

THE ARCHAEOLOGY OF BYZANTINE ANATOLIA

*From the End of Late Antiquity
until the Coming of the Turks*



Edited by

PHILIPP NIEWÖHNER

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*Dedicated to Wolfram Brandes
for his mentorship of Byzantine archaeology in Anatolia*

CONTENTS

List of Contributors • xi

Introduction • 1
Philipp Niewöhner

Syntheses

1. Historical Geography • 9
Johannes Koder
2. Transport and Communication • 28
Klaus Belke
3. Urbanism • 39
Philipp Niewöhner
4. Human Remains • 60
F. Arzu Demirel
5. Coins • 71
Cécile Morrisson
6. Rural Settlements • 82
Adam Izdebski
7. Fortifications • 90
James Crow
8. Houses • 109
Philipp Niewöhner
9. Monasteries • 119
Philipp Niewöhner

10. Churches • 129
Hans Buchwald and Matthew Savage
11. Rock-cut Architecture • 148
Fatma Gül Öztürk
12. Funerary Archaeology • 160
Eric A. Ivison
13. Ceramics • 176
Joanita Vroom
14. Small Finds • 194
Andrea M. Pülz
- Case Studies
15. Nicaea • 203
Urs Peschlow
16. Assos • 217
Beate Böhlendorf-Arslan
17. Pergamon • 226
Thomas Otten
18. Sardis • 231
Marcus Rautman
19. Ephesus • 238
Sabine Ladstätter
20. Priene • 249
Jesko Fildhuth
21. Miletus • 255
Philipp Niewöhner
22. Mount Latmos • 264
Urs Peschlow

23. Aphrodisias • 269
Örgü Dalgıç and Alexander Sokolicek
24. Patara • 280
Urs Peschlow
25. Olympos • 291
Yelda Olcay Uçkan
26. Side • 294
Katja Piesker
27. Sagalassos • 302
Jeroen Poblome, Peter Talloen, and Eva Kaptijn
28. Binbirkilise • 312
Mark P. C. Jackson
29. Çanlı Kilise Settlement • 321
Robert Ousterhout
30. Aezani • 327
Fabian Stroth
31. Amorium • 333
Christopher S. Lightfoot
32. Germia • 342
Philipp Niewöhner
33. Ancyra • 349
Urs Peschlow
34. Boğazköy • 361
Beate Böhlendorf-Arslan
35. Çadır Höyük • 368
Marica Cassis

- 36.** Euchařta • [375](#)
John Haldon, Hugh Elton, and James Newhard
- 37.** Amastris • [389](#)
James Crow
- 38.** Sinope • [395](#)
James Crow
- Bibliography* • [401](#)
- Indices* • [461](#)

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Introduction

Philipp Niewöhner

THE ARCHAEOLOGY of Byzantine Anatolia is of special interest, because Anatolia was the only major part of the Roman Empire that did not fall in late antiquity. Anatolia remained continuously under Roman rule through the eleventh century, long after the western empire had been taken over by various Barbarian peoples, the Balkans invaded by Slavs, and the Near East as well as North Africa conquered by the Islamic Caliphate. After the Fall of Rome, Anatolia was ruled from Constantinople, which used to be called Byzantium until Constantine the Great established his new capital there. From then on the eastern Roman Empire is also called the Byzantine Empire in modern scholarship, but the “Byzantines” themselves did not use that term and continued to think of themselves as Romans. The archaeology of Byzantine Anatolia does in fact comprise the last centuries of Roman rule.

In contrast to other, lost parts of the empire, Byzantine Anatolia can show what difference Roman administration continued to make once pan-Mediterranean rule had collapsed. This also reflects on the preceding Roman Empire and its extraordinary bloom and prosperity that appears to have depended more on the large size of the empire and less on *Romanitas*, in so far as the latter was much less successful when the Roman state was reduced to Byzantine Anatolia. Accordingly, the empire’s early medieval successor states in the West and the Islamic Caliphate in the East may be better appreciated if compared with the contemporary Byzantine rump state in Anatolia rather than with the vast pan-Mediterranean realm of the preceding Roman Imperial period.¹

In addressing these issues, archaeology is essential. The few surviving written sources are insufficient to establish Byzantine Anatolia as an independent case study; on their own, the written sources can be interpreted only in analogy with other case studies from outside Byzantine Anatolia, which, as the history of research has shown (see below), leads to contradictory results that depend on the chosen analogies or models rather than do justice to the uniqueness of Anatolia as the only surviving part of the Roman Empire.

1. Cf. McCormick, *Origins of the European Economy*; Wickham, *Framing the Early Middle Ages*.

Thanks to archaeology we now know that urban decline did not set in before the fifth century, after Anatolia had already been thoroughly Christianized in the course of the fourth century; that urban decline was paired with rural prosperity, an increase in the number, size, and quality of rural settlements and in rural population; that this ruralization was halted during the seventh to ninth centuries, when Anatolia was invaded first by the Persians and then by the Arabs and the population appears to have sought shelter behind new urban fortifications and in large cathedrals; that once the Arab threat was over in the ninth century, ruralization set in again and most cities seem to have been abandoned or reduced to villages during the middle Byzantine period, while the countryside experienced renewed prosperity and a resurgence of small rural church buildings; and that this trend was reversed once more, when the Seljuk Turks appeared on the scene in the eleventh century, devastated the countryside, and led to a revival and refortification of the former cities.

As far as Roman urbanism is concerned, the onset of ruralization in the fifth century appears as the turning point, after which the ancient tradition was irretrievably lost. The ceramic repertoire was most strongly affected in the seventh century, when the import of Near Eastern and North African wares came to an end and new local products emerged instead. The issue of new coinage also broke down in the seventh century, but old coins continued to circulate, and the causes as well as the effects of this monetary policy are as yet unclear. Church building prospered, most importantly in the form of large urban cathedrals, until the middle Byzantine ruralization shifted the focus to small rural foundations with little relevance for the history of architecture. Monasteries survive mostly in the countryside, from both the early and the middle Byzantine periods, but the tradition seems to have lapsed during the intermediate Invasion Period (seventh to ninth centuries), and most middle Byzantine monasteries were new foundations. In contrast, houses that are also attested mostly in the countryside appear to have undergone a continuous development from the early to the middle Byzantine periods.

On the whole, the case of Byzantine Anatolia shows that Roman rule and urbanization were not synonymous. Anatolia became thoroughly ruralized during the last half-millennium of Roman rule. Prosperity appears to have been independent of both Roman rule and urbanization, as the early Byzantine period was already ruralized, but still prosperous, while the later Byzantine periods were still Roman, but not prosperous anymore. Prosperity failed when the Arabs conquered the Near Eastern and North African provinces and the empire was reduced to little more than Anatolia. Size seems to have mattered more than *Romanitas*. The later Byzantine Empire appears to have been too small to uphold prosperity on the earlier scale and to have gained little by escaping the Barbarian migrations and by acquiring a relatively homogeneous identity, ethnically, language-wise, and also in respect to Orthodox Christianity.

In comparison, the strength of the earlier Roman Empire as well as its later successor states, the medieval Roman Empire in the West and the caliphates in the Near East, appears to have been derived from size and the ability to integrate smaller neighbors. The Roman Empire fell when it failed to integrate

Barbarians, who—in the shade of the overpowering empire—were left with no other option but to join a political unit that was large enough to ensure prosperity. Once the Roman Empire had given way to the Barbarians, Byzantium seems to have survived for another half-millennium mainly because it was small enough not to be in anybody's way. The caliphate could expand in other directions, showing little interest in permanently occupying Anatolia with its alien Greek-speaking and Christian population. Thus, when the Turks arrived on the scene in the later eleventh century, the marginalized and impoverished Byzantine rump state was the weakest player in the region and gave way first.

HISTORY OF RESEARCH

When Byzantine archaeology started to be practised in the twentieth century, the ground had been prepared by historians, travelers, and art historians. The eighteenth-century historian E. Gibbon dedicated an enlightening study to *The History of the Decline and Fall of the Roman Empire*, including the Byzantine period, and identified the rise of Christianity as a main reason for the breakdown of the empire.² This was before, around the turn of the twentieth century, European travelers started to document and publicize late antique and Byzantine churches as some of the finest monuments of Anatolia.³ Consequently, the Viennese art historian J. Strzygowski hailed Byzantine Anatolia as worthy of art-historical research and, in 1903, published a scholarly monograph on some of the churches.⁴ The number of known monuments has greatly increased ever since, as more and more ancient cities started to be excavated in the course of the twentieth century,⁵ followed in more recent years by archaeological surveys of the rural hinterland.⁶

The proliferation of archaeological evidence led C. Foss in the 1970s to oppose the notion of decline.⁷ According to his scenario, the Christian empire remained prosperous throughout late antiquity and the early Byzantine period, which was followed by a sudden collapse due to a cocktail of catastrophic events, the outbreak of the plague in the mid-sixth century, the Persian war in the early seventh century, and the Arab invasion as well as the loss of pan-Mediterranean rule thereafter. More recently, W. Liebeschuetz made a distinction between a prosperous earlier late antiquity including the Theodosian period, until the middle of the fifth century, and “late” late antiquity thereafter, when urban decline set in well in advance of the before-mentioned catastrophic events.⁸

2. Gibbon, *Decline and Fall*.

3. e.g. Rott, *Denkmäler*; Ramsay/Bell, *Churches*.

4. Strzygowski, *Kleinasien*.

5. Since 1979, annual reports are published in *Kazi Sonuçları Toplantısı* and all but the first volume have since become available online at <http://www.kulturvarliklari.gov.tr/TR,44760/kazi-sonuclari-toplantilari.html>.

6. Since 1983, annual reports are published in *Araştırma Sonuçları Toplantısı* and have since become available online at <http://www.kulturvarliklari.gov.tr/TR,44761/arastirma-sonuclari-toplantilari.html>.

7. Foss, “Persians in Asia Minor”; Foss, “Archaeology and the ‘Twenty Cities’.” Cf. Whitton, “Ruling the City.”

8. Liebeschuetz, *Decline and Fall*.

Liebeschuetz therefore returned to the concept of gradual decline, which he blamed mainly on a changed administrative regime,⁹ which disadvantaged the cities and alienated the urban elites.¹⁰

Most recently, and as outlined in this volume, the notion of general decline is again being challenged by archaeological evidence for rural prosperity during “late” late antiquity or the early Byzantine period. In addition, the scenario of urban collapse due to plague, Persian war, and Arab invasions, which was based mainly on ceramics and coins or the absence thereof, is being qualified by a re-evaluation of these genres. Other evidence indicates urban continuity during the Invasion Period. Afterwards, when according to Foss’s catastrophic scenario urbanism should have recovered again during the peaceful middle Byzantine period, most cities appear to have finally disintegrated. Dependable archaeological evidence for the later Byzantine periods is becoming available for the first time, and this requires as well as enables the devising of a scenario that extends beyond late antiquity through the Seljuk Turkish conquest of Anatolia.

PERIODS AND THEMES

The volume in hand aims to account for the period from the later fifth to the eleventh centuries, that is from the Fall of Rome and the collapse of the Western Roman Empire through the breakup of the Eastern Roman Empire and loss of pan-Mediterranean rule until the Turks arrived in Anatolia. Earlier late antiquity until the mid-fifth century, including the last urban building boom around AD 400 during the Theodosian period, when Anatolia still shared roughly the same fate as many other parts of the late empire, is mentioned only in passing. This earlier period is relatively well attested both in the written sources and in the archaeological record, well researched, understood, and published, and serves as a starting point for the account in hand that covers the next six centuries or so. This brings the story up to the later eleventh century, when the arrival of the Turks reduced Romano-Byzantine rule in Anatolia to the northwestern provinces and brought about fundamental changes in historical geography, material culture, and the archaeological record. What followed is beyond the scope of this volume, because the Roman tradition had already lapsed earlier on during the early and middle Byzantine periods, in the countryside as well as in most cities, and because the latest period of Byzantine-Turkish coexistence would require a different approach and expertise.

Thematically, the volume is divided into a dozen syntheses that each addresses an issue of general interest for the archaeology of Byzantine Anatolia, and two dozen case studies on individual sites. The syntheses deal mainly with the historical topography (chapters 1 and 2), settlement history (chs. 3–7), history of architecture (chs. 7–11), and some aspects of material culture (chs. 12–14). Other topics like dress or social practices do not (yet) lend themselves to a

9. Cf. Brandes/Haldon, “Towns, Tax, and Transformation.”

10. Cf. Laniado, *Notables*.

regional, Anatolian approach and will have to wait until future excavations provide more and better evidence; yet other topics like early Byzantine floor mosaics are relevant to only one period and, beyond their disappearance and replacement with other forms of flooring, contribute little to the understanding of what went on in Anatolia during the Invasion Period and thereafter.¹¹ For the same reason, the case studies are focused on such settlements that have yielded datable evidence for the whole time under investigation. The case studies are arranged in counterclockwise geographical order, starting with Nicaea in the northwest (ch. 15), followed by the Aegean region (chs. 16–23) and the south coast (chs. 24–26), then central Anatolia from south to north and west to east (chs. 27–36), and finally the Black Sea coast (chs. 37–38). At other sites, for example at Andriake in Lycia,¹² the archaeological record lapses after the early Byzantine period, and yet other sites, particularly fortifications, seem to have been established later, both of which are duly recorded in the relevant syntheses, but not discussed in separate case studies, as they would not lend themselves to an investigation of the overall development.

GEOGRAPHICAL, CHRONOLOGICAL, AND FORTIFICATION TERMS

In principle, “Anatolia” and “Asia Minor” are synonymous terms.¹³ However, in a Mediterranean context the scholarly literature tends to prefer “Asia Minor,” for example with reference to ancient harbor cities like Ephesus and Miletus.¹⁴ “Anatolia” is more often employed when the focus is on the inland, in particular the central Anatolian High Plateau.¹⁵ During the Byzantine period the inland gained in importance relative to the harbor cities, as many of their former overseas connections were severed and the center of gravity shifted from the Mediterranean Sea to the Anatolian landmass, and Byzantine scholarship tends to use that term.¹⁶

11. Cf. Scheibelreiter-Gail, *Mosaiken*.

12. Niewöhner, “Andriake.”

13. See chapter 1 on historical geography in this volume.

14. e.g. Biraschi, *Strabone e l'Asia Minore*; Cormack, *Space of Death in Roman Asia Minor*; Dally/Ratté, *Archaeology and the Cities of Asia Minor*; French, *Roman Roads and Milestones of Asia Minor*; Spanu, “Burial in Asia Minor”; Uytterhoeven, “Bathing in ‘Western Style’: Private Bath Complexes in Roman and Late Antique Asia Minor.”

15. e.g. Mitchell, *Anatolia*; Baird, “Settlement Expansion on the Konya Plain, Anatolia”; French, “A Study of Roman Roads in Anatolia”; Harl, “From Pagan to Christian in Cities of Roman Anatolia.”

16. e.g. Arthur, “Hierapolis of Phrygia: the Drawn-out Demise of an Anatolian City”; Barnes/Whittow, “Survey of Medieval Castles of Anatolia”; Cottica, “Perspectives on Pottery Production and Exchange in Late Roman and Byzantine Anatolia”; Izdebski, “Economic Expansion of the Anatolian Countryside in Late Antiquity: The Coast versus Inland Regions”; Lightfoot, “Trade and Industry in Byzantine Anatolia”; Poblome/Vanhaverbeke/Vionis/Waelkens, “What Happened after the 7th Century AD? A Different Perspective on Post-Roman Rural Anatolia”; Rheidt, “City or Village? Housing and Settlement in Middle and Late Byzantine Anatolia”; Roodenberg, “The Byzantine Graveyards from Illipinar and Barcin in Northwest Anatolia”; Trombley, “War, Society, and Popular Religion in Byzantine Anatolia”; and Vryonis, “Problems in the History of Byzantine Anatolia.”

Unless otherwise stated, dates are always AD/CE. “Late antiquity” may be understood to start as early as the third century and to last into the seventh century, but in this volume the term “early Byzantine” is given preference from the fifth century onwards, because it expresses proximity to the “middle Byzantine” period. Notwithstanding other usages in some scholarly literature, the “early Byzantine” period is here understood to end in the seventh century, when the Persian war and Arab invasions resulted in considerable change. The “Invasion Period” has sometimes been called a “Dark Age” due to a lack of source material,¹⁷ but considering the increasing amount of archaeological evidence for this period, such a term appears to be misleading. Peace returned in the ninth century and brought about the “middle Byzantine” period that lasted until the Turkish conquest in the late eleventh century and thereafter.

Fortifications may be either extensive “city walls” or small “fortresses,” some of which may be no larger than a defensive house. Intermediary cases may conveniently be called *kastra*, particularly where this term is also used in contemporary Byzantine sources, for example in the case of Miletus, the *Kastron ton Palation*. City walls, fortresses, and *kastra* may include smaller “citadels,” for example the city of Miletus and the fortress/*kastron* of Ancyra. Byzantine fortresses or *kastra* have also been called “castles” in the scholarly literature,¹⁸ but this volume avoids the term due to its Western medieval connotations, which do not apply in Byzantine Anatolia.¹⁹

SPELLING

The English spelling of Greek toponyms gives preference to whatever form appears to be in common use. This varies greatly. Famous ancient or Christian sites are often latinized, for example Nicaea. The same vowels are sometimes transliterated and sometimes transcribed, for example Balboursa and Prusa, but also Pompeiopolis. “Makri” transliterates κ as *k*, but transcribes η as *i*.

17. e.g. Ivison, “Amorium in the Byzantine Dark Ages”; Vroom, “New Light on ‘Dark Age’ Pottery”; Vionis/Poblome/Waelkens, “Hidden Material Culture of the Dark Ages.”

18. Barnes/Whittow, “Survey of Medieval Castles of Anatolia”; Crow, “Byzantine Castles or Fortified Places in Paphlagonia and Pontos”; Foss, *Kütahya* (Survey of Medieval Castles in Asia Minor 1).

19. See chapter 7 on fortifications in this volume.

Syntheses

CHAPTER ONE

Historical Geography

Johannes Koder

SOURCES FOR reconstructing the historical geography of Byzantine Anatolia¹ can be divided into four partially overlapping categories:² (1) natural preconditions; (2) material evidence of human land use; (3) place-names; and (4) written sources.

1. Natural preconditions include the surface geography in general and events of a different kind: earthquakes, seaquakes, and other geologic incidents; various forms of wind and water erosion; changing water level of lakes, e.g. at the lake of Nicaea/İznik Gölü;³ changes in the course of rivers, e.g. the Sangarius/Sakarya; expansion of river estuaries along the western coast of Asia Minor, e.g. Hermus/Gediz, Maeander/Büyük Menderes, and Indus/Dalaman; and, finally, the climate and its changes during the Byzantine period.⁴
2. Material evidence of human land use consists of anthropogenic landscape changes as a consequence of agriculture, water management, and lumbering, e.g. terracing, dike construction, and deforestation that may result in erosion and other changes in the landscape.⁵ Also of importance are all types of archaeological and monumental remains—especially churches and monasteries also from the post-Byzantine period, as they are likely to continue earlier foundations because Ottoman law prohibited in principle the building of new churches.⁶ Natural preconditions and anthropogenic landscape changes may from time to time have a stronger effect on the changing importance of central places and of trade routes than do temporary political and economic events.

1. I am grateful to Klaus Belke, Friedrich Hild, Andreas Külzer, Peter Soustal (Vienna), and Philipp Niewöhner for valuable additions, suggestions, and improvements.

2. Koder, "Handelsüter und Verkehrswege."

3. Geyer/Dalongeville/Lefort, "Niveaux du lac de Nicée."

4. For a manual of the written sources about climatic events in Byzantium, see Telelis, *Μετεωρολογικά*.

5. Geyer, "Physical Factors"; Izdebski, "Changing Landscapes"; Koder, *Lebensraum*, pp. 45–50, 56–59.

6. Legal bases: 1839 Hatt-ı Şerif, 1856 Hatt-ı Hümayün; see Fattal, *Statut légal*, pp. 174–203; Binswanger, *Status der Nichtmuslime*, pp. 64–127.

3. Place-names, i.e. toponyms, names of regions and mountains, hydronyms, etc., may inform about topographical details like the type, size, and importance of a place or region, as well as the ethnic origin of its inhabitants. Changes in ethnicity may be reflected in morphological adaptation to another language, e.g. *Pegae* › [Kara-]Biğā; translation, e.g. *Pentegephyra* › *Beşköprü*; or replacement, e.g. *Dorylaeum* › *Eskişehir*.⁷
4. Written sources include literary texts, other documents, and inscriptions. Isolated information on geographical, topographical, and climatic matters is scattered across most of the Byzantine literary genres. They also offer information about the changing settlement terminology, e.g. *agridion*, *kastron*, *kome*, *komopolis*, *polis*, *proasteion*, *stasis*, *chora*, and *chorion*. Descriptions of landscapes, cities, and isolated monuments may be found in highbrow *ekphraseis*. However, the scholarly interest in geography and topography was almost exclusively limited to copying, reproducing, and commenting on antique and late antique works on cosmography and geography, above all Strabo, Dionysius Periegetes, and, later, Ptolemy.⁸ The scientific level of theory and practical information of these texts was deemed sufficient until the late Middle Ages.⁹ The first Byzantine scholar who attempted to improve and extend the knowledge about the boundaries of the Ecumene since late antiquity was Plethon in the fifteenth century.¹⁰

Apart from the *epitome* of Stephanus Byzantinus' "Ethnika," an early-sixth-century listing of ethnic and place-names,¹¹ and some Byzantine and foreign travelogues and portolans,¹² most of which survive in post-Byzantine manuscripts,¹³ only a few texts with practical information about the administrative geography of the state and the church exist. The following four are the most useful in the context of this chapter: (1) Hierocles' *Synekdemos*¹⁴ ("Traveling Companion"), a list of cities of the eastern provinces that dates from the mid-fifth century, with additions from 527/8; (2) Constantine Porphyrogenitus' *On the Themes*,¹⁵ a catalogue of the *themes* with short comments on their names and history, dating

7. Schramm, *Eroberer und Eingesessene*; Soustal, "Place Names"; Soustal, "Rolle der Toponyme." See also Georgacas, *Names for Asia Minor*.

8. Hunger, *Hochsprachliche profane Literatur*, vol. 1 pp. 505–42; *Oxford Dictionary of Byzantium* II, Oxford 1991, pp. 833–34 s.v. "Geography" (A. Kazhdan); Biraschi, *Strabone e l'Asia Minore*; Magdalino, "Constantine VII"; Külzer, "Byzantine Geography."

9. Koder, "Soppravvivenza e trasformazione."

10. Diller, "Geographical Treatise"; Koder, "Παρατηρήσεις στα γεωγραφικά."

11. Stephanus Byzantinus, *Ethnika*, ed. A. Meineke, Berlin 1849; eds. M. Billerbeck/J. F. Gaertner/B. Wyss/Ch. Zubler, *Ethnica* (Corpus Fontium Historiae Byzantinae 43), Berlin 2006–2011.

12. e.g. the twelfth-century Italian *Compasso da navigare*, ed. B. R. Motzo, Cagliari 1947, and the eleventh-century Arabic *Book of Scientific Curiosities and Pleasures to Look At*, eds. Y. Rapoport/E. Savage-Smith/J. Johns, *Kitāb Gharāib al-funūn wa-mulāḥ al-'uyūn*, see www.bodley.ox.ac.uk/bookofcuriosities.

13. Delatte, *Portulans grecs*.

14. Hierocles, *Synekdemos*; see Table 1.1, provinces (*eparchiai*) in Anatolia according to Hierocles.

15. Constantine Porphyrogenitus, *De thematibus*; for a gazetteer of the themes in the ninth and tenth centuries, see Toynbee, *Constantine Porphyrogenitus*, pp. 252–74.

from the mid-tenth century, but mainly repeating information from Hierocles and Stephanus Byzantinus; (3) lists of bishoprics in hierarchical order,¹⁶ dating from the seventh to the fifteenth centuries; and (4) land survey manuals from the middle Byzantine period that served as a basis for taxation¹⁷ and that contain information on the different qualities of soil and agricultural productivity in different regions of the empire.

HISTORICAL AND ADMINISTRATIVE BACKGROUND

Since the first centuries AD and well into late antiquity, when Constantine the Great decided for Byzantium/Constantinople as his capital city and “second Rome,” the Roman Empire had included all parts of Europe, Africa, and Asia that surrounded the Mediterranean basin. Later, internal conflicts, the wars against the Sasanians in Persia, and the Migration Period in the West reduced the realm of the Roman emperors and in 476 brought about the fall of Rome and the western part of the Roman Empire.

Anatolia was not directly affected by military events, but it had to undergo structural modifications as a consequence of the foundation of Constantinople. The main lines of traffic and economy changed from the western Anatolian harbor cities on the way to Rome to the Dardanelles and the Sea of Marmara on the way to Constantinople.

According to Hierocles, early Byzantine Anatolia was divided into three *dioikeseis* (Table 1.1):¹⁸

1. the *Asiane dioikesis* with ten provinces: *Asia*, *Hellespontus*, *Phrygia Pakatiane*, *Lydia*, *Pisidia*, *Lycaonia*, *Phrygia Salutaria*, *Pamphylia*, *Lycia*, and *Caria*;
2. the *Pontike dioikesis* with eleven provinces: *Bithynia*, *Honorias*, *Paphlagonia*, *Galatia A*, *Galatia Salutaria*, *Cappadocia A*, *Cappadocia B*, *Helenopontus*, *Pontos Polemoniakos*, *Armenia A*, and *Armenia B*;
3. a part of the *Anatolike dioikesis* that comprised three provinces: *Cilicia A*, *Cilicia B*, and *Isauria*.

From the late fourth century onwards the Byzantine Empire was ruled by Christians. Following decisions of the First Council of Constantinople in 381 and the Council of Chalcedon in 451 the imperial city as “new Rome” was established as patriarchate, ranking second place in a pentarchic system, after Rome and before the patriarchates of Alexandria, Antioch, and Jerusalem. The jurisdiction of the patriarch of Constantinople covered most of the metropolitan sees in Anatolia. Only the territories south of the mountain chains of Taurus and Antitaurus, including the Cilician plain, belonged to the patriarchate of

16. *Notitiae episcopatum*, ed. Darrouzès.

17. Lefort, *Géométries*.

18. Hierocles, *Synekdemos*, § 658–90 (*Asiane*). 690–703 (*Pontike*). 704–10 (*Anatolike*).

Table 1.1. Roman provinces (*eparchiai*) in Anatolia according to Hierocles (Jones)

<i>Eparchia</i>	Number of <i>poleis</i> per <i>eparchia</i>	Area in km ² per <i>polis</i>	Radius in km per <i>polis</i>	
Asiane	313 (344)	179860	575 (523)	13.0
Asia	43 (45)	19100	444 (424)	12.0
Hellespontus	30 (33)	20760	692 (629)	14.0
Phrygia Pacatiana	39 (41)	19720	506 (481)	12.5
Lydia	23 (28)	16060	698 (574)	13.5
Pisidia	26 (29)	19200	738 (662)	14.5
Lycaonia	18 (19)	22520	1251 (1185)	19.5
Phrygia Salutaria	23 (30)	18820	818 (627)	14.0
Pamphylia	47 (47)	14180	302	10.0
Lycia	34 (40)	13060	384 (327)	10.0
Caria	30 (32)	16440	548 (514)	13.0
Pontica	80 (97)	311610	3895 (3212)	32.0
Bithynia	17 (23)	24960	1468 (1085)	18.5
Honorias	6 (6)	9560	1593	22.5
Paphlagonia	6 (6)	35420	5903	43.5
Galatia A	7 (8)	33180	4740 (4148)	46.5
Galatia Salutaria	9 (11)	18680	2076 (1698)	23.5
Cappadocia A	4 (6)	30660	7665 (5110)	40.5
Cappadocia B	8 (9)	21380	2673 (2376)	27.5
Helenopontus	7 (8)	27780	3969 (3473)	33.5
Pontos Polemoniakos	5 (8)	24960	4992 (3120)	31.5
Armenia A	5 (6)	48380	9676 (8063)	50.5
Armenia B	6 (6)	36650	6108	44.0
Oriens (Anatolike)	40 (46)	39940	999 (868)	16.5
Cilicia A	8 (8)	11880	1485	21.5
Cilicia B	9 (9)	10400	1156	19.0
Isauria	23 (29)	17660	768 (609)	14.0
Total 24 <i>eparchiai</i>	433 (487)	531410	1227 (1091)	18.5

Antioch, but after the Arab conquest of Syria in 636 all provinces that remained under Byzantine control were placed under the patriarch of Constantinople. The Cilician *metropoleis* returned to Antioch only after the Byzantine reconquest in 970 by order of the emperor John I Tzimiskes.¹⁹ The administrative structure of the church followed the Roman provincial system of the early Byzantine period. Metropolitans were established in the *metropoleis*, i.e. the

19. Todt/Vest, *Syria*, pp. 349–50; *Oxford Dictionary of Byzantium* I, Oxford 1991, pp. 113–17 s.v. “Antioch on the Orontes” (M. Mundell Mango).

capital cities of the provinces, and bishops in the *poleis*. This hierarchy was relatively stable and did not change, when the secular administration switched from provinces to *themes* from the seventh century onwards. Hence the patriarchate of Constantinople underwent only minor adaptations in size and number of sees: in the seventh century it consisted of 27 Anatolian *metropoleis* and 11 “autocephalous” dioceses, and in the twelfth century of 48 *metropoleis* and 14 autocephalous sees.²⁰

Emperor Justinian I (527–565) reunited for a last time most parts of the late antique Ecumene, but his wars and building projects exhausted the human and material resources of the Byzantine state. Moreover, from 541 onwards the so-called Justinianic plague spread over the eastern Mediterranean; it ended temporarily in 544, but returned repeatedly until the mid-eighth century and depopulated parts of the eastern Mediterranean to a catastrophic degree. This state of exhaustion, the inadequate politics of Justinian’s successors against the Sasanian Empire, and waves of armed migrant tribes who immigrated to the Balkans from the north resulted in a reduction of Imperial power in the core territories of Byzantium. Soon after 565, large parts of Italy were conquered by the Lombards, who from 568 established their *Regnum Italicum*. Since the seventies of the sixth century, Slavic tribes, until 626 under the leadership of the Avars, invaded the Balkans and advanced to the southern Peloponnese. In the East the wars against the Sasanian Empire between 540 and 629 facilitated a rapid military expansion of the Muslim Arabs beginning in 634. It led to the loss of the dioceses *Oriens* in 636 and *Aegyptus* after 642 and resulted in the foundation of the Caliphate of Damascus and—later—other Muslim states in the Levant and in North Africa. Only Carthage remained under Byzantine control until 698.

Thus, from the mid-seventh century onwards the Eastern Roman Empire was still present in Sicily, in parts of Italy, and on the Black Sea coast, but its core regions were reduced to three: Asia Minor (the *Anatole*), the southern Balkans (the *Dysis*), and the Aegean Sea with its islands. The chronicle of Theophanes Continuatus, describing a multiplicity of catastrophes that God had sent to the Byzantines, speaks about these three as parts of one body, “in which the two continents, I mean Asia and Europe, are in God’s ire like somebody’s head and tail . . . and finally the ill-fated islands like a middle, so that the entire body was hit.”²¹ Asia Minor was the head, the most important part of the body: notwithstanding the Arab raids, which culminated in two sieges of Constantinople in 674–679 and 717–718, the economic importance of Anatolia for the Byzantine Empire and its capital was steadily growing since the seventh century. After the end of the *annona* from Egypt in 618/9 and the loss of the naval supremacy in the eastern Mediterranean from 655 onwards, western Asia Minor, which had

20. *Notitiae episcopatum*, ed. Darrouzès, pp. 203–13. 347–52 (*Notitiae* 1 and 12). See also Haldon, *Palgrave Atlas*, maps 4, 3; 7, 1.

21. *Theophanes continuatus*, ed. Bekker, p. 73.6–11: . . . ἀλλὰ τῶν δύο ἡπείρων, Ἀσίας φάμεν καὶ Εὐρώπης, ἐν θυμῷ κυρίου οἶόν τινος κεφαλῆς καὶ οὐρᾶς . . . , τέλος καὶ ταῖς ταλαιπώροις νήσοις οἶόν τινα μέσην, ἐν ὁλόσωμος εἴη ἢ πληγῇ, ἐπέδραμε τὰ δεινὰ.

always been an important economic factor and supplied Constantinople with many basic foodstuffs, wood, and other products, became also one of the capital's major sources for grain.²² Asia Minor was strengthened by the installation of the first *themes* and the settlement of Slav populations from southeastern Europe. The latter were transferred in the eighth century from the Balkans in order to replace the population losses that had resulted from the plague and the Arabic devastations; the Slavs settled as farmers in villages, in mountain retreats, or near fortresses.

The *themes*²³ (from **tithemil/*thesis*²⁴) were initially, in the decennia after the loss of Syria and Egypt, provisional “placements” of Roman armies. The soldiers were to live on the land, defend the (endangered) Anatolian provinces, and be ready for a potential reconquest of lost territories in Anatole. Originally the *themes*, each under the command of a *strategos*, had a purely military structure and existed in addition to the traditional—still independent—Roman provincial administration (Fig. 1.1). Over time, however, the provinces lost more and more responsibility and power to the *themes*. In the late seventh and the eighth centuries, new *themes* resulted from territorial reconquests or from partition of the old *themes* into smaller units. Most *themes* were subdivided into two to four *tourmai* (from Latin *turma*, “squadron”), many of which would later become independent *themes* of their own.²⁵ Since the second half of the eighth century special military districts named *kleisourai* (from Latin *clausura*, “mountain pass,” also “fortification”) were installed in some mountain regions at the eastern frontiers of the *themes*; some of them also would later become independent units.

The first *themes* were established in the east of Asia Minor: before 667 Armeniakon (Armenia Minor, Pontus, Cappadocia)²⁶ and before 669 Anatolikon (Phrygia, Pisidia, Isauria), followed before 680 by Thrakesion (Asia, Lydia, Caria, Phrygia Pacatiana) and Opsikion (Mysia and parts of Bithynia, Galatia, Lydia, and Paphlagonia). In the eighth century followed the installation of Bukellarion (Galatia, parts of Paphlagonia) and Optimaton (northern Bithynia). The names of these “old” *themes* derive from former Roman army units.

Before 680, parts of the southern coast and the Aegean islands formed the logistical base for the navy, the so-called Karabisianoi (“ship-people”), with headquarters probably in Samos. In the early eighth century the Karabisianoi

22. Magdalino, “Grain Supply of Constantinople”; Durlat, “Approvisionnement de Constantinople.”

23. Haldon, *Warfare*; Kountoura, *Asia Minor and Its Themes*; Haldon, *Seventh Century*.

24. Constantine Porphyrogenitus, *De thematibus*, Prolog 1, 27–28: τὸ ὄνομα τοῦ θέματος ἑλληνικὸν ἐστὶ καὶ οὐ ῥωμαϊκόν, ἀπὸ τῆς θέσεως ὀνομαζόμενον. And he confirms indirectly, that the special meaning of the term appears in the sources only since the creation of the *themes*: . . . ἢ τῶν θεμάτων . . . προσηγορία. Οὐδὲ γὰρ παλαιὰ τις ἐστὶν, οὐδέ τις τῶν ἱστορίας γραψάντων ἐμνήσθη τῆς τοιαύτης ὀνομασίας, ὡς λέγονται νῦν; *De thematibus*, Prolog 1, 1–3. See also Koder, “Zur Bedeutungsentwicklung des byzantinischen Terminus *thema*.”

25. Haldon, *Warfare*, pp. 109–17.

26. In brackets the traditional regions and provinces.



Fig. 1.1.
Early Byzantine PROVINCES (EPARCHIAI), later Byzantine **THEMES** (red), metropoleis (●), and autocephalous archbishoprics (○) in Anatolia (S. Destephen/M. Nichanian)

were replaced by the *theme* of Kibyrraioton (southern Caria, Pamphylia, Lycia, Aegean Islands), named after the ancient city of Kibyra/Karaburun.

From the mid-ninth century onwards the Byzantine reconquest in the east of Asia Minor and in the Levant resulted in the foundation of new and often small *themes*, and in the division of the large old *themes* into smaller units. This development may in part be explained with the need to reduce the power of the *strategoï*, who, in addition to their military authority, were now also absorbing most civilian responsibilities for the provincial administration. *Stratiotika ktemata* ("soldier's estates") were established to provide farming land for families of soldiers; this resulted in a system of military service, by which one member of the family had to serve in the army. The following *themes* were created during the ninth century: Cappadocia (southern Cappadocia), Chaldia (coastlands of Pontus), Charsianon (northwestern Cappadocia), Koloneia (northern Armenia Minor), and Paphlagonia. During the first half of the tenth century followed (among others) Asmosaton and Charpezikion (both to the east of the Euphrates), Lykandos (southeastern Cappadocia), Mesopotamia (in the upper Euphrates region), Sebasteia (region of Sivas), Seleucia (region of Silifke), Tephrike (also named Leontokome, region of Divriği), and Theodosiopolis (region of Erzurum).

Between the late tenth and the late eleventh century the Eastern Roman Empire encompassed multi-ethnic territories in Asia Minor, northern Syria, southeastern Europe, Italy, and Sicily, altogether some 1.3 million km². The reconquest in the east stabilized the political situation in Asia Minor and strengthened the economic and demographic recovery, particularly in the western and central parts of Anatolia. A high agricultural productivity may partially be explained with the rise of the upper class of landed proprietors, who profited from the reconquest, to the disadvantage of the emperor, the state, and their taxpayers, i.e. the small farmers. The economic prosperity lasted until the mid-eleventh century, when the first Seljuk raids in eastern Anatolia began, and ended in the decade after the Battle of Mantzikert/Malazgirt²⁷ in 1071, when Romanos IV Diogenes was defeated by the Seljuk sultan Alp Arslan. Seljuk tribes immigrated into nearly all parts of Asia Minor and established the Sultanate of Rum with Iconium/Konya as capital. The Seljuk realm soon was limited to the central plateau and the east, while the agriculturally most important western territories and coastlands were reclaimed during the First Crusade (1096–1099) and the following military expeditions of the Komnenian emperors. However, the permanent threat for the Byzantine territories remained and became manifest in repeated raids that were intensified after the Seljuk victory near Myriokephalon/Kırkbaş²⁸ in 1176.

When the crusaders conquered Constantinople and divided much of the Empire among themselves in 1204, the Byzantines re-established their rule at Nicaea. The first emperor of Nicaea, Theodore I Laskaris (1205–1222), and his successor John III Doukas Vatatzes (1222–1254) defeated their principal

27. For the name, see Coulie, "Manzikert ou Mantzikert?"

28. Mersich, "Zum Austragungsort."

enemies, the Latins and the Seljuks, and within twenty years regained power over western Anatolia up to the frontier with the Sultanate of Rum. The frontier line ran near Amastris/Amasra in the north, passed west of Ancyra and the lake district, and then east of the Maeander Valley and Miletus, where it met with the Aegean coast. The Byzantine territory of some 140,000 km² included the most fertile parts of Anatolia and served as a basis for the economic wealth of the Nicaean state, which exported its agricultural surplus at high prices to its neighbors to the east and west, in central Anatolia, and in the adjacent regions of Europe. The economic and political prosperity ended with the reconquest of Constantinople in 1261. This event removed the political and cultural center of Byzantium again from western Asia Minor to the traditional capital and see of the emperors and accelerated the end of the Byzantine presence in Anatolia. Within forty years nearly all of Anatolia came under Turkish control.

THE GEOGRAPHICAL SETTING

In a total territory of some 1.3 million km², in which Anatolia, including Armenia and parts of Syria, covers more than 700,000 km², a great variety of landscapes and climates is to be found.²⁹ Asia Minor in the traditional geographic sense forms a rectangle that extends about 1200 km from east to west and 600 km from north to south. Today it belongs almost in its entirety to the Republic of Turkey. Since antiquity the names *Asia*, *Ano Asia*, *Kato Asia*, and *Anatole* are mentioned for Anatolia.³⁰ The ancient geographers understood Asia Minor or certain regions of it as a part of *megale* ("great") *Asia*, calling it *idios* ("peculiar") *Asia*, distinct from the *ephexes* ("adjacent") *Asia* and the *eschata mere* ("uttermost parts") *Asias*.³¹ The common name in Byzantine Greek was probably *Mikra* ("Little") *Asia*.³²

Asia Minor has clear boundaries on three sides: to the south it is marked off by the Mediterranean Sea, to the west by the Aegean archipelago, and to the north by the Black Sea and the Sea of Marmara, the ancient Propontis, with two groups of islands, the Princes' Islands/Prinkipeioi Nesoï and the Marmara

29. Philippson, *Das byzantinische Reich*; Ritter, *Kleinasien*; Pitcher, *An Historical Geography; Lexikon des Mittelalters* II, Munich 1982, pp. 1227–38 s.v. "Byzantinisches Reich A. Geographische Grundlagen" (J. Koder); Koder, *Lebensraum*, pp. 13–39; Hütteroth/Höhfeld, *Türkei*, pp. 29–114, 204–5; Whittow, "Geographical Survey"; Belke et al., *Byzanz als Raum*; Talbert/Bagnall, *Barrington Atlas*.

30. Georgacas, *Names for Asia Minor*, pp. 27–38.

31. The clearest distinctions come from Ptolemy, *Hyphegesis*, pp. 484, 594, 684: . . . τῆς ἰδίως καλουμένης Ἀσίας . . . τῶν ἐφεξῆς μερῶν . . . τῶν ἐσχάτων μερῶν τῆς Μεγάλης Ἀσίας . . . θέσις. —Shorter and unprecise are the lemmata in Byzantine lexica, e.g. Photios, *Lexicon*, alpha 2955; see also Eustathius of Thessalonica, *Commentarius in Dionysium Periegetem*, ed. K. Müller (Geographi Graeci minores 2), Paris 1861, vol. 2 p. 620.

32. Constantine Porphyrogenitus, *De thematibus*, Asia I, 3–6 (quoting the historian Nikolaos, first century BC) and 3, 2: Ἀσία μικρά; see idem I, 40 f.: . . . καὶ οὗτος γὰρ μόναρχος ἦν τῆς αὐτῆς Ἀνατολῆς ἡγοῦν μικρᾶς Ἀσίας. See also Georgacas, *Names for Asia Minor*, pp. 38–99, with more references.

Islands/Proconnesus. The Sea of Marmara connects through the Dardanelles to the Aegean and through the geologically young Bosphorus to the Black Sea.³³ The eastern boundary has been under discussion since Ptolemy, whose description of Anatolia in the synopsis of his *Geography* reads as follows: “First index of Asia: Pontus and Bithynia—the peculiar Asia comprising Phrygia—Lycia—Pamphylia comprising Pisidia—Galatia comprising Paphlagonia and Isauria—Cappadocia—Armenia Minor—Cilicia.”³⁴ In the middle Byzantine period Constantine Porphyrogenitus’ *De thematibus* provides us with indirect information, as his conspectus of the Asiatic provinces—“the *themes* in Anatole or Asia Minor”—offers short descriptions of fourteen *themes*;³⁵ Constantine confirms that the eastern boundaries in his times corresponded approximately to a line from near Bathys/Batumi at the estuary of the Akampsis/Çoruh River into the Black Sea, along the western branch of the upper Euphrates/Firat River, past the Anti-Taurus range, and down to the Gulf of İskenderun.³⁶

Geologically, Asia Minor belongs to the tertiary Alpide belt, which reaches from the Himalaya to the Atlantic Ocean. It was formed by the ongoing collision of the Eurasian Plate with the African Plate. This development has resulted in the North Anatolian Fault parallel to the Black Sea coast between Lake Van and the Kocaeli Peninsula (with its continuation in the highlands of Thrace), and the East Anatolian Fault that begins at the Gulf of İskenderun and converges with the North Anatolian Fault in the highland region of Erzurum (Fig. 2.1). The tectonic movement is accompanied by much seismic activity and volcanism.³⁷ Important volcanos are the Greater Ararat/Büyük Ağrı Dağı (5137 m) and the Lesser Ararat/Küçük Ağrı Dağı (3896 m), the Argaeus/Erciyes Dağı (3916 m), the Argaeus/Hasan Dağı (3268 m), and the Nemrut Dağı (2865 m). Also as a consequence of the plate tectonics, parts of the western and southern coast of Anatolia are sinking beneath the sea. This is particularly distinct between Patara/Kelemiş and Andriake, where the land sinks 1.5–2 mm per year or ca. 2 m per millennium.³⁸

33. Georgacas, “Waterway of Hellespont and Bosphorus.”

34. Ptolemy, *Hyphegesis*, p. 8, 29, 17: Ἀσίας πῖναξ α' Πόντος καὶ Βιθυνία, ἡ ἰδίως Ἀσία, ἐν ἣ ἡ Φρυγία Λυκία, Παμφύλια, ἐν ἣ Πισιδία, Γαλατία, ἐν ἣ Παφλαγονία καὶ Ἰσαυρία, Καππαδοκία, Ἀρμενία Μικρὰ Κιλικία.

35. Constantine Porphyrogenitus, *De thematibus*, Asia, Prolog: ἐνταῦθα τῆς Ἀνατολῆς θέματα ἡγουν τῆς Μικρᾶς Ἀσίας, following the 17 *themes*: Anatolikon, Armeniakon, Thrakesion, Opsikion, Optimaton, Boukellarion, Paphlagonia, Chaldia, Mesopotamia, Koloneia, Sebasteia, Lykandos, Seleukeia, Kibyrrioton, Kypros, Samos, Aigaion Pelagos. From these provinces 14 are in fact located in Anatolia.

36. Hierocles (Table 1.1) is not informative in this respect; in his *Synekdemos* the main part of the provinces in Asia Minor belongs to the two dioceses Asiatic (§ 658–90) and Pontica (§ 690–703), to which three provinces from the Anatole (§ 704–10: Cilicia I, Cilicia II, and Isauria) should be added.

37. For catalogues of earthquakes and seaquakes in the late antique and Byzantine period (which because of the uneven archaeological evidence and the unreliability of the written sources cannot be complete), see Ducellier, “Séismes”; Guidoboni/Comastri/Traina, *Earthquakes up to the 10th Century*; Guidoboni/Comastri, *Earthquakes from the 11th to the 15th Century*, p. 910 (s.v. σεισμός).

38. Bremer, “Zur Geologie”; Ritter, *Kleinasien*, pp. 940–55; Hellenkemper/Hild, *Lykien und Pamphylien*, pp. 84–85.

Originally the plant cover of Anatolia was dominated by sclerophyllous wood and brushwood, i.e. holm oak, kermes oak, holly oak, erica, laurel, oleander, myrtle, carob tree, pistachio, wild olive, terebinth, gorse, and juniper. By late antiquity great parts of the primeval sclerophyllous forests were destroyed for cultivation purposes or due to timber extraction in order to gain material for artisanal purposes and especially for construction and shipbuilding. Most catastrophic for forests was the removal of wood of any quality as fuel or for the production of charcoal (*karbounin*).³⁹ From the sixth or seventh century onwards a regeneration of forests and brushwood is observed for parts of Asia Minor that seem to have been less densely populated for a longer period of time, probably due to the plague and/or the Persian and subsequently the Arab invasions. This is indirectly corroborated by some paragraphs in the “Farmer’s Law,” a collection of agricultural regulations from the early eighth century that imply abundant forests, at least in mountain regions, where gradient or the quality of soil made agriculture difficult⁴⁰ and enabled mainly stock farming; the law mentions pigs, sheep, goats, cattle, and donkeys.⁴¹ Elsewhere fuel was expensive and rare, not only in Constantinople but also in most settlements of any type.⁴² The standard fuel (*xylon kausimon*) often consisted of brushwood and dry branches, as well as of bark, fir cones, nut shells,⁴³ and in the countryside also of a sun-dried mixture of straw and dung from graminivorous beasts such as cattle or camels (Byzantine *zarzakon*⁴⁴). Most of this fuel was of minor burning quality and would achieve a low burning temperature.

Anatolia may be divided into a western, a central, and an eastern part according to maritime influence on the climate and altitude above sea-level. This is exemplified by the height above sea level of Lake Nicaea in western Anatolia at 85 m, Lake Tatta in central Anatolia at 905 m, and Lake Thospitis in eastern Anatolia at 1715 m.

WESTERN ANATOLIA

The landscape of western or Aegean Asia Minor⁴⁵ covers roughly 205,000 km² and consists in its core of the Lydo-Carian massif with gneisses and crystalline schists, as well as surrounding fold mountains with volcanic overlays that

39. Koder, *Lebensraum*, pp. 51–54; Meiggs, *Trees and Timber*; Willcox, “History of Deforestation”; Williams, *Deforesting the Earth*.

40. *Nomos georgikos*, § 17. 20. 39. 40. 57. 80, ed. Medvedev; see also Koder, “Land Use and Settlement.”

41. *Nomos georgikos*, § 44–45. 49. 54, ed. Medvedev.

42. Dunn, “Exploitation and Control of Woodland”; Dunn, “Control and Exploitation of the Arboreal Resources”; Lefort, “Rural Economy”; Külzer, *Ostthrakien*, p. 220.

43. Specifications in the *Ecloga Basilicorum*, ed. L. Burgmann (Forschungen zur byzantinischen Rechtsgeschichte 15), Frankfurt 1988, § 2, 2.

44. Leo of Synada, *Letter* 43, ed. Vinson, pp. 68–69. See also Robert, *Opera minora*, pp. 33–38. The corresponding ancient term probably was *ipnia*: Suda, *Iota* 550.

45. For the region, see *Tabula Imperii Byzantini* 4, 7, 8, and 13; Geyer/Lefort, *Bithynie; Reallexikon zur byzantinischen Kunst* VI, Stuttgart 2005, cc. 839–68 s.v. “Mysien und Hellespont” (K. Belke); *Reallexikon für Antike und Christentum* XXV, Stuttgart 2013, cc. 389–403 s.v. “Mysia (Hellespontus)” (P. Niewöhner); Koder, *Lebensraum*, pp. 32–33.

reach 2550 m on Mount Olympus/Uludağ and 1770 m on Mount Ida/Kazdağ. Embedded are high-lying land basins at 800–1100 m with some endorheic saline lakes, the largest being Burdur Gölü, Lake Akroteri/Eğirdir Gölü, Lake Pusguse/Beyşehir Gölü, Lake Tessarakonta Martyron—nowadays Eber and Akşehir Gölü—and Lake Sanaos/Acıgöl. Most of the folds are running from east to west and turn in their lower parts into fertile rolling country and valleys with abundantly flowing rivers and plains, some of them discharging into lakes like Boane/Sapanca Gölü, Nicaea/İznik Gölü, Apollonias/Apolýont Gölü, and Dalkylitis/Manyas Gölü Kuş Gölü (Fig. 2.1). The most important rivers are running to the Aegean Sea: Kaikos/Bakırcay, Hermus, Kaystros/Küçük Menderes, Maeander,⁴⁶ and Indus. Only the rivers Empelos/Koca, Macestus/Simav, and Rhyndacus/Kirmasti, which have their sources in the Mysian highlands, and the little rivers coming from the Troas Plain, flow into the Sea of Marmara, and the Sangarius and the Billaeus/Filyos Çayı/Yenice Irmağı into the Black Sea. The coastlands of western Asia Minor and their hinterlands combine soils of good fertility with the favorable Aegean climate. As a result, these are the most fertile and productive agricultural regions with the highest settlement density in Anatolia.

In western Asia Minor many urban settlements had—due to their economic importance and their size—supra-regional central functions. Most of these settlements showed, by a nearby fortress or by their city walls, a distinct fortification character. Some of them served mainly military purposes; examples are not only the *aplekta* Malagina or Metabole/Paşa Dağı, Dorylaeum/Eskişehir, and Kaborkion near Çifteler, but also the headquarters of *themes* or *tourmai* Nicomedia/İzmit, Nicaea/İznik, Amorium/Hisar, Sozopolis/Uluborlu, Chonae/Honaz, Attalia, and Adramyttium/Edremit (Fig. 1.2). The coastal cities gained a significant additional importance as sea harbors: at the Black Sea Chele/Şile and Heraclea/Ereğli; at the straits and the Sea of Marmara Chalcedon/Kadıköy, Nicomedia/İzmit, Helenopolis/Hersek, Kios/Gemlik, Apamea/Mudanya, Cyzicus/Balkız, Pegae/Karabiga, Parium/Kemer, Lampsacus/Lapseki, and Abydus near Çanakkale; at the west coast on the Aegean (Alexandria) Troas, Adramyttium, Phocaea/Foça, Smyrna/İzmir, Ephesus, and Anaia/Kadıkalesi near Kuşadası; at the south coast on the Mediterranean Makri/Fethiye, Patara, Andriake, the harbor of Myra/Demre, Phoenix/Finike, Attalia/Antalya, and Kibyra. The distribution of urban sites was uneven: along the coasts and on the coastal plains the settlement density was high, along the Sea of Marmara and the Bosphorus extremely high. Here, the distances from one urban center to the next varied between 15 to 60 km or one to three days' journey.⁴⁷ In the mountainous inland regions the density was lower, but still significantly higher than in the central and eastern parts of

46. Müllenhoff, *Untersuchungen im Mündungsgebiet des Büyük Menderes*.

47. Distances by land (in round figures): Abydus 30 km Lampsacus 40 km Parium 30 km Pegae 60 km Cyzicus Peninsula/Artake 50 km Lopadion 15 km Apollonias 40 km Prusa 60 km Nicaea 40 km Helenopolis 25 km Pylae. Lopadion 45 km Poimananon 45 km Palaia. Nicaea 30 km Malagina 25 km Tarsia 55 km Nicomedia 45 km Dakibyza 25 km Kartalimen 15 km Chalcedon.



Fig. 1.2.

Anatolian sites by ancient or Byzantine names; **bold: capitals (headquarters) of themes or tourmai**. See the index for corresponding modern names (J. Koder/P. Niewöhner/Wikimedia Commons [map])

Asia Minor. The inland cities were mainly concentrated at lakes, e.g. Nicaea, Lopadion/Uluabat, Akroterion/Eğridir, and Mistheia/Beyşehir, or near river valleys, e.g. Malagina, Cotyaeum/Kütahya, Nakoleia/Seyitgazi, Chonae, and Selge/Zerk.

CENTRAL ANATOLIA

The transition from western to central Asia Minor,⁴⁸ to the Anatolian Plateau at 800–1300 m above sea level, takes place gradually at the western Anatolian mountain swell roughly on a line from Amastris at the Black Sea and the easternmost part of the Sangarius Valley to the Gulf of Attalia. The volcanic peaks reach heights of 3916 m on the Argaeus/Erciyes Dağ, 3258 m on the Argaeus/Hasan Dağ, and 2271 m on the Boratinon Oros/Kara Dağ. Parts of it are infertile steppe, especially the landscape around the Tatta Limne/Tuz Gölü, which has a salinity of up to 32.9 percent and is, with a surface of more than 1,600 km², one of the largest salt lakes in the world (Fig. 2.1). Constantine Porphyrogenitus mentions that at his time the lake was called *Karateia Limne*; his information that it “gives birth to salt”⁴⁹ may be an indicator that the lake was exploited for salt production during the Byzantine period. Other basins and plains like the plain of Iconium/Konya Ovası at an elevation of 1,200 m have alluvial soil and produce grain. The mountain pastures (Turkish *yayla*) in Cappadocia, nowadays often abandoned, were inhabited at least during the summer months and served not only for stock-farming, but also for the production of undemanding varieties of grain.

Central Asia Minor covers roughly 210,000 km². It is separated from the Black Sea by the Paryadres/Pontic Mountains that are ca. 1,100 km long and consist mainly of schists and limestone. Due to the Black Sea climate with its high precipitation, the mountains are densely covered with forest, mainly with conifers. The mountain chain rises to 3937 m on the Kaçkar and is interrupted by only few river valleys, the most important being the Halys/Kızılırmak and the Iris/Yeşilırmak that transports also the waters of its tributary Lycus/Kelkit. The mountains keep the Black Sea weather off the Anatolian Plateau and contribute to its dry continental climate. To the south the Taurus Mountains/Toroslar with elevations up to 3756 m separate the Anatolian Plateau from the Mediterranean; the most important pass from the High Plateau to the sea is the defile of the river Kydnos/Tarsus Çayı through the Cilician Gates (Pylai Kilikias, Arabic Darb as-Salāma, Turkish Gülek Boğazı), with an original width of only some meters (now a motorway). Like the Pontic Mountains, the Taurus also serves to keep rain out of central Anatolia. Only some narrow coastal strips are fertile, especially those watered by the rivers Calycadnus/Göksu and

48. For the region, see *Tabula Imperii Byzantini* 2, 4, 5, and 9; Bryer/Winfield, *Pontos; Reallexikon zur Byzantinischen Kunst* V, Stuttgart 1995, cc. 814–65 s.v. “Lykaonien” (K. Belke); Koder, *Lebensraum*, pp. 33–34.

49. Constantine Porphyrogenitus, *De thematibus*, Asia 2, 53s: . . . ἡ λίμνη ἢ τὸ ἅλας τίκτουσα, ἣν ἀρτίως βαρβαρίζοντες Καράτειαν καλοῦσιν. See Koder, “Salt for Constantinople.”

Lamos/Limonlu Çayı. This applies also to the Cilician plain/Çukur Ovası in the southeast, a transition zone to the Hatay and to Syria, which is watered by many rivers, most importantly by the Saros/Şeyhan and the Pyramos/Ceyhan.

The distribution of settlements with superregional central functions in central Anatolia was uneven, its density in general lower than further west (Fig. 1.2). The *aplekta* Koloneia/Aksaray, Caesarea/Kayseri, Dazimon/Dazman, and Bathys Rhyax, a fortress and defile near Sebasteia, and the capitals (headquarters) of the *themes* or *tourmai* Ancyra/Ankara, Charsianon at the Halys north-west from Kayseri, Dazimon, Euchaïta/Beyözü, Gangra/Çankırı, Iconium/Konya, Claudiopolis/Bolu, Koron near Çömlekçi, and Seleucia/Silifke, had mainly military purposes.

Cities with importance as sea harbors were Ionopolis/İnebolu, Sinope, Amisus/Samsun, Oinaion/Ünye, and Kerasus/Giresun at the Black Sea, and Selinus/Gazipaşa, Antiochia ad Cragum/Güneyköy, Anemurium/Eskianamur, Seleucia/Silifke, Corycus/Kızkalesi, Pompeiopolis/Viranşehir, and Aegeae/Yumurtalık at the Mediterranean.

EASTERN ANATOLIA

The transition from central to eastern Asia Minor⁵⁰ is defined by the watersheds between rivers pouring to the Black Sea and to the Mediterranean and the Akampsis/Çoruh and those rivers flowing to the southeast to the Persian Gulf, the Arsianias/Murat, the Euphrates/Fırat, and the Tigris/Dicle, or to the east to the Caspian Sea, the Kyros/Kura and the Araxes/Aras (Fig. 2.1). The ground level is gradually rising toward the continental mass of Asia with Tephrike/Divriği at 1250 m, Theodosiopolis/Erzurum at 1950 m, Iban/Van at 1640 m, and Anion/Ani at 1464 m. The mountain systems of the Taurus and the Pontic Mountain range converge and reach heights of more than 3000 m, and in the case of Mount Ararat, in the Armenian Highland that is today the frontier zone between the modern states of Turkey, Georgia, Armenia, and Iran, 5137 m. Embedded are extended basins, some of them with endorheic saltwater lakes like the Thospitis/Van Gölü and the Matianus/Urmia.

As a result of the climatic, topographical, and agricultural conditions the population and settlement density in eastern Anatolia was (until nowadays) significantly lower than in the other parts of Anatolia. Examples for urban settlements with superregional central functions are Amida/Diyarbakır, Anion/Ani, Edessa/Şanlıurfa, Germanicia/Maraş, Iban/Van, Martyropolis/Silvan, Melitene/Malatya, Samosata/Samsat, Tephrike/Divriği, and Theodosiopolis/Erzurum. Epiphania/Gözene and Alexandria/İskenderun at the Mediterranean and Bathys/Batumi, Rizaion/Rize, and Trapezus/Trabzon at the Black Sea had considerable importance as sea harbors (Fig. 1.2).

50. For the region, see *Tabula Imperii Byzantini* 2 and 15; Bryer/Winfield, *Pontos*; Koder, *Lebensraum*, pp. 38–39.

SETTLEMENT DEVELOPMENT AND ECONOMY

By the second half of the sixth century at the latest, and often earlier, ruralization and urban decline had set in throughout the Byzantine state.⁵¹ As a consequence of the political events the number of cities dropped dramatically during the seventh and eighth centuries. Many cities disappeared, and the others shrank in size, with a diminished administrative role and a reduced economy as a growing number of citizens were engaged in agriculture (comparable to the western European model of “Ackerbürgerstadt”). Constantine Porphyrogenitus listed for the early tenth century *peri ten Asian* (i.e. in the Thracian *theme* in western Asia Minor) the following “twenty” cities: Ephesus, Smyrna, Sardis, Miletus, Priene, Colophon, Thyatira, Pergamon, Magnesia, Tralleis, Hierapolis, Colossae (“nyn Chonai”), Laodicea, Nysa, Stratonicea, Alabanda, Alinda, Myrina, Teos, Lebedus, “[Philadelphia], and some others.”⁵² But, following the conclusions of Clive Foss, it is evident that (far from being *poleis*) not all of them were flourishing in the emperor’s lifetime.⁵³

An example for this development during the post-classical and the recovery during the middle Byzantine period is Ephesus, the first of the “twenty cities of Asia” listed by Constantine Porphyrogenitus: the middle Byzantine settlement clustered around the cathedral of St. Mary, the church of the councils. Following massive destruction in the later seventh century, small houses, among them residential buildings, were built in irregular patterns. Habitation continued until the eleventh or twelfth century, and the harbor basin and the channel to the open sea remained navigable.⁵⁴

Nearly all urban and military settlements were involved in agriculture. This included also the big, often fortified monasteries and the *aplekta*, i.e. army bases—the following are mentioned in the tenth century: Malagina, Dorylaeum, Kaborkion, Koloneia, Caesarea, Dazimon, and Bathys Rhyax.⁵⁵ The inhabitants (not only civilians, but also monks and soldiers), or at least a significant part of them, were engaged in agricultural production. These farmers had their fields next to the settlement, often in the immediate vicinity of the city walls. This type of civilian settlement is comparable to the so-called Ackerbürgerstadt⁵⁶ in medieval Western Europe. Another model has been established by the “Laconia Survey” in Peloponnesus. It relies on a

51. Ostrogorsky, “Byzantine Cities”; Foss, “Archaeology and the ‘Twenty Cities’”; Russell, “Transformations in Early Byzantine Urban Life”; Brandes, *Städte Kleinasien*; Liebeschuetz, “End of the Ancient City”; Ward-Perkins, “Can the Survival of an Ancient Town Plan”; Foss, *Cities, Fortresses, and Villages*; Haldon, “Idea of the Town”; Brandes, “Byzantine Cities”; Koder, “Land Use and Settlement”; Niewöhner, “Archäologie und die ‘Dunklen Jahrhunderte’”; Roche, “Surveying the Aspect”; Kioussopoulou, *Οι βυζαντινές πόλεις*; Koder, “Regional Networks”; Drauschke, “Bemerkungen zu den Auswirkungen der Perser- und Arabereinfälle”; Niewöhner, “What Went Wrong.”

52. Constantine Porphyrogenitus, *De thematibus*, Asia 3, 33–40.

53. Foss, “Archaeology and the ‘Twenty Cities’.”

54. Chapter 19 on Ephesus in this volume.

55. On the *aplekta*, see Haldon, *Constantine Porphyrogenitus*, pp. 80–81, 155–57.

56. Saradi, *City*, with bibliography; *Lexikon des Mittelalters* I, Munich 1980, p. 81 s. v. “Ackerbürgerstadt” (K. Fehn).

site-hierarchy that consists of up to four categories of agricultural settlements in the countryside surrounding a city, the lowest being (1) *staseis*/farms, followed by (2) *proasteia*/estates, (3) *agridia*/hamlets, and (4) *choria*/villages, at a short distance of not more than 8 km from the central *polis*-market.⁵⁷ Smyrna/Izmir on the west coast of Anatolia seems to represent a combination of both types, the “Ackerbürgerstadt” and the “Laconian” model.⁵⁸ In principle a large monastery, e.g. the Lembiotissa,⁵⁹ could also function, instead of the *polis*, as a central place.⁶⁰ In both systems, local trade with the hinterland dominated, whereas regional and interregional trade served to a variable degree for the export of agricultural and other products.

Cultivated areas near urban settlements would have supplied perishable or fresh food like dairy products, meat, and fish. For vegetables, gardens next to the houses, i.e. the *esothuria*, may normally have been sufficient.⁶¹ The annual supply quantities per adult of oil (at least 18 l), pulse (5 kg), wine (90 l), and preserved cheese, meat, and fish could also be imported from other regions.⁶²

Most important was the production of grain, mainly wheat and barley. The annual demand of wheat can be estimated as at least 200 kg for one non-productive person.⁶³ The same quantity should be added for the producer, plus another third for losses during the transport between producer and consumer;⁶⁴ consequently, the necessary production volume would total at least 550 kg per annum and non-producer. The production area for this quantity of grain can be calculated with respect to two-crop-rotation and depending on the soil quality to between 30 and 40 ha.

The average population figure of densely built-up urban settlements is another important factor. Precise population figures for the Byzantine Empire do not exist. The earliest modern population statistics for the Ottoman Empire, dated to the end of the 19th century, reflect a population density of 20–40 inhabitants per km² for the coastal zones and the most western parts of Asia Minor and of 5–20 per km² for the inland areas. A comparison with figures coming from small territories in the fifteenth and sixteenth centuries points to a density of 8–15 (up to a maximum of 20) per km² for the Middle Ages. Hence, the Byzantine Empire may have had 10–18 million inhabitants before 1204,⁶⁵ and Asia Minor half of that figure. An approximation to the number of inhabitants of middle Byzantine cities may be derived on the basis of settlements

57. Armstrong, “Survey Area.”

58. Ahrweiler, “Histoire et la géographie de la région de Smyrne.”

59. Mitsiou, “Versorgungsmodelle im Nikäischen Kaiserreich” (with bibliography).

60. Koder, “Mönchtum und Kloster.”

61. Koder, “Fresh Vegetables.”

62. Koder, “Everyday Food.”

63. The following calculations are based on: consumption of cereals per standard person (i.e. an adult of ca. 70 kg) and month: 2.5–3.5 *modioi* = 17–24 kg, per annum: 0.204–0.288 t; net produce 50 t/km²; necessary area ca. 0.5 ha/person, this twice under the conditions of a two-crop rotation, and other additional factors. For details, see Foxhall/Forbes, “Sitometreia”; Koder, *Gemüse in Byzanz*, pp. 100–103; Koder, “Land Use and Settlement.”

64. For problems with transport by sea, see Letsios, *Nomos Rodiōn nautikos*, pp. 134–43.

65. Koder, *Lebensraum*, pp. 150–54; Koder, “Überlegungen zur Bevölkerungsdichte.”

with remains of the enclosing walls as well as sufficient remains of housing units.⁶⁶ The basic unit was a single-family house with a ground floor, which often served as a professional area, and an upper story for dwelling.⁶⁷ To judge by the number of ruined houses inside a closed built-up area, a figure of ca. 300 inhabitants per hectare as maximum population density seems realistic.⁶⁸ This estimation allows extrapolating approximate population figures for sites where no houses can be verified. One such example is Chonae/Honaz⁶⁹ near the Lycus River valley, a famous place of pilgrimage and, according to Niketas Choniates, a “prosperous and big city,”⁷⁰ which may have had a population comparable to Pergamon/Bergama. Another example would be Nicomedia, whose fortress-city covered an area of about 50 ha⁷¹ (corresponding to a possible maximum number of 2,900 households and 14,500 inhabitants, hence a density of 290 inhabitants per ha).

A changing settlement density throughout the various parts of Anatolia may be inferred easily from the above described conditions of the physical geography. It is confirmed for the Roman and early Byzantine period by Hierocles, who informs about the number of *poleis* per province: according to him, Asia Minor had 24 provinces, ca. 600,000 km², with 433 (487) *poleis*,⁷² and the size of *polis*-related territory ranged from some 300 km² in *Pamphylia* to more than 8000 km² in Armenia Prima. Hierocles’ data correspond to information in a land survey manual from the middle Byzantine period that distinguishes between two categories of land: the first category, cultivated land of high quality,

66. Examples for maximum urban habitation density: my calculation relies on the presupposition that the houses on average correspond to one household (equal to a mean value of 5 persons). When quantifying, a tentative pertinent share of 20–25 percent of the surrounding streets, places, and common buildings (as churches or market places) was taken into consideration.

City Name	City Area	Housing Area	Households	Inhabitants	Inhabitants per ha
Thessalonica	290 ha	230 ha	15,800	79,000	273
Nicaea	130 ha	100 ha	7,500	37,500	288
Mistra	21 ha	16 ha	1,200	6,000	286
Ioannina	17.5 ha	14 ha	1,050	5,300	303
Pergamon	12 ha	9 ha	800	4,000	333

67. Schreiner, “Haus in Byzanz,” with bibliography. Useful for the typology of village houses in Byzantine Lycia: Şanlı-Erler, *Bauern in der Polis*, pp. 15–60; Belke, “Das byzantinische Dorf.”

68. Russell, *Population*, p. 93, accepted a density of up to 300 inhabitants, regarding it as “a very high index” (Ibid., p. 92, he discusses “290 and 261 persons to the hectare” for the cities of the Muslim caliphate of Córdoba, see also his significantly lower estimations for Seljuk cities in Asia minor, Ibid., p. 99 f.). See also the figures in Laiou/Morrisson, *Byzantine Economy*, pp. 130–31.

69. Belke/Mersich, *Phrygien und Pisidien*, pp. 309–11.

70. πόλις εὐδαίμων καὶ μεγάλη, Nicetas Choniates, *History*, ed. J. A. van Dieten (Corpus Fontium Historiae Byzantinae 11), Berlin 1975, vol. 1 p. 178, 15; see Belke/Mersich, *Phrygien und Pisidien*, pp. 222–25.

71. Foss, *Nicomedia*, pp. 1–41.

72. 487 *poleis* including the additions from Jones, *Cities*, pp. 522–52 (appendix 4). See Table 1.1.

applies to the Dysis, i.e. the European parts of the empire, and to the *themes* in western Anatole—Thrakesion and Kibyrraioton are mentioned explicitly. The second, lower category applies to all other parts of the Anatole,⁷³ that is central and eastern Anatolia. This distinction corresponds to a border along the 32°E meridian, from the Gulf of Heraclea/Ereğli, along the Sangarius Valley, past the western part of the lake district, and down to the Gulf of Attalia/Antalya. The manual combines these two categories with a further specification into three qualities of land: the first specification comprises meadow land, irrigated land, properties located near the sea and land within or near settlements; the second specification the arable, not irrigated land outside settlements; and the third specification pasture and dry land.⁷⁴

One may be skeptical about the relevance of these passages in the manual for the practical work of land surveyors, but they demonstrate a knowledge about the fundamentals of physical geography and an awareness of their consequences for the varying conditions of the exploitation of natural resources (agricultural structures, stock breeding, forestry), of the transport of land products and other goods, and of settlement.

73. Lefort, *Géométries*, pp. 62–63 (cat. 3 § 51–53), with further specification and prices for three categories of land in the mid-eleventh century (1–1/2–1/3 *nomisma*); on the prices, see Morrisson/Cheyne, “Prices and Wages” (pp. 818–21 on the price of land in thirteenth-century Asia Minor).

74. Λέγεται δὲ πρώτη μὲν ποιότης τὸ χορτοκοπούμενον λιβάδιον, ὃ ὑπαρδὸς τόπος, τὸ παραθαλάσσιον καὶ τὸ ἐσώθυρον, δευτέρα δὲ ἡ σπειρομένη μὲν ἀνδρος καὶ ἐξώθυρος, τρίτη ἡ νομαδιαία καὶ χερσαία, Lefort, *Géométries*, pp. 62–63.

CHAPTER TWO

Transport and Communication

Klaus Belke

ALTHOUGH SOME progress has been achieved during the last decade or two, sound methods for embedding subjects such as transport and communication into a larger context of the various social, economic, political, and military conditions of the Byzantine state are still lacking.¹ The aim of this contribution to the *Archaeology of Byzantine Anatolia* is therefore confined to presenting some material regarding transport and communication by land, drawn mainly from written sources but also from archaeological evidence.

ROAD NETWORK

The Romans had built and maintained a network of long-distance roads as well as “secondary” connections, primarily for military and administrative purposes, but that nevertheless also served private commercial interests and travel.²

The study of Roman and Byzantine roads in Asia Minor owes much to the work of D. French. Starting from his experience in fieldwork, he developed a set of definitions for various types of roads and a theoretical approach to their development from the pre-Roman to the post-Byzantine period. Regarding only the types of roads relevant to this contribution, French differentiates between *highways* (broad and paved, for vehicles), *roadways* (narrow and paved, for pack animals), *track ways* (broad, constructed but not paved), and *pathways* (narrow, not paved). In terms of time, he argues that in the course of repairs or rebuilding in the sixth and seventh centuries AD, the old highways were often changed to roadways; in addition, to mountainous, steep stretches of these roadways were added steps, which facilitated the sure footing of pack animals but impeded vehicular traffic. They were therefore designed for non-vehicular

1. Cf. Haldon, “Roads and Communications,” pp. 131–32.

2. For a general bibliography on Roman roads, see Schneider, *Altstraßenforschung* (general introduction to problems, methods, and results); Chevallier, *Voies Romaines* (detailed description of various aspects, centered mainly on Italy and Gaul); Pekáry, *Untersuchungen* (esp. on juridical and administrative questions).

traffic.³ This view seems to be based on sound evidence, but it is nevertheless too schematic.

The decrease in wheeled traffic in Asia Minor was a process that started as early as the fourth century and was completed in the sixth century. The average width of ca. 3.5 m (according to French, a roadway) was still sufficient to handle limited wheeled traffic, and ox-carts could also jolt over flat steps. I therefore think that in the Roman as well as in the early Byzantine period, broader and narrower paved roads or stretches of roads coexisted, depending on the density of (wheeled) traffic, the difficulties of the terrain, the funds available, and the date of construction. One of the best-examined examples is the mountain pass through the Döşeme defile in Pamphylia, which was a part of the Augustan *Via Sebaste*. As a real highway it was more than 6 m wide, and ruts indicate wheeled traffic. In constant use until the 19th century, the road was repaired at least twice in the Roman period and again renovated or completely rebuilt in the Byzantine and/or the Ottoman periods. It was narrowed to 3–3.5 m and stepped in the early Byzantine period or later.⁴

The Roman roads that served public and private purposes were paved to a great extent, but not completely; there always remained stretches of roads that were covered only by a surface of pebbles or gravel. In Asia Minor, however, it seems that all (or most) roads that have left traces were indeed paved until the third century. But they generally lack the excavated ditch and the several layers of foundations that are described by Roman authors and are often found in other parts of the Roman world.⁵ The edging stones and the pavement are laid directly on the natural surface.⁶ Where the natural rock was either smooth enough or could be made sufficiently smooth, it served directly as road surface. This was especially the case in regions covered with soft tuff (parts of Cappadocia, Lycaonia, and Phrygia), where carts and wagons left deep ruts in the ground.⁷ The network of Roman roads can be reconstructed mainly from late antique itineraries (*Itinerarium Antonini*; *Itinerarium Burdigalense*; *Tabula Peutingeriana*), milestones, and road inscriptions—virtually nonexistent after the sixth century⁸—and, last but not least, physical remains of road surfaces and bridges.

The Byzantines, who had inherited the entire Roman road network, only rarely built completely new roads. Rather, after the sixth century they gradually ceased using some of the Roman roads as main routes and began instead choosing variant routes, which usually had already existed in the Roman period as

3. French, "Roads," p. 144; French, "Road-System," pp. 699–705; French, "Road Problem," pp. 448–52.

4. Hellenkemper/Hild, *Lykien und Pamphylien*, pp. 273–75, 643, 719 (with reference to older literature).

5. Chevallier, *Voies Romaines*, pp. 108–18; Quilici, "Roads," passim, esp. pp. 567–68.

6. French, *Roads and Milestones 1*, pp. 19–22; French, "Road System," p. 704; for different building techniques, see Schneider, *Altstraßenforschung*, pp. 31–35.

7. Belke, *Galatien und Lykaonien*, pl. 1–5; Hild, *Straßensystem*, pl. 95; for photos of different types of ancient roads throughout Asia Minor (not always correctly dated), see Donbaz/Güner, *Kral Yolları*, passim.

8. French, *Interim Catalogue*; French, "Road System," pp. 713–26.

well. An overview of the most important roads in Asia Minor—Roman and Byzantine—will therefore be given, with occasional remarks on the development in the middle Byzantine period (Fig. 2.1). Since no Byzantine itineraries comparable to the Roman ones exist, the main sources for the continuity as well as the successive changes of roads are Byzantine historiographical and hagiographical writings. In addition, although sometimes difficult to interpret in detail, Arabic historians and geographers such as Ibn Ḥurdādbih, Ibn Ḥauqal, al-Muqaddasī, or al-Idrīsī yield many pieces of information on the routes of middle Byzantine roads, which would otherwise be unknown.

Already during the Roman Imperial period, the road that crossed Asia Minor from northwest (Chalcedon/Kadıköy opposite Byzantium/Constantinople) to southeast (Syrian border, Antioch) via Nicomedia/İzmit, Nicaea/İzmit, Ancyra/Ankara, the Cilician Gates, and Tarsus developed into the backbone of the network of roads in the eastern part of the empire. It ensured above all a rapid connection, especially for armies, between the Balkan Peninsula and the eastern provinces (Syria, Arabia), but also served pilgrims on their way to the Holy Land (therefore often called “Pilgrim’s Road”).⁹ The course of this transversal through Asia Minor underwent noticeable modifications in the middle Byzantine period. Instead of running through Ancyra and skirting the Great Salt Lake/Tatta Limne/Tuz Gölü on its eastern side, the Byzantines came to prefer variants that led via Dorylaeum/Eskişehir, Amorium/Hisar—still later even via Cotyaeum/Kütahya—and Iconium/Konya to the Cilician Gates.¹⁰ They now also became one of the favored routes for incursions by Arab armies into northwestern Asia Minor as well as for Byzantine counter-strikes. Ancyra, Amorium, Dorylaeum, and Cotyaeum emerged as strongly fortified garrison towns for the protection of the Asian hinterland of Constantinople.¹¹

Several important roads ran directly to the eastern frontiers of the empire. A northern route branched off the Pilgrim’s Road in Nicomedia, which led via Claudiopolis/Bolu through Paphlagonia to Amasia/Amasya, Neocaesarea/Niksar, and Satala/Sadak in the Pontic region.¹² A middle route left the Pilgrim’s Road at Ancyra and headed directly to Sebasteia/Sivas. Here it split into two branches, one that led southeast to Melitene/Malatya and the Euphrates and another that led to Nicopolis.¹³ A third road, most

9. For the road stations that determine the course of the Pilgrim’s Road in Asia Minor, see *Itinerarium Antonini* 139, 1–147, 1; *Itinerarium Burdigalense* 571, 9–581, 6; *Tabula Peutingeriana* 8, 1–9, 4, ed. E. Weber, *Tabula Peutingeriana. Codex Vindobonensis 324. Vollständige Faksimile-Ausgabe im Originalformat und Kommentar*, Graz 1976; French, *Roads and Milestones* 1, passim; for certain stretches of the road, see Belke, *Galatien und Lykaonien*, pp. 93–97; Hild, *Straßensystem*, pp. 33–59; Hellenkemper/Hild, *Kilikien und Isaurien*, pp. 132–33; on the territory of Nicaea esp. Şahin, *İzmit*, vol. 2, 1 pp. 5–19.

10. Belke/Mersich, *Phrygien und Pisidien*, pp. 141–48; Belke, *Galatien und Lykaonien*, pp. 97–101; Hild, *Straßensystem*, pp. 60–3.

11. For sources, see the respective lemmata in Belke, *Galatien und Lykaonien*; Belke/Mersich, *Phrygien und Pisidien*.

12. Belke, *Paphlagonien und Honōrias*, pp. 117–24.

13. Belke, *Galatien und Lykaonien*, pp. 104–5; Hild, *Straßensystem*, pp. 104–12; the branch to Nicopolis and the Pontus region is sketched in Bryer/Winfield, *Pontos*, map, but not described as a continuous road; see Bryer/Winfield, *Pontos*, vol. 1 pp. 21–22, 46.



Fig. 2.1.
Byzantine roads in Anatolia as well as mountains, lakes, and rivers by ancient or Byzantine names. See the index for corresponding modern names (K. Belke/P. Niewöhner/
Wikimedia Commons [map])

important in the early Roman period, when, according to the geographer Artemidorus (late second century BC),¹⁴ it ran from Ephesus/Selçuk through Caria, Phrygia, Lycaonia, and Cappadocia (Mazaca/Caesarea [Kayseri]) to the Euphrates, had lost significance as a continuous road already in antiquity, but parts of it, especially in the west (Maeander Valley) and in the east (Caesarea to Melitene and the Euphrates), remained in use during the whole period under consideration.¹⁵

Roads leading south from various ports on the Black Sea (such as Sinope/Sinop, Amisus/Samsun, or Trapezus/Trabzon/Trebizond) and north from ports of the Mediterranean (especially Attalia/Antalya, Anemurium/Eskianamur, Seleucia/Silifke, and Aegeae/Ayaş/Yumurtalık) also existed, but most of them (except those from Trebizond and Attalia) did not gain the supra-regional importance of the west-east or the diagonal roads.¹⁶

ADMINISTRATION

Travel and transport were organized either by the state or privately. The so-called *cursus publicus* (to be rendered roughly as “courier service of the Roman Empire”), which dates from the Augustan era, was run by the state and provided means of transport along certain main roads for a limited circle of imperial couriers, high-ranking military leaders, civil servants, and official delegations as well as, perhaps only from the fourth to the sixth century, for certain transports of goods for the army or the imperial court. The use of the *cursus publicus* was strictly, but not always successfully, restricted to these groups when acting by order and in the interest of the state. Wagons and animals had to be provided by the local population and communities, and, from at least the fourth century at the latest, without compensation.¹⁷

Along the main roads of the empire, there were hostels (*mansiones*) run by the state at distances from each other corresponding roughly to an average day’s journey (20–30 miles), where travelers—especially those official travelers who were entitled to use the *cursus publicus*—could spend the night. Beneficiaries of the *cursus publicus* had to change carriages and animals placed at their disposal at these *mansiones* as well as at the *mutationes*, smaller road stations placed between the *mansiones*, which served only that purpose.¹⁸ The best-known example in Asia Minor is the *pandocheion* (“hostel”) near

14. Quoted by Strabo 14, 2, 29.

15. For the western section (as part of the first road-building activities in the new province of Asia from 129 BC onwards), see Mitchell, “Administration,” pp. 18–21; Belke/Mersich, *Phrygien und Pisidien*, pp. 149–50; for the eastern section, Hild, *Straßensystem*, pp. 84–103.

16. For roads heading south from Sinope, see Belke, *Paphlagonia and Honōrias*, pp. 134–35; from Amisus, see Bryer/Winfield, *Pontos*, vol. 1 pp. 39–40; from Trebizond, see *Ibid.*, vol. 1 pp. 48–55 (several roads). For roads heading north from Attalia, see Hellenkemper/Hild, *Lykien und Pamphylien*, pp. 273–75; Belke/Mersich, *Phrygien und Pisidien*, pp. 155–56; from Anemurium and Seleucia, see Hellenkemper/Hild, *Kilikien und Isaurien*, pp. 138–40; from Aegeae, see *Ibid.*, pp. 136–38.

17. Kolb, *Transport*, pp. 29–226; for transport of goods *Ibid.*, pp. 66–70, 96–98.

18. For these road stations, see Kolb, *Transport* 210–13.

Sykeon on the “Pilgrim’s Road,” home of St. Theodore of Sykeon, which must have replaced the *mutatio* Hieronpotamum (for Hieronpotamum).¹⁹ Archaeologically, the ruins of what was most probably such a *mutatio* are well preserved near the city of Maximianopolis on the before-mentioned road from Attalia to Pisidia south of the Döşeme defile. It is a two-storied, four-wing building around a central courtyard, with three doors that open directly onto the road.²⁰

In spite of the real or alleged reduction of the services of the *cursus publicus* by the emperor Justinian I,²¹ several middle Byzantine sources speak of “public horses” (one even of “public wagons”),²² which were used for transmitting orders from the emperor to the provinces.²³ Moreover, prominent Byzantines attempting flight would often wound or kill the public horses in the road stations (*allagai*) to prevent the authorities from pursuing them.²⁴

It thus becomes clear that the system of the *cursus publicus* and of road stations was maintained throughout the middle Byzantine period, now placed under the supervision of the *logothetes tou dromu*.²⁵ Information on routes served by the “Imperial Post” and road stations are also found in Arabic sources from the period of the Byzantine reconquest of the eastern Anatolian provinces. In the first place, there is the report of a journey from Kamḥ/Camacha/Kemah, in northern Armenia to Constantinople via Melitene and Ancyra, which was conducted by the Imperial Post Service, the successor to the *cursus publicus*. There are said to have been 186 “post stations” along that road, of which 108 were between Melitene and Constantinople.²⁶ Two Arabic sources show that, beside a sea route, there also was a land route between the harbor town of Attalia and Constantinople, along which the Imperial Post was also active,

19. *Vie de Théodore de Sykéon*, vol. 1 p. 3 et passim; *Itinerarium Burdigalense* 574, 9; see Belke, *Galatien und Lykaonien*, p. 228; Belke, “Pflasterstraße,” p. 273 note 36.

20. French, “Roma Yolları,” pp. 34–36 pl. 1, 3–5; Hellenkemper/Hild, *Lykien und Pamphylien*, p. 719 pl. 140.

21. Procopius of Caesarea, *Arcana historia* 30, 1–11, eds J. Haury/G. Wirth, *Procopii Caesariensis opera omnia* 3, Leipzig 1963, pp. 180–83; John Lydus, *On Powers or the Magistracies of the Roman State*, ed. A. C. Bandy, Philadelphia 1983, pp. 226–31; Belke, “Pflasterstraße,” pp. 271–72.

22. Symeon Magistros, *Chronicon*, ed. S. Wahlgren (Corpus Fontium Historiae Byzantinae 44, 1), Berlin 2006, p. 221 (flight of the general Manuel in 829).

23. Michael Psellos, *Chronographia* 1, 24, ed. S. Impellizzeri, *Michael Psellus, Imperatori di Bizanzio (cronografia)*, Verona 1984, vol. 1 pp. 34–37 (second rebellion of Bardas Skleros in 989).

24. Symeon Magistros, *Chronicon*, ed. S. Wahlgren (Corpus Fontium Historiae Byzantinae 44, 1), Berlin 2006, p. 287 (attempted flight of Samonas ca. 904); Michael Psellos, *Chronographia* 6, 102, ed. S. Impellizzeri, *Michael Psellus, Imperatori di Bizanzio (cronografia)*, Verona 1984, vol. 2 p. 40 (flight of the rebellious Tornicius and his men to Adrianople [Edirne in Thrace] in 1047).

25. On this important officer of the middle Byzantine period, see *Oxford Dictionary of Byzantium* II, Oxford 1991, pp. 1247–48 s.v. “Logothetes tou Dromou” (A. Kazhdan); also *Oxford Dictionary of Byzantium* I, Oxford 1991, p. 662 s.v. “Dromos” (A. Kazhdan).

26. Ibn Hauqal, *Configuration de la terre*, vol. 1 pp. 199–200; the exact route cannot be reconstructed with certainty, especially in its eastern part; cf. Hild/Restle, *Kappadokien*, p. 281; the journey there and back to Kamḥ may have followed different routes; see Dimitroukas, *Reisen*, vol. 2 pp. 586–89. Other Arab itineraries, such as those enumerated e.g. by Honigsmann, “Un itinéraire arabe,” may (but need not) hint at the existence of post stations along other routes as well.

carrying imperial despatches and letters by mules and pack animals in eight or nine days.²⁷

The Byzantine state, like the Roman state, was of course dependent on usable overland roads for the proper functioning of the administration and, above all, the mobility of the army. It was probably for these purposes, more than for merchants and private travelers, that the state provided the maintenance of the empire's roads.²⁸ In order to achieve this, the state, in the early as well as in the middle Byzantine period, demanded compulsory labor (*angareia*) from those who were living along the roads or owned land there. These *angareiai* consisted not only in supplying food and lodging, animals, and carts, as for the *cursus publicus*, but also in building and maintaining roads and bridges; relevant terms are *hodoistrosia* and *gephyrosis* or *gephyroktisia*.²⁹

Complaints about bad road conditions on campaigns in the historical sources are rare, but significant. In 877 the emperor Basil I had to burn the shrubs and cut down the trees that grew on a road near Cucusus before he could pass.³⁰ But apart from general comments on how narrow and difficult the roads were,³¹ there seem to be few or no reports that the Byzantine armies were severely impeded from moving in Anatolia because of bad road conditions. For example, the army that the emperor Romanos IV led to the battle of Mantzikert in 1071 could pass all the way (ca. 1,500 km) without the sources mentioning any hindrance. The emperor's personal baggage train included *ochemata*, probably horse- or mule-drawn carriages, which demanded better roads than ox-carts and were burned in a fire while the army camped in a plain in the Anatolic *theme*. The army then crossed the Zompou bridge over the Sangarius River and then over the Halys, probably also on a bridge. Behind Sebasteia/Sivas Attaliates speaks of two *atrapoi*, pathways, which headed to the *theme* of Colonia and seem to be a variation for the *hodoi* of the next paragraph. Before Mantzikert, Romanos placed the heavy siege machines that he had prepared on no fewer than 1,000 ox-carts. He probably had them brought from his last stop at Theodosiopolis/Erzurum, where he had provisioned the army for the last time, i.e. a distance of nearly 200 km away.³²

27. Ibn Hauqal, *Configuration de la terre*, vol. 1 p. 196; Ibn Rusta: Vasiliev, *Byzance et les Arabes*, pp. 382–83; Dimitroukas, *Reisen*, vol. 1 pp. 594–95; Hellenkemper/Hild, *Lykien und Pamphylien*, pp. 273–74.

28. Avramea, "Land and Sea Communications," p. 62.

29. Stauridou-Zaphraka, "Η ἀγγαρεία στὸ Βυζάντιο," pp. 26–38. 40–44; Haldon, "Roads and Communications," pp. 137–38.

30. Constantine VII Porphyrogenitus (attr.), *Vita Basilii*, ed. I. Ševčenko, *Chronographiae quae Theophanis Continuati nomine fertur liber quo vita Basilii imperatoris amplectitur* (Corpus Fontium Historiae Byzantinae 42), Berlin 2011, p. 168; Hild, *Straßensystem*, p. 134.

31. e.g. Thophanes, *Chronographia*, ed. de Boor, vol. 1 p. 312, on Heraclius' march to the east in 626. Remarks like this may sometimes be regarded as *topos*, but are in accordance with French's observations on the narrowing of Byzantine roads quoted above, pp. 28–29.

32. Romanos' IV march to Mantzikert is described in Michael Attaliates, *Historia*, ed. I. Pérez Martín, *Miguel Ataliates, Historia*, Madrid 2002, pp. 107–13, and, with fewer details, in Nikephoros Bryennios, *Historia*, ed. P. Gautier, *Nicéphore Bryennios, Histoire* (Corpus Fontium Historiae Byzantinae 9), Brussels 1975, pp. 103–7.

MEANS OF TRANSPORTATION

In the Roman period, all means of transport were to be found on the empire's roads: persons traveling on foot; riding donkeys, mules, or horses; or using various types of carts and carriages, even, if rarely, litters.³³ Regarding goods and commodities, porters carrying goods on foot were found primarily in the immediate vicinity of settlements. Over land, goods were transported on four-wheeled carriages, e.g. the *raeda*, which was usually drawn by mules or two-wheeled carts drawn by oxen.³⁴ Horses did not play a considerable role as draught animals.³⁵ Side by side with carriages and carts, there were pack animals such as donkeys, mules, and, less importantly, horses. Especially in the south and southeast of Asia Minor, camels, i.e. dromedaries, also played a certain role.³⁶

From the early Byzantine period onwards arose complaints in both historiographical and in legal texts about bad conditions of roads and bridges,³⁷ while wheeled traffic for carrying people was gradually replaced by riding animals, as can be deduced from the laws collected in *Codex Theodosianus* VIII 5 as well as from other sources.³⁸ Within the scope of the *cursus publicus*, the service of the *cursus clabulari(u)s*, which was designed for less important state officers and for heavy loads such as equipment for soldiers etc. to be transported in the interest of the state, was abandoned in the fifth century and, at least for a certain time, replaced by hired wagons and oxen.³⁹

For short-distance transportation of heavy loads, such as agricultural goods, building materials, etc., the traditional two-wheeled ox-carts remained in continuous use from antiquity to the Ottoman period, often beside pack animals. No texts refer to wheeled long-distance traffic for merchandise in early Byzantine Anatolia, which was conducted by animal caravans instead. In spite of the higher costs compared to sea routes, a certain amount of overland transport to Constantinople occurred on animal caravans, especially of luxury goods (e.g. silk), which were imported from the Middle and Far East, via Trapezus/Trabzon, Aleppo, Attalia, and some other places. For example, within the customs regulations in the treaty of peace between the emperor John I Tzimiskes and the Hamdanids of Aleppo (December 969), caravans carrying merchandise from the Byzantine Empire to Aleppo are mentioned.⁴⁰ Likewise, the tribute to be delivered by the Hamdanids to the emperors was carried along the land

33. Röring, *Untersuchungen zu römischen Reisewagen*, passim.

34. For types of carts, carriages, and wagons, see Weber, "Wagen in Italien," pp. 95–102.

35. Raepsaet, *Attelages*, pp. 35–36, 50–51; Raepsaet, "Land Transport," pp. 587–88.

36. For travel and transport with different means and for average speeds that could be obtained with them in the Roman period, see Kolb, *Transport*, pp. 308–17; for camels, see Hellenkemper/Hild, *Kilikien und Isaurien*, p. 112.

37. Lughis, "Παραδείγματα," pp. 37–42, based mostly on Procopius; Justinian I's efforts to improving the neglected road conditions proved limited; Haldon, "Roads and Communications," pp. 136–37.

38. Cf. Belke, "Pflasterstraße," p. 268.

39. Belke, "Pflasterstraße," p. 271. For the interrelation of the decline of the Roman roads and the decrease of wheeled traffic cf. Bulliet, *The Camel and the Wheel*, pp. 26–27.

40. Dölger/Müller, *Regesten*, vol. 1, 2 cat. 728a; Dimitroukas, *Reisen*, vol. 1 p. 155.

route to Constantinople in 977. This transport is mentioned incidentally on occasion of a battle near the otherwise unknown place of Oxyolithus. Although not specified, it is certain that the tribute was delivered on pack animals.⁴¹

Other locations for levying customs on commodities arriving from the east as well as for Byzantine exportations were Trapezus and Attalia.⁴² Both are mentioned here, because they also served as intersections between land and sea trade. Commodities from the east continued their way from Trapezus to Constantinople either by sea or by caravans through Asia Minor.⁴³

The same development from wheeled transportation to pack animals can be observed for the army. A comparison of early and middle Byzantine *tactica* and other polemological works shows that the use of carts for baggage and equipment in the baggage train was reduced from frequent⁴⁴ to nearly nothing during this period.⁴⁵ This could reflect a general deterioration of roads, but could also be due to the changing military tactics, e.g. the increasing role of the cavalry, for which carts would be too slow. For special tasks, e.g. transport of siege machines or boats, ox-carts were always used.⁴⁶

TRAVELERS AND TRADE

Monks, an astonishingly mobile part of Byzantine society, formed a considerable percentage of travelers. Due to the rich hagiographical material, our documentation for this group, and above all for saint monks, is much better than for others. Notwithstanding the canonical rule of *stabilitas loci*, monks and to a lesser degree nuns, too, moved between monasteries even in distant parts of the empire, from monastery to hermitages, and visited local or famous superregional places of pilgrimage, often as far as the Holy Land. Compulsory migrations were frequent in periods of persecution, especially during the Invasion Period.⁴⁷ Bishops attended the yearly provincial synods in the metropolis of

41. Skylitzes, *Synopsis*, p. 321; Belke/Mersich, *Phrygien und Pisidien*, pp. 353–54.

42. Ibn Hauqal, *Configuration de la terre*, vol. 1 pp. 192–93; vol. 2 p. 337; Dimitroukas, *Reisen*, vol. 1 pp. 157–58.

43. Dimitroukas, *Reisen*, vol. 1 p. 156; cf. Lopez, “Silk Industry,” p. 29–30, citing from Arabic sources.

44. In the so-called *Strategikon* of emperor (?) Maurice, eds G. T. Dennis/E. Gamillscheg, *Das Strategikon des Maurikios* (Corpus Fontium Historiae Byzantinae 17), Vienna 1981, pp. 515 (index Graecus s.v. ἄμαξα). 531 (s.v. καραγός).

45. e.g. the tenth-century Anonymus, *Campaign Organization and Tactics*, ed. G. T. Dennis, *Three Byzantine Military Treatises* (Corpus Fontium Historiae Byzantinae 25), Washington, DC, 1985, p. 304 lines 36–42, where the author envisages the possibility of using carts for baggage in the Balkans “if feasible”; nothing in the military works of the emperor Nikephoros II Phokas: McGeer, *Sowing the Dragon's Teeth* (the so-called *Praecepta Militaria*); Dagron/Mihăescu, *Traité sur la guérilla*, indices. In Leo VI, *Taktika*, ed. G. Dennis, *The Taktika of Leo VI* (Corpus Fontium Historiae Byzantinae 49), Washington, DC, 2010, carts in the baggage train are mentioned frequently (see index), but these *tactica* are based on earlier works, esp. Maurice; cf. Belke, “Pflasterstraße,” pp. 278–79.

46. Examples in Belke, “Pflasterstraße,” pp. 277–79.

47. Relevant materials for the Byzantine world from the fourth century until the late eleventh century are collected and arranged according to various aspects such as, for example, places of origin, destination, purpose of travel by Malamut, *Saint*, passim; see also Dimitroukas, *Reisen*, vol. 2 pp. 609–12.