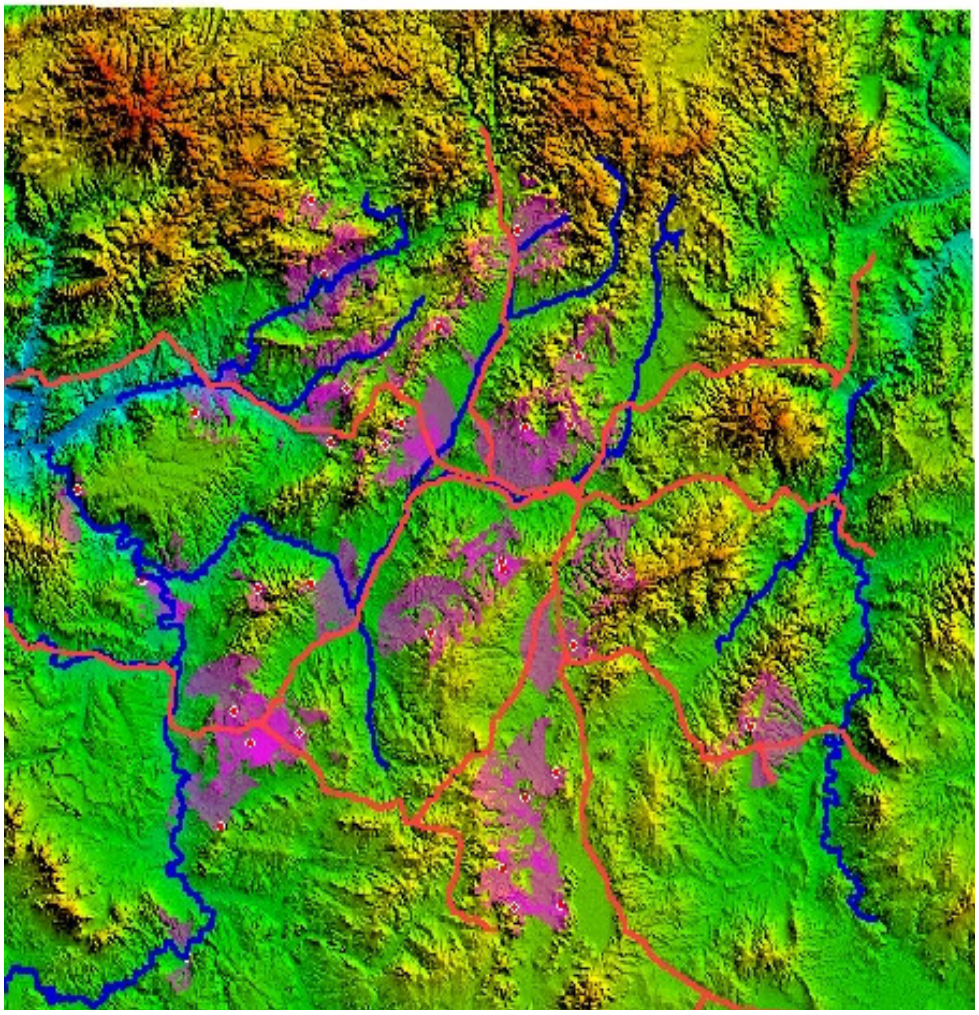

Fig. 92: All forts' visibility in 10km radius

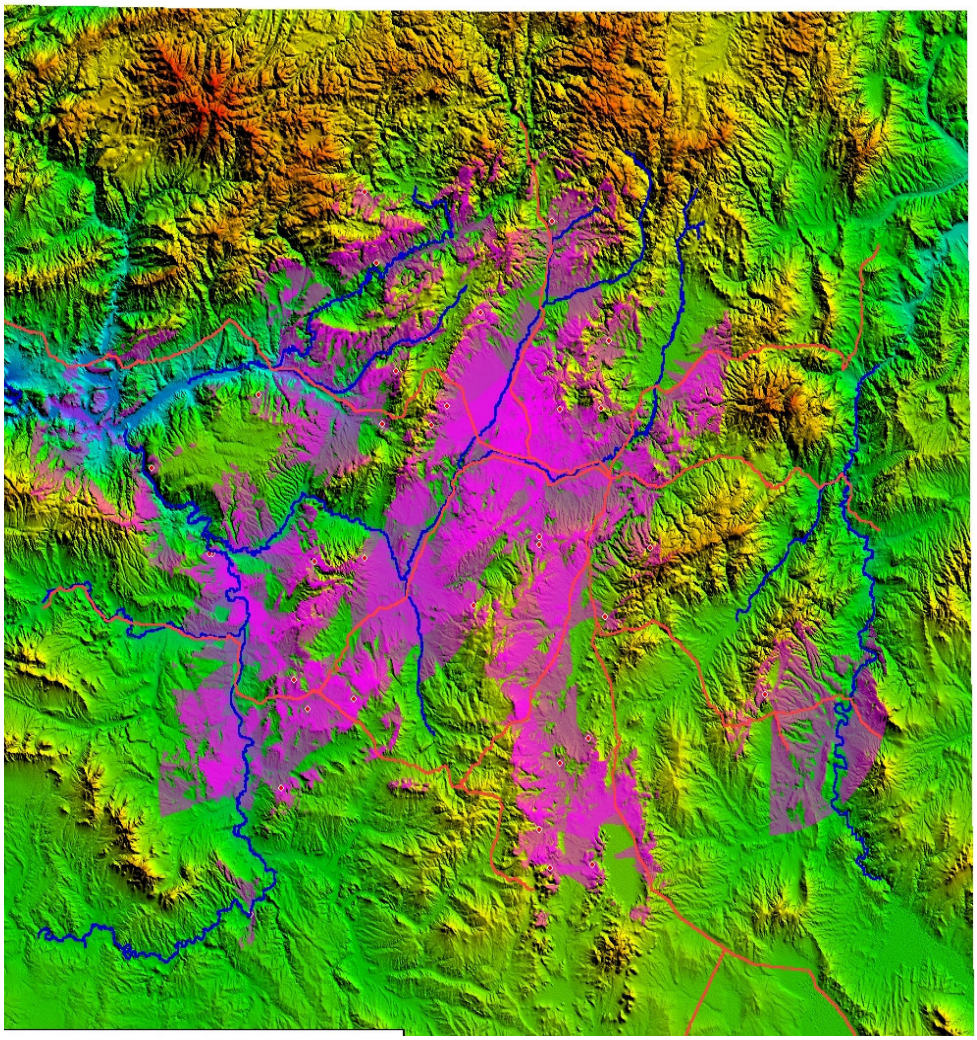

Fig. 93: All forts' visibility in 25km radius

In general, the topography of the area where the forts were built is not very mountainous and rocky. Vardar claims that, the forts were not built on huge hills. The hills are approximately 20-150m high at different elevations. Some of the forts are situated lower than their environment. It seems as if they were hidden on purpose. For instance, Tabanoğlu gives a very low visibility percentage (% 15.2 in 10km radius and % 0.4 in 25km radius). It is suggested that the Galatian king Deiotarus' treasure was kept here. If it were a defensive fort with the aim to control the land around it or roads, it would surely have had a better command of the area. However, it is very much hidden, Tabanoğlu, therefore is a very good

specimen in which the assumed function and the result of the Visibility Analysis coincides.

These forts are dated to the late Hellenistic and early Roman periods and believed to have been inhabited by Galatians. Galatians known as Celts in Europe might have carried their tradition to Anatolia and adopted it to the Central Anatolian landscape and architectural traditions. In contrast, the forts around Ancyra are not very huge structures. A difference in sizes might have provided further clues however, no significant size difference has been observed (Table 3). They were built with oblong, quadrangular blocks without use of mortar.

Table 3 Sizes of forts

Forts	Forts' Dimensions
Yalnızçam (Kepir)	26 x 32m
Çanıllı (Asartepe)	30-50 x 60-70m
Asarkaya (Yenikayı)	35 x 85m
Hisartepe (Akçaören)	79 x 31.80m
Yakupabdal	100-120 x 40m
Selametlikale	80 x 20m
İncekkale	35 x (more than) 45m
Basrikale (?)	15 x 30m
Hisarlıkaya	25 x 36m
Çağnık (Çağlayık)	90 x 48.50m
Kale (next to Çağnık)	14 x 4.50m
Güzelcekale	40 x 40m
Gökçebağ (Kedikale)	36 x (more than) 50m
Hisartepe (Bağlum)	60 x 30m
Oğuzlar (Yağır)	45 x 27m

The forts are neither large nor seems to have been high therefore, they might not have been necessarily built for military purposes. They might have only wanted to see each other and their environs. This might be the reason why the visibility percentages are generally low. The percentages of these forts' visibility (Table 1) change according to different criterias such as their locations in the area and the topography of the area. Some of the examples do not give continuous visibility results. While Basrikale has the highest percentage (% 67.1) in 10km radius, in 25km radius, Yuva has the most visible area (% 46.6). The forts that have

the lowest percentage of visibility in 10km radius is Oğuzlar (Yağır) (% 6.3) and in 25km radius is Asartepe (Çanıllı) (% 1.4). It seems that the directions of all forts' visibility are clearer in 25km radius. Some forts indicate different visibility results: While Karalar has a higher percentage of visibility result in 10km radius than in 25km radius, Asarkaya (Yenikayı) shows approximately an equal visibility result in 10 and 25km radius.

This study indicates that some of the forts were arranged in small groups. People who were living in these forts might have settled as tribes. Galatians were composed of tribes as described earlier and these fort groups might represent gathering of forts according to tribes. However, this would still be a very ambitious suggestion. The distances between these forts in a group are not very high, so it is possible that they could see each other. For instance, Dikmenkale-Tabanoğlu; Basrikle-Kargalıkale-Küçükkale-Çanakçı; Yuva-Bağlum (Hisartepe)-Yakupabdal-Kale. The visibility results prove this in both 10 and 25km radius. Communication between the forts through other means (with smoke, an instrument) is also possible but very difficult to detect by means of archaeology. In addition to these visible groups, there are also special cases such as Tabanoğlu as described above or Karalar. Karalar has been identified as the palace of the Galatian king Deiotarus and the tumuli for Deiotarus and other royal people were situated here.[145] Yet another special case was presented by Vardar.[146] According to him, Kale was used as a garrison to protect İncekkale which was located nearby. These suggestions all indicate that different forts might have had different functions. Finally, it would be suggested that there was a lower town around these forts, but lack of excavations do not allow such assumptions.

[145] Mitchell 1974, 61.

[146] Vardar 2002,120.

CHAPTER 5

5. CONCLUSION

Galatians had an important role in the history and especially in the archaeology of Anatolia. Galatian presence has been attested at Ancyra, Tavion and Pessinus, some of the excavated centers of Galatian archaeology. In addition to these sites, our knowledge on Galatians derive from architectural remains, burials, small finds, coins, inscriptions, and forts and other settlements. Some centers such as Gordion (Yassıhöyük/3A), and Yalıncak provide information on the Galatians in terms of architectural remains (e.i. rectangular buildings with stone footings). Different kinds of burial types (such as corbelled roof, peaked roof, barrel-vaulted roof), small finds that were gathered from the burials (e.i. weapons, gold ornaments) or other structures (e.i. terracotta horse figurines, loomweights, lion sculptures), coins minted by the Galatian kings Deiotarus, Brogitarus and Amyntas, and inscriptions reveal quite a lot on the Galatian culture (e.i. administrative, religious, and economic life, historical geography of Asia Minor in the Hellenistic period, relations, wars and campaigns between Galatians and their neighbours, and the spread of the Galatian kings' hegemony) in Galatia. However, further excavation is most necessary for a more comprehensive understanding.

In general, Galatia is not very different geographically than other parts of Central Anatolia. Köroğlu, Elmadağ mountains, Bozok and Haymana plateaus, Halys, Sangarius, Porsuk rivers, and Çubuk plain are some of the important components of this topography. Besides, terrestrial climate as well as Irano-Turanian flora clearly defines the physical geography of this region. Galatians who came to Anatolia and settled around Ancyra and its environs must have tried to get accustomed to this new geography and its living conditions.

Although some sites such as Gordion and Yalıncak were used as settlements by the Galatians, the hundreds of forts built in the region were mostly preferred. The distribution of the forts in the area might indicate that, forts were considered as the most suitable settlement type during the late Hellenistic Period.

The hills on which the forts were built vary between 20-150m. S. Mitchell suggested that these forts might have usually taken only one tribe except one or two examples, so the forts were not very large structures. Their plans also varied. They were oval, circular or rectangular which may indicate that, there was no standard and rather the topography was the determinant. Some of the forts had two enclosures. The second enclosures were mostly later additions. While the inner enclosures are accepted to be Galatian, the outer enclosures are mostly dated to the Roman period. During the Roman period, they might have wanted to make the forts stronger. The architectural remains reach only to a height of approximately 2.5-3m. They surely must have been higher than 2.5-3m. Ashlar blocks were used without any kind of binding material. In terms of architectural technology, the forts do not demonstrate variety. Towers as well as gates were important components of the forts. Towers might have been used for defence, or controlling watch tower.

After evaluating the forts together with all the other features within the physical and historical geography of Galatia, especially Ancyra, need for further analysis using less traditional methods emerged. So, Visibility Analysis was done in order to gain further information. Before doing visibility, all the forts' locations were placed on SRTM. SRTM provided many advantages. It made it possible to see all of the forts together on a topographical map. It was also possible to actually observe their altitude, the distances between them, their positions in relation to each other, and the topography of the area around the forts. Correlations between forts and roads, as well as rivers were done. For instance, it was observed that the forts were constructed near roads to control them and near each other. It was observed that many of the forts were situated along Ankara-Polatlı and Ankara-Kızılcahamam roads. Also, the forts gathered in small groups in Polatlı, Haymana, and Ayaş districts.

Visibility Analysis within 10 and 25km radius buffers gave all the visible percentages of the forts in these areas. The most important problem was to prove whether the people who were living in these forts considered closeness to roads, water sources, and such while constructing them. At the end of the

analysis, it was observed that the topographical features were determinant. For example, they had not built forts in very mountainous and high areas. The visible areas included ancient roads and rivers. Also, it was understood that the visibility areas of forts near Ancyra overlapped. Ancyra that was settled by the Galatian tribe Tectosages might have been a center and possibly had hegemony over the surrounding forts while the forts served as a defence system for the controlled lands. The pattern that emerged from the Visibility Analysis supported this.

It was interesting to see that the results of visibility percentages were not higher (except in some examples) in 25km radius than in 10km radius. Also, results of Distance Analysis proved that the forts could not see remote areas which may suggest that each fort had a small area under control with numerous forts distributed over the landscape.

If we could include all the forts in this study and create a predictive model for the undiscovered forts, we might have seen that the forts were gathered in groups with a view of one another as well as the roads.

In this study, L. Vardar and his team's survey results were mostly re-evaluated. They were most beneficial for the thesis. On the other hand, if excavations in and around the forts were conducted, the results of this thesis would have been different. Also, if the actual coordinates of the forts were known, the results might have been more accurate. In addition to Visibility Analysis, various different analysis can be done to understand fort settlements and the topography around them in Galatia. For example, proximity analysis in different extents (e.i. within 1km, 2km) can be carried out to find out the composition of land use or other parameters such as soil types in the proximity of forts. In this way, their life style (agriculture, etc.) could be revealed. Watershed analysis can be conducted to identify the possible water sources, and their importance for people may be discussed. The rock types on which the forts were built can be analysed and the criterias for chosing the location of the forts may be deduced from this analysis. The archaeobotany of the area may be studied and this could be helpful in understanding whether the area was suitable for certain activities such as

husbandry. Forts' distribution over the study area can be explained with spatial analysis in order to understand whether any clustering or a systematic network structure existed or not. Also, how the Galatians determined the distances between the forts and the communication between the forts could be better understood through such detailed work. The ceramics that were dated to the different periods such as Hellenistic, and Roman in and around the forts can be studied in detail. This could help understand and evaluate the culture or cultures who settled there.

Galatians, who came from Balkans and entered into Anatolia in about 280 B.C., settled in Galatia after several wars against some local kingdoms such as Pontus and Bithynia and they played an important role in Anatolian history. Fort settlements that were mostly used in the late Hellenistic period in Galatia had similarities with forts dating to the Celtic period in Europe. Today, many questions, such as why people settled in these forts and the living conditions in them, are tried to be answered and evaluated within their historical and physical setting in order to understand the Galatian life more clearly. All the archaeological material from architecture to burials provide clues about their religious, social, economic and administrative life. Poleis such as Ancyra and Pessinus remain as significant centers after 25 B.C. in Galatian life. Roman culture had a great influence especially concerning the administrative system in these times. They came to Anatolia to help the Bithynian king Nicomodes against his brother Zipoetas, but then they decided to settle here and Galatia became their homeland. They brought together Anatolian and Galatian traditions and continued their life. They had a remakable influence over Anatolia in history. Further excavations and studies such as those listed above would certainly reveal more on the Galatians and this would be a great contribution to the archaeology of Central Anatolia.

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