# THE LAND OF BEAUTIFUL HORSES:
# STABLES IN MIDDLE BYZANTINE SETTLEMENTS OF CAPPADOCIA

A Master's Thesis

by
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Ankara

June 2008

*To Dingo*

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The Institute of Economics and Social Sciences
of
Bilkent University

by

FİLİZ TÜTÜNCÜ

In Partial Fulfillment of the Requirements for the Degree
of
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in

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BILKENT UNIVERSITY
ANKARA

June 2008

I certify that I have read this thesis and that it is fully adequate, in scope and quality, as a thesis for the degree of Master of Arts in Archaeology and History of Art.

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Dr. Charles Gates
Supervisor

I certify that I have read this thesis and that it is fully adequate, in scope and quality, as a thesis for the degree of Master of Arts in Archaeology and History of Art.

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# ABSTRACT

THE LAND OF BEAUTIFUL HORSES:
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June 2008

The present work is a study on horses and horse breeding in Middle Byzantine Cappadocia with special attention being paid to the architectural evidence, namely, the stables. The major aim here is to test the hypothesis that the landowner magnates living in monumental rock-cut mansions bred horses in their large stables to supply their own troops, as well as those of the imperial army. In order to evaluate this further, this thesis investigates the stables of the elite mansions in three settlements, Açık Saray, Çanlı Kilise, and Selime-Yaprakhisar. The architecture of the stables is discussed along with their possible functions and meanings. Architectural data is supplemented by literary evidence on horses and horse breeding in the Byzantine world.

**Keywords:** Byzantine horses, horse breeding, Byzantine stables, Cappadocia

# ÖZET


GÜZEL ATLAR DİYARI:
KAPADOKYA'DAKİ ORTA BİZANS YERLEŞİMLERİNDE
YER ALAN AHIRLAR

Tütüncü, Filiz

Yüksek Lisans, Arkeoloji ve Sanat Tarihi Bölümü
Tez Yöneticisi: Dr. Charles Gates

Haziran 2008

Bu çalışma Kapadokya'da Orta Bizans Dönemi yerleşimlerinde yer alan kayaya oyma ahırları incelemektedir. Burada temel amaç, Kapadokya'da bu dönemde ortaya çıkan zengin, toprak sahibi ailelerin, anıtsal evlerinin kayadan oyma ahırlarında askeri amaçlarla at yetiştirdikleri hipotezini test etmektir. Bu bağlamda, Açık Saray, Çanlı Kilise, and Selime-Yaprakhisar yerleşimlerinde yer alan ahırlar, bölgeden karşılaştırmalı örneklerle tartışılmıştır. Ahırların mimari özellikleri tarihsel kaynaklardan toplanan bilgiler ışığında değerlendirilmiş, bu ahırların işlevleri ve Bizans ordu teşkilatına olası katkıları sorgulanmştır.


**Anahtar Kelimeler:** Bizans Atları, Atçılık, Bizans Ahırları, Kapadokya.

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# CHAPTER I

# INTRODUCTION

Renowned since antiquity as the legendary "Land of The Beautiful Horses," Cappadocia has been an important horse-breeding center throughout its history. The present work is a study on horses and horse breeding in this region in the tenth and eleventh centuries with special attention being paid to the architectural evidence, namely, the stables. The tenth and eleventh centuries are a period of change and revival in Byzantine history, in which Cappadocia played a vital role for the defense and expansion of Byzantium in the east. The provincial elite that emerged in the region during this time gained power and wealth through border defense. As possessors of great estates and large private troops, they held high positions in military and provincial administration (Vryonis 1971: 24-25). Recent studies have revealed that Cappadocia bears rich architectural evidence to illuminate this frontier environment during the tenth and eleventh centuries (Rodley 1985; Mathews and Mathews 1997; Kalas 2000; Ousterhout 2005).

The point of departure for the present study is a hypothesis put forward by V. Kalas, who asserts that the landowner families living in monumental rock-cut mansions bred horses in their large stables to supply their own troops, as well as those of the imperial army (Kalas 2000: 138). In order to evaluate this further and

shed light on the history of horse breeding in Byzantium with a focus on Cappadocia, this thesis aims to investigate the stables of the elite mansions within their broader archaeological and historical context.

The main source evidence for the present study is a series of rock-cut stables accompanying elite mansions in three settlements located in a volcanic area dominated by rock-cut settlements in the Aksaray and Nevşehir provinces: Açık Saray, Çanlı Kilise, and Selime-Yaprakhisar. Being the only published Byzantine settlements in the region, these three sites have yielded ample evidence about daily life and socio-economic dynamics of the Middle Byzantine society at Cappadocia. Each settlement contains several large stables furnished with various kinds of mangers. Although it is possible to use a standard manger for all types of large domestic animals, the systematic variation in the size and height of mangers seems to be an indicator of design for different species. The majority of the mangers are higher than 80 cm, affirming their function for tall animals such as horses. There is no question about the presence of other types of domestic livestock as also represented in architectural evidence; however this thesis focuses particularly on horse stables of the elite.

The scarcity of sources on horses and horse breeding in Byzantium necessitates blending the archaeological and textual data within the historical framework. Therefore, the archaeological evidence will be supplemented by textual data collected from military accounts, literary works, veterinary medicine books and chronicles, and the architectural-spatial analysis of the stables in turn will be interpreted in the light of textual evidence.

Of the five chapters presented here, following the introduction, Chapter II presents an overall discussion of the historical and geographical background of

Cappadocia with a focus on its frontier character during the Middle Byzantine period. It outlines the strategic importance of Cappadocia, a likely reason for the prominence of horse breeding in the region. Chapter III discusses the literary evidence on horses and horse breeding in Byzantium. After first dealing with the history of horse breeding tradition in Cappadocia across a long span of time, it surveys horses and horse breeding in the Middle Byzantine world with special emphasis on warhorses. Chapter IV investigates the rock-carved stables in the Middle Byzantine settlements of Açık Saray, Çanlı Kilise, and Selime, some of which have been published, others not. The stables will be described in a catalogue, with their possible functions and meanings discussed. Unpublished stables from various other contexts such as dwellings, churches and underground cities will be assessed briefly as comparanda. The final chapter will draw conclusions from the collected data and evaluate their implications for future studies.

Although the rock-cut architecture of Cappadocia has received considerable attention from art historians since the nineteenth century, their interest has mostly concentrated on religious art at the expense of the region's secular art and archaeology (Kalas 2004a). The religious character of the wall paintings inspired an understanding of the region entirely in a monastic context. Intent on viewing their subject through the lens of religion, researchers in the field of Cappadocian studies have often overlooked other approaches with potentially greater explanatory power. This tradition has been challenged by recent discoveries that have generated a new understanding of Middle Byzantine settlements and domestic architecture. Studies by Lyn Rodley, Robert Ousterhout and Veronica Kalas have provided documentation of three sites, Açık Saray, Çanlı Kilise and Selime-Yaprakhisar (Rodley 1985; Ousterhout 2005; Kalas 2000), all of which contain private residences for the

provincial elite whose presence is attested in historical accounts. The most important contribution of these studies is their introduction of new subjects of study along with new research methods to the field.

The initial need for the documentation of monuments and associated wall paintings has been the major factor shaping research in Middle Byzantine Cappadocia. Thus, the literature largely consists of survey accounts and typological analyses of individual monuments, mostly examples of religious architecture.[1] A drawback of this traditional approach is that it isolates buildings from their social and historical contexts, in effect, failing to contribute to our understanding of the Middle Byzantine frontier society. Necessary for a more accurate reconstruction of medieval Cappadocia, is a holistic approach and a broader perspective that would bring together different classes of data in a comparative manner. Since settlement archaeology is a recent field in the scholarship of Cappadocia, only certain architectural features, such as the layouts and façade decorations of the settlements have been discussed comparatively. The stables have been only briefly noted in the publications of the settlements. Some of them have been explored and documented for the first time in this study. The first scholar to draw attention to the stables has been Kalas (2000: 137-8), who has emphasized their potential value for Cappadocian studies; accordingly, this study follows the descriptions and terminology used by Rodley, Ousterhout and Kalas, aiming to build on their research.

The sources on which this project is built are problematic in a number of ways. First, the insufficiency of primary and secondary literature on horses and horse breeding in Byzantium has played the most restrictive role. The history of animal

[1] The classical reference source remains Jerphanion's extensive catalogue of the monuments, *Une nouvelle province de l'art byzantin: Les églises rupestres de Cappadoce*, which first articulated a dating sequence. Later studies by Jean-Michel and Nicole Thierry, Catherine Jolivet-Levy and M. Restle have remained within the same methodological framework with a focus on the religious material and a concern for chronological problems.

breeding in Byzantium suffers from lack of scholarly interest and the rural aspect of Byzantine society has been inadequately explored. Therefore, subjects such as agrarian settlements and animal husbandry still await to be explored not only in Cappadocia but also in general throughout the empire. In addition, there is no other study of a similar subject with comparable material either in Cappadocia or in the entire Byzantine world; there are no sources in general on housing livestock in the ancient or medieval world and we know almost nothing about Byzantine stables. Such constraints have complicated the process of establishing a systematic methodology, but ultimately emphasize the importance of closely examining architectural details hitherto overlooked.

Horses were crucial and integral players in the Byzantine world. They were expensive and luxurious animals compared to other types of livestock. Thus, the presence of such large stables within residences indicates wealth, a measure of the elite status of their owners. By gaining a clear understanding of horses and horse breeding, we can provide a better-informed understanding of the Byzantine frontier society. Thanks to its rock-cut architecture that favors the exceptional preservation of features such as stables, Cappadocia provides ample evidence for this neglected field of study. Having remained in their original contexts with complete floor plans, elevations and *in situ* mangers, the stables of Cappadocia are rich sources of evidence for understanding horse breeding activities in Byzantium, as well as contributing to the interpretation of the true nature of the elite settlements.[2] Hence, the present work is intended as an original contribution to the field of Byzantine archaeology and the history of the region by using the stables of Cappadocia as a testing ground for a general methodological approach, which can potentially be

[2] The significant contribution of rock-cut architecture for reconstructing medieval Cappadocia has been emphasized by Kalas (2007).

applied to other features of Cappadocian architecture. By examining evidence for Cappadocian horses and horse-breeding aristocrats[3], this research aims to enrich our knowledge of the socio-economic history of Cappadocia during the Middle Byzantine period.

[3] Although "aristocracy" is a controversial issue especially in the case of the provincial communities, I employ the term for the high class that emerges during the tenth and eleventh centuries following the terminology used by such scholars as Magdalino (1984), Kalas (2000), and Ousterhout (2005).

# CHAPTER II

# THE SETTING

Cappadocia generally corresponds to the volcanic area extending over the provinces of Kayseri, Nevşehir, Aksaray and Niğde in modern day Turkey. Although this area always remained the core of the region, the latter's exact boundaries varied over time, as summarized below. Here, the focus is on the tenth and eleventh centuries when the boundaries of the region were close to the modern limits. However, Cappadocia, as "the Land of the Beautiful Horses", traditionally refers to a larger territory covering the majority of Central Anatolia. The primary aim of this chapter is to clarify the geographical and historical limitations of this thesis, while evaluating the changing borders of the region within the chronological framework. The first part of the chapter consists of an introductory section on the etymology, geography and history of the region while the second part focuses on the historical and physical setting of Middle Byzantine Cappadocia. Emphasis will be given to the settlements at Açık Saray, Çanlı Kilise and Selime-Yaprakhisar for a better understanding of their true nature as well as significance for the study of horse breeding in Byzantium.

## *2.1 Which Cappadocia?*

### 2.1.1 Etymology

Since this study is mainly concerned with horse breeding in Byzantine Cappadocia, it would be useful to begin by questioning the origin of Cappadocia's legendary title, "the Land of Beautiful Horses". Although it is commonly assumed that the word "Cappadocia (καππαδοκία)" derives from the Persian word *katpatuka*, meaning "the land of beautiful horses" (Van Dam 2002: 65), the etymology is controversial.[4]

The earliest record of this name appears on an inscription carved on the cliffs of Mt. Bisitun (Behistun) in Persia listing the tribes and countries that Darius I conquered in late sixth century B.C. (Briant 2002: 172-75, 742). This trilingual inscription, in Old Persian, Elamite, and Akkadian, includes the Old Persian name *Katpatuka*, a word claimed to mean "the Land of Beautiful Horses" (Schmitt 1980: 399-400; Ruge 1911). From then on, the name Cappadocia has remained constant, whatever the changing geographical limits of the region. The scholars usually agree that the name has derived from *Katpatuka*, but the meaning of the word is not clear (Baydur 1970: 114). As cited in Umar (1998), Herzfeld[5] affirms its origin as *Katpatuka*, linking *katpat* with "mule" and estimates that the suffix *–uka* derives from the Armenian *–ukh*, used to produce nation names. However, to find an Armenian suffix in the middle of the first millennium B.C. is suggested to be

[4] Van Dam (2002, 220) notes an alternative etymology by de Planhol (1981: 27-29), but I have not been able to reach the source. (de Planhol, X. (1981). "La Cappadoce: formation et transformations d'un concept geographique," Pp. 25-38 in *Le aree omogenee della civiltà rupestrenell'ambito dell'Impero Bizantino: la Cappadocia*. ed. C. D. Fonseca. Galatina: Congedo Editore.)

[5] The author does not mention the name or the date of publication; and the volume by Umar lacks bibliography.

unlikely.[6] Umar agrees with the use of the suffix *-ukh*, but seeks the origin of Katpat within Anatolia, connecting it to the Hurro-Hittite goddess Hepat/Khepat (Umar 1998: 2).[7] Besides, in questioning the legendary title regarding horses, Umar refers to the well-known *Altiranisches Wörterbuch* of Bartholomae and maintains that "fine horses" ccorrespond to *huv-aspa*, which has no apparent connection with either Cappadocia or *Katpatuka*.

Herodotus (V.49) lists the Cappadocians amongst the peoples in the army of Xerxes and affirms that their name (καππαδόκαι) was given to them by the Persians (Herodotus VII. 72), but does not refer to the origin of its name. Later in the Roman period, Strabo, describing the country extensively his Book XII, also fails to give any explanation on the etymology of Cappadocia., but another Roman historian, Pliny the Elder (VI. 3. 2), writes that the region was named after the Cappadox River (modern Delice Çay), the largest tributary of Kızılırmak. Thus "Cappadocia" meant "the land around Cappadox".[8]

The last theory appears in the yearbook (*salname*) of Nevşehir published in 1914 by the Greek inhabitants of the city. Opposing both the legendary title about horses and the theory based on the Cappadox River, the author, Ioanis Georgiu, writes that the Assyrian King Ninias and Queen Semiramis had a son named "Kappadoks", after whom the region has been named (Erdoğdu 1996: 51-52); it is also possible that this might be a mythical person invented by the Greek mythographers at a later period.[9] Interesting to note is what appears to be an attempt on the part of the Greeks to link their origins with the great Mesopotamian

[6] This is a suggestion by Prof. Gary Beckman, to whom I owe special gratitude to for his invaluable help in assessing the theories on the etymology of Cappadocia.
[7] Beckman does not find this theory convincing since no such country names deriving from the divine name of Hepat appear neither in Hittite cuneiform or Hieroglyphic Luwian texts. G. Beckman 2008 *pers. comm.*
[8] Beckman has pointed out that it is not clear which came first since the name of the river might have also derived from Cappadocia. *ibid.*
[9] *ibid.*

civilizations and their legendary figures, which may have been a reflection of the trend in early twentieth century.

To summarize, the theories about the meaning of Cappadocia as "the land of beautiful horses" are ultimately unconvincing, and this legendary title appears to be more mythical rather than real, leaving the etymology of the word uncertain for the time being.

### 2.1.2 Geography

Cappadocia is the name of the large plateau at an altitude of approximately 1000 m in central Anatolia, extending from the Taurus Mountains in the south to the Kızılırmak (*anc.* Halys) River in the north, and from the Tuz Gölü (Salt Lake, *anc.* Tatta) in the west to the Mt. Erciyes (*anc.* Argaeus) in the east. The region lies on a rugged terrain rising gradually from west to east and is bordered by several volcanos, Mt. Hasan (3253 m), Mt. Erciyes (3916 m), Mts. Melendiz (2963 m) and Göllüdağ (2172 m). The succession of eruptions which began in the Miocene has lasted until the historical era, filling an area of 10,000 km² with volcanic ash, lava, and cinder. This was immediately followed by a process of erosion that still continues to shape the landscape, but with less intensity, creating a range of features in the landscape (Andolfato and Zucchi 1971: 51-60; Hild and Restle 1981: 47-61).

Although there are slight variations, the region generally has a continental and sub-desertic climate, which has changed little since the ancient and medieval times (Andolfato and Zucchi 1971: 51; Hild and Restle 1981: 56). Even though the precipitation levels are low, the three main catchment areas, that is, the Kızılırmak basin to the north, Melendiz Suyu to the southwest, and the Mavrucan basin to the southeast, drain the region with their numerous tributaries. The valley floors provide

favorable conditions for cultivating vines, orchards, and grain. Apart from these valleys, however, the land is generally arid in Cappadocia, as the volcanic soil is poor in organic content (Andolfato and Zucchi 1971: 51). This explains the great number of dovecotes hewn out of the rock for obtaining pigeon droppings, which is a fine quality fertilizer used in orchards and gardens (Gülyaz 2000: 552).

The vegetation pattern, depending on the altitude and the nature of the soil, mostly consists of steppe types with a small number of stunted trees (Andolfato and Zucchi 1971: 51), forests being confined to the slopes of the Erciyes Mountain. We learn from Strabo (XII.2.1) that it was not much different in antiquity. He writes that Cappadocia was poor in timber, which thus had to be obtained from the forests surrounding the Argaeus. He also describes the enormous plain as being mostly empty, with only few fruit trees between Mt. Argaeus and the Taurus range, while Melitene (Malatya), a city usually regarded as a part of Cappadocia, was rich in fruit trees.

The subsistence economy has been traditionally based on agriculture and stock raising. Despite the presence of urban centers since antiquity (e.g. Kayseri, *anc.* Mazaca-Caesarea; Kemerhisar, *anc.* Tyana; and Aksaray, *anc.* Koloneia), the region has been renowned for its agrarian character since ancient times (Semple 1922). Strabo (XII.2.10) describes Cappadocian land as excellent for growing fruit trees, and cultivating grain as well as for animal husbandry of all kinds. The large steppes of the region provided abundant grazing for horses and mules. Especially horses need succulent herbage, which is easily found in high level valleys or slopes of mountains. It is necessary to bear in mind that the vegetation patterns of Anatolia have considerably changed and deteriorated as a result of the modern exploitation of ancient and medieval forests. In ancient and medieval times, therefore, fodder may

have been much ampler and more varied than today. Also, with the introduction of modern technological tools in agriculture, the majority of the pastures have been converted into arable lands, thereby causing an overall neglect in animal husbandry.[10] This change explains the lack of pastures in the region today. However, the slopes of Mt. Erciyes between 1800 and 3000 m are still covered by large pastures (Baydur 1970: 17).

At this point, the hundreds of feral horses on the foothills of Mt. Erciyes are worth mentioning. These are free-roaming, untamed horses descended from domesticated horses that strayed, or were released into the wild. Despite being called "wild" horses popularly, they are not truly wild and can be re-domesticated quickly. Their presence, however, may be an indication that this area was the original habitat for the famous horses of Cappadocia. Nineteenth-century travelers also mention horse flocks wandering on the skirts of Mt. Argaeus (Texier 2002).

### 2.1.3 History of Cappadocia

The name Cappadocia has referred to different geographical regions in different times, with its constantly expanding and shrinking boundaries.[11] Thus, the reputation of Cappadocian horses should not be credited to the core of the region. For a better understanding of the horse breeding tradition in the region, it is necessary to make a brief survey of its changing geographical identity from prehistory until the Middle Byzantine period.

The earliest trace of human habitation in Cappadocia dates back to the Paleolithic period (Esin 2000: 79). Intensive research has been conducted on the

[10] Interview with villagers of Selime, Göreme, Avanos and Güzelyurt, February 2008.
[11] The historical geography of the region yet presents problems, although there have been valuable attempts by Ramsay, and Hild and Restle (Ramsay 1890; Hild and Restle 1981: 277-78).

Neolithic, Chalcolithic and the Bronze Age settlements, represented by several mounds such as Aşıklı Höyük, Alişar, Acemhöyük, and Köşkhöyük, most of which have yielded evidence attesting to continuous settlement until the Middle Ages (Esin 2000). In the excavations at Aşıklı Höyük, wild horse bones among other undomesticated breeds have been recovered, indicating the presence of wild horses in Anatolia at the beginning of the Holocene period (Esin 2000: 90).

In the earlier part of the second millennium B.C., the region was a commercial hub, with its center at Kültepe/Kaniš during the period of Assyrian trade colonies; in the second half of the second millennium B.C. it became a part of the Hittite Empire. After its collapse, the Kingdom of Tabal ruled the same territory surrounding Mazaca (Baydur 1970: 85-86). After the Kimmerian raids, the Land of Tabal was included in the Cilician Kingdom in 612 B.C. and was subsequently conquered by the Medes (Baydur 1970: 87; Briant 2002: 34-5). Herodotus reports that the Cappadocians were called "the Syrians" by the Greeks. According to the ancient writers, this was done in order to distinguish between the Syrians living to the north of the Taurus and those to the south; Greeks thus referred to the former as "the White Syrians (λευκοσυριοι) (Herodotus I.72, V.49, VII.72; Strabo XVI.1.2; Pliny VI.3). The changing borders of the region can also be traced from the accounts of the ancient writers. Herodotus (V.49) implies, for instance, that the Cappadocians lived east of the River Halys and were neighbors to the Paphlagonians, Phrygians, and Cilicians. However, his definition of the course of the Halys River implies that the upper part of the river ran through the Cilician lands (Herodotus, I. 72):

> The boundary of the Median and Lydian empires was the river Halys; which flows from the Armenian mountains first through Cilicia and afterwards between the Matieni on the right and the Phrygians on the other hand; then passing these and flowing still northwards it separates the Cappadocian Syrians on the right from the Paphlagonians on the left. Thus the Halys river

> cuts off wellnigh the whole of the lower part of Asia, from the Cyprian to the Euxine sea.[12]

Obscuring the border between Cappadocia and Cilicia, this statement suggests that Cappadocia was a part of Cilicia. Scholars agree that the borderline of Cappadocia before the Persians must have been retained during the Persian rule. Thus, Herodotus here must have referred to this earlier border of the Cilician Kingdom (Baydur 1970: 87). This appears plausible since the descriptions of Cappadocia's borders elsewhere in Herodotus are inconsistent with this statement. Therefore, when he states that the Cilicians gave Darius a tribute of horses, he may have implied Cappadocian horses, as I will elaborate in the fourth chapter (Herodotus, III.90).

Strabo (XII.1.1), confirming the unclear limits of Cappadocia, writes that the country comprised many parts and had undergone many changes. He also reports that the Persians divided Cappadocia into two satrapies, one consisting of the central inland portion, named as Megale Cappadocia (the Greater Cappadocia), the other, the northern part up to the Black Sea coast, called Cappadocia Pontica (Strabo XII.1.4). However, his account is not considered reliable by modern historians who distrust Strabo's references to the distant past as it was known to him (Briant 2002: 741). It should also be noted that evidence on satrapal Cappadocia is very scarce, obtained solely from lists of subject lands and imperial tribute schemes. The Persian rule in Cappadocia is mostly inferred from later sources, which do not necessarily reflect historical events accurately (Briant 2002: 742). Following the end of Persian rule, the two provinces remained separate, and so the name Cappadocia came to be restricted to the inland province. In the Hellenistic period, another independent kingdom, the

[12] "Asia here refers to the western part of Asia, west of the Halys. The width from sea to sea of the αὐχήν is obviously much underestimated by Hdt., as also by later writers." (Godley 1999: 89) (Text based on the 1920 translation by Godley).

Kingdom of Cappadocia, ruled over the region until the Romans took over power (Tekin 2000: 197-209).

Cappadocia became a Roman province during the reign of Tiberius, in A.D. 17 (Hild and Restle 1981: 64).[13] Later, in 76 the two provinces of Galatia and Cappadocia were combined, and during the reign of Titus (79-81), Armenia Minor was incorporated into this double province, whose vast territory still called Cappadocia. Galatia was divided off in 117, and under Emperor Diocletian (284-305) Cappadocia was separated into two parts: the larger section on the west retained the name Cappadocia while the smaller part in the east was called Armenia Minor and later, Armenia Secunda. Emperor Valens (364-378) divided the province of Cappadocia as Cappadocia Prima and Cappadocia Secunda in c. 371. According to this last division, Caesarea remained the capital of the first one, while Tyana became the capital of the latter (Baydur 1970: 105; Hild and Restle 1981: 61-67; Tekin 2000: 199-225).

The Roman province of Cappadocia converted to Christianity very early. In the second century there were already several Christian communities in the region. In the fourth century, the Cappadocian Fathers, that is, Basil of Caesarea, his brother Gregory of Nyssa, and their friend Gregory of Nazianzos became influential figures for the development of the Orthodox monasticism. They participated in the political and ecclesiastical life serving as theologians and administrators at the same time (Hild and Restle 1981: 112-23). Their accounts provide rich information on fourth century Cappadocia and its considerable wealth (Foss 1991: 378; Akyürek 2000: 239).

[13] Our knowledge on Roman Cappadocia is primarily restricted to the textual evidence at present since the material record from the Classical Cappadocia is limited to some funerary stelae and coins found in a few surveys (Equini Schneider 1994).

In the sixth and seventh centuries, the region was facing Persian invasions. In 629, Emperor Heraklios met the Persian general in Cappadocia to make peace upon terms for the withdrawal of the Persians from the eastern provinces of Byzantium (Kaegi 1992: 67), after which the Persians evacuated the Byzantine territories in Syria, Palestine, Egypt and Mesopotamia (Kaegi 1992: 73). This was immediately followed by the plundering expeditions of the Arabs (Haldon and Kennedy 1980). They besieged Constantinople in 674 and 678, and in 708, gained control of the Cilician Gates and Tyana, one of the most important defense points of Byzantium. Although they did not advance further to the north, their raids continued for two centuries (Hild and Restle 1981: 70-84).

As the Arab raids were going on the so-called *theme* system was introduced, which caused further alterations in Cappadocia's borders (Whittow 1996: 117). A *theme* is a strategic administration unit governed by a general, a *strategos* (Haldon 1999: 74), to be discussed in more detail in the second half of the chapter. Cappadocia until the ninth century was included in the borders of two *themes,* Anatolikon and Armeniakon (Fig. 1) (Whittow 1996: 120; Foss 1991: 378). Anatolikon was the most prosperous and the largest of all *theme*s and its *strategos* received the highest salary (Vyronis 1971: 4). Emperor Leo III (r. 717-741), the former *strategos* of Anatolikon who found his way to the throne, was well aware of the power of the *strategoi.* Thus, he divided the *theme* into two in order to control them and also to avoid the possible danger of being dethroned by another *strategos*. The western half of Anatolikon was named Thrakesion *theme* (Fig. 2) (Ostrogorsky 1981: 146-7). In 752, as a result of the successful campaign of Konstantinos V in the east, cities of Theodosiopolis (Erzurum) and Melitene were taken back. In the early ninth century, two new *theme*s, Charsianon and Cappadocia, emerged within

Anatolikon. The traditional name Cappadocia was kept for unofficial and ecclesiastical purposes, while in Byzantine administrative terminology, Cappadocia came to refer to a much smaller area on the south, extending from the Taurus to the Halys with its headquarters in Korone[14], situated on the major routes used by the Arab invaders (Fig. 2). Peace was restored after the first half of the ninth century although Arab invasions continued until the Byzantines annexed Melitene in 934. Cappadocia, serving as a base camp where the troops gathered before going on campaign to the east, retained its strategic importance as a buffer zone between the Byzantine Empire and its neighbors throughout the Middle Byzantine period (Fig. 2**)** (Foss 1991: 378). The remainder of the chapter will discuss this frontier environment in Middle Byzantine Cappadocia.

### *2.2 Middle Byzantine Cappadocia[15]*

This thesis focuses on a group of Middle Byzantine settlements, and their associated stables which yield evidence on horse breeding in the Byzantine world. Before moving on to the specific sites with rock-cut stables, first it is necessary to introduce their historical and physical context. The second part of the chapter therefore entails a discussion and description of Cappadocia's administrative and military institutions, roads, towns and finally the three Middle Byzantine settlements in order to illustrate the overall background and the conditions suitable for a horse breeding tradition.

[14] A Byzantine town located 32 km northwest of Niğde (Hild and Restle 1981: 216). The Turkish name of the site is not known.
[15] Here the Middle Byzantine period is taken to refer to the time between 867-1056, corresponding approximately to the rule of the Macedonian Dynasty (Kazhdan 1991c: 1262).

### 2.2.1 Administrative and Military Organization

In the second half of the ninth century, the Byzantine Empire adopted an offensive strategy, a situation that necessitated changes, particularly in military organization (Whittow 1996: 181) that triggered important developments in the history of Cappadocia (Foss 1991: 378). A phenomenon that deserves a closer investigation for this particular study is the *theme* system since firstly, it constituted the main administrative and military organization of the time and secondly, gave way to the emergence of a military aristocracy in the border zones (Kazhdan and Constable 1982: 40; Whittow 1996: 337). Thus, although a somewhat controversial issue, the organization of *theme*s is fundamental for the understanding of the military function of the Middle Byzantine elite in Cappadocia.

A *theme* is defined as "[…] a military division and […] a territorial unit administered by a *strategos* who combined both military and civil power." (Kazhdan 1991f: 2034). The origin and evolution of the system have been key problems in the study of the Byzantine army organization, which also remains a subject of controversy.

The major questions have to do with establishing the date and the origin of the *themata*. Debates addressing this issue, starting in the 1950s, have polarized around two views. The traditional view, first advocated by Ostrogorsky, is based on the theory that Herakleios (610-641) created the *theme* system in the seventh century, whereas the second group of historians dates it to the following century (Haldon 1993). According to Ostrogorsky, the system was established for the upkeep of armies by settling the troops on the land, a solution found by the state for the problem of maintaining the cost of its armies during the financial crisis of the seventh century. The *themata* consisted of the so-called "farmer soldiers" who were

granted “military lands” (*stratiotika ktemata*) in return for military service (Ostrogorsky 1953). Haldon (1993: 20) defines the term “military lands” as “holdings of varying extent, held by a person who was entered in the military registers as owing military service hereditarily to the state, which service was supported in respect of basic equipment and, to a degree, provisions, from the income derived from the land.” These were administered by a *strategos*, whose major concern was supporting and reproducing the provincial armies in the most efficient way (Ostrogorsky 1953). Other historians such as Kaegi (1967), Hendy (1985), and Treadgold (1983) follow Ostrogorsky’s assumption. Despite the differences in their approaches, they generally agree on the theory that after the loss of Egypt and Syria, which were crucial food resources of the empire, the state settled soldiers on the land and supplied these territories with income, equipment, and provisions in order to recruit forces from them and support the armies (Teall 1971: 47; Kaegi 1967).

In contrast to the idea that the theme system was created by a single reform, the second view favors an “organic development” (Kazhdan 1991f: 2034-5). This theory, first advocated by Karayannopulos in late 1950s (Kazhdan 1991f), has been supported by Haldon, who opposes the traditional assumption that the upkeep of the soldiers was undertaken entirely by the state. Instead, he argues that there was no formal settling of soldiers by the state on such a massive scale because the state, in the financial crisis of the seventh century, would not give away its resources, for land meant tax, and tax meant money. Referring to the literary evidence from the eighth to tenth centuries, he asserts that the military service was hereditary and the soldiers mostly supplied their own equipment, mounts, and weapons (Haldon 1993).

Although the origin of the *theme* system is yet to be clarified, it is reasonable to conclude that the system derived from the military requirements across Anatolia, which also fulfilled civil administration tasks, although the priority was always given to military concerns and interests. It is this military aspect of the system that makes it important for the focus of the present on the *thematic* armies.

Although slightly different from century to century, each *theme* in general had an individual army of 4000-6000 troops consisting of heavy and light cavalry units, as well as infantry and archers (Teall 1971: 47). The cavalry formed the basis of these troops and was the most important unit of these armies (McGeer 1995: 211-217; 1991: 1114), as will be discussed in the fourth chapter. The *thematic* armies were local militia-like elements deployed on the frontier passes through which the enemy forces had to pass. These posts, exposed to enemy action, served a crucial role for the regaining of the eastern territories (Haldon 2003: 40). In *The Book of Ceremonies*, Constantine VII writes about the camps and assembly points through which the emperor passed on the way to Syrian or eastern frontiers where he was met by successive *thematic* armies (Constantine and Reiske 1829). As the imperial host approached a camp, the chief of the theme army was supposed to provide the emperor with anything he might need so that in addition to food and men, the *theme*s also supplied horses and mules. Thus, the burden of furnishing the army fell upon the *theme*s (Teall 1959: 113-14; Constantine and Reiske 1829: 457, 477, 489 f.), which was presumably the reason why the Cappadocian elite bred horses along with other pack animals in their large stables.

The earliest themes were fewer in number and larger in territory, whereas later they were divided into smaller units in order to weaken the power of their *strategoi* as mentioned previously (Kazdhan 1991: 2035). However, it was not only

the *strategoi* who benefited from the system, but also a number of families that were given estates by the emperor, as was the case in Cappadocia, especially during the reign of Nikephoros II Phokas (r. 963-969) (Kazhdan 1991a: 351). In return, they were expected to provide assistance for the empire against enemy raids (Levtchenko 1999: 145-159). In frontier areas like Cappadocia, the sudden attacks of the enemies necessitated prompt decision and action (Kazhdan and Constable 1982: 40). In time, they became involved in the political arena, causing changes in the rule and rebelling against imperial policies that threatened their power. The power and glory of such families lasted until the mid-eleventh century, when the system was abandoned (Kazhdan 1991f: 2035).

### 2.2.2 Military Aristocrats of Cappadocia

After the seventh-century crisis, the social elite was transformed into "new men", who were selected as *strategoi* by the emperor on the basis of merit. In the eighth and ninth centuries, this class turned into an aristocracy (Haldon 2002: 24). In Middle Byzantine society, there were two types of aristocrats.[16] The civil aristocrats held hereditary nobility and lived in cities whereas the military aristocrats gained status through military merit and lived in rural areas. The *Taktika* of Leo VI (886-912) advises that *strategoi* should be appointed on the basis of their military achievements rather than ancestry, as they fulfilled their duties better in order to compensate for their lowly birth (Bartusis 1991: 170). This caused a serious conflict between the civil and the military aristocracy.

The rural aristocracy that appeared in Cappadocia from the mid-ninth century onwards comprised land owning military magnates (Kaplan 1981). One of these

[16] For a fuller analysis of the aristocracy in this period, see M. Angold 1984.

aristocratic families, the Phokas family, originally from Caesarea, produced several distinguished generals, including the Emperor Nikephoros II Phokas (r. 963-969), who had been *strategos* of the Anatolikon *theme* before he ascended to throne (Dennis 1988: 139). His policies gave many privileges to the rural landowners, gradually increasing their power and wealth (Cheynet 2006: I.24-5). During the tenth and in particular the eleventh century, these aristocrats grew entirely independent, thus posing a threat to the state (Haldon 2002: 24). Those in Cappadocia rebelled against Basil II (r. 976-1025), who, relocating Armenians in Cappadocia, appointed an Armenian *strategos* to the region, probably to break the authority of the Cappadocian magnates (Cheynet 2006: VIII.23).

A valuable document, the will of the *protospatharius* Eustathios Boilas from the year 1059, provides a detailed account of the estate of a large landowner in one of the eastern provinces. An officer originally from Cappadocia, his will states that for some reason he was forced to migrate from Cappadocia to a land at one and one-half week's distance, where the people and the language were different. The evidence indicates that the estates of Boilas were located somewhere in eastern Asia Minor (Vryonis 1957). Another well-known aristocrat from Cappadocia for the same time period is Eustathios Maleinos, a cousin of Nikephoros II who gained his fortune when he was appointed the first *strategos* of the reconquered Antioch in 969 (Cheynet 2006: I.18, Kazhdan 1991d: 1478-79). He provided his enormously large estate for Basil II and his army during his campaigns against the Fatimids (Van Dam 2002: 66). However, upon learning that his estates extended for over seventy miles in the provinces of Charsianon and Cappadocia, Basil felt so threatened that he invited

him to the capital, whereupon he confiscated all his property, and kept him in a cage (Van Dam 2002: 66; Cheynet 2006: IV.31).[17]

The power and glory of the well-known Cappadocian families during the tenth and eleventh centuries is also reflected in the epic of *Digenis Akritas*, which is worth noting here also because it displays the geographical extent of Cappadocia, as exemplified by Digenis' palace by the Euphrates (Mavrogordato 1956; Jeffreys 1998). Problematic as it may be to use the epic as a historical source, the story, as well as its setting, correlates with the historical circumstances of the time. It is possible to multiply such examples of great magnate families. This being said, available documentary evidence is confined to accounts relating to the Cappadocian aristocracy, and our knowledge about the remainder of the society is rather scarce. Concerning this point, further archaeological investigations should be illuminative.

### 2.2.3 Roads and Towns in the Middle Byzantine Cappadocia

The three settlements analyzed here, Açık Saray, Çanlı Kilise and Selime-Yaprakhisar, are all located in the vicinity of major routes connecting the eastern border to the remainder of the empire (Figs. 4, 5). A brief survey of these roads and towns would allow the evaluation of these sites within their broader context with regard to their strategic importance.

During the Arab raids of the eighth and ninth centuries, the area that comprises the geographical scope of this thesis was exposed to constant invasions until the Byzantine Empire reconquered Cilicia and northern Syria in second half of the tenth century (Thierry 1963: iv). As previously mentioned, Arab invaders had

[17] For further details on the estate of Eustathios Maleinos, see John Scylitzes, Synopsis historiarum, ed. Thurn (1973) 340. For a distribution of magnates, see Hendy, (1985) 100-107; for the prominence of the Maleinos family, see Kaplan (1981) 143-52; and on its affiliations with the Phokas family see Cheynet (2006) I.18.

taken Tyana in 708 and established themselves north of the Taurus Mountains. The Byzantine defense system consisted of the natural fortification of the Hasan-Melendiz massif, supported in the rear by fortresses, one of which was probably the Akhisar castle and the fortification wall at Selime (Figs. 4, 5) (Kalas 2000: 156-9; Ousterhout 2005: 8-9, 182-3). Also, in the ninth century a special system was developed for rapid long-distance communication, which formed an essential part in the defense of the border. A court scholar, Leo the Philosopher, established a chain of hilltop towers for signaling over the large terrain extending from the Taurus Mountains to the imperial palace in Constantinople and covering a distance of around 720 km. Nine beacons were placed at intervals of 50 to 100 km, and messages were passed from each point to the next one, finally reaching the capital in an hour's time (Fig. 4) (Pattenden 1983; Rautman 2006: 217).[18] In the meantime, the garrisons at Rodenton (Anaşa Kalesi), Podantos (Pozantı) and Loulon (Ulukışla) were responsible for keeping the invaders at the Taurus foothills (Thierry 1963: iv). For the supply of reinforcement, the road network was renovated and new roads built from Caesarea to Tyana (Thierry 1963: iv). It is also important to note at this point that during the tenth and eleventh centuries Caesarea and Koloneia were amongst the most important a chain of *aplekta*, military staging posts, where the emperor met with the provincial divisions on his way to campaigns on the east (Hild and Restle 1981: 254-57).[19]

The Byzantine roads were of different standards for different purposes, and their rich terminology reflects the variety of road types. Sources mention both wide, paved roads, suitable for wagons, and narrow, unpaved roads or tracks (Kazhdan 1991e: 1798). From the seventh century onwards, the new emphasis placed on

[18] On the Byzantine beacon system, see also Ramsay (1890: 187, 351-3).
[19] A list of *aplekta* can be found in The Book of Ceremonies (Constantine 1751).

military routes, along which fortified posts and military camps were established, reflects the state's preoccupation with invasions (Haldon 1999: 53-60). The major Roman highways kept functioning throughout the medieval period and the roads below were already in use during the classical period (Ramsay 1890: 27-62; Baydur 1970: 19). Ramsay's extensive monograph, *The Historical Geography of Asia Minor* (1890) remains the major source of reference for the geography of medieval Anatolia, and is still cited frequently in modern literature (Ramsay 1890) thanks to its reliable use of primary sources. Ramsay (1890: 74-82) provides a full account of the Byzantine roads and settlements with detailed reference to the historical events, with the discussion of Byzantine Cappadocia being focused on two major roads: the Pilgrims' Road and the Military Road (Ramsay 1890: 197; 281-317).

#### 2.2.3.1 The Pilgrims' Road

The most important route in Anatolian peninsula of the medieval period, this road started from Constantinople, passed through Ancyra (Ankara), and from the east of the Salt Lake reached Koloneia (Aksaray) and then Tyana (Kemerhisar), eventually leading to the Cilician Gates (Gülek Boğazı). It was known as the "Pilgrims' Road", because it ended in Jerusalem (Ramsay 1890: 74-82). The modern highway that connects northwest Anatolia to the southeast follows the same route linking the major cities of Istanbul, Ankara, and Adana.

#### 2.2.3.2 The Military Road

Longer but more practical and easier than the Pilgrims' Road, the Military Road passed by Nikaia (İznik) and Dorylaion (Eskişehir) crossing the Sangarios

(Sakarya) by the bridge at Zompos (Zompe), and the Halys at what is today the Cesnir Köprü (Ramsay 1890: 220). It then forked east of the Halys, one route leading to Sebasteia (Sivas) and Armenia and the other to Caesarea (Kayseri) and Kommagene and to the Cilician Gates. The Military Road, which served almost for all the military expeditions to the east, was maintained with the utmost care until the eleventh century. There was a chain of *aplekta* situated at regular intervals for the service of the imperial army (Vryonis 1971: 31).

#### 2.2.3.3 The Pontus Euxenius-Tavium-Caesarea Road

Starting from Sinope (Sinop) and Amisos (Samsun) on the Black Sea coast, this road passed through Amaseia (Amasya), Tavium (Büyük Nefesköy) and reached Caesarea, at which point it joined the roads leading to the Mediterranean coast, either via Tyana and Podantus or via Develi, Fraktin and Sisium (Kozan). The commercial importance of this route lay in the fact that it linked Cappadocia to the harbor towns on the Black Sea and the Mediterranean coasts (Sevin 2000: 52).

#### 2.2.3.4 The Iconium-Koloneia-Caesarea Road

Similarly, this road was significant for linking Cappadocia to the cities on the Aegean coast. It extends from Iconium (Konya) to Koloneia (Aksaray) and Caesarea. Caesarea was at a major junction of roads, one of which led northeast towards Sebasteia (Sivas) and the other to Melitene via Elbistan. Teall (1959: 126) implies that good roads united Caesarea with the market towns surrounding it.

#### 2.2.3.5 Aksaray-Selime-Güzelyurt Road

Archaeological evidence indicates that the route was already in use in the Roman period. The fortress on Gelin Tepe overlooking the Sivrihisar valley continued to function in the Byzantine period (Equini Schneider 1994). Although not one of the major routes, it bears relevance for the present study.

### 2.2.4 The Byzantine Settlements at Açık Saray, Çanlı Kilise and Selime-Yaprakhisar

Precise knowledge about the appearance and nature of Middle Byzantine settlements comes from three published sites: Açık Saray, Çanlı Kilise, and Selime-Yaprakhisar. All three incorporate stables, thus providing rich architectural evidence for the breeding of horses as well as other animals in Middle Byzantine Cappadocia. For a better-informed interpretation of these stables, first it is necessary to investigate the true nature of these settlements. The relevant discussion will draw predominantly from the works of Rodley, Ousterhout, and Kalas, and follow the descriptive terminology established by these authors for the above sites; room numbers for the architectural plans also follow the publications by Rodley, Ousterhout, and Kalas.

Given the predominant view of medieval Cappadocia as a region of intensive monastic activity, the traditional approach to these sites retains their initial identification as monasteries (Rott 1908; Jerphanion 1925). Recent studies by historians of architecture, however, challenge this assertion from the standpoint of settlement archaeology, a relatively new introduction to Cappadocian studies (Mathews and Mathews 1997; Ousterhout 1997; Kalas 2000). As a result, sites such as Çanlı Kilise, Selime, and Açık Saray have been interpreted as rural settlements rather than as monasteries, demonstrating that the complexes in question, previously

misidentified as monasteries, are in fact houses of the aforesaid military aristocrats.[20] All of the stables discussed in this study accompany such elite complexes indicating the affluence of their owners.

A complex can be defined as a large housing unit with rooms arranged around a courtyard, most of which are ∏-shaped in Cappadocia, that is, a rectangular courtyard with rooms on three sides (Mathews and Mathews 1997). Ousterhout (2005) terms each housing unit as an "area"; Kalas (2000: 75) following his terminology, defines an "area" as: "[...] architectural space that was once inhabited and is the equivalent of a dwelling however specifically defined, such as a habitation, architectural ensemble, unit, complex, manor house or mansion."

The reinterpretation of the evidence from Açık Saray, Çanlı Kilise, and Selime in the context of Middle Byzantine domestic architecture is thus indicative of the elite status of their residents. It has been proposed that they accumulated this wealth through the historically attested border control besides farming and possibly horse breeding. According to Kalas (2000:138), the rural elite bred horses in their rock-cut stables to supply the imperial army as well as their own. The significance of horses in the medieval world, their economic value, as well as the reputation of Cappadocia as the Land of Beautiful Horses, strongly suggest that the magnates gained wealth through horse breeding. However, the role of horse breeding for the economy of Cappadocia should also be considered. For instance, what was the main purpose of breeding horses? Were they supplied to the army or used by the local landlords? Such questions are at the basis of this study, whose major objective is to form a more inclusive understanding of the nature of horse breeding in Cappadocia

[20] For a critical survey of the history of scholarship in Cappadocia, see Kalas, 2000; and for a critique of the traditional approaches to interpret Cappadocia as an entirely monastic region see Mathews and Mathews 1997; Ousterhout 1996, 1997; and Kalas 2004a.

in the tenth and eleventh centuries. Before analyzing the stables, which constitute the main class of evidence for this study, a survey of the three settlements is in order.

#### 2.2.4.1 Açık Saray

The site known as Açık Saray (*lit.* "Open Palace" in Turkish) is located roughly 15 km northwest of Nevşehir (Figs. 5, 6); and 4 km from today's Gülşehir, identified as Zoropassos in Byzantine documents, later changed to Arapsun, then to Yarapson (Hild-Restle 1981: 308; Ramsay 1890: 220). The history of this town goes back to antiquity. In Roman period, it was located within the limits of the province of Morimene, one of the ten *strategeia* mentioned by Strabo (XII. 1. 4), which extends along the south bank of the Halys from Galatia to Derinkuyu (*anc.* Melagop) (Hild and Restle 1981: 43-44). Zoropassos is named as one of the major towns in Morimene situated at an important point where the Halys narrows to allow easy crossing for travelers on the road leading to Hacıbektaş (*anc*. Doara), a bishopric from the fourth century and a significant centre known from historical sources whose exact location is yet unidentified (Ramsay 1890: 198), and from there to Kırşehir (Justinianopolis-Mokissos). The Military Road forked at Justinianopolis-Mokissos and one branch passed through Zoropassos, earning it significance especially during the Arab invasions (Ramsay, 1890: 220, 287). The medieval name of the settlement at Açık Saray is unknown. But being situated on an important road and in the setting of a fertile plateau watered by the Halys providing perfect conditions for agrarian activities as well as horse breeding, the area was no doubt much less isolated than it is today.

Lying on the western side of the modern Nevşehir-Gülşehir road, the site covers an area of approximately 1.5 km² (Fig. 7) (Grishin 2002: 164). The settlement

consists of several courtyard complexes carved into squat volcanic cones. The most recent survey at the site was conducted in 1985 by Rodley. Her monograph, *Cave Monasteries of Byzantine Cappadocia*, represents the first attempt to fill the gap in the study of Cappadocian architecture. She introduced a new approach into the scholarship by examining architectural features of Cappadocia from a broader perspective. Although her study does aim "to assemble the evidence for monasticism in the region and to establish its nature and chronology", Rodley refrains from classifying Açık Saray as monastic given the paucity of churches, reserving a separate chapter for its discussion. Hers is the most comprehensive study of the site to date. This being said, the site awaits an overall accurate documentation and extensive critical investigation. The plans and orientations by Rodley are sketchy and inaccurate with lines consistently sharper and straighter than in reality causing confusions.[21]

In terms of function, many scholars believed that the complexes were monasteries (Rott 1908; Jerphanion 1925; Verzone 1962; Kostof 1989). Instead, it is much likelier that the Açık Saray complexes served as residences for the landowning aristocrats (Mathews and Mathews 1997), known from historical sources for gaining influence on the border zones at this time (Kazhdan and Epstein 1990: 63-65; Vryonis 1971: 24-25). The monastic funtion of the site was first challenged by Rodley, who proposed three possible alternatives for the interpretation of these complexes as 1) summer or hunting palaces used as temporary residences due to harsh winter conditions; 2) the Byzantine equivalent of Turkish *hans* for trade caravans (she took the Seljuk *hans* as models); 3) *aplekta*, military staging posts, each complex serving an army sub-division. Convinced that *aplekta* were placed on a

[21] A critical discussion of Rodley's contribution can be found in Mathews and Mathews (1997) and Kalas (2000: 35-42).

major route running through the volcanic valley towards the southeast, Rodley (1985:150) reaches the conclusion that Açık Saray might have been one that cannot be identified in the historical accounts.

None of the above explanations are entirely convincing. First, unless the same is to be assumed for the thousands of similar rock-cut dwellings in the same region throughout which climatic conditions are uniform, harsh winters do not unequivocally qualify the Açık Saray complexes as having a seasonal character in the absence of other evidence supporting such a claim. Nor is the possibility of a *han* function very likely; although Rodley comments on the suitability of the complexes for accommodating animals, she falls short of evaluating the stables in terms of capacity.[22] Moreover, she is not able to establish architectural parallels between the complexes and the *han*s, the latter being never so close to each other as are the complexes.[23] Finally, the presence of utilitarian features such as pit looms and wine presses, typical for the domestic architecture of Byzantine Cappadocia, undermine the *aplekta* hypothesis.

Before discussing the evidence presented by more recent studies in favor of a residential character of the site consistent with its architecture-historical evaluation within the broader context in the eastern Mediterranean (Mathews and Mathews 1997; Ousterhout 2006; Kalas 2000), another proposal, formulated by A. Grishin (2000) should be considered. Dividing the site into two parts across a north-south axis, Grishin demonstrates a pattern in the distribution of chapels and stables, the latter being absent in the eastern half. To account for this, he suggests a partial monastic-military function for the site, where the western half of the axis serves as an *aplekton* housing a part of the imperial army. On the basis of a comparison between

[22] Also, two additional stables (in Complexes Nos. 2a and 7) seem to have been missed.
[23] Rodley does recognize proximity as problematic for the analogy, but disregards it because of Seljuk practice (Rodley, 1985: 150).

the animal figures carved in Room 1 of Complex No. 7 and the relief decoration of the Armenian church of Akdamar, he dates the western half to the tenth century, but suggests an eleventh century date for the eastern half from the layout and design patterns of the church in Complex No. 3 (Grishin, 2002: 170-1).

The proposed gap of almost a century separating the two halves is inconsistent with the unquestionable unity in the overall architectural and decorative design of the site, which instead points to a coherence in function.[24] Also, the estimation that the absence of stables indicates monastic function is based on the assumption that implies the two are mutually exclusive, which is contradicted by the fact that it is quite common to find stables in association with churches and monasteries. This will be discussed in the next chapter, where the absence of stables is explained as a result of erosion, capable of changing the landscape rapidly. Nevertheless, scholarship has demonstrated that the design of monasteries and dwellings do not necessarily have a clear distinction.[25]

#### 2.2.4.2 Çanlı Kilise

The site of Çanlı Kilise is located c. 15 km southeast of the modern province of Aksaray in western Cappadocia, set on the slope of a hill overlooking the plain to the south (Fig. 5, 6). The Byzantine name of the site is unknown; its modern name, "church with the bell", derives from the exceptional Middle Byzantine masonry church located on the southeast slope of the hill. The site has been documented in a

[24] The chronology of the complexes has been constructed by a comparative analysis of their architectural elements. For a discussion of the shared features in residential architecture of Cappadocia, see Ousterhout (2005 141-155; 172-176).

[25] The question of how to distinguish monasteries from residential complexes has been discussed extensively in the literature. Magdalino (1984) has noted the similarities between the organization of Byzantine households and monasteries. A more general discussion of the issue is provided in Hill ( 1994). For a critique of the monastic interpretations of Çanlı Kilise, see Ousterhout 2005: 176-181.

recent survey conducted by Ousterhout, who asserts that "the site was a prosperous, agriculturally based town, or *kōmē*, of the Byzantine period, with a concentration of homes for the well-to-do landowners" (Ousterhout 1997). The main settlement dates from the tenth and eleventh centuries, although there is evidence for habitation on the site from the sixth century until the sixteenth century (Ousterhout 2005: 172-76). Ousterhout (2005: 182-84) suggests that the site must have been relatively less isolated in the medieval period due its proximity to two important sites: the fortress known as Hisn Sinan, identified as the Akhisar fortress, which was the main defense point in the region during the Arab invasions, and the town of Koloneia (Aksaray) (Fig. 5). Other scholars have also pointed out that the great size and proximity of the mounds lined up on Aksaray plain indicate how densely it was populated from prehistory until the Middle Ages (Darga 2000: 163; Esin 2000).

The survey team has recorded almost thirty living units carved in the slope (Fig. 35). Most are arranged around a ∏-shaped or a four-sided courtyard, similar to Açık Saray, Selime and other contemporary settlements in Cappadocia. There are few traces of built architecture, but Ousterhout (2005: 171) believes that the settlement consisted of both rock-cut and masonry architecture as in the modern examples of Uçhisar, Ortahisar, and Güzelyurt, where the inhabitants both "dug in and built out", a convention of combining spaces carved from the rock with masonry additions in front (Stea and Turan 1993: 189-97).[26]

The site comprises well-defined units with regular layouts as well as more loosely arranged areas, some of which may date to later habitation phases. Confirming the recent studies that challenge the monastic interpretation, the complexes do not yield any evidence to indicate such a function. Conversely, within

[26] Kalas (2000: 80-81) claims that building out would mostly be a phenomenon of peace whereas rock-carving would have been preferred under siege, which I do not agree since rock-carving appears to be a more practical method than masonry.

the courtyard units the emphasis is given to the central area where a large monumental hall, probably with a ceremonial function, is placed, whereas the chapel is usually located off to the one side (Ousterhout 2005: 170; Kalas 2000: 49).

Tracing the origins of this plan in the capital, Osterhout (1997) links it with the contemporaneous Myrelaion Palace in Constantinople, which has many shared features with the courtyard complexes of Cappadocia: a ∏-shaped courtyard, a portico along the main façade and a chapel placed off to one side (Striker, 1981). However, no other parallels are known from Constantinople, due to the paucity of archaeological surveys. On the other hand, Mathews and Mathews (1997) claim that this plan type, *the inverted T-plan*, as they term it, was adopted from Islamic mansions. Kalas (2000: 86) defines *the inverted T-plan* as a combination of an entrance hall placed transversely in relation to the main hall. Ousterhout (2005:148-9), in contrast, seeks the roots of this arrangement within the broader Mediterranean context, implying that this has been a generic plan in this region since the Roman period. Another parallel element in all three settlements of Açık Saray, Çanlı Kilise and Selime is the dominant design element of the horseshoe shaped arch, which decorates the façades of various Cappadocian monuments. Mathews and Mathews (1997) find parallels with the Islamic palaces of Amman and Ukhaidir. Although such issues of cross-cultural interactions in the eastern Mediterranean can be complicated to explain, when one considers the location of Cappadocia on the border during this period against the background of its rich heritage since antiquity, and the long-lasting Arabic rule in the region, it appears plausible that this particular plan type developed under the influence of a multi-cultural frontier environment. The potential of Cappadocian architecture for further exploration of such relations in the eastern Mediterranean has been emphasized (Mathews and Mathews 1997).

#### 2.2.4.3 Selime-Yaprakhisar

The settlement is located at the northern opening of the Peristrema Valley (Ihlara Vadisi) spreading around the modern villages of Selime and Yaprakhisar in the Aksaray province. The valley provides favorable conditions for settlement, its main water source being the Melendiz River opening into a large arable plain and flanking soft rock outcroppings.[27] It is assumed to be a line of communication starting from the Melendiz plain and extending to the north (Kalas 2000).

The site was surveyed between 1997 and 2004 by Kalas, who has documented the majority of the standing remains for the first time (Kalas 2000). Up to the present, a masonry fortification wall, fifteen rock-cut courtyard complexes and several churches as well as funerary chapels have been identified and recorded. The complexes have been interpreted as Middle Byzantine residential units, revealing a parallelism of chronology and function with the earlier sites. The surveys on the site have focused on the complex known as the Selime Kalesi (Selime Fortress) in Selime and the façade decorations of the complexes in Yaprakhisar (Kalas 2006). [28]

Characteristic features of the earlier courtyard units are also attested in Selime-Yaprakhisar. The courtyards are often four-sided, the main walls of which are decorated by multi-storey façades with blind niches (Kalas 2006: 277). Facing the valley, they are all surrounded by living spaces and utilitarian rooms such as kitchens, stables, and storage areas. Some of the rooms are more articulated than others, by blind niches, cornices on the walls, and crosses or geometric patterns carved on the ceilings. These are usually placed at the center of the complex, and are

[27] For a detailed discussion of the topography and the organization of the settlement see Kalas 2000: 68-77.

[28] Yaprakhisar will be excluded in the following discussions since none of the four courtyard complexes are recorded as having stables in the publications. As the target of this study was primarily the published stables, and those unpublished ones in their vicinity, Yaprakhisar was left out from the scope of this thesis. Nevertheless, because the rock-cut architecture of the site bears close parallels with other three settlements, there is no apparent reason for the absence of stables.

thus proposed to have served as formal reception halls (Kalas 2006: 278). The churches, in contrast, are less emphasized, placed once again off the central area to one side of the courtyard. The majority have a cross-in-square layout, which is the generic plan type of the tenth-century in Cappadocia. From the uniformity in design and style of the complexes and their components, Kalas concludes that they were carved at the same time—combining architectural evidence with the funerary inscriptions, Kalas dates the settlement to the tenth and eleventh centuries (Kalas 2006: 278).

What makes Selime exceptional in contrast with the two sites presented earlier is an extraordinary complex, termed as Selime Kalesi, which stand out for its great dimensions, predominant location high above the cliff, and degree of sophistication in design and decoration. It is the largest and most elaborate complex so far recorded in the region, occupying an area of 3000 m² (the total of carved spaces measure half of this, around 1500 m²) with a length of 100 m along the rock face (Kalas 2006: 278-9). By reason of its position overlooking the entrance to the valley and the steep tunnel linking it to the fortification wall 100 m above, Selime Kalesi has been identified as the principal complex of the settlement, which probably had military affiliations and served as an administrative center (Kalas 2000: 132). The owner has been identified as a military official from the upper class, who was presumably a member of the wealthy landowner families of the Middle Byzantine period discussed above (Kalas 2006: 281). The owners of the complex are in fact painted on the west wall of its basilica church, but cannot be identified as the inscriptions are suggested to have disappeared as a result of a fire (Rodley 1985: 251). Their rich costumes, however, are quite similar to those on other donor panels from the region depicting noble families, suggesting aristocratic origin (Rodley 1985:

251). The archaeological evidence, therefore, confirms the historically known frontier environment of Byzantine Cappadocia.

The above settlements provide important evidence that sheds light on the settlement patterns, domestic architecture, and accordingly, the socio-economic history of Middle Byzantine Cappadocia. The layout and the design elements of all complexes in all three settlements show strong parallels, verifying the theory that they are all contemporaneous settlements with similar residential functions despite the diversity in their dimensions. The largest of all appears to be the one in Selime Kalesi, which displays exceptional characteristics. This large mansion connected to a fortification wall, indicative of its military function, is situated strategically on a dominant hillside at the opening point of the Peristrema Valley (Kalas 2000: 156-59). Thus, the complex is very likely to have been the residence of a military magnate, perhaps a *strategos*, who controlled the access to the valley. In contrast to this diversity of scale in Selime between the Selime Kalesi and the remainder of the complexes in Selime, those in Açık Saray and Çanlı Kilise are more or less uniform in scale. In Çanlı Kilise, the most elaborate units are at the western part of the settlement, located around the church, but none of them single out as a ruler's residence with exceptional qualities such as those of Selime Kalesi. The hierarchy in Açık Saray complexes is even less emphasized compared to Selime and Çanlı Kilise.

Selime and Çanlı Kilise are both located on hillsides at a dominant position overlooking the plain, probably for the control of the routes through the valleys (Ousterhout 2005: 182-3). Açık Saray, on the other hand, lies on a more flat terrain by the modern road from Nevşehir to Kırşehir, which was and still is one of the major routes connecting Cappadocia and Ancyra (Ankara). Furthermore, while the

first two settlements have fortification systems in the vicinity, there is no evidence for the presence of such a fortification wall in or around the site of Açık Saray, indicating a difference in setting, which in turn may suggest a difference in function.

Seeing as settlement archaeology and domestic architecture are new areas of research in Cappadocian studies, many questions still await answers. There is no doubt about the presence of other contemporary settlements from the vicinity.[29] Future surveys will provide new evidence that should enable a better understanding of the relationship amongst the three settlements, and with others, and allow a better understanding of the Middle Byzantine society in Cappadocia.

### *2.3 Conclusion*

With its constantly changing borders, the name Cappadocia has referred to different geographical designations throughout its history. The present study focuses on the core of the region, in particular, the volcanic area dominated by rock-cut architecture. The historical scope is limited to the tenth and eleventh centuries, a time period when Cappadocia was annexed by the Byzantine Empire and inhabited by landowner families that were responsible for the border defense as well as supplementing the imperial army. Recent archaeological surveys at three settlements, Açık Saray, Çanlı Kilise, and Selime-Yaprakhisar have yielded rich evidence that correlates them with what is known from the historical sources. The sites are comprised of elite houses with large-scale stables. This study assumes that they primarily functioned for breeding horses and mules for the imperial army, and thus can contribute to our knowledge of the socio-economic history of Middle Byzantine

[29] The recent surveys in two settlements in the Erdemli valley have revealed that these sites bear similar characteristics (Karakaya 2007).

Cappadocia. Even though the etymology of Cappadocia raises doubts on its legendary position as a country famous for its horses, historical sources confirm the quality and reputation of horses bred here as discussed in the next chapter.

# CHAPTER III

## THE LITERARY EVIDENCE:
## THE HISTORY OF HORSE BREEDING IN CAPPADOCIA
## AND
## THE HORSE IN THE BYZANTINE WORLD

*"The Roman fought on foot, the Byzantine on horseback."* Bivar[30]

"The history of animal breeding in Byzantium has not yet been written, and it poses a substantial problem." A. Kazhdan (1997:52) summarizes with this sentence one of the major challenges faced throughout this research. Even though sources on horses are relatively more in number than other types of livestock in the Byzantine world, the amount of research done on Byzantine horse culture cannot be compared with that on Roman horses, which is represented extensively in the literature. Additional challenges to the study of Byzantine horse breeding in Cappadocia are the paucity of written evidence from this region and period, as well as the very few numbers of studies focusing on the socio-economic aspects of medieval Cappadocian society as a whole. Nevertheless, thanks to their importance in warfare, horses are

[30] Bivar 1972.

mentioned in a number of texts especially from the tenth century. Despite the scarcity of scholarly works devoted exclusively to the subject, historical documents from various contexts do in fact provide ample evidence for the study of horses and horse breeding in Middle Byzantine period.

This study primarily deals with the breeding of horses for military purposes based on the theory that the Cappadocians raised and supplied warhorses to the Byzantine army in the tenth and eleventh centuries (Kalas 2000: 138). From this perspective, this chapter brings together evidence from various historical sources from a wide time range in order to illustrate the use of horse in the Byzantine world with a focus on its role in warfare. The overall aim is to question to what extent the literary accounts support this assumption and whether they can contribute to our knowledge about the acquisition of horses in the Middle Byzantine period. First, is an evaluation of the sources used here. Against this background and in order to understand the nature of the horse breeding tradition in the region, a brief examination of the history of the Cappadocian horses will follow. Finally, a survey of horses and horse breeding in the Byzantine world with special emphasis on warhorses of the tenth and eleventh centuries is presented.

### *3.1 Sources*

A great variety of sources can be used for the study of horses and horse breeding in Byzantium including military treatises, hippiatric texts, chronicles, letters, and travel accounts. However, for the present study, which focuses on horse breeding in Middle Byzantine Cappadocia, literary sources are scarce. Although there are military accounts and chronicles mentioning Cappadocia from the time period of this study, no original texts survive from the region (Rodley, 1985: 2).

The main class of documentary evidence on horses and horse breeding in Middle Byzantine period consists of military treatises. Among the most important are the *Strategikon* that is credited to the Emperor Maurice (*r.* 582-602), the *Taktika*[31] by Leo VI (*r.* 886-912), the so-called *Three Treatises on Imperial Military Expeditions* attributed to Constantine VII Porphyrogenitos (*r.* 913-59), and the so-called *Praecepta militaria* ("military precepts") by Nikephoros II Phokas (*r.* 963-969) (Dennis, 1984; Kazhdan, 1991a: 353; Haldon, 1997; 1999: 5). Although most of these texts focus on the theory and practice of warfare, they contain valuable information for the study of the Middle Byzantine warhorse in general, though are relatively less helpful for the specific questions such as breeding or stabling.

A recent contribution to the field has been made by a study on horse medicine; *A Byzantine Encyclopedia of Horse Medicine* by A. McCabe discusses the sources and transmission of the so-called *Hippiatrika*. The book, compiled on orders from Constantine VII Porphyrogenitos in the tenth century, demonstrates the increasing importance of the horses and cavalry in the army by that time (Scarborough and Cutler 1991: 933-4). However, unfortunately, it has not been possible to consult the translation of the entire original text as it is not available from any library collections in Turkey, as previously mentioned. The volume by McCabe, in spite of its promising title, contains only partial translations of the original text, and provides only scanty information on horse breeding. The author has concentrated on the philological examination of the texts themselves rather than their content, and so the book stands more as a literary work, far from a source of technical information.[32] Another primary source that is of importance is the *Geoponika,* a

[31] *Taktika* is defined as a literary genre on military theory typical of the period from the mid-ninth to the late tenth century (Kazdhan, 1991: 353).

[32] A second source on medieval horse medicine is a thirteenth-century Armenian book, recently translated into German by J. Dum-Tragut (2005) as *Kilikische Heilkunst für Pferde: das Vermächtnis*

collection of writings on agriculture that was dedicated to Constantine VII, assumed to have been compiled around 944-59, though its originality is controversial (Kazhdan 1991b: 834). Its Book XVI is dedicated to horses, but mainly concerned with horse medicine and providing remedies for various diseases, and lacks references on stud management or stabling of animals (Owen 1805).

### *3.2 The History of the "Cappadocian Horse"*

The reputation of Cappadocian horses goes back to ancient times. Mt. Argaeus, for instance, was known as the "father of fleet horses" (Van Dam 2002: 23). However, no particular research has been conducted so far on the history of horse breeding in Cappadocia, although the tradition is frequently attested in literary sources. One question is whether the title "Cappadocian horse" implies breed or place of origin. In the third century, a Roman didactic poet, Oppian, lists the Cappadocian horse amongst the best breeds of the ancient world in his book, *Cynegetica* (I. 170 ff.). He writes that the Cappadocian horses dwelled in front of the Taurus, a description that obscures their place of origin. He praises the horse as follows:

> A marvel have I seen among the Cappadocian horses; so long as they have their foal teeth in their mouth and are milk-fed, they are weakling, but as they grow older, they become swifter. Those are the horses which thou shouldst array for manly war and against fierce wild beasts; for they are very brave to face arms and break the serried phalanx and contend against warlike wild beasts (I. 198 ff.).

Hierokles, a *hippiatric* writer from antiquity, also refers to horses of Cappadocian breeds (McCabe 2005: 219). Thus, it can be hypothesized that the label

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*der Armenier*. Only available in Germany, it could not be obtained either. Dr. T. Zimmermann (Bilkent University) very kindly arranged a part of it to be sent from Germany but unfortunately no conclusions could be reached based on it, seeing as the section I received made no mention of horses in the Byzantine world.

"Cappadocia" was likely a horse breed rather than a place of origin, one which has lost its purity over time and been forgotten. Yet, there may be a vague link between the famous Cappadocian breeds of the past and the so-called "local breed" or the "Anatolian breed" of modern times.[33] However, apart from a statement of their large size (Hyland 2003), both the primary and the secondary literature are silent about the characteristics of the Cappadocian horses.

Cappadocia appears in ancient accounts as a country that was destined to pay its tribute in horses and mules. Horses seem to have been essential elements of diplomacy and taxation. Although it has been implied that the Hittite army included horses from Cappadocia (Hyland 2003), the earliest documentary evidence for Cappadocian horses dates to the Kingdom of Tabal. Sources mention that Assurbanipal urged Mugallu, the king of Tabal, to send horses as tribute to Nineveh (Baydur 1970: 87). Apart from the Assyrians, the Cappadocians also paid tribute to the Persian emperors in horses and mules (Briant 2002: 174-5). Herodotus (III. 90) mentions that the third satrapy, which included the Syrians (Cappadocians), paid a tribute of 360 talents of silver to Darius, while the fourth satrapy, Cilicia, rendered 360 white horses, one for each day in the year, in addition to 500 talents of silver. "A hundred and forty of these were expended on the horsemen who were the guard of Cilicia; the three hundred and sixty that remained were paid to Darius." (Godley 1999). However, since Herodotus' geographic description of Cappadocia limits the region within the borders of Cilicia (I. 72), as indicated in the second chapter, the horse tribute paid to the Persians might have consisted of, at least partially, Cappadocian horses.[34]

[33] This is how the villagers of Selime, Avanos, Güzelyurt and Göreme call the local breeds.
[34] Apart from this, it is of interest that Herodotus does not name any other province or satrapy in the empire that paid its tribute in horses. His account of Arabia has a long list of goods that Arabia was famous for, such as frankincense, myrrh, cinnamon and gum-mastich as well as many animals such as

Almost four centuries later, Strabo (IX 13.8; XII 13.8; XI 13.8) wrote that the Achaemenid satrapy of Cappadocia had to pay an annual tribute of 360 silver talents and in addition, sent 1500 horses, 2000 mules and 50,000 sheep. This tribute list is consistent with the depiction on the Apadana reliefs in Persepolis of an equid amongst goods received from Cappadocia (Baydur 1970: 90; Briant 2002: 174-5). There is no consensus on the type of the equid in question, since some scholars have interpreted it as a mule, while others have identified it as a horse (Baydur *et al*. 1970; Briant 2002: 174-75).[35] Although confirmed by archaeological evidence to an extent, Strabo's account is nevertheless somewhat difficult to rely on. First of all, Strabo writes about the distant past as if Cappadocia might be considered as it was in his own period, Roman times, rather than as a Persian satrapy. Secondly, the numbers he provides are rather exaggerated even for the large territory of Roman Cappadocia (Hild and Restle 1981: 61-67). The credibility of the ancient accounts is admittedly questionable, but for regions like Cappadocia, where the documentary evidence is limited, the information they provide is nevertheless valuable as long as one proceeds with caution.

Late Roman Cappadocia was one of the three provinces that had imperial stud farms; the other two were Thrace and Spain (Drummond 1994: 88). A fourth century historian, Vegetius, lists Cappadocia amongst the main sources of horses (Toynbee 1973: 168). Located in Caesarea, these imperial farms raised highly prized horses not only for chariot races but also for the army (Toynbee 1973: 168; Drummond 1994:

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snakes, winged serpents, hares, sheep, and lions (Herodotus III.107-113). However he does not say a word on Arabian horses, although he refers to small Indian horses and larger Median horses (Herodotus III.106-113).

[35] For a picture of the Apadana relief showing Cappadocians bringing an equid to Xerxes, see Baydur 1970: Lev. XV, Res. 47, 48.

88).[36] It was stipulated by law that retired Cappadocian horses from these particular stud farms were to be maintained for their remaining days on fodder from state granaries (Jones 1964: 706). The exact location of these stud farms remains obscure, but Caesarea in the fourth century was described as a city lying in the middle of an entirely agrarian region with large numbers of imperial horse ranches (Brown 2002: 39). Known as the great ranches of Cappadocia, these played a crucial role in Roman imperial strategy in the east (Brown 2002: 41).

A vivid account by Gibbon (1862: 145) elaborates on the beauty of the Cappadocian horses in a quite romantic style, but also referring to their role in the Roman cavalry. In his description of the battle that took place in 323 between Constantine and Licinius, the cavalry, which consisted of 15,000 troops, is recorded as drawn from Phrygia and Cappadocia (Gibbon 1862: 145). A fifth-century source, the *Theodosian Code*, mentions imperial herds in Cappadocia as including valuable breeds such as Hermogenian and Palmatian studs, which were the most famous breeds in the late fourth century, renowned for their speed and high quality (Pharr 1952: Title 6. 10. 6. 1; Hyland 1990: 9-13, 19, 213; 1994: 28; MacMullen 1962: 277-9). The literary evidence indicates that in the sixth century Justinian tried to reserve Cappadocia for the breeding of large cavalry mounts (Nicolle 1992: 7).

Apart from the imperial stud farms, horses were also bred in the large estates of the local landowners; these provincial aristocrats of the Roman era are extensively discussed by Van Dam (2002), with special reference to the accounts of the Cappadocian fathers. As previously mentioned, these were highly regarded landowners in the region who were closely familiar with horses and horse races. Gregory of Nyssa, one of the Cappadocian Fathers of the fourth century, grew up

[36] A papyrus bill of sale from 77 A. D. shows that a Cappadocian horse cost 675 *denarii*, more than twice the annual wage of a Roman legionary (Drummond and Nelson 1994).

with horses, and in his late forties he could ride a horse for miles on mountainous terrain. He mentions that the aristocrats in Caesarea trained horses particularly to be carried in luxury through the city. During festivals, breeders could participate in the horse and chariot races that were staged in the stadium located in a valley below the city wall (Van Dam 2002: 23).

Raising and breeding fine horses were very expensive. Van Dam (2003:23) maintains that good breeding was a self-conscious obsession among local aristocrats: wealth was measured and fines were paid in horses. The successful horse breeders of Cappadocia became magistrates, generals, and rhetoricians (Van Dam 2002: 23). They reinforced the prestige of their families by raising special horses as a sign of noble ancestry. For instance, in the mid-third century a horse breeder, a nobleman named Palmatius, possessed a great estate in Caesarea, larger than the imperial palace. The emperor Valerian (r. 253-260) felt so threatened by his power that he confiscated his estates (MacMullen 1962: 277-9; Van Dam 2002: 66). There is no mention in the sources for the connection between the palmatian breeds and his name, although they may well be related.

In contrast to the rich literary evidence on horse breeding activities in Roman Cappadocia, there are no Byzantine sources mentioning stud farms in the region after the sixth century (Nicolle 1992: 7). Hyland (1994: 28) asserts that they continued to function during the reign of Honorius (r. 625-638) but does not cite the source for this information. The major military texts and chronicles from the Middle and Late Byzantine period, which might be expected to mention horses, such as *Maurice's Strategikon,* the *Chronicle of Theophanes*, *Strategikon* of Kekaumenos, *Praecepta Militaria,* the *Alexiad of Anna Comnena*, the *Histories of Niketas Choniates*, the *Treatises* by Constantine VII Porphyrogenitos as well as some anonymous texts from

the same time period (Dennis 1984, 1985; Haldon 1990) do not mention horse ranches in Middle Byzantine Cappadocia. This does not, however, necessarily indicate the absence of stud farms, but could be explained by other reasons. First, the decline in literary tradition in Cappadocia after late antiquity ought to be considered. Secondly, it is probable that by this time the importance of the imperial ranches diminished and they were replaced by private farms, that is, those of the elite, seeing as the burden of supplying the armies fell chiefly upon the *themata*, as mentioned in the second chapter.

### *3.3 Horses and Horse Breeding in Byzantium*

The horse in the Byzantine Empire was the animal of the rich and noble. It was expensive and luxurious, thus rare in peasant households (Kazhdan 1997: 53). According to a late Byzantine *praktika*, only prosperous peasants could afford horses, whereas fiscal surveys describe less affluent ones as owners of only "half-a-horse", shared between two neighbors (Kazhdan and Nesbitt 1991b: 948). In the eleventh century, the Athonite Monastery of Xenophon had 100 dray horses and donkeys. It is also documented that in the eleventh century, large-scale raising of livestock, especially the breeding of horses, was undertaken in aristocratic farms (Lefort 1993: 109). John VI Kantakouzenos, who was a great landowner in the fourteenth century, complains of how he lost 1500 mares when his property was confiscated by the state (Rautman 2006: 184; Kazhdan and Nesbitt 1991b: 948; 1997: 53).

In Byzantine studies, the horse has been discussed merely in relation to its role in warfare. Various historians such as Haldon, Nicolle, Hyland, and Treadgold have written about warhorses, with brief references to the Cappadocian horses. To

make a better assessment of the stables and their functions in Middle Byzantine settlements of Cappadocia, it is necessary to discuss various uses of horses in the Byzantine world. It should be borne in mind that evidence in the secondary literature is rather scarce and the scope of this study does not allow a detailed scrutiny of the primary sources.

### 3.3.1 The Warhorse and the Byzantine Cavalry

The significance of the cavalry vastly increased after the fourth century and made up the most important component, namely the offensive force, of the Byzantine army (Kazhdan and Nesbitt 1991b: 948). Cavalry organization, tactics and equipment are extensively described in the military treatises (McGeer 1991: 393). Historians agree that it was the encounter with the steppe nomads that marked a turning point in the development of the Byzantine cavalry. Being skilled horsemen, these well-trained warriors became the inspiration for the Byzantine cavalry (Karantabias 2005/6). Their most important contribution was the introduction of the iron stirrup around the beginning of the seventh century, which enhanced the effectiveness of the charge and raised the quality of horse archery (McGeer 1991: 393; Karantabias 2005/6). On account of this development, the cavalry became the most numerous of the Byzantine elite troop formations (Kazhdan and Nesbitt 1991b: 948; Nicolle 1992: 7). Thanks to its improved cavalry, the strength of the army reached its climax under Herakleios, who, after training his army in Caesarea for seven months in 620, tested and proved the newly-adopted tactics of the steppe nomads against the Persians (Karantabias 2005/6). It has been proposed that it was the strategic location of the city as well as the presence of the aforementioned imperial ranches that made it a suitable military base camp for the eastern campaigns

(McGeer 1991: 393-4; Karantabias 2005/6: 33). Since the city retained its prominent position between the Byzantine Empire and its neighbors by serving as a military base during the Middle Byzantine period, it can be suggested that the horse breeding tradition continued even though substantial evidence is thus far unattested.

The Middle Byzantine period was a time of almost constant fighting between the Byzantines and their neighbors. This warlike environment was most probably the main reason for horse breeding in various *theme*s around the empire. In the tenth century, the increasing emphasis on offensive tactics led to certain changes in the organization and the structure of the army (Haldon 1999: 177). *Strategika* of the period demonstrate that a special heavy cavalry brigade, the *kataphraktoi*, was introduced by Nikephoros II, who was interested in a more aggressive form of warfare (Praecepta Militaria 3-4, 10.15-18.15; Haldon 1999: 117). The word derives from the Greek κατάφρακτος (plural κατάφρακτοι), literally meaning "armored" or "covered", composed from κατά "throughout, all along" and φρακτός "covered, protected", respectively from φράσσω "to fence, to defend" (Liddell and Scott 2001). The *kataphraktoi* were organized in a wedge-shape formation consisting of 400-500 men with archers in the middle and were flanked by regular cavalry units (Haldon 1999: 220). They aimed at the enemy commander and his charge at a steady pace running directly towards him. Several tenth-century sources describe their efficiency and power (McGeer 1991: 1114). With its ability to increase shock against enemy infantry, the *kataphraktoi* became a lethal unit as pictured in a military chronicle by Nikephoros Ouranos: "the *kataphraktoi* will smash in the heads and bodies of the enemy with their iron maces and sabers […] and so completely destroy them" (McGeer 1995: 210-14). As a result of such changes, the Byzantine army once again reached the zenith of its power and efficiency, and won a number of victories

afterwards (Heath 1979; Kazhdan and Nesbitt 1991b: 948). From the *Praecepta Militaria*, which is attributed to Nikephoros II Phokas, we learn that the highly developed cavalry unit featured three types of cavalrymen: the *prokoursatores*, scouts and skirmishers; the regular cavalrymen drawn from the *thematic* levies; and the *kataphraktoi*, the heavily armored cavalrymen of *tagmata* (McGeer 1995: 211). For the present study the first two units are more important than the *kataphraktoi*, since they were drawn from the *theme*s, whereas the last consisted of professional soldiers based in the capital. Most of the *theme* cavalry was light-armed or regular horse. These armies of the *themata* were needed for a rapid response to enemy attack or making rapid raids into enemy lands (Haldon 1999: 117).

The *prokoursatores* ("forerunners") was a small but important cavalry unit commanded by a *strategos*. They functioned as scouts and skirmishers, using lancers and archers. For speed and mobility they only wore waist-length corselets of scale, or lamellar (*klibania*) or coats of mail (*lorikia*). The men best suited for this unit were selected, by Phokas and his officers, from the *trapezitai* along the eastern frontiers. They were chosen for their vigor and courage from the frontiersmen (*akritai*), who were well accustomed to raids and brigandage. The *trapezitai*, also called *tasinakia*, were also small units of scouts and raiders, similar to the *prokoursatores*. They entered enemy terrain to ravage and take captives for interrogation (McGeer 1995: 212; Dennis 1985:163). *Praecepta Militaria* describes them as the frontiersmen who were skilled and experienced in light cavalry warfare, especially in using guerilla tactics in the beginning of the battles to disrupt the enemy or direct them into a trap. An anonymous treatise on skirmishing from the tenth century also advises the general to send out *trapezitai* and scouts to gather information on the enemy before planning a campaign (Dennis 1985: 163). The Byzantine commanders used these

frequently for acquiring accurate information not only on the strength of enemy forces but also on the terrain and routes before going into a battle in hostile lands. Such intelligence would be obtained through a network of spies and small bands of *trepezitai*, who infiltrated neighboring territories to scrutinize enemy activities and intentions. (McGeer 1995: 300, 331). They were able to estimate numbers of enemy forces from the hoofprints left on the ground (Dennis 1985: 161).

The regular cavalry, also taken from *themata,* were light cavalry units wearing similar *klibania* or *lorikia* as the *prokoursatores*. They wore iron helmets, carried shields and fought with swords and maces (McGeer 1995: 212-214). The *kataphraktoi* were the best-equipped soldiers in the army. Such highly trained heavy cavalry units were not new, armored cavalrymen being employed in the armies of the Romans, the Parthians, and the Sassanians (McGeer 1995: 214; Nicolle 1992: 7). They were highly effective but also costly troops.

### 3.3.2 Breeds and Supply of Horses

Animals were an essential part of the Byzantine army, but horses played the most significant role (Rautman 2006: 213). With regard to the breeds of cavalry horses, our knowledge is very scanty. A thorough investigation of the equid composition of the Byzantine cavalry in the light of literary evidence necessitates more extensive research, far beyond the scope of the present study.

A reference source titled *The History of Cavalry* describes the general features of cavalry horses in pre-modern times as follows. The basic principle that distinguishes light cavalry from heavy cavalry is that light cavalry horses were fast while the heavy cavalry horses were stronger, therefore larger. In military terminology, the term “light cavalry” refers to the tactical role of such units,

distinguished according to speed and maneuverability. These horses were required to take their riders far and fast, while for heavy cavalry speed was of less importance. Light cavalry horses had a more delicate build with thin legs and small hoofs. They required less fodder than the larger heavy cavalry horses which required better and more plentiful nourishment (Grbaš̆ić and Vukš̆ić 1989: 274-7).

In the Middle Byzantine period, Cappadocia, Thessaly, and Malagina were the most important horse breeding areas (Foss 1990b). Sources such as the treatises of Constantine VII list a great number of horses and pack animals serving the imperial train on its way to campaigns (Constantine and Haldon 1990: 118-119); some of these may have been bred and supplied by the contemporaneous Cappadocian magnates. It has been noted that apart from the imperial ranches, the rural population was also required to supply pack animals to the military contingents or imperial officials (Nesbitt *et. al*. 1991: 271), which was probably the case for Cappadocian magnates.

Another tenth-century account by Leo of Synada (54.28–34) mentions that Pylae, (modern Yalova) was a port for shipment of livestock, including horses, to the capital (Nesbitt and Kazhdan 1991: 1243). Horses may have been brought from imperial ranches in Malagina and Cappadocia to such ports and then shipped further distances.[37]

Leo the Deacon describes how Nikephoros II Phokas in his invasion of Crete in 960-1 used ramps for unloading horses and says that they were run from *porthmeia,* the term being interpreted as galleys used for closing the shore and unloading horses across ramps. Pryor (1982) also discusses Byzantine transportation of cavalry by sea, dating from as early as the eighth century, and surveys the means

[37] For prices of horses as well as other *equidae* in the Byzantine world, see C. Morrisson and J. C. Cheynet 2002: 840.

of horse transport, possible problems encountered during the journey as well as the distances for which horses could be transported. This was also the case elsewhere in Europe during the middle ages. In the manner of a modern ferry, horses were loaded onto ships and when the destination was reached, mounted men would disembark (Rose 1999: 565-66).

### 3.3.3 The Use of Horses in Transportation, Agriculture, Travel, and Leisure

Although archaeological evidence supports the hypothesis that all the three settlements in question had military affiliations, the horses bred in their stables must have been used for other purposes besides warfare. For a better understanding of the nature of horse breeding in the Cappadocian stables, a general look at the use of horses in everyday life is necessary.

Byzantine stud farms raised horses of all types. Apart from the expensive war or riding horses, there were also pack horses and other beasts of burden bred for the imperial baggage train that is described in the treatises on the imperial expeditions (Laiou and Morrisson 2007: 67-68). However, in contrast to the imperial baggage trains, horses were not commonly used in daily life for transport or cartage since they were expensive and luxurious animals. The main pack animals were mules and donkeys (Morrison 2002: 200). Although not as swift as horses, they presented the great advantage of being tougher and not requiring shoeing (Teall 1971: 53). The loads were mostly transported by beasts of burden rather than carts, which are not suitable for mountainous areas (Nesbitt *et. al.* 1991: 271). As opposed to the light chariot, the cart was a heavy vehicle with four wheels. Drawn by oxen, it was used in

everyday life for the transportation of burdens, harvests, or even people (Kazhdan and Nesbitt 1991a: 383-4).

It has been argued that during the ninth and tenth centuries, a new system of harnessing animals to a cart and plow was introduced. Transferring the force of dragging from the neck to the chest such a development could have easily allowed replacing the ox with the horse, thereby increasing the use of horses in everyday life (Kazhdan and Nesbitt 1991b: 948; Kazhdan and Nesbitt 1991a: 384). However, as reflected in historical sources, horses were rarely used for agrarian purposes. For instance, the *Farmer's Law* does not mention horses at all. The major work animals and beasts of burden were the ox and the mule for they were cheaper, stronger and more effective (Teall 1959: 129). Mules were employed for lighter work than oxen (Teall 1971: 53).

In travel, mules were also more common than horses. A metropolitan, aristocratic, and highly educated traveler, Nicholas Mesarites, was traveling in the eighth century from Nicaea to Constantinople by mule. In his travel accounts he narrates that after an exhausting day of mule riding, he finally came to an inn, where he found food, drink, and a fire. He complains about the dangers and discomforts of the travel: "sitting very uncomfortably on a mule, riding on in precarious balance, he was whipped by tree branches." In his account, he also recounts being warned about how wrong he was to beat the mule so hard (Galatariotou 1993: 222-28).

Travel in the Byzantine world was only for purposes of commerce, official business, pilgrimage, and visit to shrines for healing (Karpozilos and Kazhdan 1991: 2109). In the Byzantine mentality, constantly changing places was considered evil as exemplified in Niketas Choniates' complaints about Andronicus I's continuous movements (Kazhdan and Constable, 1982: 42-3). People were afraid of the dangers

of travel such as bandits, wild beasts, adultery, and murder, as also portrayed in the travels of Digenis Akritas (Mavrogordato, 1956: 72.102-76-189, 142.1-158.256, 164. 42-214-845).[38]

When the chariot races lost their significance after the seventh century, other equestrian sports like polo became the leisure activity of the elite (Kazhdan and Nesbitt 1991b: 948). Hunting was one of the most popular leisure activities, as well as a means of training for war (Hyland 2003). It was a favorite activity amongst the members of the imperial family and the elite, who chased wild animals such as deer, hare, and wild boar, not to mention being a sign of imperial qualifications, status, and power. Hunting took place on horseback often in wild territory, either just outside Constantinople or on remote mountains. Chronicles of various emperors include many stories about their adventures in hunting. There were hunting/game parks with pavilions, landscaped, managed and harvested with care (Ševčenko 2002: 69-70). An indication for the continued popularity of horse races into the ninth century is the order of Emperor Michael III (*r.* 842-67) for the dismantling of the aforementioned beacon system on account of his preoccupation with a horse race at the time when the warning of the Arab raid reached the capital (Pattenden 1983).

### *3.4 Conclusion*

Horses and horse breeding in Byzantium have never been the subject of an extensive study, as a result of which secondary literature is extremely meager. The primary sources, on the other hand, provide evidence especially for the role of horses in warfare. Yet, the amount of evidence on horse breeding in Byzantine Cappadocia

[38] For an extensive survey on the subject, see Macrides, 2002.

cannot be compared to that of the Roman Cappadocia, for the latter is much better documented and more extensively studied.

The horse in Byzantine studies has been examined mostly for its role in warfare. Thus, subjects such as the organization of the cavalry, its tactics, strategy and equipment are well represented in the literature as opposed to other issues such as horse breeds, stabling of animals, and horse management in general, on which the evidence is far more limited. The sources investigated in this study do not provide direct references to horse stud farms in Middle Byzantine Cappadocia. But this information allows us to contextualize the stables and imagine how they fit into the overall use of horses, as well as other animals in Middle Byzantine Cappadocia. For the moment, we have to depend chiefly on the architectural evidence until further examination of textual material brings new data into light.

# CHAPTER IV

# ARCHITECTURAL EVIDENCE:

# THE STABLES AND THEIR ARCHITECTURE

Rock-cut stables in large courtyard complexes constitute the main archaeological evidence for horse breeding activities in Middle Byzantine Cappadocia. They can be defined basically as rectangular rock-hewn rooms with barrel-vaulted or flat ceilings, sometimes with more articulated features. They are all furnished with rock-cut mangers carved into the walls as deep niches for holding fodder and pierced on the sides to form loops for the tethering of individual animals. It is argued here that different types of mangers were used for different animals; thus the function of a stable can potentially be ascertained through its mangers. In addition to the analysis of interior features, it is also necessary to examine the stables within their broader context by comparing them with each other as well as taking into account their relation with the complexes to which they belong. The large dimensions of the stables would seem to signify prosperity of their owners, who probably gained affluence through border defense for which horse breeding was essential. Because rock-cut architecture survives in better condition than masonry, one may expect to find unusual features such as stables that would not normally have

remained for so long if they had been built.[39] Rock-cut stables of Cappadocia have remained in their original contexts with complete floor plans, elevations, and *in situ* mangers, enabling an accurate assessment of their function and meaning. Furthermore, these stables provide rich evidence for understanding horse breeding activities in Byzantium and also contribute to the interpretation of the true nature of the elite settlements.

This chapter will test the hypothesis that the stables within the Middle Byzantine courtyard complexes served for the cavalry troops of the provincial elite, who also supplied horses to the imperial army, by evaluating the extent to which architectural evidence supports this notion. To achieve this aim, different examples of stables in Açık Saray, Çanlı Kilise, and Selime, the only published Byzantine settlements within Cappadocia, will be examined, unpublished stables elsewhere in the region being used as comparanda. To this end, two one-week field trips were made to the region in November 2007 and in February 2008, when measurements and photographs were taken and also interviews were conducted with the villagers about the use of the stables. These trips were not intended as surveys to discover unexplored stables in the region, but instead were aimed to re-examine the published stables as well as those in the vicinity that seem to have been previously unnoticed, such as the stables of Açık Saray Nos. 2a and 7. All previous work (Rodley 1985: 150; Kalas 2000: 94-95 and 137; Ousterhout 2005: 153) has been based on the assumption that the stables were for horses or other transportation animals, neglecting the possibility of the presence of other types of livestock.

This thesis looks for evidence particularly on the breeding of special warhorses that served for cavalry troops of the tenth and eleventh centuries.

[39] For the potential of rock-cut architecture for reconstructing medieval Cappadocia, see Kalas, 2007.

However, it should be kept in mind that animal husbandry was a common practice in medieval Cappadocia (Lefort 2002) and the residents of the aforesaid settlements must have raised cattle, sheep and goats, donkeys and mules in addition to horses. Two major sources on agriculture[40], *The Farmer's Law* and *Geoponika,* mention sheep, goats, pigs, cattle, poultry, as well as mules and donkeys (Morrison and Sodini 2002: 199; Rautman 2006: 184), while the first maintains cattle breeding to be superior to cultivation (Nesbitt and Kazhdan 1991: 1242). Thus, at least some of the stables in examined here could well have housed other types of livestock as well as horses. This diversity of animals is well reflected by the great variety of manger types. A comparative analysis of the mangers facilitates determining the function of stables and helps us identify which ones were most likely used for horses.

### *4.1 Approach to Research and Methodology*

Information on livestock housing in the Byzantine world is scarce in both the primary and the secondary literature. Neither *The Farmer's Law* nor *Geoponika* yield evidence on how the livestock was housed. Stables are rarely encountered in historical texts and survey accounts. Historians often maintain that the domestic beasts were kept close to home rather than in separate barns, often in the ground floor of the houses (Morrison and Sodini 2002: 199; Rautman 2006: 184). On the other hand, published criteria for differentiating between horse and cattle stables are utterly lacking (Morrisson and Sodini 2002: 199). In the *Hippiatrika* stables are only mentioned in a few instances as relevant to medical issues (McCabe 2006). The *hippiatric* writers advise that the horse must be kept in a dry place for the health of its body and hooves, and that the floor should be covered with wood or pebbles to

[40] See page 41 in Chapter III for the discussion of primary sources.

harden the feet and the bedding made of chaff (McCabe 2006: 275). They also suggest the use of amulets as a means of magical protection from shrew-mice, lizards, and scorpions and advise darkening the stable to cure 'horse madness' (McCabe 2006: 252). However, there is no information on how the stables were designed or maintained.

Such constraints in the present research necessitated an ethnoarchaeological survey to gather information relevant towards determining the primary function of the stables in Middle Byzantine settlements of Cappadocia. Various rock-cut stables in four towns were visited: Selime, Güzelyurt, Avanos, and Göreme.[41] Some of these stables are currently used for housing livestock, and thus yield important ethnoarchaeological data about the use of rock-cut stables, presented below. Observations and interviews made at these sites allow basic criteria to be established for the function of a stable. In order to determine which stables were used for horses and which ones for other animals, the above stated hypothesis was tested against modern practice by observing currently functioning stables. Accordingly, it was found that there are four main factors that should be taken into account for the identification of Middle Byzantine stables as having been used for horse breeding. The following features may allow for the identification of the function of different stables.

1. Height of mangers
2. Number of mangers
3. Size and dimensions of stables
4. The stables in their wider context

[41] See p. 59 for the study trips.

A standard manger in Cappadocia can be defined basically as a recess carved like a trough in the rock wall to put fodder in. Its dimensions and height above the ground are easily alterable depending on the type of animal since the volcanic rock allows a great variety of shapes and types, as well as modifications over time.[42] For example, for sheep and goats a single long manger is carved along the wall. By contrast, for larger animals, such as cattle, donkeys, mules, or horses, larger and deeper mangers are used. Generally these are hewn out of the rock as individual bowls, each unit aimed for one animal and pierced on one side for tethering it. Even though it is possible to use a standard manger type for all of these large animals, the variety in the size and height of mangers seems to be an indicator of different species.

One of the main purposes of the fieldwork was to make observations at the villages about the use of stables, since literary evidence from the medieval period on livestock housing is insufficient. Over 25 stables were visited, some of these currently functioning in the towns of Selime, Güzelyurt, Avanos, and Göreme. In addition, interviews were conducted with villagers who have been using rock-cut stables. As a result, the survey has yielded a wide range of data about the interior arrangement of rock-cut stables, the use of space, and basic factors in stud management as well as the housing of livestock in general. Subsequently, this data was checked against sources in the modern fields of agricultural studies and veterinary science. Although it has not been possible to find any studies on rock-cut stables, neither medieval nor modern, the hypothesis on manger height could be tested against modern criteria. For instance, a recent case study on livestock housing has shown that the average height of the front wall of the cattle mangers is between

[42] However, it should be borne in mind that carving is a destructive activity, that is, once the rock is excavated, the only way to make additions or build it up is by using masonry (Rodley 1985: 224).

30 and 80 cm above the ground (Bardakçıoğlu *et al.* 2004). Another source on veterinary medicine conveys that high mangers should be avoided for cattle since they cause lameness problems (Radostits and Blood 1985). Such problems and their remedies are mentioned in the *Hippiatrika*, which may also provide evidence on stud management and livestock housing. In the modern stud farms of Cappadocia that breed saddle horses for leisure purposes, the standard manger height in horse stables is 110 cm, which is reported to be the ideal height for the anatomy of horses to protect the concavity of the back.[43] Another modern stud farm in Göreme houses its horses in a rock-cut stable where the mangers are 90 cm high (Figs. 5a, 5b, 5c). All these sources confirm the hypothesis about the relationship between manger height and function of the stable.

Hence, we can classify mangers into three major groups according to their height above the ground:

1) Mangers c. 30-40 cm high carved either as a narrow, long cavities along the wall or as individual units are for sheep and goats (Figs. 1a, 1b, 1c and 7). They do not have tethering rings.

2) The mangers carved as large, individual, oval niches around 50 cm deep, c. 40-80 cm high are for cattle or donkeys (Figs. 2a, 2b, 3a, 3b and 7).

3) The large and deep mangers that are placed higher than 80 cm are for tall transportation animals, either mules or horses (Figs. 4, 5a, 5b, 5c, 6 and 7). This group will be dealt with on the assumption that mangers with a height around 80 cm were for mules or agricultural horses, whereas those higher than 80 cm were for special horses, probably bred for military purposes (Kalas 2000: 138).

[43] Interview with the directors of Akhal Teke and Kirkit horse stud farms in Avanos. February 2008

The measurements constitute the basic criteria throughout this chapter for determining the function of a stable. A problem at this point is the difficulty of reconstructing the original manger height in some of the medieval stables that do not have even or smooth floor surfaces. Moreover, in many it is impossible to see the original ground due to the thick layer of soil that has accumulated on the floor as a result of severe erosion, and thus, the original height of mangers is difficult to ascertain. All of the measurements given here have been made by removing the loose soil in front of the mangers until the volcanic rock floor was reached. When it was not possible to do so, measurements were not taken.

Another problem is raised by the multi-functional use of stables, which warns against making too rigid classifications. It would be useful to keep in mind that in agrarian communities practical solutions are always preferred to ideal conditions. To illustrate, since the horse is typically used as a pack animal or for pulling carts in rural areas, its anatomy is not the major concern of the farmer. Therefore, he would most probably use any manger that is already present or most practical for him rather than carving a new one. This is a theory based on observations made in modern Cappadocia, which may well have been the practice in the medieval period as well.

Such multi-functional use of the stables causes problems especially for the third group, since an 80 cm-high-manger could have been used for both mules and agricultural horses. As previously pointed out, the archaeological record is of no help to distinguish between such horses from other types of livestock, especially mules. This study aims to investigate the breeding of special warhorses, which would require special treatments and stables. It should be possible to identify such stables by mangers that are higher than 80 cm. However, as it is difficult to differentiate

between dray or packhorses and mules through the archaeological record, these animals will be grouped in the same category as pack/draught animals.

Secondly, the number of the mangers inside one stable is important as it is a quantitative indicator of breeding capacity within a single household. Since the type of animal can be estimated from the manger height, the number of mangers, when they are uniform in size and style, provides clues about the economic status of that household even though it may also be speculated that some families shared their stables with their neighbors, a theory that may help us to explain the absence of stables in some houses. Rautman (2006: 184) also suggests that in rural houses, the number of dependent animals directly reflects the status of their owners. Thus, a stable with several mangers that are higher than 80 cm would indicate a high status since horses were the most expensive amongst all animals. Kalas (2000: 95) has also maintained that even small numbers should not be underestimated as five horses would still signify prosperity. A problem encountered often, especially in the Çanlı Kilise stables, is the difficulty of defining the limits of individual mangers due to long-term use of the stables from the Middle Byzantine period to the present. Mostly, they have been modified over time and turned into a single long feeding trough by cutting away the partitions between individual mangers, as exemplified in Figs. 30, 37, 38, 43 and 43a. Even though it is not always easy to count the mangers, their approximate number can yet be estimated from the standard manger width, which is c. 50 cm.

Thirdly, the size of the stables should be taken into account, as it is an important indicator of the scale of horse breeding. The stables especially in Açık Saray and Çanlı Kilise have quite large dimensions, second in size after the ceremonial halls, which are the largest rooms of the complexes. However, in rural

Cappadocia almost every single dwelling has a room to tether animals, which can also be defined as a stable. But such stables are outside the focus of this study, which specifically considers *large-scale* horse breeding activities of the Cappadocian elite.

Finally, the stables should be discussed and studied in relation to the courtyard complexes they belong to in order to understand the distinction between wealthy horse breeding households that provided fine-quality horses for the imperial army (Kalas 2000: 138), and those of peasants who owned one or two horses for agrarian or transportation purposes (Kazhdan 1997: 53). By examining the architectural features of these stables, the above criteria will form the basis of relevant arguments questioning the role of horse breeding in the socio-economic status of the rural aristocrats.

## *4.2 The Catalogue*

### 4.2.1 Açık Saray

Amongst all the Byzantine settlements in Cappadocia, Açık Saray provides the most important evidence for horse breeding since its stables have survived in their original forms up to the present. Rodley (1985: 129, 140, 150; Pl. 136) has identified two stables in Complexes Nos. 2 and 4, but does not mention the ones in Complexes Nos. 2a and 7, which have remained unexplored so far. There are a number of undocumented spaces in the settlement. Some of these can be identified in the area around Complexes Nos. 2 and 2a.[44] To these can be added two more courtyard complexes lined along the valley on the south of Complex No. 6.

[44] Kalas 2006 *pers. comm.*

All stables on the site are uniform in layout with the exception of an unusual one, the stable of Açık Saray No. 2a (Fig. 23). The first three are all longitudinally planned rectangular halls covered by barrel-vaults, whereas the last one, No. 2a, has a curious trapezoidal layout with a flat ceiling that is rounded on the corners like a shallow barrel vault. Almost all stables have ventilation holes on the ceiling to provide light and fresh air. No. 2, however, has windows instead of a ventilation hole because there is a second storey above it. The mangers are carved on the lateral walls as recesses, whereas the row of mangers in No. 2a is on the longest wall of the trapezoid directly across the entrance. The mangers are carved on a high, projecting ledge in a row and are divided by partitions that create an individual bowl for each animal (Kalas 2000: 137). The tethering loops are opened through these partitions. The design of mangers is uniform in all four stables, but differs from other settlements.

Some peculiar features on the south wall of Room 6 in Açık Saray No. 3 resemble mangers (Fig. 26, 27). This complex does not have any visible stables and apart from these manger-like features, no other signs of animal husbandry can be detected in or around the complex. Even more unusual is that Room 6 has a domed vault with a smoke hole in the center, which is a typical feature of kitchens in Cappadocia. Rodley (1985: 132) confirms the function of this room as a kitchen but makes no reference at all to the manger-like fixtures. Two possibilities can be suggested for these features: either they are shelves or storage units, or they are mangers but added in a later phase, since both kitchen and stable could not have functioned simultaneously. The absence of tethering holes argues in favor of storage function but the possibility that holes are absent due to poor preservation still remains. Since it is not possible to identify this room as a stable with any certainty, it

will not be included in following discussions. Also excluded are those spaces on the site which have been converted into stables later, as is apparent from their irregular and crudely shaped mangers.

#### 4.2.1.1 Stable of Açık Saray No. 2

Açık Saray No. 2, one of the largest complexes at the site, is notable for its unique cross-shaped ceremonial hall (Fig. 19). The stable, Room 8 in Rodley's plan (1985: 126, Fig. 20), is situated at the far end of the courtyard on the northeast where the ground is slopes downwards. Aligned roughly on a north-south axis, it is approached from a second room, Room 7, an entrance hall that lies on the same axis. On account of the complete erosion its south end, it is not entirely clear whether this was a porch-like open area with a flat ceiling or a room that leads into the stable (Fig. 20). On the north wall of Room 7 is a large gate, 1.6 m wide and 1.8 m high, leading into the stable. It is flanked by arched windows, with a third above the doorway. The windows on the left and right were blocked with coarse masonry in a secondary phase. A curious feature here is that the second floor above the stable that seems to have been reached by a flight of steps above the stable entrance. The second storey cannot be reached as the lower part of the stairs has been cut away in the course of carving the stable, which suggests that the second storey dates from a relatively earlier phase (Fig. 20).

The stable is a roughly rectangular room covered with a longitudinal barrel-vault (Figs. 19, 21). The long walls have deep recesses with raised mangers, c. 1 m above ground level. The lateral wall on the west is 7 m long with eight mangers whereas the one on the east is 7.2 m long with nine. The north wall is 6.6 m, slightly

longer than the south wall. The room's floor slopes towards the center to facilitate the cleaning of the dung, collected first into this crudely-shaped channel and then pushed outside.[45] However, as a result of an accumulation of eroded soil outside the stable gate, the channel today lies lower than the floor of Room 7.

The cluster of rocks into which both rooms are carved lies at a lower level than the rest of the complex. These rooms must have been intentionally placed at the furthest end of the courtyard so that visitors could be welcomed in the ceremonial area without having to pass by utilitarian areas, as suggested by Kalas (2000; 2007), in keeping with the notion of architectural hierarchy put forward in her case study at Selime.

#### 4.2.1.2 Stable of Açık Saray No. 2a

A peculiar multi-storey complex with a cluster of irregularly arranged rooms, Açık Saray No. 2a has no clear limits separating it from Açık Saray No. 2. As a result, it is difficult to define its integral space and to identify it as an independent complex. Rodley (1985: 129) has thus classified it as a subsidiary area belonging to Açık Saray No. 2—her classification is followed here. One probable function that can be attributed to this cluster of rooms is a civic one, or as an area open to public use. Another potential explanation may be as a production area since there are many utilitarian spaces devoted to storage, food preparation, or housing animals. The large, unusual church (Room 7), several associated burials, and numerous utilitarian features support this hypothesis but the original function of the complex remains obscure due to the scarcity of evidence.

[45] The modern practice today is to remove dung by using a wheelbarrow.

Rodley's plan (1985: 126; Fig. 20) does not cover the entire area of Açık Saray No. 2a and the stable is neither shown on it nor mentioned in the text. It is carved slightly underneath Room f, at the easternmost edge of the complex close to the modern path (Figs. 19, 22a). Fieldwork observations have shown that this allows leaving one's horse or mule here prior to entering the house, confirming the suggestion made earlier for the stable at Selime Kalesi (Rodley 1985: 83; Kalas 2000: 137). Access into the stable is provided through a gate which has been narrowed by ashlar masonry in a later phase (Figs. 22a, 22b). The large interior area is arranged in an unusual trapezoidal shape topped by a transverse barrel-vault at the rear. (Fig. 23). The longest wall of the stable is across from the entrance, and measures c. 13 m in length. The mangers are carved on this wall as a single row, made up of a total of at least 16 (Fig. 24). The floor is again left higher in front of the mangers sloping towards the center of the room to aid cleaning. The placement of mangers along the innermost end provides maximum heat for the animals. The lowest manger is around 90 cm and the highest around 120 cm high. A small room to the right of the entrance also features mangers, now buried almost completely in soil but presumably once used to feed other types of animals, perhaps donkeys and mules (Fig. 25).

#### 4.2.1.3 Stable of Açık Saray No. 4

The stable, Room 7 has an exceptional quality for its good condition and very large capacity. It is one of the best preserved stables, not only in Açık Saray, but also amongst all the stables examined here (Fig. 28) (Rodley 1985: 138; Fig. 22). Set inside a rock outcropping to the southeast of the courtyard, it extends in an orientation different than that of the rest of the complex, following the natural

orientation of the squat cone into which it was carved. The entrance is from the northeast, through a gate that is narrowed in a secondary phase by using cut blocks. The original width seems to have been 178 cm, later reduced to 120 cm. (Fig. 29).

Like the stables of complexes Nos. 2 and 7, it is a rectangular room covered with a low barrel-vault (Fig. 30). The dimensions of the room are c. 12 x 6 m. An opening on the ceiling lets in light and fresh air. Almost certainly this was a part of the original design since fresh air is essential for the animals, especially those kept in rock-cut rooms where air circulation is otherwise minimal.

There are ten mangers on each lateral wall, both articulated by a recess just above the mangers (Figs. 31, 32). The height of the mangers increases towards the rear end, where there is less soil accumulation. Thus, the mangers at the back are c. 110 cm, whereas the front ones are shorter as they are more damaged and partially buried in soil. On the east wall, close to the corner of the south wall, there is an opening carved at a higher level than that of the stable floor, almost the same level as the mangers and extending almost two meters inwards. It appears to be a storage area for extra fodder or perhaps tools and other equipment. On the south wall three irregularly carved spaces, each c. 40 cm high and around 1 – 1.5 m wide, may have served utilitarian purposes or been carved later.

#### 4.2.1.4 Stable of Açık Saray No. 7

Açık Saray No. 7 lies close to the modern road at the northernmost edge of the settlement, at a considerable distance from the other complexes. It is multi-storied, but the upper floors cannot be accessed at present. Its three-storey façade, decorated with horseshoe-shaped blind niches has survived in good condition (Fig. 33) (Rodley 1985: 144, Fig. 25). The stable, neither recorded nor mentioned in

Rodley's study, is positioned on the southwest of the courtyard, set inside the rock outcropping on the west of Room 3 (Figs. 32, 33). The entrance is from the southeast, through an opening that is almost entirely buried in soil since the original gate has completely eroded away (Fig. 33).

The size of the room is 9 x 5.5 m, slightly smaller than Room 1, which is the largest room of the complex and presumably a ceremonial hall. The inner arrangement of the stable is very similar to other examples in complexes Nos. 2 and 4. It has a barrel-vault and recessed mangers on the lateral walls arranged in a similar fashion (Figs. 32, 34). Although the thick layer of soil that has accumulated on the floor makes it impossible to estimate the total height of the mangers, since the form and design of this stable are consistent with the others on the site, it is plausible that the mangers should also be similar in height. In contrast to the small size of the complex to which it belongs, the stable has mangers for at least 14 animals, again a sign of a wealth.

### 4.2.2 Çanlı Kilise

The settlement of Çanlı Kilise extends along a vast sloping terrain filled with hundreds of honeycombed spaces. The site has been damaged severely by erosion and landslides so that even some of the surviving elements are difficult to access and reconstruct. Since it was not possible to check every single room indicated on the plans in Ousterhouts's study[46] to look for new stables or further evidence of horse breeding, this study analyzes only the stables recorded by his survey team. Even this

[46] Ousterhout 2005: 296, 298, 299, 300; Figs. 70, 72, 73, 74.

proved to be hard task which required a three-day expedition, given the difficulty in finding the stables identified on the site plan.

Ousterhout's survey account (2005) was sometimes inadequate for guidance throughout the site, as it was rather difficult to define the limits of each unit, which is a challenge in rock-cut architecture, also recognized by Ousterhout (2005: 170). One of the drawbacks of Ousterhout's study is that its plans are too general, lacking in detail and unaccompanied by a sufficiently explanatory text. The rooms of the units are not numbered, but simply described in the text by giving directions, which can easily get confusing, especially if one is not familiar with the landscape. His brief discussion of the stables, presented under a separate title, is also of little help because the numbers given for the areas containing stables are inconsistent with the overall descriptions of each unit. In the catalogue of the settlement which describes each area individually, as well as on the plans, Areas 1, 10, 13, 14, 14a, 15 and 20 are recorded to have stables. However in this discussion Ousterhout omits the stables in Areas 13, 14a and 20 from his list, but adds a stable in Area 16, which is not mentioned in his catalogue at all (Ousterhout, 2005: 152, 153). Moreover, some illustrations are misleading due to erroneous identification[47] and the page numbers on the index are inconsistent. Also, the unfriendly shepherd dogs and falling rocks certainly made it a rather difficult, not to mention dangerous adventure to reach some of the stables, turning this survey into a high adrenalin adventure!

The Çanlı Kilise settlement comprises one masonry church, Çanlı Kilise; 23 different areas, namely dwelling units, two of which are identified as monasteries; five subsidiary areas marked with an "a"; two refuges; and some cemeteries (Fig. 25) (Ousterhout 2005: 79-114). Altogether, there are almost thirty living units, but only

[47] The photo in Ousterhout's study belongs to the stable of Area 14, not 15 (Ousterhout 2005: 378, Fig. 166).

seven of them have clearly identified stables, as examined below. The absence of stables in courtyard units is probably to do with their poor preservation since the units lacking stables are usually the most damaged ones, as will be discussed further.

In short, problems raised by the stables in Çanlı Kilise are similar to those in Açık Saray. It ought to be kept in mind that it is a challenging task to plan precisely and reconstruct the rock-cut architecture of Cappadocia. Therefore, it is reasonable to speculate that other stables on the site have escaped the notice of the surveyors, because they were inaccessible.

Different in style from those in Açık Saray, the stables of Çanlı Kilise have their own basic design, a longitudinal hall topped with a high, banded barrel-vault and furnished with mangers on the lateral walls. This standard form is found with some variations in Areas 1, 10, 14, 15 and 20 (Ousterhout 2005: 152-153). The uniformity of design suggests a similar date, as well as a *terminus post quem* for these stables, since they appear to be original components of the courtyard units of the tenth and eleventh centuries.

Apart from these, Ousterhout (2005: 79-114; 152-53) points to at least ten other rooms in Areas 2, 3, 7a, 16, 17 and Refuges 1 and 2 that may have served as stables. Some of these have similar plans to the above stables while some others have niches or benches, which may have been used as mangers earlier (Ousterhout 2005: 79-114). However, it is not clear why Ousterhout avoids defining them as stables since some of them appear to share common characteristics with the stables defined in his text and indicated on his plan. The most interesting example amongst these rooms is a hall of unusual length, c. 35 m that might have served as a storeroom and a stable (Ousterhout 2005: 89). Unfortunately, it was not possible to go into it because of the slippery conditions on site caused by severe frost.

#### 4.2.2.1 Stable in Area I

The complex identified as Area I lies at the far northeast end of the site and occupies the largest space amongst all (Figs. 35, 36). It also has the largest stable as well as two other rooms with traces of niches and mangers, which might also have functioned as stables (Ousterhout 2005: 79-82). One end of the courtyard was extended to the northeast by an open-air corridor, carved from the rock, which is flanked by subsidiary spaces possibly used for storage or livestock housing (Fig. 37). The stable is at the end of this corridor on the left. It is oriented on a northwest-southeast axis, entered from the southeast, where the terrain slopes down. The original gate of the stable, closed by a masonry blocking from a secondary phase, is almost completely buried on the outside by a large accumulation of eroded soil (Fig. 28). Therefore, today the access to the stable is from the adjacent room.

The stable is a large hall measuring c. 7 x 5 m in size, covered by a banded barrel-vault that is at the exceptional height of c. 4 m (Fig. 39). The vault has a rib that extends as a pilaster to the floor level on the northeast wall, while the southwest wall has been carved back as apparent from the broken rib above. Such later carvings cause difficulty in recognizing the plans of stables, as Ousterhout (2005: 80) also notes. The less-disturbed northeast wall is divided into two parts by this pilaster (Fig. 30). The first part, which is close to the entrance gate, extends for almost 3 m. and has traces of carved-away mangers, the ceilings of which are still visible (Fig. 41). The second part that extends for 190 cm to the left of the pilaster still has mangers pierced at various points, indicating their long-term use (Fig. 40). Both these surviving mangers and the traces of the removed ones are raised c. 1 m above the ground, suggesting that they were intended for feeding horses. A curious feature, that is, a round pit on the ground between the mangers and the pilaster, with a diameter of

c. 1 m (Fig. 40) is also attested in the stables of Areas 14 and 15. The southwest wall of the stable has a bench that is 45 cm above the ground and extends for about 4 meters (Fig. 39). Since this part of the stable is carved back, the benches must be later than the ones on the other lateral wall. There is a small room at the northwest end of the hall, which may also be a later addition as its walls are irregularly carved. It is not certain when such transformations took place, or whether they happened simultaneously.

#### 4.2.2.2 Stable in Area 10

The stable in Area 10 is a long rectangular room of 8.70 x 5.30 m that extends on a roughly north-south axis (Ousterhout 2005: 97) (Fig. 32). It is topped by a barrel-vault with two flat ribs (Fig. 33). The south rib extends to floor level similar to the stable described earlier, whereas the north rib has been broken on the west wall, probably at the same time when the mangers were cut away. A low bench runs along the wall today, above which traces of mangers are still visible, c. 1 m high above the floor level. The east wall has been altered to such a degree that neither the original mangers nor their traces are preserved. A cornice runs along the middle of this wall, which is a feature attested in many halls of the settlement, a possible index of similar construction dates.[48] A floor-level niche seems to have been added to the north wall of the stable, and connects to a rubble chimney opening to the outside. The southern end of the room is blocked by a later rubble wall, which in time has led to the formation of a raised platform as a result of the accumulation of eroded soil. The vault is in a state of partial collapse at this end. A passage connects the stable to the adjacent room on the southeast.

[48] For some examples of these cornices, see Figs. 115, 124, 127 and 179 in Ousterhout 2005.

#### 4.2.2.3 Stable in Area 14

Area 14 is marked by its extraordinary basilical hall (Fig. 32). The stable, which lies to the north of this unique ceremonial hall, is the best preserved at the site (Fig. 44) (Ousterhout 2005: 103). It consists of three rooms, all extending along the same east-west axis. The larger room on the west leads to two smaller ones on the east (Figs. 32, 34). The first room is entirely open on the west, whereas the second one is entered through an arched doorway. The room on the west has a rectangular layout and measures c. 12 x 5 m. It is covered by a barrel-vault of c. 5 m high. Again, two flat ribs extend towards the floor as pilasters dividing the lateral walls into two parts. In addition to this, a well-articulated cornice defines the lower halves of each part, emphasizing the quadrant vault in which the mangers have been carved (Fig. 44).

The mangers on the eastern part of the north wall have remained in quite good condition compared to other examples at the site (Fig. 45). Each manger is carved as an individual trough designed in the form of an arched recess, approximately 110 cm above the floor. This must be the original form of the mangers and as Ousterhout (2005: 103) suggests, the much-reworked stables in Areas 1 and 10 could be reconstructed on this model. The mangers on the east half of the wall are accompanied by a round pit carved between the pilaster and the mangers (Fig. 46). Its size and arrangement are identical to the one described as part of the stable in Area 1. These pits are not mentioned by Ousterhout, who may have considered them as later additions. However, it is not entirely clear whether they are original or secondary. The mangers on the western part of the wall are weathered due to exposure to air, but their arches are preserved.

The mangers on the south wall have been cut away during a secondary phase, but the traces of their arches indicate the same pattern as the ones on the north wall (Fig. 46). On the western half on the wall, after the removal of mangers, a door has been opened to the adjacent room on the south, which might have been used for storage. To the east of this door, on the ground there is a burial pit and in front of the pilaster is found a round pit, both presumably secondary though neither is mentioned by Ousterhout.

The second room lies at a slightly higher level (Fig. 43). Its spatial arrangement is different than those of the exterior room and other stables (Fig. 47). A similar arrangement is found in Area 15. It has a roughly square layout, c. 7 x 6 m, and a flat ceiling. The mangers are carved on the lateral walls with an average of 90 cm height above the ground (Fig. 48). They are in the form of a single trough rather than individual units, which could also be the result of long-term use. One possible solution to determine the capacity of the stable is to divide the length of this united manger, which is 7 m, by the average manger width of c. 60 cm. This calculation gives an approximate number of at least ten mangers on each lateral wall. The average manger width is c. 50 cm. However, such individual mangers have partitions between them, each partition usually around 10 cm.

The third room at the east end is much smaller, c. 1.5 x 2 m. It must have functioned as a storeroom (Fig. 47). Apart from this, there is an irregular space on the south of the second room that is entered from the first room (Fig. 44). Its floor is elevated, with a difference of c. 30 cm above the level of the first room. Two windows connect it to the second room. This room too was most probably used either for storage or perhaps for guarding. Sleeping inside the stable is a measure against theft, a practice that has been kept up until very recently.

#### 4.2.2.4 Stable in Area 15

Area 15 has suffered from severe damages, yet some of its architectural decoration such as the portico façade indicates sophistication in design (Ousterhout 2005: 105-106). The stable closely parallels the one in Area 14 in that it consists of two main sections. The first room, which is entirely open on the west, leads to a smaller one at the rear (Fig. 51). It measures c. 13 x 6 m in size and is also topped by a barrel-vault that has two ribs extending towards the floor as pilasters. The lower parts of these pilasters must have been removed at a later phase, probably coinciding with the time when the mangers were entirely carved away (Fig. 52). On the lateral walls, the original position of the mangers is indicated by traces of their arches, which once again are raised, c. 1 m. high.

The inner room has a slightly trapezoidal layout and a low, flat ceiling (Fig. 53). Its south and east walls are both c. 6.3 m long, whereas the north wall is shorter, at c. 3.5 m. The mangers are set on the east and north walls. They are well preserved with an average height of 110-120 cm above ground. Their partitions were removed over time and the broken tethering holes were replaced with new ones (Figs. 53, 53a). Yet, it may be estimated from the length of the unified mangers that the stable could house up to ten horses. Probably, this room continued to function as a stable whereas the outer one eventually lost this function. There is another small room on the north side, which may have served for storing fodder.

#### 4.2.2.5 Stable in Area 20

This area lies in a ruined state to the west of Area 19 (Fig. 54) (Ousterhout 2005: 112). Consisting only of a stable, a church, and a dovecote, it does not appear to be a courtyard unit. As in Area 10, the stable is located next to a church, but their

relations are difficult to understand as both areas are much damaged. The stable itself is a large rectangular room, c. 9 x 11 m in size and topped with a c. 2.9 meter-high flat ceiling (Fig. 54). Most of the mangers along its west wall still survive, c. 110 cm above the floor level, while the ones on the east wall have been converted into a bench, above which the outline of the mangers are visible almost at 1 m high above ground level (Figs. 55, 56). Each lateral wall originally had at least ten mangers, which would correspond to a capability of housing 20 horses.

#### 4.2.2.6 Possible Stables

A room in Area 13 has also been identified as a stable (Ousterhout 2005: 102). However, while Ousterhout (2005: 102) defines it as a stable in the text, he adds a question mark to it in his plan (Fig. 57). In fact, this room has none of the characteristics of any of the stables described so far, apart from its barrel vault, which is a very common feature in Cappadocian architecture, attested for a variety of spaces with different kinds of functions (Fig. 57). Secondly, the irregular niches in the walls, interpreted as mangers, do not resemble those in other stables. Furthermore, they are all sporadically placed and buried in soil up to half their heights. Proximity to the ceremonial quarters of the unit is another peculiarity where stables are always placed outside the courtyard remote from the dwelling spaces. Thus, its function as a stable is unconvincing.

The identification of one other room in Area 14a as a stable is also questionable (Fig. 42). Ousterhout (2005: 104) states that this courtyard unit, which is nearly completely buried today, was converted into a refuge following severe landslides. Its only entrance is via a tunnel that extends from the so-called stable, which lies at the southernmost part of the courtyard unit. The room identified as

stable is a long, rectangular hall covering an area of c. 19.5 x 5 m and has a barrel-vaulted ceiling (Fig. 49). The entrance on the west has been almost entirely filled with eroded soil. One third of the room at the rear is partitioned by a low L-shaped bench that extends along the south wall. The south wall preserves traces of a quadrant vault that might originally have included mangers. But the stable in its present state yields no clear evidence indicating it may have once housed horses. There are a few irregularly placed mangers that are pierced at several points, but these do not unequivocally point to a use for horses either. The room might have served for some other purpose since evidence indicating a stable function is rather meagre.

### 4.2.3 Selime

The modern village of Selime has spread over the Byzantine settlement, and so is honeycombed by numerous caves, some of which are the remains of the Middle Byzantine settlement (Kalas 2000), while others are later. That the settlement has maintained its agrarian character since the medieval times is apparent from the great number of stables and storage areas carved on the slopes of the hill. Some of these stables have traces indicating the original function of the room before it was converted into a stable, revealing a later date than Byzantine. However, the majority does not bear such clues to facilitate dating. Therefore, it is not easy to tell whether they are original remains of the Byzantine settlement or converted into stables later. Furthermore, due to continuous habitation and reuse of spaces, it is not possible to correlate these stables with any courtyard units or determine their primary functions. Probably on account of such constraints, only three stables were recorded on the site, those that were most likely to have been original components of the Byzantine

courtyard units. Others, lying closer to the modern village, are not mentioned at all. However, the few number of published stables should not lead to an understanding that courtyard units did not have stables. On the contrary, stables would have been essential components of houses, whether either elite or peasant (Rautman 2006: 184).

#### 4.2.3.1 Stables in Selime Kalesi

There are two stables on the lowest level of the cliff that leads to the Selime Kalesi, which are the first spaces encountered ascending the slope although it is not clear whether they were once components of the complex. They are situated next to each other before the entrance of a tunnel that leads to the residential spaces up above. This area is not included in the plan of Selime Kalesi (Fig. 59), which was first sketched by Rodley and later drawn with more precision by Kalas (2006). Rodley (1985: 82-3) refers to the first stable but not to the second. Kalas records both in her dissertation, but omits the first one in later publications (Kalas 2006; 2007). I will label them as Stable I and Stable II to avoid confusion.

Stable I is a barrel-vaulted room with a high ceiling (Fig. 60). Its layout has been changed by later reuse and additional carvings, which obscure the original form and function of the stable. There are several irregularly arranged mangers with different shapes and sizes, which are impossible to synchronize. Kalas (2000: 136) points out these irregular carvings in relation to reuse over time.

Stable II lies to the east of the first one. It is entered through an opening which is now filled with soil up until midway since its original entrance has eroded away (Fig. 61). Inside is a longitudinal, rectangular room with a flat ceiling, extending on a roughly north-south axis. Almost 11 x 3 m in size, it is flanked by

seven mangers on each lateral wall.[49] They are simple oval niches hewn out of the rock at regular intervals, averaging a height of 70-80 cm. These mangers are markedly different than those in Açık Saray and Çanlı Kilise in form (Kalas 2000: 137): they are simpler in design and larger in size. From the height of the mangers and the tethering rings, Kalas estimates that they served horses, but according to the criteria used here, mangers of this type with 70-80 cm height are accepted as having been used for either cattle or short transportation animals such as donkeys and mules. On the other hand, the tethering rings cannot be an indication specifically for tall transportation animals since all types of livestock apart from sheep and goats would be tied, according to the modern practice.

There is a small square room, c. 3 x 2.5 m in size, at the north end of the stable on the same axis. The floor of this room is slightly higher than the first one. There are seven mangers, three on the east wall and four on the west, smaller and lower than those in the first room. There is a carving also on the north wall, c. 130 cm wide and c. 80 cm high, which does not resemble a manger as it does not have a tethering ring. Separated from the large one, this small room may have used for foals or calves.

The location of the stables before the entrance to the tunnel, which is assumed to be the main entrance to the complex, indicates that the animals were left here prior to entering the complex (Rodley 1985: 82-4; Kalas 2007). The suggestion that the stables housed transportation animals is reasonable as it would be an essential component of a medieval house. However, as the settlement has an agrarian character, other types of livestock besides horses and mules would almost certainly have been found here.

[49] This stable has been measured and planned during the 2004 survey (Kalas 2006) but is unpublished.

#### 4.2.3.2 Stable in Area 7

Area 7 lies in the Güllükkaya area. The stable lies at the westernmost end of the courtyard, distant from the rest of the complex (Fig. 62). Entered through a high, barrel-vaulted gate, it is a rectangular room with a barrel-vault covering an area of 30 m², excluding the mangers. The walls are articulated with a cornice running beneath the vault. The mangers are lined on the northeast wall carved c. 80 cm high in a similar fashion to the stables in Yusuf Koç Kilisesi Complex (Kalas 2000: 94-95; 2007).

### 4.2.4 Stables of Yusuf Koç Kilisesi

Although its name implies a single church, this is in fact a monastery complex in the Avcılar valley near the town of Göreme that is dated to the eleventh century (Rodley 1985: 223). The complex includes a church, a refectory, three rooms and two stables, all of which have been carved inside two large cones (Fig. 63). As Rodley notes, since the cavities extend into two more cones to the south, the original limits of the monastery remain obscure (Rodley 1985: 151).

Rodley mentions only one of the stables.[50] Numbered as Stable I and Stable II for practicality, the former, published in Rodley's account, lies to the southeast of the main cone, whereas the latter is carved in another cone to the south (Fig. 63). As a result of erosion, both stables have lost their front walls. Stable I is c. 9 x 4 m in size, while Stable II is smaller, c. 4 x 3 m. Both have low, flat ceilings, rising only to c. 2 m above ground. Stable I has six mangers on its west wall, one of which is wider than the others. Stable II has only 4 mangers on its west wall (Figs. 63, 64, 65). The

[50] Another major publication of the complex by Alexander Grishin does not mention the stables at all (Grishin, 1990).

form and design of the mangers in two stables are different from each other. In Stable I, each manger has been carved as an individual recess in horseshoe shape, which is a rather uncommon design for the region. Their arches are well preserved although the mangers themselves are partially damaged. In contrast, the mangers of Stable II do resemble those in Açık Saray, carved as oval bowls with low ceilings. The height of mangers in both stables is around 80 cm, which suggests that they might have housed either donkeys or mules.

### 4.2.5 Stable of Pigeon House Church

Located just outside the town of Çavuşin, inside a dominating cliff overlooking the plain, the Pigeon House Church is a unique example for its imperial patronage as well as the quality of its wall paintings. It is also one of the few churches that can be dated precisely by the imperial portraits of Nikephoros II Phokas (r. 963-969) and his originally Cappadocian family, who are believed to be the donors of the church, which was presumably commissioned to commemorate his accession to the throne (Rodley 1985: 253).

The stable is carved into the part of the cliff that lies to the left of the staircase leading up to the church. One needs to pass through a small room before entering into the stable. This gate has been opened at a later stage, destroying one of the mangers. The original gate of the stable was directly opposite the mangers, but later blocked by a masonry wall and converted into a window. It is a rectangular room, 6.5 x 3.5 m in size, with a shallow barrel-vaulted ceiling c. 2 m high (Fig. 66). There have been only minor modifications inside the stable, which does not obscure its original design. The mangers are carved as shallow, rectangular boxes, again unique in form, and are raised 1 m above the ground.

The stable of the church has not been mentioned in any publication so far. Rodley's (1983) article discusses the rooms accompanying the church, but does not refer to the stable. Even though its date is problematic because of the same questions listed above, its regular layout and well-organized interior arrangement could suggest a date possibly contemporary with the church.

### *4.3 Discussion*

The Middle Byzantine settlements in Cappadocia contain elite houses with monumental stables comprising significant numbers of mangers, which confirms their economic importance (Table I). There are certain characteristics shared by most stables. All of the stables have rectangular layouts, apart from Açık Saray No. 2a and the inner rooms of Areas 14 and 15 in Çanlı Kilise (Ousterhout 2005: 152), and all are covered by flat or barrel-vaulted ceilings. However, in contrast to the shallow and plain barrel-vaults of Açık Saray stables, those in Çanlı Kilise are high, c. 4-5 m, and mostly articulated by flat ribs extending as pilasters to the floor. As shown in Table I, the stables in Açık Saray and Çanlı Kilise have elevated mangers, ranging between 80 cm and 120 cm whereas those in the stables at Selime are lower, around 80 cm, the difference in manger height indicating that they served different animals. While the high mangers in Açık Saray and Çanlı Kilise point towards horses, the lower ones in Selime must have been used for donkeys and mules.

| Complexes | Dimensions of Ceremonial halls* (m²) | Dimensions of Stable (m²) | Number of mangers (at least) | Height of mangers (average) (cm) |
|---|---|---|---|---|
| Açık Saray No. 1 | 108.5 | --- | --- | |
| **Açık Saray No. 2** | **84** | **46.2** | **17** | **100** |
| **Açık Saray No. 2a** | **66** | **13 x 13 x 11** | **16** | **90-120** |
| Açık Saray No. 3 | 48 | --- | --- | |
| **Açık Saray No. 4** | **71.5** | **72** | **20** | **110** |
| Açık Saray No. 5 | 78 | --- | --- | |
| Açık Saray No. 6 | 56 | --- | --- | |
| **Açık Saray No. 7** | **66** | **49.5** | **14** | **?** |
| | | | | |
| **Çanlı Kilise Area I** | | **35** | **8** | **100** |
| **Çanlı Kilise No. 10** | | **46.11** | **?** | **100** |
| **Çanlı Kilise No. 13** | | | | |
| **Çanlı Kilise No. 14 Outer room** | | **60** | **20** | **110** |
| **Çanlı Kilise No. 14 Inner room** | | **42** | **20** | **90** |
| **Çanlı Kilise No. 15 Outer room** | | **78** | **?** | **100** |
| **Çanlı Kilise No. 15 Inner room** | | **22.5** | **10** | **110-120** |
| **Çanlı Kilise No.20** | | **99** | **20** | **100-110** |
| | | | | |
| **Selime Kalesi I** | | | | |
| **Selime Kalesi II** | | **52** | **14** | **70-80** |
| **Area 7** | | **30** | **5** | **80** |

**Table I** The complexes that have stables are highlighted in bold characters. (All given measurements are approximate.
* labeled as Room 1 in Rodley (1985: 121-150).

The stables must have benefited from the many advantages of the rock-cut architecture.[51] First, carving is an easier method than construction and requires less time and energy. The soft tuff enables flexibility in design, allowing for a great variety of manger types. Rock-cut stables are resistant against earthquakes, floods and fire, and easier to defend in times of war. In addition to its structural advantages, rock cut architecture also provides perfect insulation against extreme summer heat and the harsh winter cold. Indeed, it was reported by the villagers that the rock-cut stables do not require heating in the winter whereas the built ones do. Also, the

[51] See Akyürek (2000: 243-4) for a full summary

porous structure of the rock prevents humidity, which is one of the most important factors in providing a healthy environment for the horse. Xenophon in the sixth book of his account, *On Horsemanship*, advises that a damp and smooth floor should be avoided for it would damage the hoofs. His suggestion to prevent the dampness is to slope the floor with channels. This is observable in two stables in Açık Saray, those of complexes Nos. 2 and 2a, where the floor has been left higher in front of the mangers like a platform for the horses to stand on, and which slopes towards the center of the room creating a depression that would, as proposed by Kalas (2000: 193), facilitate the removal of manure. Kalas (2000: 137) also mentions the presence of such depressions in some stables in Çanlı Kilise, but these could not be detected at the visits made to the site.[52] The stable floors being mostly concealed by loose soil, some of this was cleared to reach the actual ground level while taking measurements in front of the mangers. However, it was not possible to apply the same method to examine the entire floor surface. From the uniformity in their overall designs, it can be hypothesized that the other stables might have similar arrangements that could easily be exposed if the soil was removed. Xenophon then goes on advising that the floor should be paved with cobble stones similar in size to the horse's hoofs to avoid smoothness, a measure to strengthen the horse's feet. The same treatment is also advised by *Hippiatrika,* that the floor should be covered by wood or pebbles for the hardening of the hooves, and by chaff when the horses lie down (McCabe 2006: 275).

Light and fresh air are provided through round openings on the ceiling, which are observable in most of the stables (Açık Saray Nos. 2a, 4 and 7; Çanlı Kilise Areas 10, 13 and 20 and Selime Stable II). In later phases, these were blocked by

[52] See p. 59 for the study trips made in November 2007 and February 2008.

rubble. Nearly all stables are accompanied by additional small rooms probably for storing extra fodder or perhaps serving as tack rooms. Two of the stables, those in Çanlı Kilise Areas No.s 14 and 15 are accompanied by smaller stables with flat ceilings (Figs. 37, 43), which were perhaps rooms for the winter since the outer spaces are open on one side (Figs. 34, 41).

The stables have different orientations, mostly following the rock outcroppings into which they were carved. However, they are all located at some distance from the entrance and the main living units of the complexes, in a similar relation as proposed by Kalas (2000: 128) for the complexes in Selime. In Selime the steep slope necessitates a vertical arrangement while the landscape in Açık Saray and Çanlı Kilise enable a more horizontal settlement (Kalas 2000: 128). The degree of sophistication in the complexes parallels the articulation of the stables (Kalas 2000: 137), confirming the theory that they were original components of the Byzantine dwellings.

The dimensions of the stables appear to be correlated with the scale of the complexes to which they belong. Yet, their relatively few numbers complicate such generalizations. Kalas (2000: 137) suggests that a comparison of sizes and shapes of stables would reveal the difference in scale among complexes. However, the relatively small size and simple design of the stables in Selime Kalesi contradicts this assumption. One would expect to find a much larger stable in such a large complex that has a unique position in the entire settlement. This contradiction can perhaps be resolved by noting the absence of the original stable(s) of Selime Kalesi, seeing as such a large house would have other stables in addition to the two mentioned above. On the other hand, Kalas' assumption should not lead to the conclusion that the lack

of a stable in a house would indicate a lowly status, for the absence of stable could be due to a number of reasons.

At this point, it is necessary to speculate why some of the complexes lack stables. It has already been mentioned that in rural areas stables were essential components of the houses. Both the elite and the peasantry had at least a few animals, thus every house had a stable or a barn (Rautman 2006: 184). One possibility is that the stables may have been converted into dwelling spaces or storage rooms at a later phase. When one considers the fact that carving the volcanic rock is quite an easy task that does not require much skill or training, it may appear plausible that people in a secondary phase carved away the mangers to change the function of the room. This is likely the case in some of the stables in Çanlı Kilise, where the mangers have been converted into benches (Figs. 29, 33, 39, 46). The situation in modern Cappadocia is similar. Interviewees have reported that they have carved some of their mangers themselves or modified others according to their needs.[53] Secondly, the absence of stables may relate to the environmental conditions since Cappadocia is a region where the landscape changes very rapidly as volcanic rock is extremely soft. Thus, some of the medieval stables might have eroded or been destroyed by landslides over time, which could also be the case for the houses carved into the cliffs or slopes, as well as for built houses or stables. Another possibility is that the stables simply cannot be reached at present because their entrances may be buried in accumulated soil. A similar process can be observed in the stable of No. 7, whose gate has eroded long ago and where the entrance is almost entirely blocked (Fig. 33). Stables do not have decorated façades or any other type of visual emphasis on the exterior. They are usually entered through simple gates (as in Fig. 29) so that

[53] For a discussion of excavation techniques of the rock, see Rodley 1985: 224.

once the gate is buried, it is almost impossible to see them or estimate their location from the outside. Such possibilities apply to rock-cut architecture in general, as the same problems can be encountered in various types of rock-cut spaces. The fact that the visible stables discussed above are all from the best preserved complexes of the settlement argues in favor of these assumptions. However, the possibility of built stables that no longer survive also should be kept in mind. There is no question that a comprehensive archaeological investigation of the site would not only expose more stables and other features but should also yield further data to reconstruct various aspects of these rural mansions. A systematic survey would provide small finds and ceramics that could facilitate establishing a sound chronology of habitation on the sites.

The carving technique of the volcanic rock in ancient and medieval times remains uncertain for no record survives (Rodley 1985: 224-225). However the chisel marks left on the wall surfaces of medieval monuments bear close similarities with the modern ones, complicating the efforts to date them. Establishing a sound chronology is a familiar problem in Cappadocian art and architecture (Giovannini 1971b; Kazhdan 1997: 69; Ousterhout, 2005: 4). In the case of stables, dealing with chronological issues is even more difficult, because these spaces do not bear inscriptions or frescoes that could be used for absolute or stylistic dating. All of the stables in the Byzantine complexes discussed here have been dated to the tenth and eleventh centuries on account of their consistency in their form and arrangement with the courtyard complexes (Rodley 1985; Kalas 2000; Ousterhout 2005). Establishing dates is certainly necessary to achieve a meaningful and a systematic description of the development of architectural spaces, to examine the data within its historical context, and finally for a better interpretation of the material record. Hence, although

the present study does not attempt to set up a new chronology, the dates of the stables in the Byzantine settlements of Açık Saray, Çanlı Kilise, and Selime have been a main concern since the beginning of this research. Indeed some scholars, rejecting the dates suggested for the stables, have instead asserted that these structures could have been carved at a later period, and so may not be original components of the complexes.[54] Even though all of the three sites yield evidence for later habitation (Rodley 1985; Kalas 2000; Ousterhout 2005), the architectural evidence, to a reasonable degree, does allow us to synchronize these stables with the courtyard complexes to which they belong. However, although all three settlements are contemporaneous, displaying very similar characteristics and functions, the situation for their stables is not as clear cut mostly because they have been reused and altered over time, an issue that causes problems especially in Çanlı Kilise and Selime. The long-term inhabitation of Çanlı Kilise may be observed in various parts of the courtyard units. In the case of stables, it may be assumed that modifications in later phases took place simultaneously, most of which are altered in similar ways. The most common result of such modifications is benches replacing mangers, found in the stables of Areas 1, 10, 14, 14a and 20, where traces of the mangers' arches are still visible. The reason why mangers were carved away or transformed into benches remains obscure. They may have served for refuge purposes or as dwellings since benches are usually interpreted as basic furnishings of living spaces (Kalas 2007). Even today, the villagers of Akhisar and Selime make use of courtyard units to house their animals, a problem that obscures the original date and function of the stables. On the other hand, the stables in Açık Saray are better preserved—which is probably because the site was inhabited for a shorter period than the other two settlements.

[54] Doç. Dr. Sacit Pekak (Hacettepe University) 2007. *pers. comm.*

### *4.4 Conclusion*

There are two basic questions this chapter seeks to answer: whether the stables are from Middle Byzantine period, and whether they were designed for horses. The comparanda from contemporary rural Cappadocia provide important ethnoarchaeological data for determining the function of medieval stables, which confirms the strong connection between manger height and function of the stable. The material record does not provide an absolute date for the stables in their present state, leaving the question of their exact date open. However, all who have conducted surveys at these sites (Rodley 1985; Kalas 2000; Ousterhout 2005) consider the stables to be contemporaneous with the complexes and the settlements of the tenth and eleventh centuries, on the basis of relative dating. This method is based on architectural analyses and comparison of the stables within the context of courtyard complexes they accompany. The stables are considered consistent with the complexes in terms of form, design and scale. With regard to such shared characteristics, it is more secure to date the stables in the settlements of Çanlı Kilise and Açık Saray, where the Byzantine phase is predominant, than Selime, where the majority of the stables are disturbed by reuse.

As difficult as the chronological problems is the question of the function of the stables. The solution suggested by the present study is making a taxonomic classification of certain characteristics such as stable dimension, number and height of its mangers, and finally the association of the stable with the complex enclosing it. The categorization in this study is based on the assumption that the stables with raised mangers were used for horses. The fact that the stables were reused over time for multi-functional purposes complicates the efforts to determine the original function of a stable. Even if it can be concluded that mangers higher than 80 cm were

for horses, it is very difficult to ascertain the type of horse they housed. Especially in the case of pack or draught horses, the manger size does not differ since such horses receive less care than saddle horses, racehorses, or warhorses. Yet, the stables in Açık Saray and Çanlı Kilise mostly appear to be designed for breeding horses, most probably for military purposes given the strategic location of the settlements and the military affiliations of their inhabitants (Kalas 2000). Nevertheless, it is necessary to keep in mind the agrarian character of these settlements, where the livestock raising would have been a fundamental economic activity. The total capacity of the four stables in Açık Saray is for over 70 animals. Even though it is more difficult to find out the total capacity of the stables in Çanlı Kilise, by making a rough calculation, we can estimate it would have been over 100. In Selime, it is difficult to judge the nature of horse breeding activities from the few numbers of stables that are identified as the stables of the Middle Byzantine elite, yet the average number of animals per house is similar to above settlements. In brief, even if these stables did not house just horses, still these numbers are indicators of the distinctive socio-economic status of their inhabitants.

A better understanding of the history of horse breeding in Byzantium necessitates taking into consideration other parallel examples both from Cappadocia as well as other parts of the empire. Stables have been recorded at various sites mostly from the Early Byzantine period.[55] In Rough Cilicia, the Early Byzantine rural houses in Akören are noted to have stables on the ground floor (Eichner, 2004). The most interesting and intriguing examples are found in the so-called highlands of Phrygia, where the volcanic rock has been carved for dwellings and churches in a similar fashion to Cappadocia. Even though their date of origin is difficult to

[55] Outside Asia Minor, remains of stables have been found in the excavations of Khirbet Haiyan (Callaway and Nicol 1966) and Umm el-Jimal (Jordan) (de Vries 1995), both dating to the Early Byzantine period.

ascertain, the majority of the remains are from the Byzantine period. Haspels mentions two stables accompanying dwellings in the Valley of İnli (Armutlu), but gives the dimensions of only one. This is a well-preserved stable, 8.16 x 4.20 m in size, and flanked by rock-cut mangers that are 94 cm high, 85 cm wide and 58 cm deep and in total 12 mangers have been recorded (Haspels, 1971, 232, 234, 242; Pl. 571). As pointed out by Rodley, the stables accompanying residential units have similar forms and arrangements as the Cappadocian examples but are relatively smaller in size and cruder in form than the latter. Seeking possible links between the landscape of the highlands of Phrygia and Cappadocia, she raises the possibility of itinerant masons working in both regions (Rodley 1985: 236). Recent scholarship on medieval Phrygia, following the traditional approaches in Cappadocian rock-cut architecture, has focused on the rock-cut churches of the region.[56] Thus, the settlements, which show similar characteristics to those in Cappadocia are worth exploring within a broader context. Besides, there should be more stables in this region that deserves more attention.

It is worth mentioning another site, Malagina, which is a place of considerable strategic importance in the Middle Byzantine period (Foss 1990b). As the major *aplekton* that also includes the imperial stables, the site may provide evidence on the history of horse breeding in Byzantium. While the stables are frequently mentioned by literary sources (Constantine and Reiske 1829), archaeological studies are entirely silent about them and the exact location of the site has not yet been identified although its approximate location is known within the boundaries of modern province of Sakarya.[57]

[56] For the survey account, see Olcay Uçkan, 2006.
[57] For a discussion of the estimated location of the site and its archaeological remains, see Foss, 1990b.

There is no doubt that Cappadocia will provide more evidence on horses and horse breeding of Byzantium. Two recent surveys conducted at Soğanlı Valley and Erdemli-Yeşilhisar should bring to light new evidence on Middle Byzantine settlements while the latter has also produced promising results with its newly found stables (Karakaya 2007).[58] However, the small number of studies made in non-religious architecture of Byzantine Cappadocia complicates making generalizations at present. Settlement archaeology is a subject that has been newly introduced to the field of Byzantine studies in Cappadocia. The research projects, thus, are currently concerned with the documentation of the sites. A new perspective has been provided by Kalas, whose interpretative approach to the settlement has revealed crucial data regarding the sociological aspects of the Middle Byzantine society. Rock-cut settlements, as they survive in better condition than masonry, have a lot to offer for the socio-economic history of the Middle Byzantine society and thus deserve more scholarly attention.

[58] I was not able to find any references for the survey conducted in Soğanlı Valley.

# CHAPTER V

# CONCLUSION

Archaeological surveys of elite houses with large-scale stables at Açık Saray, Çanlı Kilise and Selime-Yaprakhisar have yielded rich evidence that confirms a correlation between architecture and what is known from the historical sources. Even though determining the exact function and absolute date of the stables is problematic, it is possible to differentiate between horse stables and those used for other types of livestock, from the design and height of mangers. Accordingly, it can be suggested that the stables with raised mangers, that is, c. 80 cm and higher, were used for horses, thus bearing evidence on the horse breeding practices of elite landowners. Surely other types of livestock were also kept since these settlements belonged to an agrarian society. Therefore, stables with lower mangers must have been used for housing shorter animals, such as cattle or donkeys and mules.

The chronology of the stables remains a moot question in the absence of inscriptions, frescoes, or other design elements necessary for absolute dating, while the possibility of post-Byzantine use introduces a further complication. This being said, despite secondary modifications that cause uncertainties, the common basic design elements shared by the complexes should indicate contemporaneity. Architectural coherence with each other and with the rest of the complexes indicates

that they are original components of the courtyard complexes. Moreover, the presence of horse stables in elite houses is perfectly in keeping with the frontier location of Cappadocia and the military organization of the period. Furthermore, the prominent locations of the three settlements at strategic points for controlling important passages and routes also support the theory that horses bred in these stables served for military purposes.

The data collected in this study have confirmed the assumptions about the military affiliations of the aforesaid Middle Byzantine settlements. Thus, it can be concluded that the great magnates of Cappadocia, who appear often in the historical accounts of the tenth and eleventh centuries benefited greatly from the *theme* system. This military organization played a crucial role in the social and political history of Middle Byzantine Cappadocia. *Themata* were governed by a local general who was in charge of the local administration as well as the *thematic* army. These were local troops positioned on the frontier passes between the empire and enemy territory. Exposed to enemy action, these posts had a crucial role for the defense of the eastern territories (Haldon 2003: 40). Each *theme* had an army unit of 4000-6000 troops and it was the cavalry that formed the core of these armies, allowing prompt responses to enemy attack or rapid raids into enemy lands (Teall 1971: 47). Military accounts of the tenth century describe the camps and assembly points that the emperor passed through on the way to the eastern frontiers, where he was met by successive *thematic* armies. The chief of the *theme* army was to provide the emperor whatever he needed: horses and mules as well as food and men (Teall 1959: 113-14). The archaeological evidence is thus consistent with the historically attested circumstances of the region. Therefore, it can be summarized that the stables, at least some if not all, served the

elite landowners of Cappadocia to raise horses and mules for the Cappadocian *thematic* troops as well as for the imperial army.

The foregoing study has also demonstrated that the horse breeding tradition is virtually a paradigm of Cappadocia. Established by the Iron Age, it survives throughout the Roman and Byzantine periods. Even though the constantly changing geographical identity of the region obscures the origin of the famous Cappadocian breed, it is likely that Cappadocia as a general designation traditionally referred to the larger plateau that extends throughout Central Anatolia rather than the core area examined in this study. Thus, it is difficult to argue for a connection between the long-renowned Cappadocian horses and those bred by the elite magnates of the Middle Byzantine settlements since we do not have any information on the types or breeds of the horses raised in this period.

This thesis concentrated particularly on a group of Middle Byzantine stables in Cappadocia, but has wider implications than the immediate parameters of its focus might suggest. First, it has been possible to demonstrate that stables in elite houses confirm what is known from historical accounts. Thus the conclusions of the preceding discussion can contribute to our knowledge of the role of the military aristocrats in warfare as well as to our understanding of the circumstances at the Byzantine frontier in the tenth and eleventh centuries. Second, the stables of Cappadocia have been used as a testing ground for the methodological approach pioneered by Rodley (1985), who introduced a comparative perspective to Cappadocian architecture and examined it within a broader context. The approach, followed here, has also been applied to rock-cut kitchens by Kalas (2000) and could be employed in the analyses of other examples of Cappadocian art and architecture such as the ceremonial halls, as recently explored settlements of Cappadocia yield

rich material for similar comparative studies. Moreover, the methodology employed in this study has drawn extensively from historical sources, which are often neglected in the art historical studies of Byzantine Cappadocia. The aim has been to combine the archaeological and textual evidence and understand their interrelationship. This is neither easy nor even always possible, but nevertheless a task worth pursuing, for it allows us to see a fuller and more accurate picture of the stables in Byzantine settlements and more importantly, of the social and economic conditions at the time of their use. The researchers in Cappadocia need not lament the lack of textual sources, since a wealth of information still waiting to be discovered lies in the architectural remains. This thesis has attempted to demonstrate that new approaches and perspectives are needed if we are to refine our notions of medieval Cappadocian society. Following the example of recent architectural-historical approaches introduced by Rodley, Mathews and Mathews, Kalas, and Ousterhout, the methodology of the present study is also aimed to challenge the traditional perceptions in Cappadocian studies by suggesting alternative interpretations and even new outlooks.

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# FIGURES[59]

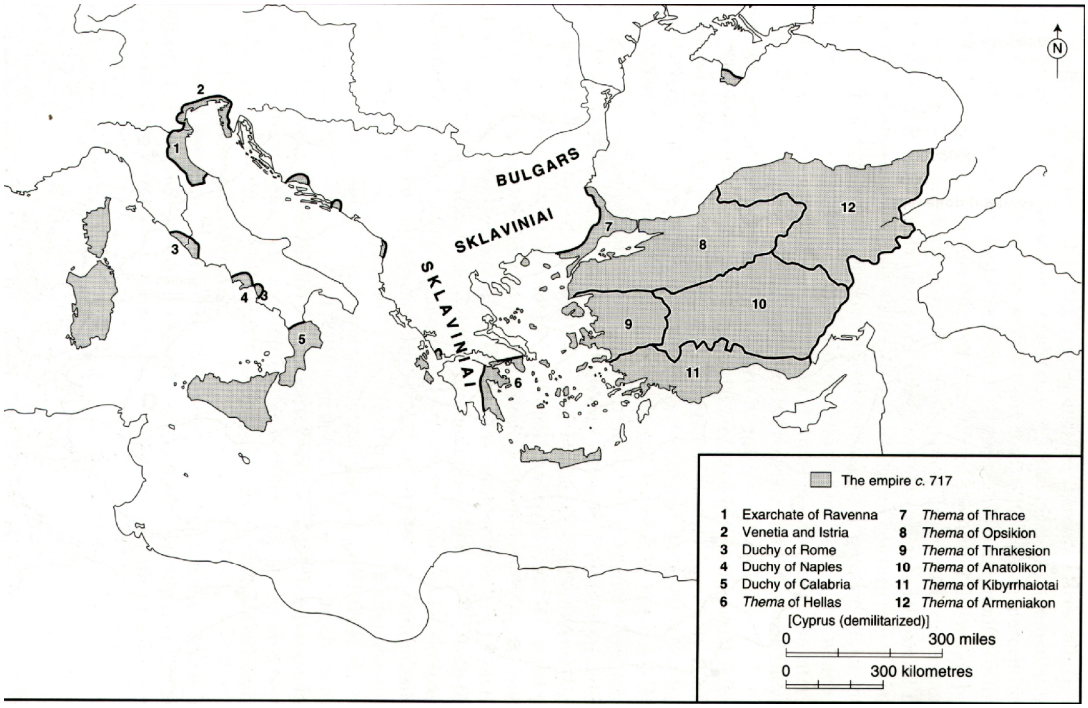


**Fig. 1.** The empire and the *themata* in the eighth century (Haldon 1999: Map IV).

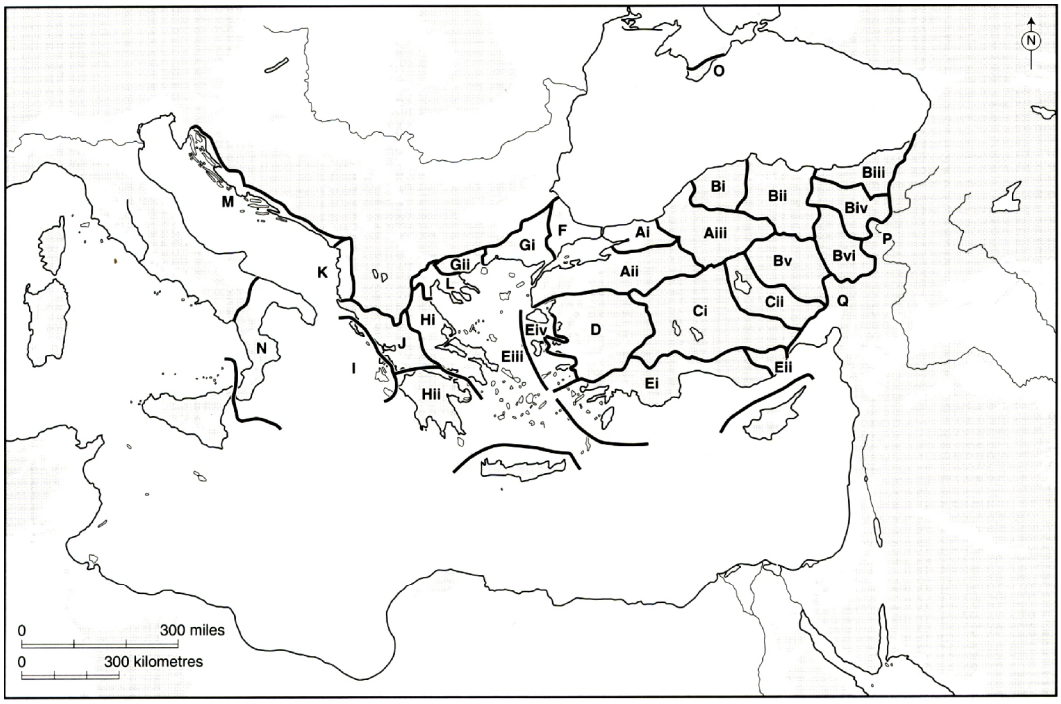


**Fig. 2.** The themata c. 920 (Haldon 1999: Map VII). (Bv: Charsianon, Ci: Anatolikon, Cii: Cappadocia, D: Thrakesion).

[59] All photos are by Mehmet Tütüncü unless otherwise stated.

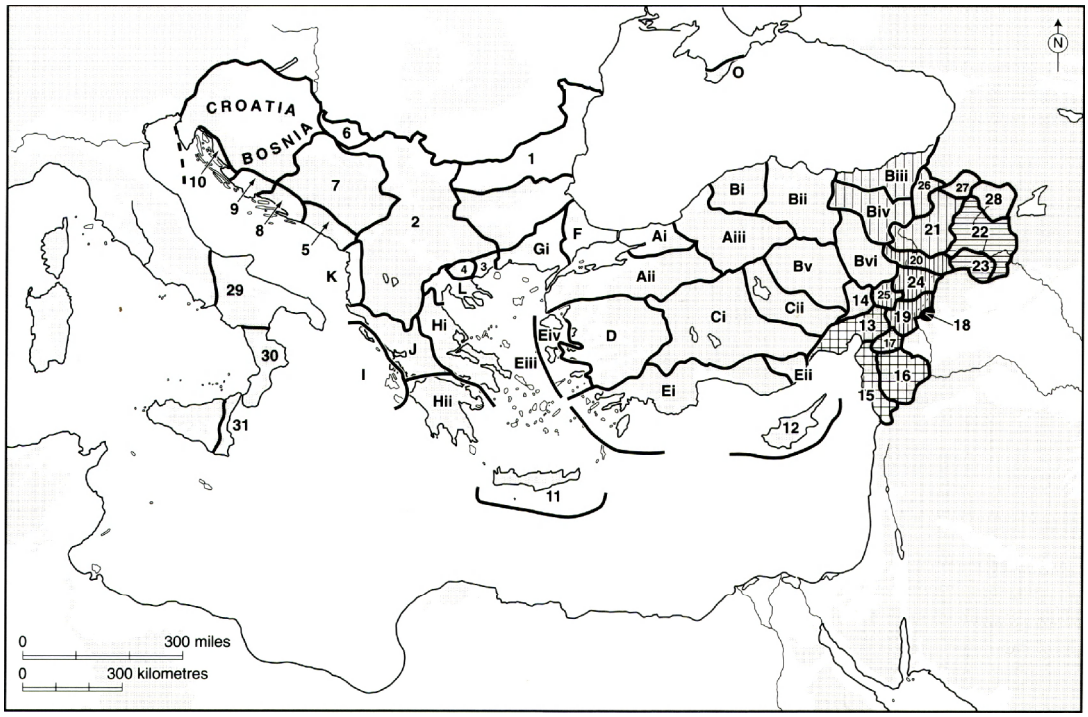


**Fig. 3.** The *themata* c. 1050 (Haldon 1999: Map VIII).

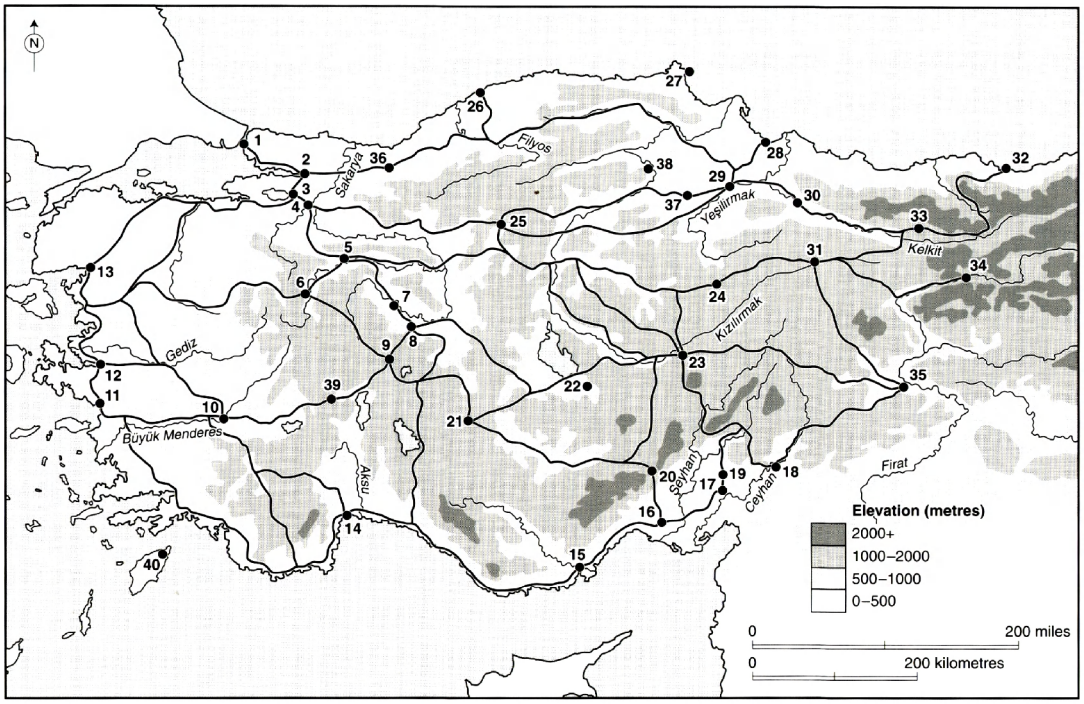


**Fig. 4.** Roads and communication lines in Anatolia.
Towns/fortresses cited in the text: 4. Malagina, 5. Dorylaion, 20. Podantos, 21. Ikonion, 22. Korone, 23. Caesarea, 24. Charsianon, 25. Ankyra, 28. Amisos, 29. Amaseia, 31. Sebasteia, 33. Koloneia, 35. Melitene. (Haldon 1999: Map IV).

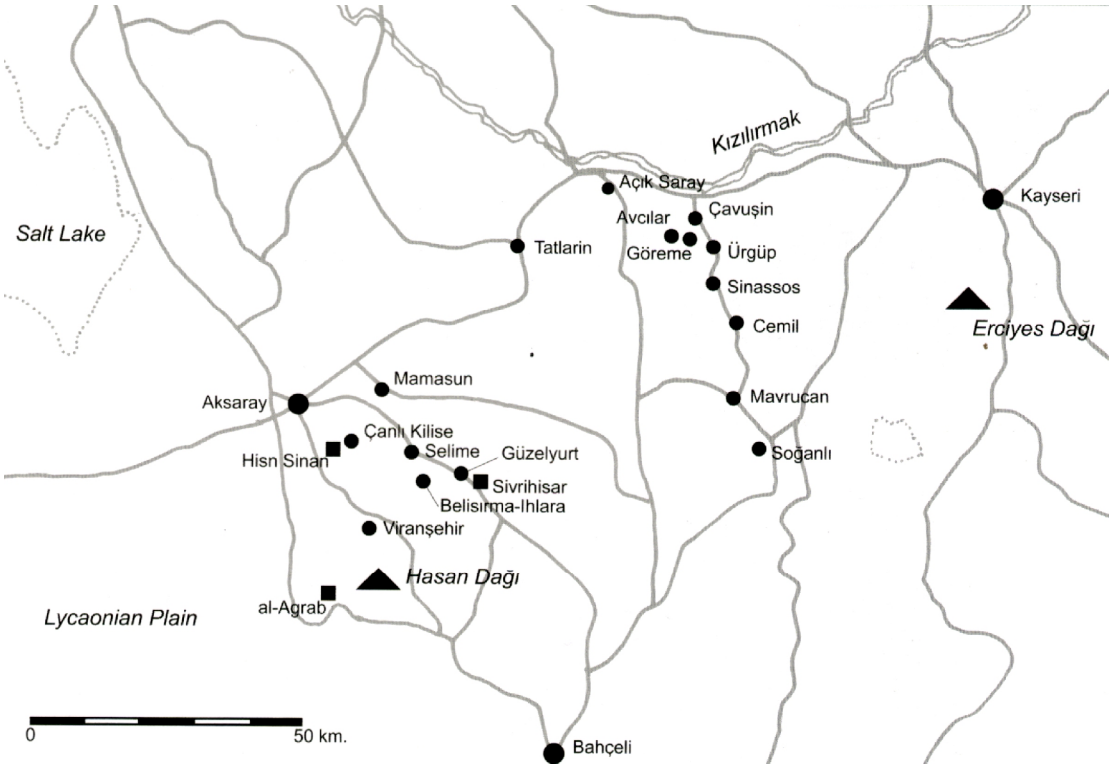


**Fig. 5.** Map of Cappadocia: the roads and major sites identified by their Turkish names. Akhisar Castle is shown as Hisn Sinan (Ousterhout 2005: Fig. 5).


**Fig. 6.** The sites discussed in the text and their topography.

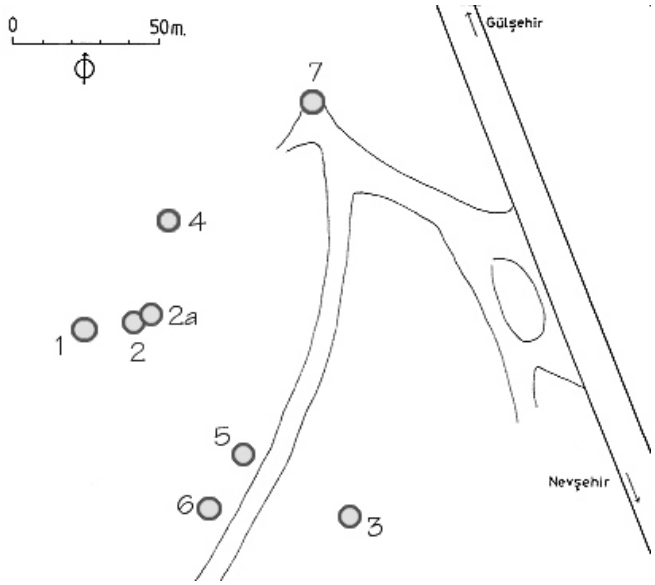


**Fig. 7.** Site map of Açık Saray (after Grishin 2002: Pl. 1)

**Fig. 8.** Mangers for sheep and goats, height: 30 cm. Stable currently functioning in Selime.

**Fig. 9.** Stable in Kaymaklı Underground City (Photo by Ertan Turgut). Mangers for sheep and goats.

**Fig. 10.** Open-air mangers for sheep and goats adjacent to a rock-cut shelter that was once a component of a courtyard complex in Selime.

**Fig. 11.** Donkey manger, height: 30 cm. Selime.

**Fig. 12.** Donkey manger, height: 60 cm. Selime.

**Fig. 13.** Manger for cattle, Height 65 cm. Selime.

**Fig. 14.** Mangers for cattle. Height 40 cm. Selime.

**Fig. 15.** Stable for draught horses with mangers 80 cm high in Selime.

**Fig. 16a.** Stable housing saddle horses for leisure purposes. Mangers 90 cm high. Göreme.

**Fig. 16b.** Stable in Göreme.

**Fig. 16c.** Stable in Göreme.

**Fig. 17.** Stable for draught horses in Selime that was once a *bezirhane*. Mangers 80 cm high.

**Fig. 18.** A multi-functional stable in Selime with diverse sized-mangers. The mangers on the right are for cattle, height: 50 cm; the low ones on the left are for sheep and goats, height: 20-30 cm, the three mangers at the rear are for horses, height: 80 cm.

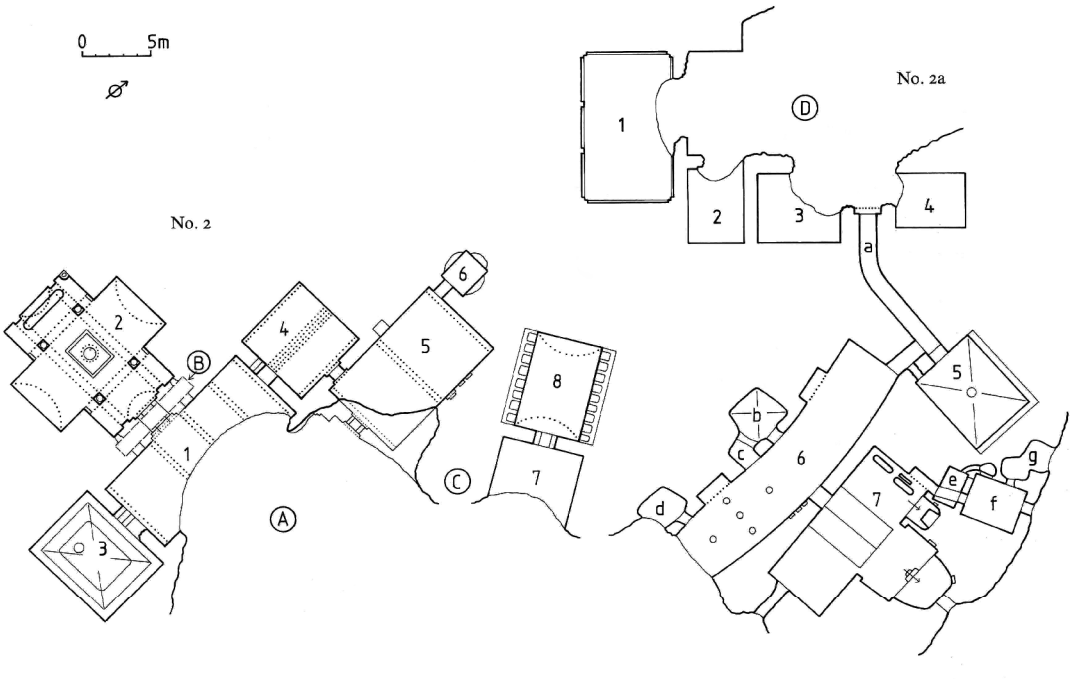


**Fig. 19.** Plan of Açık Saray Nos. 2 and 2a (Rodley 1985: 126, Fig. 20).

**Fig. 20.** Açık Saray No. 2: Stable entrance from Room 7.

**Fig. 21.** Interior of stable of Açık Saray No. 2.

**Fig. 22a.** Entrance of the stable of Açık Saray No. 2a and Room f top left.

**Fig. 22b.** Entrance of the stable of Açık Saray No. 2a.

**Fig. 23.** Interior of the stable of Açık Saray No. 2a. View from the entrance towards the longest wall where the mangers are lined.

**Fig. 24.** Detail of mangers in the stable of Açık Saray No. 2a. The floor slopes towards the center to facilitate removal or droppings.

**Fig. 25.** View from inside the stable of Açık Saray No. 2a: The entrance and the small room on the north.

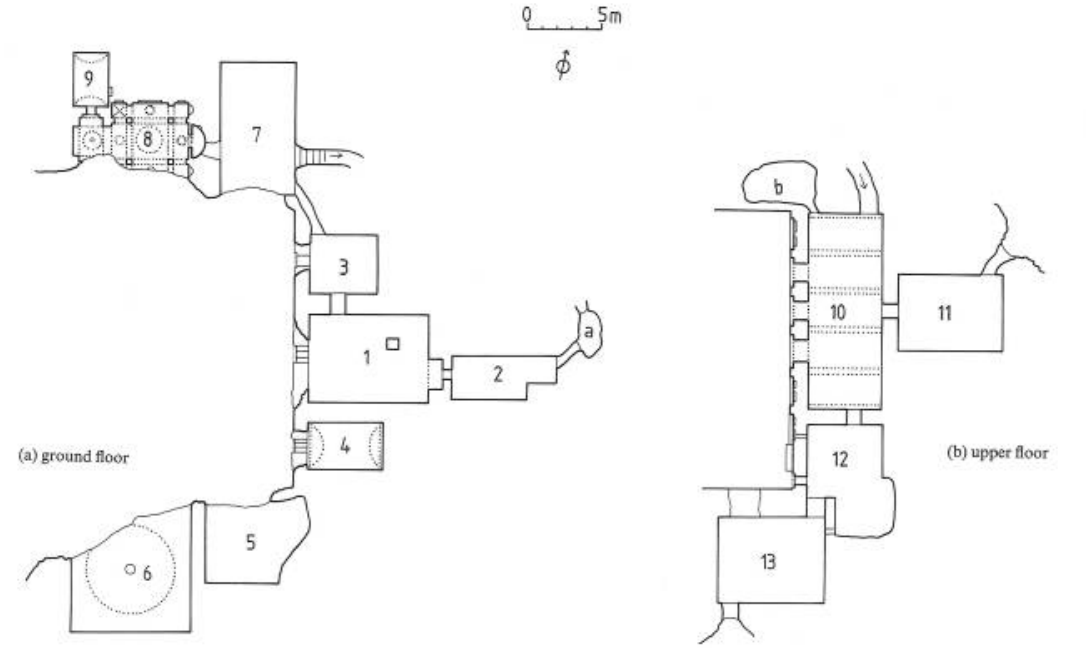


**Fig. 26.** Açık Saray No. 3 (Rodley 1985: 133, Fig. 21).

**Fig. 27.** Mangers (?) in Room 6 of Açık Saray No. 3.

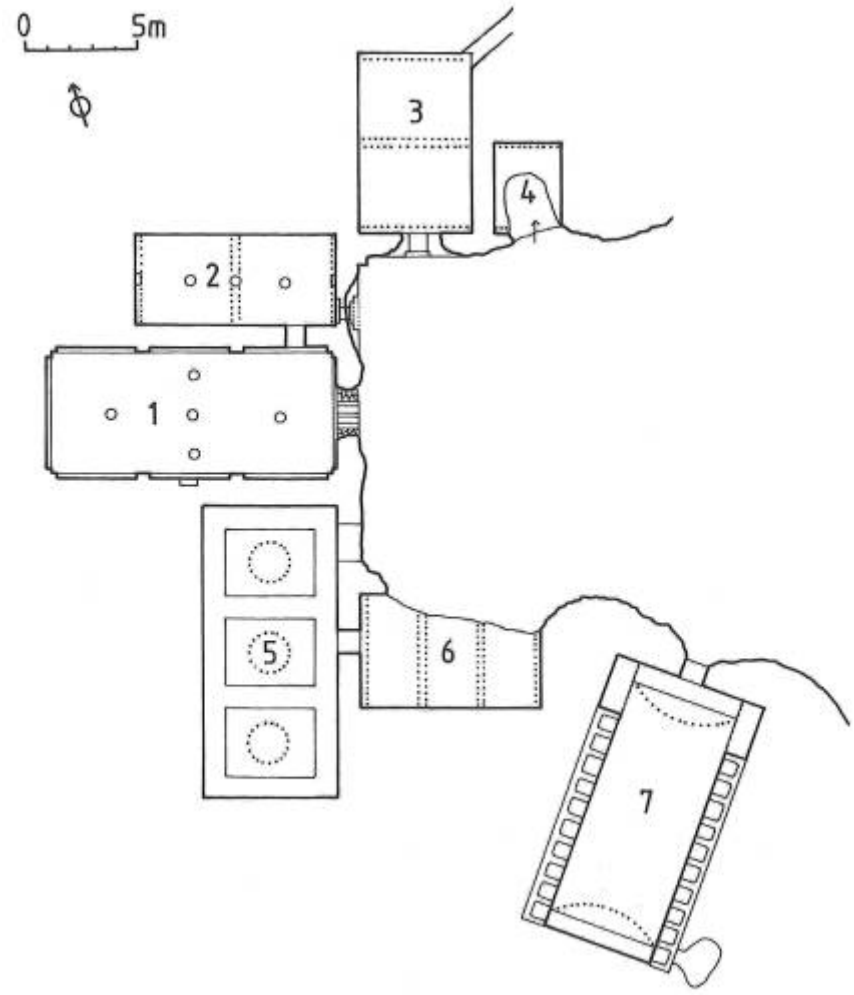


**Fig. 28.** Plan of Açık Saray No. 4 (Rodley 1985: 138, Fig. 22).

**Fig. 29.** Entrance to the stable of Açık Saray No. 4.

**Fig. 30.** Interior of the stable of Açık Saray No. 4.

**Fig. 31.** Detail of mangers in Açık Saray No. 4.

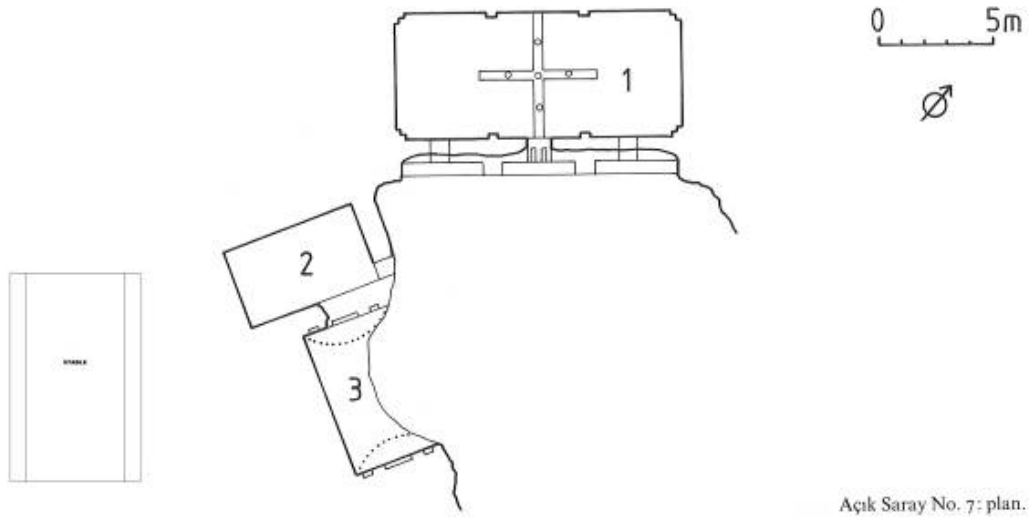


**Fig. 32.** Plan of Açık Saray No. 7. Adapted from Rodley (1985: 144, Fig. 25). The stable is added with an approximate orientation and scale.

**Fig. 33.** Façade of Complex No. 7 on the right, Room 3 projecting in the middle, the stable is entered from the low opening on the far left.

**Fig. 34.** Stable of Complex No. 7.

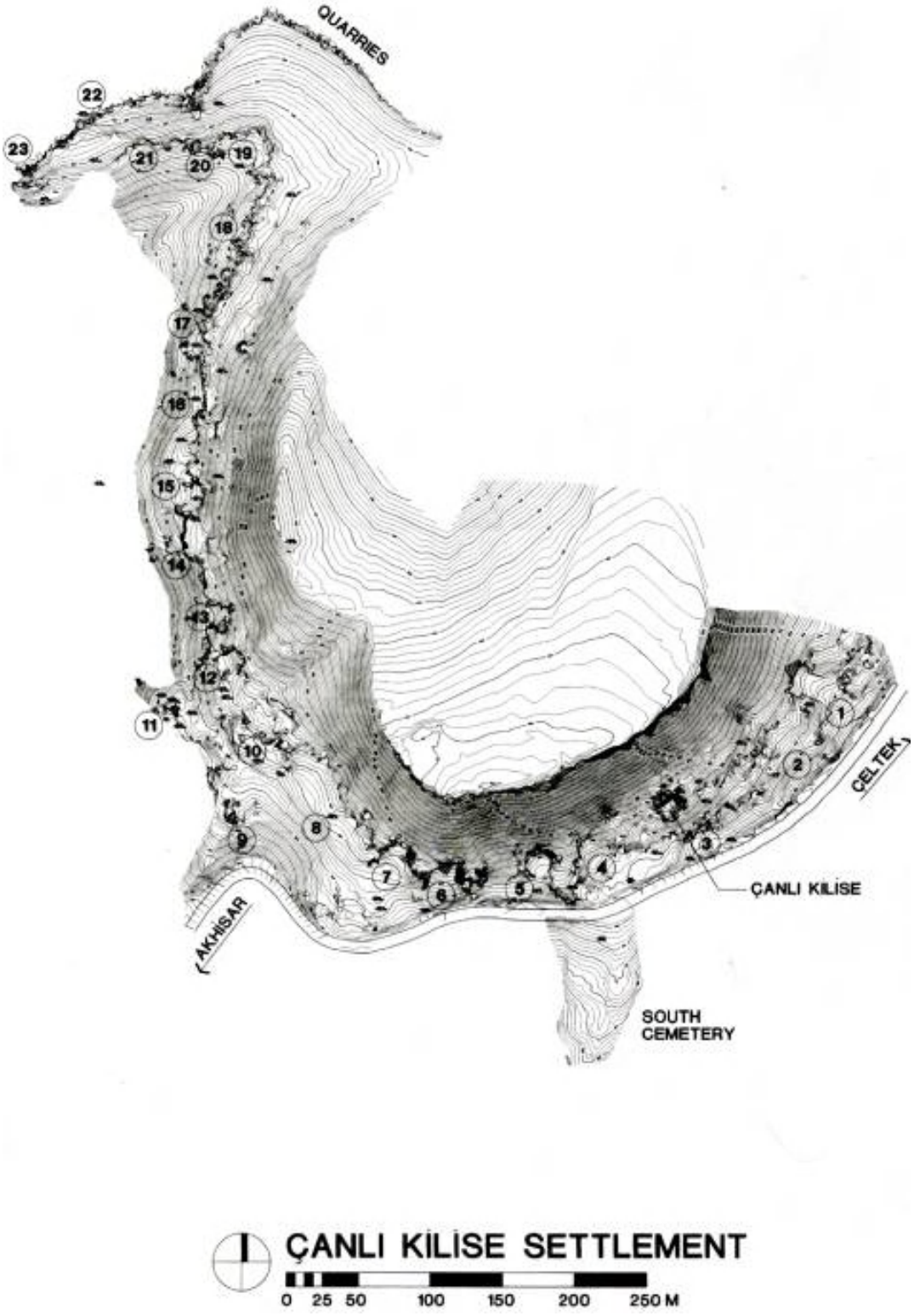


**Fig. 35.** Plan of Çanlı Kilise settlement (Ousterhout 2005: 295, Fig. 69).

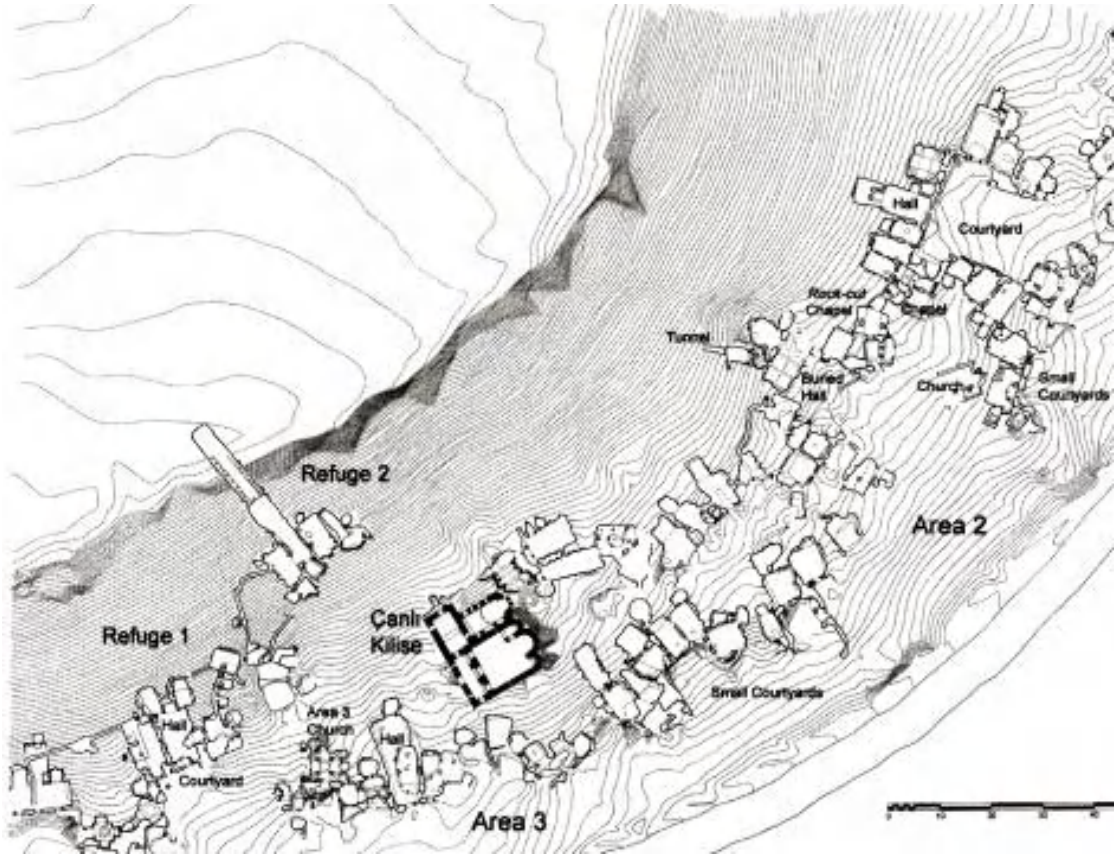


**Fig. 36.** Plan of Area I (Ousterhout 2005: 296, Fig. 70).

**Fig. 37.** Çanlı Kilise Area 1: Corridor Unit.

**Fig. 38.** Çanlı Kilise Area 1: View from inside the stable looking out. The blocked entrance of the stable is entirely buried on the outside.

**Fig. 39.** Çanlı Kilise Area 1: Stable: The bench on the southwest wall. The original entrance of the stable is on the left where the vault ends.

**Fig. 40.** Çanlı Kilise Area 1: Stable: The high mangers on the northeast wall.

**Fig. 41.** Çanlı Kilise Area 1: Stable, removed mangers on the east corner.

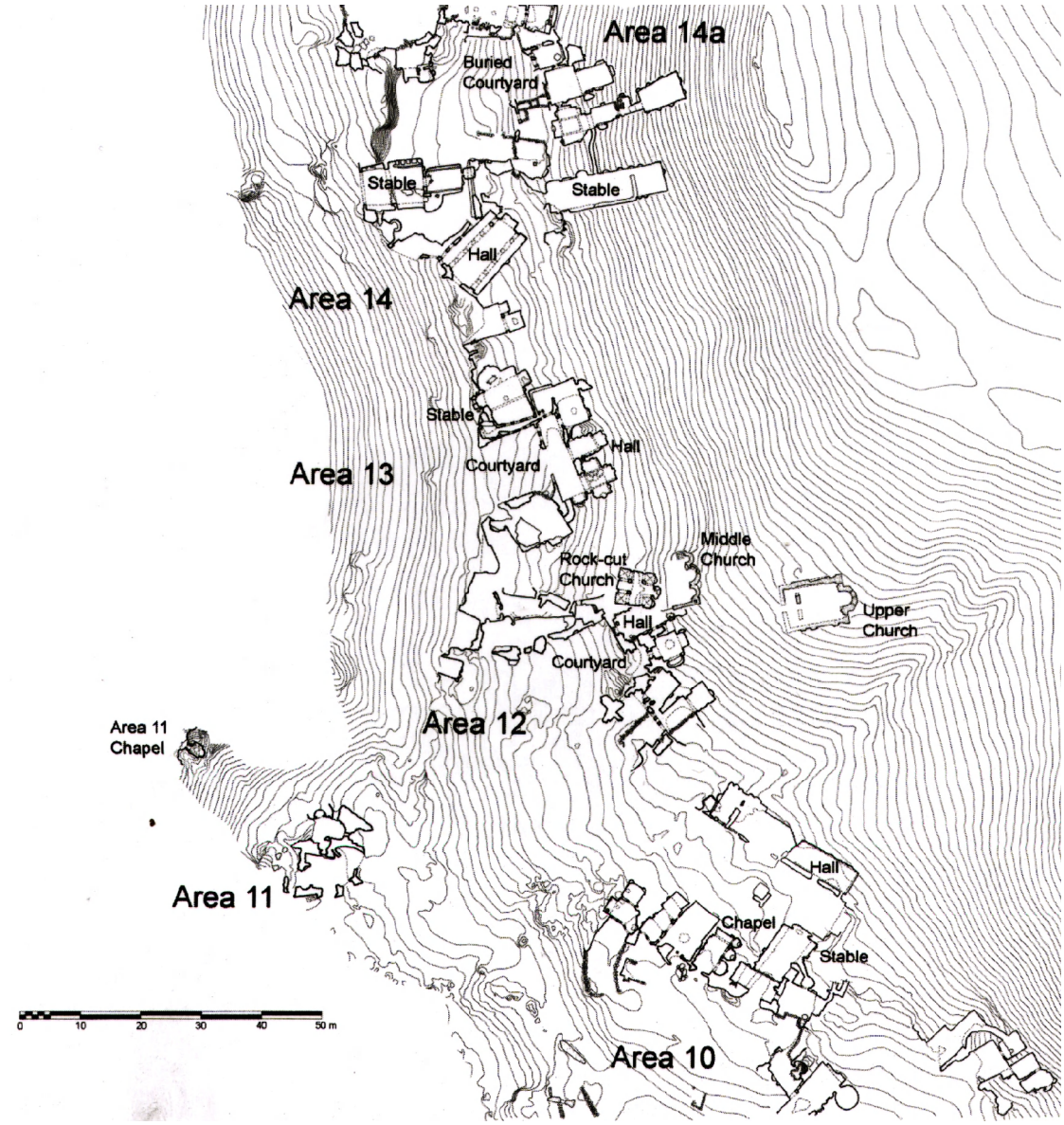


**Fig. 42.** Plan of Areas 10-14 (Ousterhout 2005: 298, Fig. 72).

**Fig. 43.** Stable in Area 10.

**Fig. 44.** Stable in Area 14. The exterior room on the front, leads to an inner one at the back.

**Fig. 45.** Detail from stable in Area 14: The mangers on the north wall of the large room on the exterior.

**Fig. 46.** Detail from stable in Area 14: The south of the large room on the exterior. Traces of mangers can be seen flanking the gate.

**Fig. 47** The second room of the stable in Area 14. The third room is visible at the rear.

**Fig. 48** Details from the mangers of the interior room.

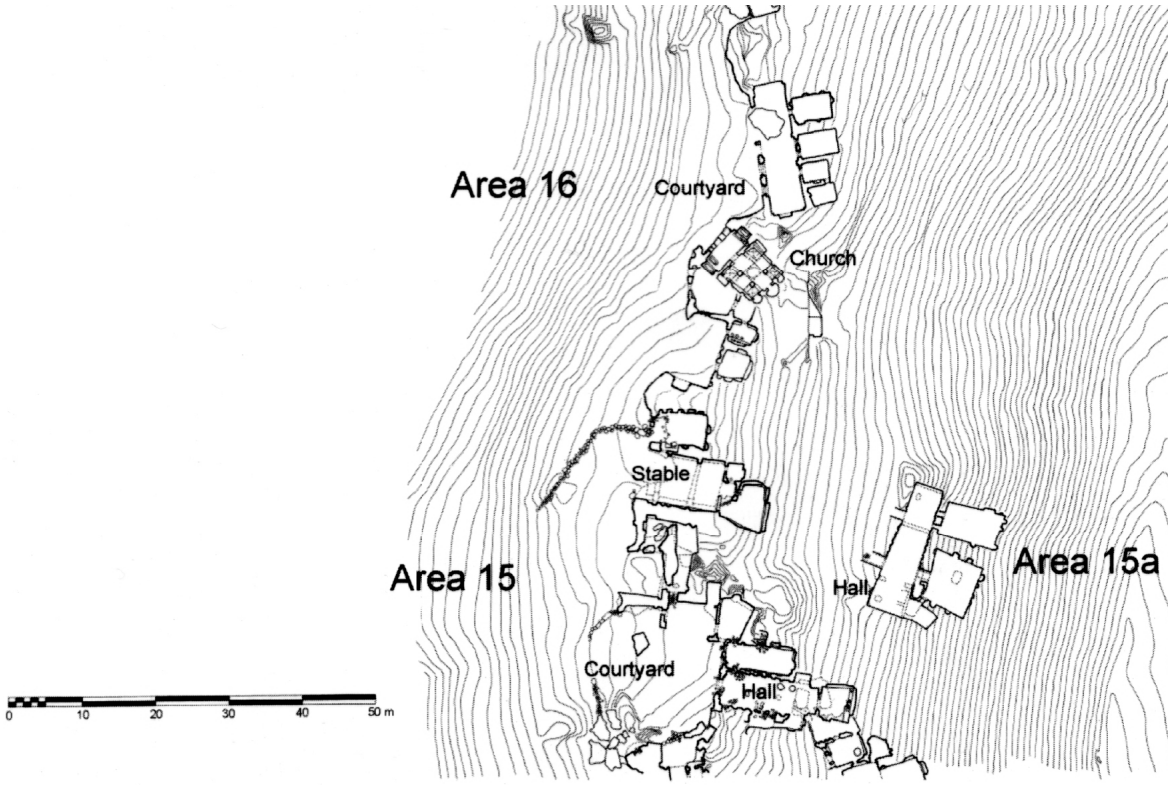


**Fig. 50.** Plan of Areas 15-16. (Ousterhout 2005: 299, Fig. 73).

**Fig. 51.** Stable in Area 15.

**Fig. 52.** Detail from the stable in Area 15: Southern wall of the exterior room. Color difference marks the removed mangers.

**Fig. 53.** Detail from the stable in Area 15: North and east walls of the second room.

**Fig. 53a.** Detail from the mangers in stable in Area 15. The partitions have been carved away over time.

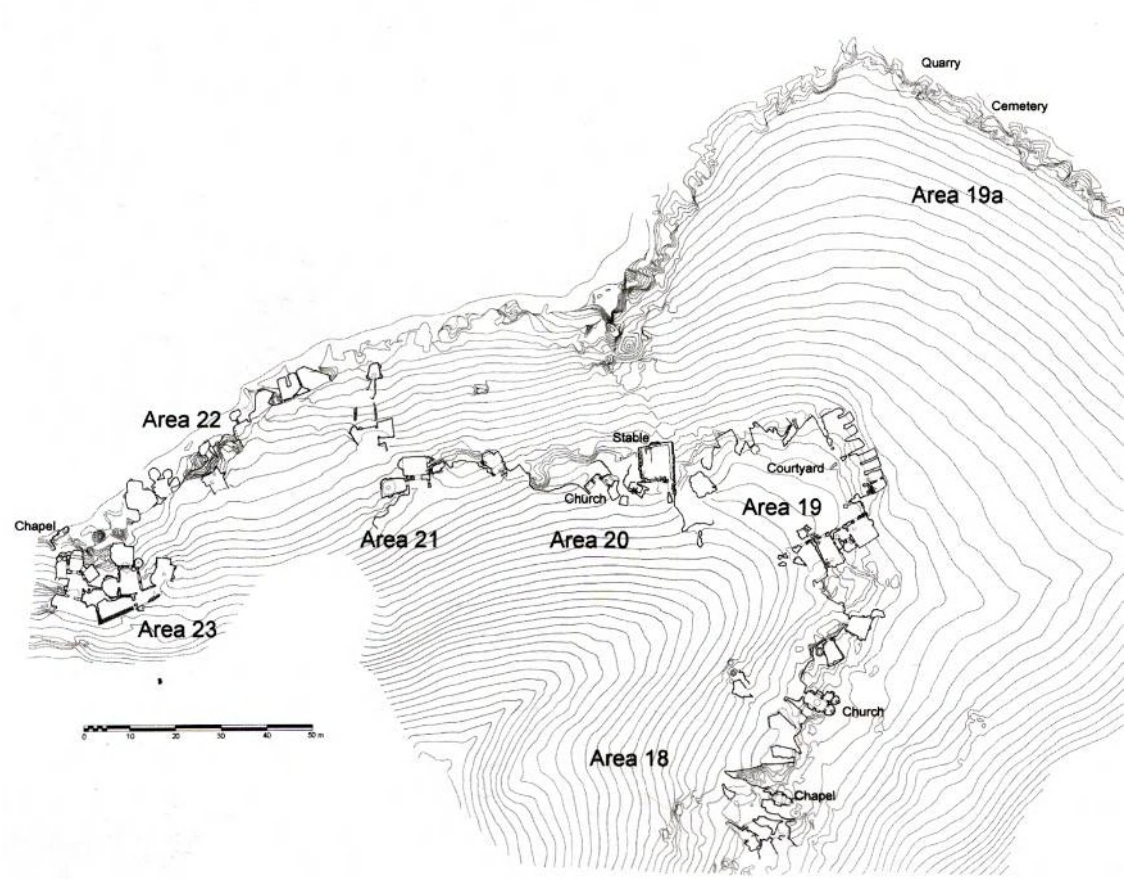


**Fig. 54.** Plan of Areas 18-23 (Ousterhout 2005: 300, Fig. 74).

**Fig. 55.** Stable in Area 20. West wall.

**Fig. 56.** Stable in Area 20. East wall.

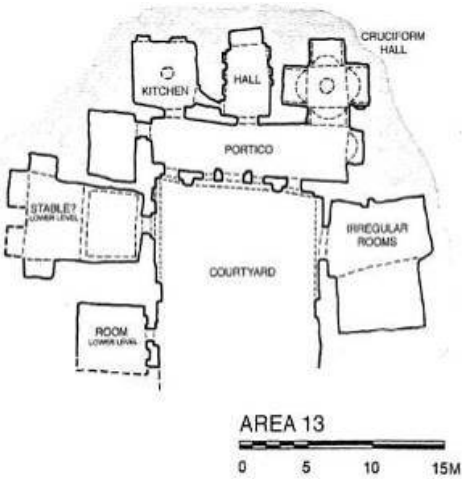


**Fig. 57.** Plan of Area 13. (Ousterhout 2005: 371, Fig. 155).

**Fig. 58** The room identified as stable in Area 13.

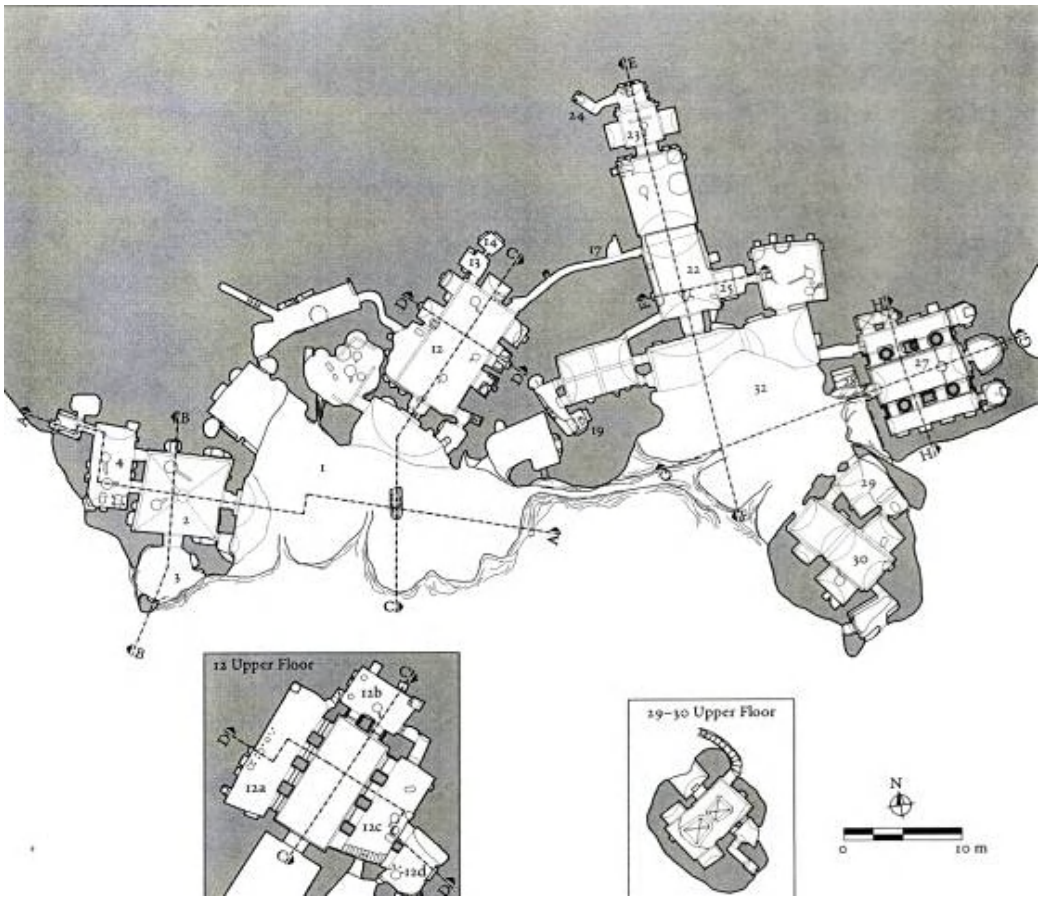

**Fig. 59.** Plan of Selime Kalesi (Kalas 2006: Fig. 9).


**Fig. 60.** Stable I in Selime Kalesi.

**Fig. 61.** Stable II in Selime Kalesi.

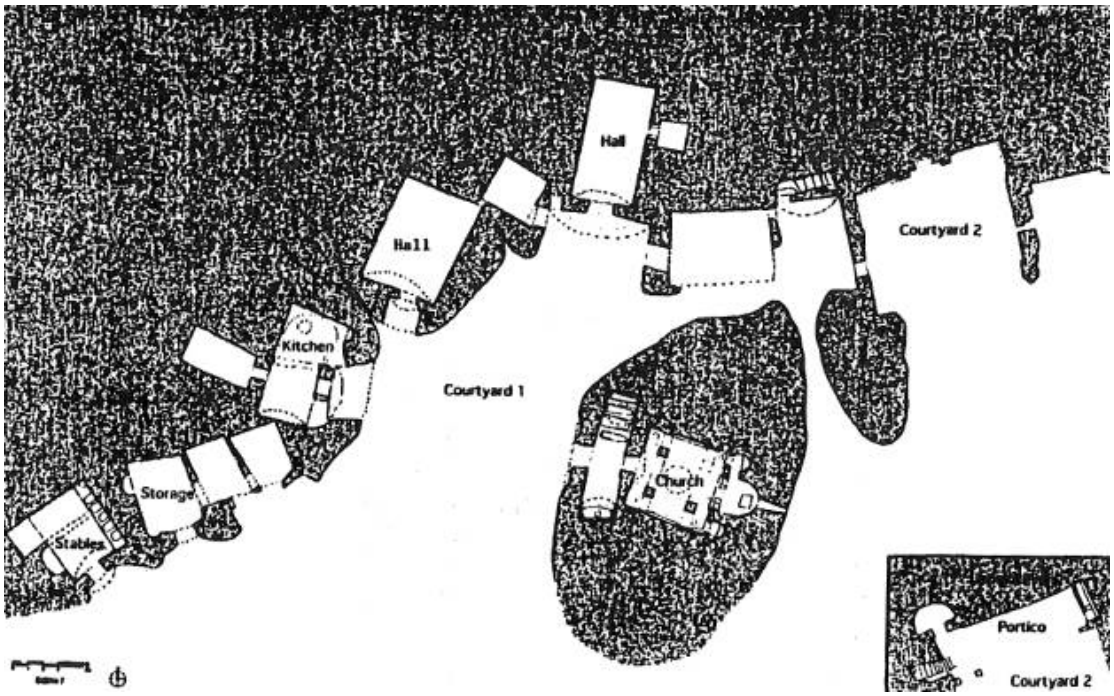


**Fig. 62.** Plan of Area 7 in Selime (Kalas 2000: Plate 61).

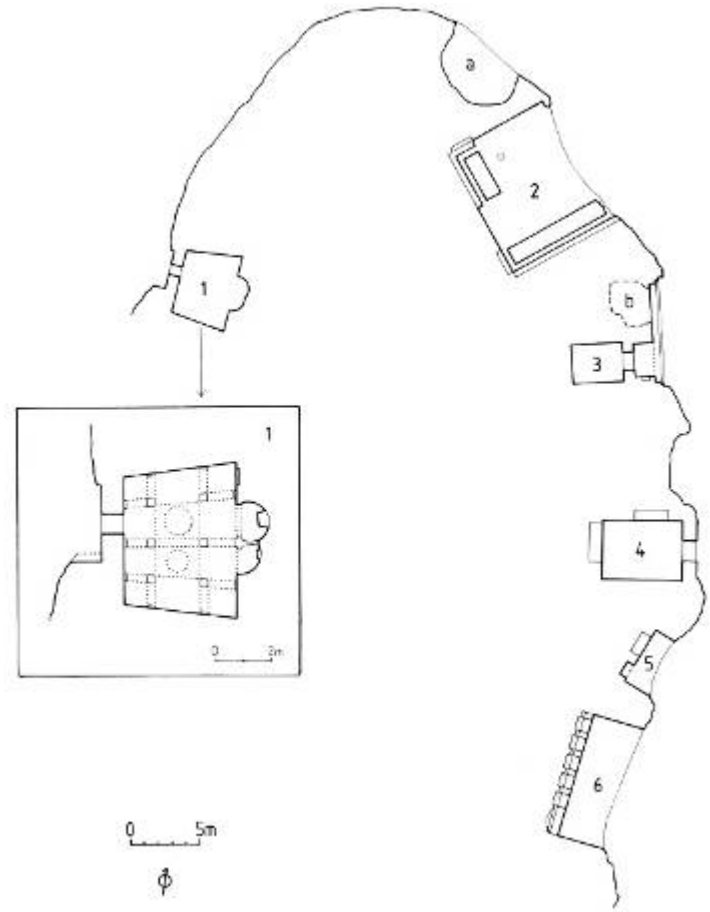


**Fig. 63.** Plan of Yusuf Koç Kilise Complex in Avcılar (Rodley 1985: 152, Fig. 28).

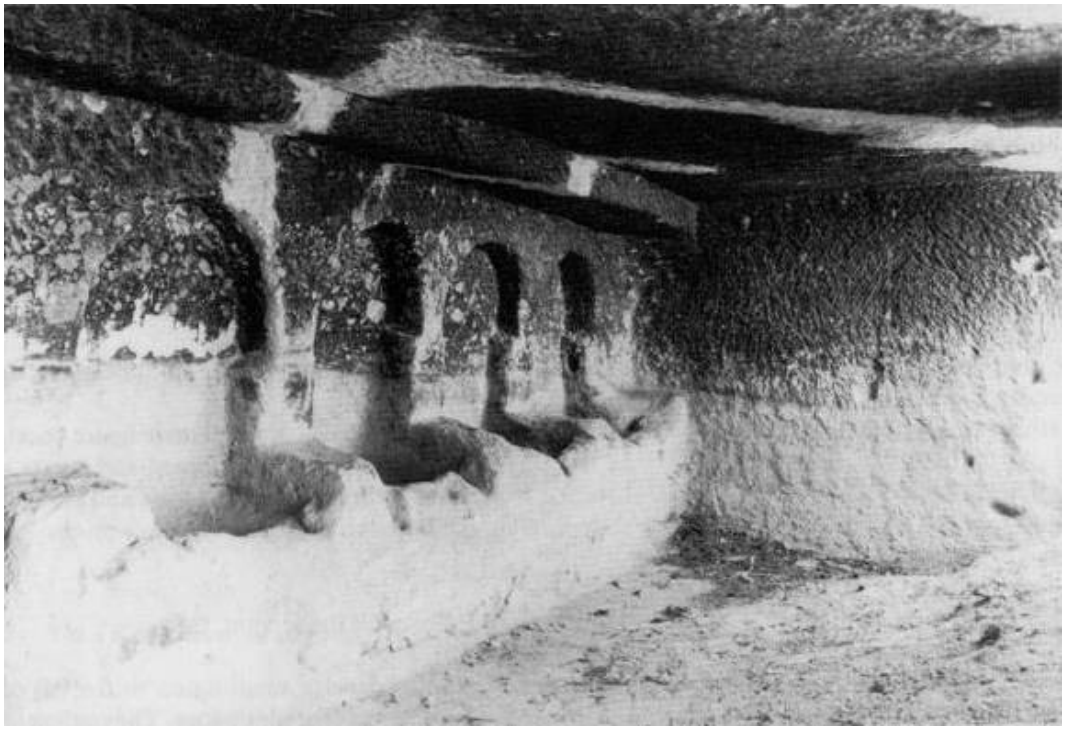

**Fig. 64.** Stable I in Yusuf Koç Kilise Complex (Rodley 1985: 155, Fig. 147).

**Fig. 65.** Stable II in Yusuf Koç Kilisesi Complex.

**Fig. 66.** Stable of Pigeon House Church.