



ELSEVIER

Journal of Medieval History 30 (2004) 83–107

Journal of
**Medieval
History**

www.elsevier.com/locate/jmedhist

Houses, streets and shops in Byzantine Constantinople from the fifth to the twelfth centuries

K.R. Dark*

Research Centre for Late Antique and Byzantine Studies, The University of Reading, Humanities and Social Sciences Building, Whiteknights, Reading RG6 6AA, UK

Abstract

This paper presents an analysis and reinterpretation of current evidence for houses, streets and shops in fifth- to twelfth-century Byzantine Constantinople, focussing on archaeological evidence. Previously unidentified townhouses and residential blocks are located. These show greater similarities to Roman-period domestic architecture than might be expected. Changes in the architectural style may be related to social change in the seventh century. Berger's reconstruction of the early Byzantine street plan is shown to be archaeologically untenable. This has implications for the identification of formal planning and the boundaries of urban districts in the Byzantine capital. The limited archaeological evidence for streets and shops is also discussed.

© 2004 Elsevier Ltd. All rights reserved.

Keywords: Byzantine; Constantinople; Houses; Shops; Streets; Archaeology; Cultural change

1. Introduction

This paper aims to ask what archaeology can tell us about the houses, streets and shops of Byzantine Constantinople between the fifth and 12th centuries. Abundant textual sources exist for the political, ecclesiastical and intellectual history of the city, but these provide much less information about the everyday life of its inhabitants. One would suppose that archaeology ought to play a central role in elucidating these aspects of urban history, but this has not been the

* *E-mail address:* k.r.dark@reading.ac.uk (K.R. Dark).

case. Remarkably, archaeologists have relatively neglected Istanbul for over a quarter of a century, compared to almost any other ancient or medieval capital city.¹

So far as the archaeology of everyday life is concerned, this neglect has been compounded by an over-emphasis on ecclesiastical and imperial monuments. Almost all the few archaeologists working on Byzantine Constantinople since c. 1975 have been interested primarily in the ‘monumental core’ of the city, its churches, or its sculpture. In the absence of trained archaeologists, the study of the remainder of the city’s material heritage has often been left to art- and architectural-historians, whose research agendas have frequently tended to focus more on things than people. As a result, there has been little attempt to record data relating to the daily life of the majority of the inhabitants of the Byzantine city, let alone to interpret these data in terms of contemporary archaeological theory. No published excavation has aimed primarily at identifying and examining low-status domestic occupation in the Byzantine capital.²

This pattern of relative neglect provides the background to this paper, which attempts to use archaeological analysis to investigate the structural context of everyday life in the Byzantine capital: its houses, shops and streets. The analysis of domestic structures has been central to the archaeology of towns in the Roman and Byzantine world in general and should be crucial to understanding Byzantine Constantinople.³

However, the archaeological study of houses of the Byzantine capital is not as simple as it might seem. It is useful to begin by looking at what written and comparative evidence can tell us about domestic structures in Byzantine Constantinople, before examining the archaeological material.

2. Textual evidence for domestic structures in Byzantine Constantinople

As Cyril Mango and others have shown, texts provide a wealth of information about imperial palaces in the Byzantine capital, although this material is usually extremely difficult to interpret. Paul Magdalino has discussed in detail what written

² For example, T. F. Mathews, *The art of Byzantium* (London, 1998), T. F. Mathews, *Byzantium from antiquity to the renaissance* (New York, 1998).

³ For the role of domestic structures in the archaeological study of the Roman Empire: S. Ellis, *Roman housing* (London, 2000); A. G. McKay, *Houses, villas and palaces in the Roman world* (London, 1975).

³ For the role of domestic structures in the archaeological study of the Roman Empire: S. Ellis, *Roman housing* (London, 2000); A. G. McKay, *Houses, villas and palaces in the Roman world* (London, 1975). Textual evidence for the Byzantine house has been reviewed by: P. Koukoules, *Byzantion bios kai politismos*, vol. 4 (Athens, 1951), 249–317; E. Patlagean, ‘Byzantium in the tenth and eleventh centuries’, *A history of private life. From pagan Rome to Byzantium*, ed. P. Veyne, vol. 1 (Cambridge, MA, 1987), 551–64.

sources tell us of non-imperial upper class housing in Byzantine Constantinople, in particular, *oikoi* or residential complexes.⁴

Detailed descriptions exist of a few complexes of this sort. For example, the Constantinopolitan residence of Michael Attaliates is described in a late eleventh-century foundation charter. This had an inner courtyard and was partially three-storied, with a projecting upper storey. A chapel and mill were situated on the ground floor, the latter suggesting access by servants or other employees.⁵

The most detailed description of an upper class residence is the twelfth-century inventory of the 'Palace of Botaneiates'. This seems to have been a complex of buildings set around courtyards, one containing an elaborately decorated church.⁶

Although they provide an impression of elite homes, written sources do not tell us much about low-status housing in Byzantine Constantinople. Nevertheless, it is clear that Early Byzantine (fifth–seventh century) Constantinople contained blocks of 'high-rise' apartments of up to five storeys, like the *insulae* of Rome and Ostia. There were streets where these were built very close together (a distance of 2–3 m had to be legally enforced), suggesting that there was a pattern of narrow alleys between them, just as in early imperial Rome.⁷

It is also clear that parts of the fifth-century city were densely packed with buildings. Excluding evidence for what may have been imperial residences, we hear of 4388 households in the *Notitia Constantinopolis* of c. 425. These were largely concentrated within the fourth-century Constantinian wall of the city, suggesting high-density domestic occupation in this area.⁸

Even the Middle Byzantine city had residential buildings of two storeys or more. John Attaliates's house had up to three storeys, Tsetses complained about living in a lower storey apartment in the twelfth century and, in the early thirteenth century, Mesarites owned a three-storey house in the city centre. Thus, the city may still

⁴ P. Magdalino, 'The Byzantine aristocratic *oikos*', *The Byzantine aristocracy, IX–XIII centuries*, ed. M. Angold (Oxford, 1984), 92–111; P. Magdalino, *Constantinople médiévale. Études sur l'évolution des structures urbaines* (Paris, 1996); P. Magdalino, 'Aristocratic *oikoi* in the tenth and eleventh regions of Constantinople', *Byzantine Constantinople. Monuments, topography and everyday life*, ed. N. Necipolğlu (Leiden, 2001), 53–69. D. Kuban, *Istanbul: an urban history, Byzantium, Constantinopolis, Istanbul* (Istanbul, 1996), 163–6.

⁵ P. Gautier, 'La Diataxis de Michel Attalite', *Revue d'études Byzantines*, 39 (1981), 27–39 (especially 29). See also: G. Dagron, 'The urban economy, seventh–twelfth centuries', *The economic history of Byzantium from the seventh through the fifteenth century*, ed. A. E. Laiou (Washington, DC, 2002), 393–461 (42–5, 98–101).

⁶ M. Angold, 'Inventory of the so-called Palace of *oikos*', *The Byzantine aristocracy*, ed. M. Angold, 254–63; A. Berger, 'Zur Topographie der Ufergegend am Goldenen Horn in der byzantinischen Zeit', *Istanbul Mitteilungen*, 45 (1995), 149–65 (162); M. Mundell Mango, 'Botaneiates Palace Church', *A lost art rediscovered. The architectural ceramics of Byzantium*, ed. S. E. J. Gerstel and J. A. Lauffenberger (University Park, PA, 2001), 230.

⁷ D. Kuban, *Istanbul: an urban history, Byzantium, Constantinopolis, Istanbul* (Istanbul, 1996), 163–6; G. Dagron, *Naissance d'une capitale. Constantinople et ses institutions de 330 à 451*, 2nd ed. (Paris, 1984), 528; A. Berger, 'Regionen und Straßen im frühen Konstantinopel', *Istanbul Mitteilungen*, 47 (1997), 349–41 (377–378, 382–3).

⁸ Berger, 'Regionen und Straßen im frühen Konstantinopel', 349–414 (353, 382–3).

have contained multi-storey apartment blocks and private houses as late as c. 1200.⁹

There were also *ούλοι*: groups of residential and commercial structures set around a courtyard, owned by an absentee landlord. These are recorded from several Middle Byzantine towns and might be owned by the secular individuals or ecclesiastical bodies. Other low-status structures were created out of subdividing disused *oikoi*—following a time-honoured Byzantine custom.¹⁰

Moreover, most buildings were still probably constructed of stone or brick. Although David Jacoby has noted that after 1204, ‘private structures in stone were clearly in the minority’ in Constantinople, this does not seem to have been true of the city before that date. The *oikoi* discussed by Magdalino were (at least in part) constructed of stone. Comparative evidence amassed by Charalambos Bouras, Semavi Eyice, Lef Sigalos and others, shows that in other Middle Byzantine urban centres, low-status houses were stone- or brick-built rectangular structures with few rooms, sometimes arrayed in considerable numbers around a communal courtyard. The latter may be what written sources call *ούλοι*.¹¹

Textual and comparative evidence, therefore, suggest that the Early and Middle Byzantine city probably contained several categories of non-imperial domestic structures. There were elite residential complexes with courtyards and attached churches, comfortable private stone houses, multi-storey apartment blocks, *ούλοι* and individual low-status houses and shops. One might discern hints of social grades of housing, from the aristocratic mansion to the roadside shop. Texts also make it clear that the poorest inhabitants lacked any housing, living on the streets and sleeping in the shelter of porticoes.¹²

⁹ D. Jacoby, ‘The urban evolution of Latin Constantinople (1204–1261)’, *Byzantine Constantinople*, ed. N. Necipolglu, 277–298 (281); P. Magdalino, ‘Medieval Constantinople: built environment and urban development’, *Economic history of Byzantium*, ed. Laiou, 529–37 (534).

¹⁰ G. Dagron, ‘The urban economy, seventh–twelfth centuries’, *The economic history of Byzantium*, 393–461 (422 and no. 158). For shops built in disused *oikoi*: N. Oikonomides, ‘Quelques boutiques de Constantinople au Xe siècle: prix, loyers, imposition (Cod.Patmiacus 171)’, *Dumbarton Oaks Papers*, 26 (1972), 345–56. For the custom of subdividing derelict elite residences: S. P. Ellis, ‘The end of the Roman house’, *American Journal of Archaeology*, 92 (1988), 565–76; H. Saradi, ‘Privatization and subdivision of urban properties in the Early Byzantine centuries: social and cultural implications’, *Bulletin of the American Society of Papyrologists*, 35 (1998), 17–43.

¹¹ C. Bouras, ‘Aspects of the Byzantine city, eighth–fifteenth centuries’, *Economic history of Byzantium*, ed. Laiou, 513–20; S. Eyice, ‘Türkiye’de Bizans Dönemi Yerleşimi Hakkında Notlar (Observations on Byzantine Period Dwellings in Turkey)’, *Tarihten Günümüze Anadoluh’Da Konut Ve Yerleşme. Housing and settlement in Anatolia: a historical perspective* (Istanbul, 1996), 206–20; *Secular buildings and everyday life in the Byzantine Empire*, ed. K. R. Dark (Oxford, in press); K. Rheidt, ‘Byzantinsche Wohnhäuser des 11 bis 14. Jahrhunderts in Pergamon’, *Dumbarton Oaks Papers*, 44 (1990), 195–204; K. Rheidt, *Pergamon. Die Stadtgrabung Teil 2. Die Byzantinsche Wohnstadt* (Berlin, 1991); K. Rheidt, ‘City or village? Housing and settlements in Middle and Late Byzantine Anatolia’, *Tarihten Günümüze Anadoluh’Da Konut Ve Yerleşme. Housing and settlement in Anatolia: a historical perspective* (Istanbul, 1996), 221–32; R. Ousterhout, ‘Secular architecture’, *The glory of Byzantium*, ed. H. C. Evans and W. D. Wixom (New York, 1997), 192–9.

¹² P. Magdalino, ‘Medieval Constantinople: built environment and urban development’, *Economic history of Byzantium*, ed. Laiou, 529–37 (534).

3. Textual evidence for residential districts

Written sources may help us to reconstruct an outline of the ‘urban structure’: the basic layout of the walled city. Both the early fifth-century *Notitia* and early 10th-century ‘Book of the Eparch’ suggest dense settlement inside the Constantinian walls. However, there is little hint of any similar occupation between the fourth- and fifth-century circuits. If this was not an area of dense occupation, and high-density low- and middle-status housing was excluded from the monumental centre of the city, then this leaves only a relatively narrow strip of land inside the Theodosian walls where the majority of the population could have lived. It may be no coincidence that this is also the area of the major fifth-century *fora*, still functioning as market places throughout the period discussed here.¹³

It is, therefore, possible that non-imperial residential structures were largely concentrated in this area, between the Chalkoprateia and the Constantinian wall. The main harbourside districts along the Golden Horn and Marmara, recently discussed by Magdalino, would have bounded this zone to the north and south, linking high-density low-status occupation to the availability of commercial and maritime work.¹⁴

Upper class residential districts may also be discerned from written evidence. Mango has noted that the private foundation of religious houses near high-status residences indicates the approximate position of these residences. This suggests that elite occupation was also concentrated in particular districts of the city. The Konstantinianiai, near the surviving part of the so-called ‘Aqueduct of Valens’, seems to have been especially favoured, possibly because of its excellent water supply. This stands almost in the geographical centre of what may have been the low-status residential district of the city.¹⁵

So we may have hints of an urban structure, with five discernable zones within the fifth-century walls (Fig. 1):

1. A monumental core, including the Great Palace, Hippodrome, Augusteion, Hagia Sophia and acropolis area, defined by major harbours to its west.¹⁶

¹³ Magdalino, ‘Medieval Constantinople: built environment and urban development’, *Economic history of Byzantium*, ed. Laiou, 529–37 (536); K. R. Dark, ‘The distribution and density of occupation in Byzantine Constantinople c. 1100–1453’, *Town and country 1100–1500*, ed. C. Dyer and K. Giles (London, in press). For a translation (into German) of the ‘Book of the Eparch’: J. Koder, *Das Eparchenbuch Leons des Weisen* (Vienna, 1991).

¹⁴ P. Magdalino, ‘The maritime neighborhoods of Constantinople: commercial and residential functions, sixth to twelfth centuries’, *Dumbarton Oaks Papers*, 54 (2000), 209–26.

¹⁵ P. Magdalino, ‘Aristocratic *oikoi* in the tenth and eleventh regions of Constantinople’, *Byzantine Constantinople*, ed. Necropolğlu, 53–69.

¹⁶ For recent discussions of this area: J. Bardill, ‘The Palace of Lausus and nearby monuments in Constantinople: a topographical study’, *American Journal of Archaeology*, 101 (1997), 67–95; R. Stichel, ‘Sechs kolossale Säulen nahe Hagia Sophia und die Curia Justinians am Augusteion in Konstantinopel’, *Architectura*, 30 (2000), 1–25.

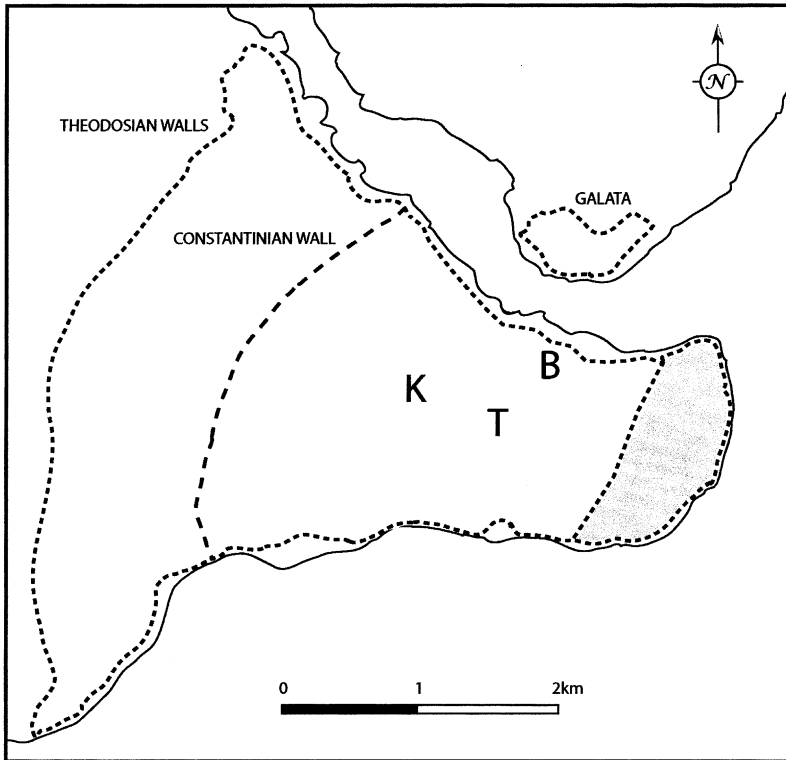


Fig. 1. Map showing suggested urban zones within the walls of Constantinople. Shaded area is the monumental core of the city (Zone 1), the residential zone (Zone 3) was between the Constantinian Wall and this zone, with the harbourside zone along the coasts (Zone 2), but the boundaries of Zone 2 are not clearly enough defined in texts or archaeology to permit mapping. Zone 5 was between the Constantinian and Theodosian Walls. K, Konstantiniana; B, Balkapani Han; T, Forum of Theodosius.

2. Coastal harbourside zones, north and south of the city, immediately west of that monumental core. These initially consisted of the city's port facilities, granaries and commercial and official warehouses.¹⁷
3. A low- and middle-status residential zone, between the Chalkoprataia and Constantinian wall. This is where apartment blocks and *ὀῦλοι* might be expected.
4. A high-status residential zone, approximately in the geographical centre of zone 3, although other high-status houses were located in all zones.
5. A broad swathe of largely open land, containing ecclesiastical and high-status residential complexes, cemeteries, parks and fields between the Constantinian and Theodosian walls.

¹⁷ P. Magdalino, 'The maritime neighborhoods of Constantinople: commercial and residential functions, sixth to twelfth centuries', *Dumbarton Oaks Papers*, 54 (2000), 209–26.

Further subdivision within these zones may be discerned on textual grounds in the case of zones 1, 2 and 3. For example, Magdalino and others have drawn attention to functional differentiation between the harbours and waterfront facilities, depending upon the commodities handled and the degree of official involvement. Within zone 3, the 'Book of the Eparch' shows trades concentrated in specific areas and this is also implied by the specialised uses to which *fora* were put.¹⁸

This pattern suggests that the principal focus of everyday life in the Early Byzantine and Middle Byzantine city was not the monumentalised eastern tip of the promontory. The residential areas relate to the central thoroughfares of the Mese and the porticoed streets leaving it. These streets were lined with shops and public spaces used for commercial purposes, again connecting the workforce with potential sources of employment. Providers of everyday staple foods lay at the heart of this area, suggesting proximity to their market.¹⁹

This pattern may have already been established at the start of the Byzantine period. Even in the *Notitia*, as Magdalino has noted, Regions VI, VII and X, have the highest numbers of recorded domestic structures. That these represent only the north of zone 3 is characteristic of the pattern that he has recognised elsewhere of a shift in emphasis between the Golden Horn and Marmara for trade during the Byzantine period.²⁰

So, the outline of an urban structure based on functional zonation can be recognised from texts alone. However, there was not an absolute spatial division between high- and low-status residences, and this urban structure was not entirely static. For example, Magdalino has shown that harbours could come into use and others pass out of favour, leading to a gradual shift in the location of maritime trade and the replacement of grand harbours with small private landing stages or *skalai*.²¹

This model of the urban structure permits one to focus attention on the most likely areas in which different types of activity were located. In this case, one may focus on zone 3 when seeking archaeological material relating to mass housing.

¹⁸ T. Thomov and A. Ilieva, 'The shape of the market: mapping the Book of the Eparch', *Byzantine and Modern Greek Studies*, 22 (1998), 105–16; M. Mundell Mango, 'The commercial map of Constantinople', *Dumbarton Oaks Papers*, 54 (2000), 189–207.

¹⁹ T. Thomov and A. Ilieva, 'The shape of the market: mapping the Book of the Eparch', *Byzantine and Modern Greek Studies*, 22 (1998), 105–16; M. Mundell Mango, 'The commercial map of Constantinople', *Dumbarton Oaks Papers*, 54 (2000), 189–207; G. Dagron, 'The urban economy, seventh–twelfth centuries', *Economic history of Byzantium*, ed. Laiou, 393–461 (no. 355).

²⁰ P. Magdalino, 'Aristocratic *oikoi* in the tenth and eleventh regions of Constantinople', *Byzantine Constantinople*, ed. N. Necropolğlu, 53–69 (especially 55).

²¹ P. Magdalino, 'The maritime neighborhoods of Constantinople: commercial and residential functions, sixth to twelfth centuries', *Dumbarton Oaks Papers*, 54 (2000), 209–26; P. Magdalino, 'Medieval Constantinople: built environment and urban development', *Economic history of Byzantium*, ed. Laiou, 529–37 (532).

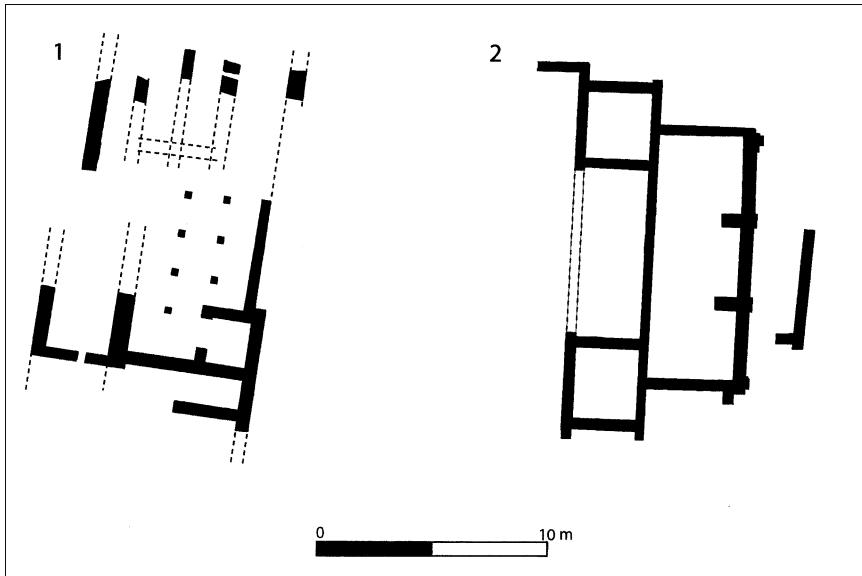


Fig. 2. Plan of the Byzantine structure near the Forum of Theodosius (1) discussed in the text, compared with the excavated Middle Byzantine palace from the Myrelaion/Bodrum Camii (2) (after W. Müller-Wiener, 1977 and Striker, 1981).

4. Archaeological evidence for non-imperial domestic structures

The only Byzantine domestic structures in the city to have attracted much archaeological study are those in the Great Palace of the emperors. A puzzling array of structural evidence is now known (although not by any means entirely published) from excavation and survey in the Great Palace area. In recent years, notable contributions have been made especially by the work of Alpay Pasinli, Werner Jobst and Eugenia Bolognesi-Recchi Franceschini.²²

What may be parts of other imperial palaces have also been published. These include a Middle Byzantine structure at the Myrelaion (Bodrum Camii) (Fig. 2(2)), what may be a large portion of the Middle Byzantine Mangana Palace near the sea

²² For summaries of recent archaeological work on the Palace area: W. Jobst, B. Erdal and C. Gurtner, *Istanbul Büyük Saray Mozayığı. Araştırmalar, Onarım ve Seileme 1983–1997/Istanbul Das Grosse Byzantinische Palastmosaik. Seine Erforschung, Konservierung und Präsentation/ Istanbul. The Great Palace Mosaic. The story of its exploration, preservation and exhibition 1983–1997* (Istanbul, 1997); *Neue Forschungen und Restaurierungen im byzantinischen Kaiserpalast von Istanbul*, ed. W. Jobst (Vienna, 1999), 9–16; E. Bolognesi, 'Il Gran Palazzo', *Bizantinistica (Rivista di Studi Bizantini e Slavi)*, 3rd Ser. 2 (2000), 197–242. See also C. Mango, 'The Palace of Marina, the poet Palladas and the Bath of Leo VI', *Ευφρόσυνον. Αφιέρωμα στον Μ. Χατζηδόκη* (Athens, 1991), 321–30; C. Mango, 'Ancient Spolia in the Great Palace of Constantinople', in *Byzantine East, Latin West: Art historical studies in honor of Kurt Weitzmann*, ed. C. Moss and K. Kiefer (New Haven, 1995), 645–9; C. Mango, 'The Palace of the Boukoleon', *Cahiers Archéologiques*, 45 (1997), 41–50.

walls close to Topkapı Sarayı, and the ‘Prison of Anemas’, an enigmatic complex in the northwest of the city. These have ground plans, orientations and other architectural details that differ from each other and from the known parts of the Great Palace. As such, they seem to offer no prospect of generalising about the city’s palatial architecture. The one shared impression gained from these sites is that imperial palaces were constructed on bulky vaulted brick substructures built into artificial terraces.²³

However, life in imperial palaces was, by definition, an aspect of everyday domestic experience that encompassed only a minority of the city’s Byzantine inhabitants. So, in order to understand the archaeology of domestic life in Byzantine Constantinople as a whole, it is necessary to look at other parts of the city.

At first this seems a hopeless, even pointless, task. Many short lengths of Byzantine-period walling, or even small fragments of buildings, have been published that cannot certainly be assigned to ecclesiastical or imperial structures. These *could* be parts of domestic buildings, but there is no reason to assume that this is the correct interpretation of any of them. To an archaeologist, they remain nothing more than unidentified features, open to a wide range of possible interpretations. For example, a rectilinear structure with at least two rooms was found in the early twentieth century near the Byzantine ‘Babiali Cistern’. The structure seems to be Byzantine in date and another Byzantine cistern and a Byzantine substructure lay nearby. However, the character of this building and the substructure near it remains uncertain. They could be secular domestic structures, but need not be.²⁴

This apparent absence of evidence is probably largely due to the research strategies adopted by scholars working on the city. Their work has focussed almost entirely on the imperial and ecclesiastical monuments and only these have attracted large-scale excavation.

Patterns of archaeological survival above ground have accentuated this bias. Church buildings have been preserved by re-use as mosques or, in rare cases, remain in ecclesiastical use. Byzantine city walls, cisterns and terraces had obvious functional attractions to the city’s later occupants and so were often retained. But Byzantine houses were apparently seldom used for long after the Ottoman conquest. Even the imperial palace was immediately abandoned in favour of a new site

²³ W. Müller-Wiener, *Bildlexikon zur Topographie Istanbul* (Tübingen, 1977), 104–8 and 240–1; C. L. Striker, *The Myrelaion (Bodrum Camii) in Istanbul* (New Haven, 1981). See also: M. Mundell Mango, ‘Myrelaion (Bodrum Camii)’, *A lost art rediscovered. The architectural ceramics of Byzantium*, ed. S. E. J. Gerstel and J.A. Lauffenberger (University Park, PA, 2001), 197–99; R. Demangel and E. Mamboury, *Le quartier des Manges et le première région de Constantinople* (Paris, 1939); H. Tezcan, *Topkapı Sarayı ve çevresinin Bizans devri arkeolojisi* (Istanbul, 1989). A new survey and reinterpretation of the main ‘Prison of Anemas’ is to be published by Peter Hatlie and Alessandra Ricci (personal communication, Peter Hatlie, 2001).

²⁴ For examples, see: W. Müller-Wiener, *Bildlexikon zur Topographie Istanbul* (Tübingen, 1977); W. Kleiss, *Topographisch-Archäologischer Plan von Istanbul*, 2nd ed. (Tübingen, 1967). For the ‘Babiali Cistern’: A.M. Schneider, *Byzanz. Vorarbeiten zur Topographie und Archäologie der Stadt (=Istanbuler Forschungen 8)* (Berlin, 1936), 376–77; N. Firath, ‘Recent important finds in Istanbul’, *Istanbul Arkeoloji Müzeleri Yıllığı* 15–16 (1969), 191–96 (192–3 and Figs. 4–6).

for the Ottoman court, near modern Istanbul University in Beyazıt. Unlike churches, by 1453 secular structures were probably largely of wood, so are unlikely to have survived generations of neglect, especially in the rainy winters of Istanbul.²⁵

Periodic destruction by fire occurred alongside more gradual decay. Both Ottoman Istanbul and its Byzantine predecessor were prone to disastrous fires. Even stone or brick structures with timber structural elements, or set amid timber-built streets, would have been destroyed or structurally damaged by these frequent conflagrations. In particular, the fires of the Fourth Crusade may have left much of the built-up area of the city devastated. There is no certainty that most of the vast tracts of the city reduced to ruins in this way were ever rebuilt during the Byzantine period.²⁶ So, it is unsurprising that no low- or middle-status Byzantine house has ever been recognised in the city. However, this does not mean that no such structure has been found. If we look again at the archaeological evidence for Byzantine structures in zone 3, examining known features that are not parts of imperial or ecclesiastical monuments, we find some structures that could be houses. The first of these is in the area around the Forum of Theodosius, modern Beyazıt.²⁷

By eliminating features that probably represent the Forum and the Mese, one is left with a very interesting group of structures. With the exception of what seem to be two rooms of larger conjoined structure running east, north and west, these lie to the east of the famous Arch of Theodosius, nearer to Beyazıt Camii. Many fragments of walls running at approximate right angles to the street line have been found near the arch, but one structure merits special note.

²⁵ S. Yerasimos, 'La fondation d'Istanbul ottomane/the foundation of Ottoman Istanbul', *7 centuries of Ottoman architecture: A supra-national heritage*, ed. N. Akin, A. Batur and S. Batur (Istanbul, 2000), 205–23 and 459–79; S. Yerasimos, 'Istanbul, la naissance de la ville ottomane', *Mégaploes méditerranéennes Géographie urbaine retrospective*, ed. C. Nicolet (Paris, 2000), 398–417; R. Mantran, 'Constantinople ottomane: structures de la population. Peuplement et société (XVI e-XVIII siècles)', *Mégaploes méditerranéennes*, ed. Nicolet, 418–33; *Dünya Kenti Istanbul/Istanbul—World City*, ed. A. Batur (Istanbul, 1996); S. Kırmıtaç, *Converted Byzantine churches in Istanbul. Their transformation into Mosques and Masjids* (Istanbul, 2001).

²⁶ D. Jacoby, 'The urban evolution of Latin Constantinople (1204–1261)', *Byzantine Constantinople*, ed. Necipoğlu, 277–98 (especially 280); T. F. Madden, 'The fires of the Fourth Crusade in Constantinople 1203–4: a damage assessment', *Byzantinsche Zeitschrift* 84–5 (1991–1992), 72–93; M. Mundell Mango, 'The porticoed street at Constantinople', *Byzantine Constantinople*, ed. Necipoğlu, 29–52.

²⁷ For the forum: R. Naumann, 'Neue Beobachtungen am Theodosiusbogen in Istanbul', *Istanbuler Mitteilungen* 26 (1976), 117–41; W. Müller-Wiener, *Bildlexikon zur Topographie Istanbuls* (Tübingen, 1977), 258–63; L. Faedo, 'Il complesso monumentale del foro di Teodosio a Constantinopoli', *XXIX Corso Di Cultura Sull'Arte Ravennate E Bizantina* (1982), 159–68; C. Barsanti, 'Il foro di Teodosio I a Constantinopoli', *Milione* 3 (1995), 9–50; L. Faedo, 'Considerazioni sull'arco di Teodosio a Constantinopoli', *XLIII Corso Di Cultura Sull'Arte Ravennate E Bizantina* (1997), 323–45; F. A. Bauer, *Stadt, Platz und Denkmal in der Spätantike* (Mainz, 1996), 187–202. One possible high-status Middle Byzantine house has been published: the structure misidentified as the Palace of Botaneiates: A. M. Schneider, *Byzanz. Vorarbeiten zur Topographie und Archäologie der Stadt (=Istanbuler Forschungen 8)* (Berlin, 1996), 91–2 and Fig. 45; W. Müller-Wiener, *Bildlexikon zur Topographie Istanbuls* (Tübingen, 1977), 41 (who gives a bibliography on the structure); A. Berger, 'Zur Topographie der Ufergegend am Goldenen Horn in der byzantinischen Zeit', *Istanbuler Mitteilungen*, 45 (1995), 149–65 (162).

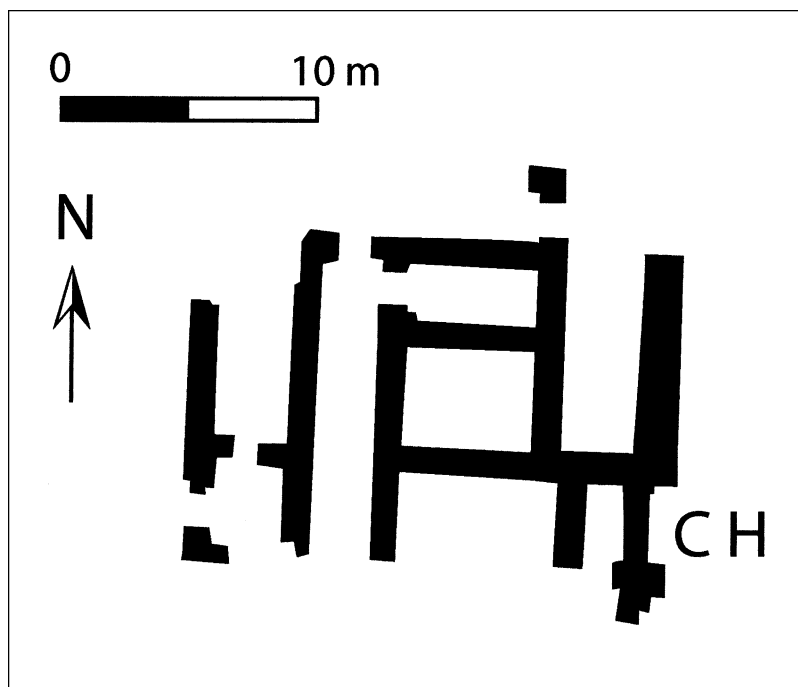


Fig. 3. Plan of a Byzantine structure at Beyazit (the excavator's Group F), discussed in the text. CH, area of church atrium. (after Firatlı, 1951).

The projected eastwards line of the Mese runs past the frontage of foundations of a multi-roomed building (Fig. 2(1)). Only the eastern part of this was excavated, but this shows a corridor-fronted structure with rooms at its eastern end and behind the front corridor. At the northeast corner, a small tower-like room projects forward and walls to its west may represent the poorly recorded parts of the same building (they would align fairly closely if adjusted a few metres) or a building of a different period, on roughly the same alignment. In either case, the corridor structure is approximately the same size as, and has a similar layout to, the eleventh-century palace found at the Myrelaion site (Fig. 2(2)). I would, therefore, interpret it as a hitherto unrecognised Middle Byzantine house. However, given its location and size, it was presumably a high- or middle-status residence.²⁸

Other domestic structures may have been found about 400 m northwest of this. These were immediately northeast of the so-called 'Beyazit basilicas' and were labelled H, G and F by the excavator. Group F (Fig. 3) comprised poorly built brick and stone walls, unlike those of the church immediately to its north.

²⁸ C.L. Striker, *The Myrelaion (Bodrum Camii) in Istanbul* (New Haven, 1981), 15–6 and 65–9.

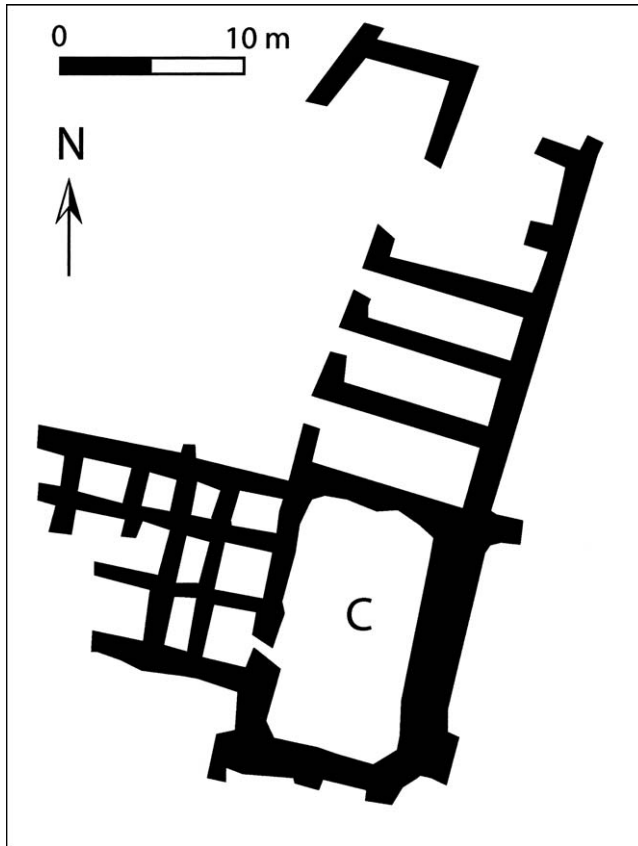


Fig. 4. Plan of a Middle Byzantine structure at Beyazıt? C, Cistern E. (after Firatlı, 1951).

Although they adjoin its narthex they need not have been part of the same complex, or even ecclesiastical buildings. As this area faces the northern side of the Mese, this could have been a secular structure on the street, backing onto the church complex. Like the Beyazıt building mentioned above, the plan could be understood as a corridor-fronted structure with rooms to its rear, although here there seems to be a double corridor.²⁹

Groups H and G are further west (Fig. 4). These were described by the excavator as poorly built and probably of later date than the sixth-century church complex. They comprise small rectangular rooms at right angles to a larger brick-built cistern (Cistern E). The rooms resemble the close-packed blocks of Middle

²⁹ N. Firatlı, 'Découverte de trois églises byzantines à Istanbul', *Cahiers Archéologiques*, 5 (1951), 163–78 (especially 172).

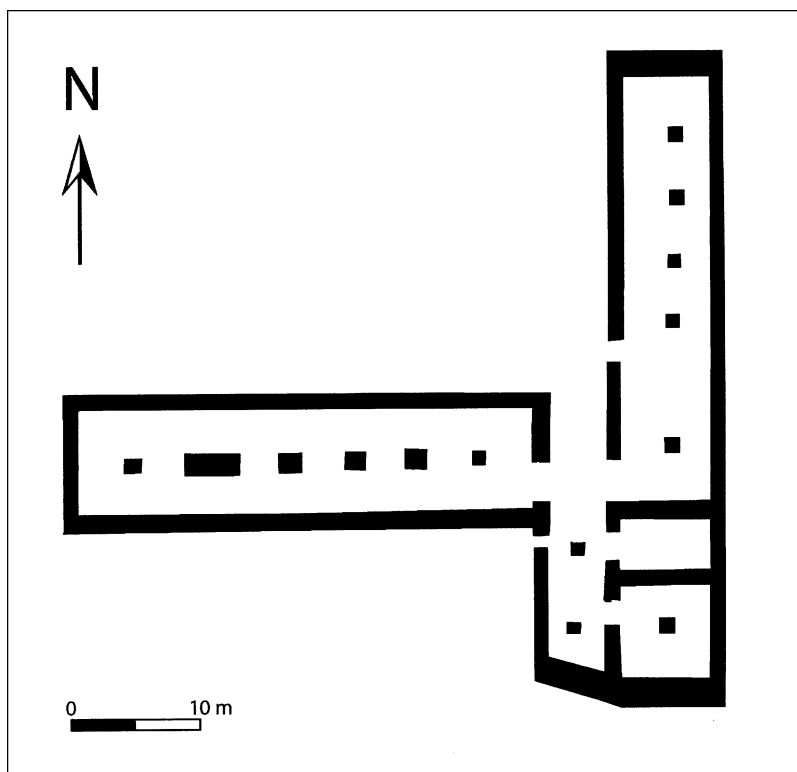


Fig. 5. Plan of the Byzantine substructure at Balkapanı Han. (after A. Ağır, 2000).

Byzantine houses found in other Byzantine cities, as at Corinth and elsewhere, and Cistern E is at the point where the Corinth blocks have their water supply. So, this may well be a low-status residential block, with houses grouped around a shared courtyard, dating (like those at Corinth) to the Middle Byzantine period. Allowing for a southern range or enclosure wall, this complex would also have faced onto the Mese.

If it is a Middle Byzantine residential courtyard, this might be an example of the *αύλαι* mentioned in textual sources for the city. One might even be able to recognise similar structures in the area of the later Spice Bazaar. On the south side of the Ottoman courtyard of Balkapanı Han, there is a large L-shaped vaulted substructure constructed of Byzantine brick (Fig. 5). This could well represent the corner where a courtyard, such as that found at Beyazit, met and faces onto Uzunçarşı sk. Albrecht Berger, Marlia Mundell Mango and Stéphane Yerasimos have separately suggested that Uzunçarşı sk. is the Byzantine Makros Embolos, a major porticoed North–South street known from texts. If so, the location of the

L-shaped complex at Balkapanı Han is analogous to that of the Beyazıt complex near the Mese.³⁰

Tentatively, then, it is possible to recognise Byzantine houses from three locations in the city, including fragments of what might be two *αύλαι*. All these structures seem to belong to the Middle Byzantine period, and they could all be eleventh- or twelfth-century in date. No earlier or later structures can be recognised, perhaps because of the excavation methods employed on these and other sites where such material might have been found. Most excavators probably dug down to the latest brick or stone walls, or came to sites only after Byzantine brick or stone walls were exposed by building works. If the secular structures of the city after 1204 were largely timber-built, then on most sites the latest brick or stone walls would represent the latest Middle Byzantine phase of construction. This would explain why it is that phase which we see represented on these sites rather than either earlier or later occupation.³¹

Perhaps for this reason, it is impossible to recognise any low- or middle-status domestic structures dating from the Early Byzantine period. However, a few high-status domestic buildings of fifth- or sixth-century date have been excavated. In approximately descending order of probability, Early Byzantine houses have been found at the following sites:³²

³⁰ A. Ağır, 'Whether Balkapanı Han had witnessed the continuity of commerce in the old Venetian quarter of Istanbul', *7 centuries of Ottoman architecture. 'A supra-national heritage'*, ed. N. Akın, A. Batur and S. Batur (Istanbul, 2000), 95–102 (especially Figs. 3 and 96). See also: C. Güren, *Türk Han-larının Gelişimi ve İstanbul Hanları Mimarisi* (Istanbul, 1985), 85. For the street: S. Yerasimos, 'The foundation of Ottoman Istanbul', *7 centuries of Ottoman architecture 'A supra-national heritage'*, ed. N. Akın, A. Batur and S. Batur (Istanbul, 2000), 459–79 (471–2). See also: M. Mundell Mango, 'The commercial map of Constantinople', *Dumbarton Oaks Papers*, 54 (2000), 189–207; Berger, 'Streets and public spaces in Constantinople', 161–72 (166).

³¹ There is no published study of excavation and survey methods employed in twentieth-century archaeology in Istanbul, but it is plain from the data presented in published reports that most excavations paid little attention to stratigraphy, and failed to record layers of soil, features such as pits or gullies or post-hole constructions. The few published exceptions were all investigations of imperial or ecclesiastical monuments.

³² C. L. Striker, *The Myrelaion (Bodrum Camii) in Istanbul* (New Haven, 1981); R. Demangel and E. Mamboury, *Le quartier des Manges et le première région de Constantinople* (Paris, 1939); R. Naumann and H. Belting, *Die Euphemiakirche am Hippodrom zu Istanbul und ihre Fresken* (Berlin, 1966); J. Bardill, 'The Palace of Lausus and nearby monuments in Constantinople: a topographical study', *American Journal of Archaeology*, 101 (1997), 67–95; M. Mundell Mango, 'Saint Euphemia', *A lost art rediscovered. The architectural ceramics of Byzantium*, ed. S. E. J. Gerstel and J. A. Lauffenberger (University Park, PA, 2001), 200–1; C. Mango, 'The Palace of Marina, the Poet Palladas and the Bath of Leo VI', *Ευφρόσυνον. Αφιέρωμα στον Μ. Χατζηδόκη* (Athens, 1991), 321–30; *Excavations at Kalenderhane I*, ed. C. L. Striker and Y. D. Kuban (Mainz, 1997). See also: A. Berger, *Untersuchungen zu den Patria Konstantinopoleos (=ΠΟΙΚΙΑ ΒΥΖΑΝΤΙΝΑ 8)* (Bonn, 1988), 347, Fig. 8; R. Duyuran, 'Mosaiques découvertes près de la prefecture d'Istanbul', *Istanbul Arkeoloji Müzeleri Yıllığı*, 9 (1960), 70–2; R. M. Harrison and G. R. J. Lawson, 'The mosaics in front of the Vilayet Building in Istanbul', *Istanbul Arkeoloji Müzeleri Yıllığı*, 13–14 (1967), 21–8; W. Müller-Wiener, *Bildlexikon zur Topographie Istanbuls* (Tübingen, 1977), 46; J. B. Ward-Perkins, 'Notes on the structure and methods of early Byzantine architecture', D. Talbot Rice, *The Great Palace of the Byzantine Emperors, Second Report* (Edinburgh, 1958), 52–104 (65–6), M. I. Tunay, 'Byzantine archaeological findings in Istanbul during the last decade', *Byzantine Constantinople*, ed. Necipolğlu, 217–34 (228); Mathews, *Art of Byzantium*, 76. The structure found beneath the fifth-century church of St John Studios is not included, as this lacks definite evidence of a secular function.

1. The Early Byzantine ‘round building’ under the later Myrelaion complex and adjacent structures. In addition to the well-known main rotunda, these include traces of what may be a pair of rectilinear structures either side of a courtyard to the south and another smaller curvilinear structure, with a ‘dog-leg’ eastern passage along its side, to the south. There is also slight evidence for a northern projection to the main rotunda, suggesting that this was merely the focus of a complex of conjoined buildings. Berger has suggested that the rotunda had a semi-circular courtyard to its north, bordering the Mese.
2. The so-called ‘Hodegetria’ structure in the Mangana area. This comprised a five-lobed structure with a porticoed semi-circular western courtyard. Traces of further (rectilinear) structures associated with this were identified to the north, southeast and south and a southern apse projected from the courtyard. The latter had a door leading east toward a range of rectilinear structures and there were traces of another structure connected to the east of the main building. The whole complex may have been a secular Early Byzantine building but was subsequently employed as an ecclesiastical structure in the Middle Byzantine period.
3. An elaborate Early Byzantine palace adjacent to the Hippodrome, perhaps the Palace of Antiochus. A central focus was an apsed rotunda with a semi-circular courtyard. This was part of a larger complex and stood adjacent to 4.
4. Another, adjoining, elaborate Early Byzantine palace adjacent to the Hippodrome. Again, this centred on an apsed rotunda with a semi-circular courtyard. This complex was long known to modern scholarship as the ‘Palace of Lausus’ but is probably not the same structure as the textually attested palace.
5. The façade of what may be an Early Byzantine elite residence incorporated into the sea wall by the present Kalyon Hotel. Mango has identified this as the ‘Palace of Marina’.
6. A small Early Byzantine private bathhouse found beneath Kalenderhane Camii, suggesting an adjacent domestic structure. A mosaic floor is said to have been excavated by the Istanbul Archaeological Museum near Kalenderhane in 2003 but is currently unpublished. The mosaic could be part of the same or another complex.
7. An Early Byzantine mosaic from near the Municipality (Vilayet) Building may have come from a secular house rather than a church. The three mosaic-floored rooms were rectangular and, where excavated, had an L-shaped plan. Differences in flooring appear to indicate separate rooms. From the published drawing, it seems that these originally consisted of a corridor around two (c. 12 m × > 5 m and c. 5 m long) mosaic-floored rooms. A secondary wall cut across the mosaic pattern in the main room, widening the surrounding corridor. There were originally three wide entrances to the west, with mosaic-paved thresholds. Byzantine cisterns were later constructed on the site.
8. An elaborate figural polychrome floor mosaic bordering Çatalçeşme sk. may be Early Byzantine in date, but Alfons Schneider assigned the mosaic to the Antonine period due to its mythological content. However, it bears two prominent equal-armed crosses filled with interlace, and mythological subjects remained part of Early Byzantine secular art, as at 10 below.

9. An Early Byzantine mosaic from close to the excavated Byzantine Church of St Polyuktos (Ottoman Saraçhane), may be from a well-appointed domestic structure.
10. Another floor mosaic with a mythological scene found in Puclu sk., in the west of the city, might be from a similar structure. Burials followed the domestic occupation.

These buildings have several shared characteristics. All the dated structures could have been built in the fourth or fifth centuries. Most reflect a late Roman aristocratic lifestyle, complete with floor mosaics, private baths and reception rooms. None shows indisputable evidence of continued occupation as a secular (but non-imperial) residence after the seventh century. In all but three cases, the residential secular structure was also followed by what is probably to be interpreted as ecclesiastical activity. There were later churches at the Myrelaion, St Euphemia (sites 3 and 4), Kalenderhane, re-use as a baptistery at the Mangana, and burials at Puclu Sk. Saraçhane was, of course, the site of the famous church of St Polyuktos excavated by Martin Harrison in the 1960s.

These examples show that, after c. 600, the sites of high-status secular complexes often did become those of churches. Thus, they may tentatively be used in support of Mango's argument regarding the ecclesiastical use of formerly secular elite houses. This may also be supported, far more tenuously, by the re-use of Early Byzantine bricks in the Middle Byzantine Pantokrator churches (noted by Magdalino), possibly suggesting an earlier secular structure on the same site.³³

One might be able to go one stage further. The re-use of elite secular structures as churches after c. 600 might have reinforced the, already close, architectural similarity between Byzantine church plans and those of earlier elite secular complexes. If part of the seventh-century and later Constantinopolitan population was worshipping in re-modelled late antique elite residences, then it is possible that echoes of common features of those buildings might be found in the later churches of the capital. If so, the specific architectural peculiarities of Middle Byzantine Constantinopolitan churches could, in principle, reflect this structural legacy and, in turn, give us a partial window into the secular architecture of the fifth- and sixth-century city.

It is interesting, but not necessarily significant, that three (four if one includes the Mangana structure) of the five buildings with a recognisable plan seem to be rotundas with courtyards. This is perhaps more than one would expect on the basis of late antique elite architecture in the Byzantine empire overall. It might suggest that there was a Constantinopolitan preference for rotunda and courtyard designs for reception rooms. Thus, one might consider whether those Byzantine churches with rotunda plans found in Istanbul could have originated as secular houses, or whether they simply emulated earlier secular architectural norms common in the capital.

³³ P. Magdalino, *Constantinople médiévale. Études sur l'évolution des structures urbaines* (Paris, 1996), 46–7; R. Ousterhout, *Master builders of Byzantium* (New Haven, 2000), 140.

5. Social and cultural perspectives on the excavated buildings

The excavated Early Byzantine elite structures contrast with the Middle Byzantine houses. This may suggest that separate upper- (and perhaps middle-) class residential styles prevailed during the Early Byzantine and Middle Byzantine periods. None of the Early Byzantine structures, except for the ‘Palace of Marina’ (which was incorporated into the imperial palace), shows any indication of having remained in secular use after c. 700.³⁴

This may well reflect changes in the city’s social and economic organisation. As Simon Ellis has shown, porticoed courtyards with elaborately decorated reception rooms appear, from other evidence, to be linked to the need for ceremonial audiences between clients and patrons in the Late Antique city. The use of such reception rooms in formal dining and patronage is well attested elsewhere. The very large scale of these establishments and their elaborate décor conveys their importance, while the courtyards could act as ‘waiting rooms’ or places of assembly for clients or guests. Proximity to major streets suggests ease of public access to these courtyards and this may also have enabled passers by to look into the complex, seeing its grandeur.³⁵ Consequently, the disuse of such structures may suggest the demise of the Late Antique system of patronage. The donation of elite houses as churches might be seen as the ultimate act of this system and was necessarily accompanied by a move to new premises. However, aristocratic families were not totally separated from their Early Byzantine properties. The continued use of familial names still linked foundations built out of their former houses to particular families and demonstrated their piety and beneficence. A stronger identification between the secular elite and the Church was, then, created through this association and its commemoration in the daily ecclesiastical use of former domestic structures.

Nor were new structures wholly ‘de-romanised’. Corridor houses are a typical component of fourth-century Roman residential architecture, found widely in provincial Roman towns and countryside villas. Likewise, courtyard plan palatial complexes are a familiar aspect of Late Roman elite architecture. That is, although aspects of the interior decoration of these buildings may have changed, at least some of the Middle Byzantine upper class were still living in architecturally ‘Roman’ buildings.³⁶

Likewise, it is conceivable that lower status courtyard complexes are ‘descended’ from Roman *insulae*. Both share the courtyard design, with small rectilinear rooms opening onto a central space and facing onto the street. Both were, as texts tell us,

³⁴ C. Mango, ‘The Palace of Marina, the poet Palladas and the Bath of Leo VI’, *Ευφρόσυνον. Αφιέρωμα στον Μ. Χατζηδόκη* (Athens, 1991), 321–30.

³⁵ S. Ellis, ‘Power and decor; how the late antique aristocrat received his guests’, *Roman art in the private sphere*, ed. E. Gazda (Ann Arbor, 1991) 117–34.

³⁶ For examples of fourth-century corridor houses in the Balkans: L. Mulvin, *Late Roman villas in the Danube-Balkan Region* (Oxford, 2002), 50. For apartments: A. G. McKay, *Houses, villas and palaces in the Roman world* (London, 1975), 80–99.

multi-storey blocks set closely together between narrow side-streets or even conjoined. This might suggest that the majority of the city's population also continued to live in structures directly derived from Roman-period models. So, while structural change had occurred between c. 400 and c. 1200, it is by no means clear that this change was outside the Late Roman cultural traditions of either urban life or urban architecture.

6. Streets and shops

The Byzantine-period street pattern presumably provided the framework of everyday urban life, but this cannot be easily reconstructed. Although fires are unlikely to have destroyed actual road surfaces, the desertion and collapse of surrounding structures and porticoes may have led to the abandonment, diversion or replacement of streets. To give an example, the chronicler Theophanes tells us that 'All the shops and portals as far as the [Forum of the] Bull were burned' in a fire of AD561/2. If this really occurred, then almost the whole of the main shopping street must have been ablaze. Streets may also have passed in and out of use due to the location of important buildings or the changing role of harbours, market places and other facilities. Textual evidence also suggests that the character of streets could well have changed throughout the Byzantine period, perhaps with Late Roman metalled surfaces being replaced by mud tracks.³⁷

Albrecht Berger, Cyril Mango and Marlia Mundell Mango have undertaken the most important recent work on streets in Byzantine Constantinople. Berger has concentrated on establishing the layout of streets in the Early Byzantine period, in particular those of the fifth-century city, combining written and archaeological sources. Mango has used archaeological and textual evidence to show that the western extension of the Mese (the central main street of the capital) beyond the Constantinian wall was as a processional way. Mundell Mango has also taken a similar approach, using artistic and textual evidence alongside material data to reconstruct the development of porticoed ways and commercial streets throughout the Byzantine period. She has argued very convincingly from texts and artistic evidence that Early Byzantine porticoed streets remained in use until the Fourth Crusade.³⁸ These scholars all recognise that written evidence is of little help in

³⁷ P. Magdalino, 'Medieval Constantinople: built environment and urban development', *Economic history of Byzantium*, ed. Laiou, 529–37 (534); C. Mango and R. Scott (with G. Greatrex) (translation, introduction and commentary), *The Chronicle of Theophanes. Byzantine and Near Eastern history AD 284–813* (Oxford, 1997), 347.

³⁸ A. Berger, 'Regionen und Straßen im frühen Konstantinopel', *Istanbuler Mitteilungen*, 47 (1997), 349–414 (especially 383–414); A. Berger, 'Streets and public spaces in Constantinople', *Dumbarton Oaks Papers*, 54 (2000), 161–72; C. Mango, 'The Triumphal Way of Constantinople and the Golden Gate', *Dumbarton Oaks Papers*, 54 (2000), 173–88; M. Mundell Mango, 'The commercial map of Constantinople', *Dumbarton Oaks Papers*, 54 (2000), 189–207; M. Mundell Mango, 'The Porticoed Street at Constantinople', *Byzantine Constantinople*, ed. Necipolğlu, 29–52 (especially 46–9 and Figs. 1, 34). An overview of previous work on streets is provided by: W. Müller-Wiener, *Bildlexikon zur Topographie Istanbuls* (Tübingen, 1977), 216, 268–9.

locating most streets or defining their precise features. However, it can provide a few general indications of street layouts, for example, suggesting the existence of parallel streets running toward the sea from the area between the Forum of Constantine and the Forum of Theodosius in the early fifth century. Nonetheless, the precise route of only a handful of streets, apart from the Mese and its western continuation, can be identified accurately using texts alone.³⁹

Because of these deficiencies with textual evidence for the city's streets, the mainstay of any reconstruction of the street network must be archaeological material. The most recent attempt to reconstruct the whole street system in this way has been by Berger. Although Berger's work is scholarly, well argued and based on a detailed knowledge of the textual sources for Constantinople, it runs into serious problems in its use of archaeological material. This has even wider implications for his study of the city, because it is used as a basis for identifying the boundaries of urban regions and also for recognising formal town planning.

Berger seeks to use material evidence in two main ways in his main publications on the street network (Fig. 6). First, he employs building alignments as evidence for street alignments. As he says in his most recent discussion: 'Since most Byzantine street alignments are unknown, the only way to ascertain a possible street system is to check such surviving structures as churches, cisterns, the aqueduct and the city walls. If a number of monuments lie along an imaginary line and are oriented in the same way, a street may have led along them'.⁴⁰

Second, he uses the presence of gateways in the city walls as indications of the line of streets as they entered the city. These lines are then projected across the city plan on the assumption that the streets entering the gates ran in straight lines within the walls.

While these might seem reasonable assumptions, they conceal serious methodological problems. For this reconstruction to be credible much depends on the selection of structures that are used to draw the lines on the map. The structures that Berger argues preserve Byzantine street alignments are of widely differing dates: from the fifth to the nineteenth centuries. When structures post-dating the Byzantine period are employed to construct street lines, Berger asserts that these replace Byzantine predecessors. For example, he claims that although the so-called 'Grave of Constantine' was not venerated before the nineteenth century, it replaces a Byzantine building on the same alignment. However, no textual or archaeological evidence is given in support of this.⁴¹

Obviously, street lines might have changed greatly in the city over the time-span represented by the selected structures, especially in view of the chequered history of the capital. Furthermore, most of the structures that Berger uses to establish street alignments are churches. Both standing and excavated examples show that

³⁹ For example, Berger, 'Streets and public spaces in Constantinople', 161–72 (167).

⁴⁰ Berger, 'Streets and public spaces in Constantinople, 161–72 (161); A. Berger, 'Regionen und Straßen im frühen Konstantinopel', *Istanbuler Mitteilungen*, 47 (1997), 349–41 (388–9).

⁴¹ Berger, 'Streets and public spaces in Constantinople', 161–72 (170); Berger, 'Regionen und Straßen', 349–41 (404).

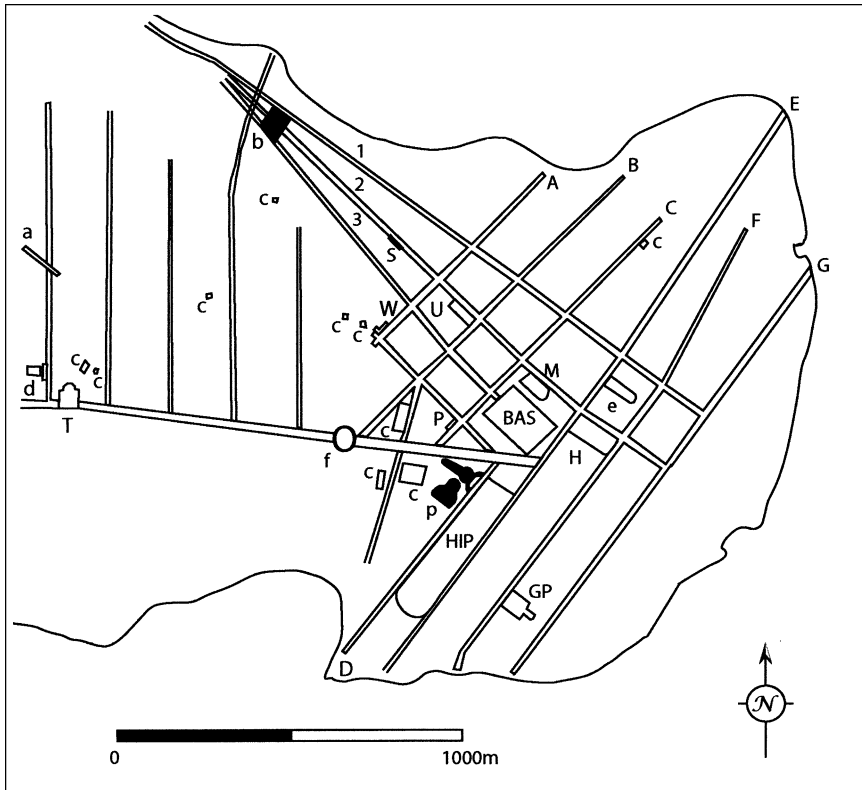


Fig. 6. Map of part of Albrecht Berger's reconstruction of the street system of Early Byzantine Constantinople, showing some of the main structures used by him to derive this. Streets are shown in outline. a, aqueduct (continues to west of map); BAS, Basilica and Basilica Cistern; c, cisterns; d, Berger's identification of the church of Diaconissa; e, Hagia Eirene; f, Forum of Constantine; GP, the excavated Apsed Hall and Peristyle from the Great Palace; H, Hagia Sophia; hippo, Hippodrome; M, St Mary Chalkopratia; P, Çatalcesme sk. portico; S, the substructure often misidentified as the Palace of Botaneiates; T, Forum of Theodosius; U, Berger's identification of the church of Urbicus; W, Byzantine wall. The structures shown infilled are those discussed here as possible domestic buildings; b, Balkapani Han; p, palaces northwest of the Hippodrome. The Mese is the street running east-west through the fora shown here. Other letters and numbers refer to Berger's own notation. (after Albrecht Berger, 2000).

Byzantine churches in Constantinople were sometimes (but not always) aligned with neighbouring features, but also that these features need not be streets. For example, churches in the city were apparently aligned with the walls, cisterns and the so-called 'Aqueduct of Valens'. Others maintained approximately east-west alignments not obviously related to any known feature.⁴²

⁴² For example, see: *Excavations at Kalenderhane I*, ed. C. L. Striker and Y. D. Kuban (Mainz, 1997).

Moreover, many Byzantine churches seem to have stood inside walled enclosures. This may well have included most monastic buildings, which could have been partially or wholly shielded from alignment with neighbouring streets. So, even if the compound walls were aligned with the streets onto which they faced, structures within them may have been aligned with buildings within the compound, or with compound walls that followed other alignments, or without regard to local features at all.⁴³

Sometimes Berger has actually had to ignore a church or cistern alignment in order to accommodate a proposed street line. For example, he says that: ‘the hexagonal church wrongly believed to have been the Hodegetria did not lie on this street but a little higher up the hill and had a different orientation’. However, the ‘church’ is not then used to derive a street line and we are not told why this is less likely to have been aligned on a street than any other. Likewise, only two of the six cisterns south of Balkapanı Han are used by him to derive street lines, while the alignment of the rest is seemingly ignored. Elsewhere, some of the cisterns that he maps would lie underneath the postulated streets that they ‘evidence’!⁴⁴

Thus, building alignments are not straightforward evidence for street alignments in Byzantine Constantinople. This argument applies both to churches and to structures that might be secular buildings, because these too might be aligned on some other feature or could have been within compounds on different alignments to their internal structures.

Even major cisterns cannot be used to establish street alignments without employing other evidence in support of this. Some cistern walls, such as the south wall of the Cistern of Aspar, probably reflect street lines (in this case evidenced by texts) but this need not be true in every case. For example, the wall of the Basilica Cistern probably does not follow the line of the main street running through the city centre (the Mese) to its south.

This casts severe doubt on all the street alignments based on structural orientations alone. An objection to such drastic editing of his street map might be that Berger has identified some shared alignments reflected in widely spaced structures. But it is a commonplace of conventional archaeological methodology that simply drawing lines between different structures and finding shared alignments tells one nothing. In any landscape, especially a city, one can find all sorts of random alignments that could be interpreted to ‘mean something’ by those looking for a particular pattern.

Even if one ignored these problems, Berger has identified very few shared alignments of truly contemporary structures (let us say, built within the same century) that do not simply reflect archaeologically identified streets. In particular, several city-centre buildings align with the Mese, the main street known to have run through the approximate centre of the Byzantine capital. However, this street has

⁴³ For examples: A.K. Orlandos, *Μοναστηριακή Αρχιτεκτονική* (Athens, 1958), 14–15.

⁴⁴ Berger, ‘Streets and public spaces in Constantinople’, 161–72 (163); A. Berger, ‘Regionen und Straßen im frühen Konstantinopel’, *Istanbuler Mitteilungen*, 47 (1997), 349–41, 398–402 (Fig. 5, 66–7).

been excavated and its line is firmly established by this evidence. One need not resort to extrapolation from any other evidence to establish its approximate course.

The second way in which Berger uses archaeological evidence is through the projection of street lines from city gates. This has more methodological validity, as it is reasonable to assume that streets passed through gates on more or less a straight line. Nevertheless, streets might immediately turn at angles once they entered the city, or enter open spaces inside the gate from which they departed on a different line. In particular, one must remember that this is a city built on hills, where the easiest route on foot or by horse is not always a straight line. However, in order to maintain the regularity of his proposed street grid, Berger is led to project several streets from gateways at other angles rather than straight lines through the entrance, without discussion of why this should be the case.⁴⁵

Another of Berger's archaeological arguments falls foul of a further problem. He suggests that especially large arches in the so-called 'Aqueduct of Valens' (26/7 and 52) permit us to recognise a series of subsidiary street lines in the centre of the Byzantine city. These arches, he postulates, indicate the line of streets running at approximate right angles to the aqueduct and passing beneath it. He suggests that these streets passed rapidly out of use, as later Ottoman streets largely used other arches in the aqueduct.⁴⁶

That these arches might represent lateral streets is a reasonable assumption. It is even possible that these streets did run as far as the gates in the sea wall on the Golden Horn at which they approximately point. Unfortunately, the date of the aqueduct is far from clear, although it is fourth century or earlier. If it belongs to the Early Roman period, as Mango argued, then the streets postulated by Berger may be irrelevant to the Byzantine topography of the city. If the aqueduct is fourth century, as Berger supposes, then one still does not know whether these streets were built or for how long they remained in existence. So, while there may have been a series of streets in such a position when the aqueduct was constructed, there is no direct evidence that these were part of the fifth-century or later street pattern. For all we know, they might have already been disused before 400.⁴⁷

Berger's reconstruction of the street system is cast into still further doubt by his decision to ignore the implications of terracing in his analysis. Although he discounts all terraces ('old retaining walls' as he terms them) as Ottoman in date, there is strong evidence that some (but not all) Ottoman terraces in Istanbul were Byzantine in origin. Byzantine brickwork has been recorded in several terrace walls and others were apparently designed to support, or level the ground for, existing Byzantine-period structures. So, although some terraces are wholly Ottoman in date, others are certainly Byzantine in origin. Moreover, these terraces often stand several metres high and could not be crossed on foot without using steps. It is

⁴⁵ For example, Berger, 'Regionen und Straßen', 349–41 (Fig. 4, 390).

⁴⁶ Berger, 'Regionen und Straßen', 349–41 (402 and Fig. 8, 403); Berger, 'Streets and public spaces in Constantinople', 161–72 (168).

⁴⁷ C. Mango, *Le développement urbain de Constantinople*, 2nd ed. (Paris, 1990), 20.

possible that flights of steps did permit streets to traverse terrace lines, but simply dismissing terraces as irrelevant to reconstructing the Byzantine street pattern would seem rather rash.⁴⁸

Consequently, although a well-argued and attractive hypothesis, regrettably one must reject much of Berger's reconstruction of the street network. With this, one must also set aside his view that the capital had a planned layout employing a street grid based on this reconstruction. In fact, even using his approach he still has to imagine some unattested streets to fill in a grid of this sort, as he says: 'The street labelled B on the sketch is interpolated, since no trace of it exists'.⁴⁹

If one realises that the postulated street-grid is illusory, then this also has implications for Berger's delineation of the regions described in the *Notitia*. In his view, the limits of the regions relate to this hypothetical grid and so, if the grid itself is shown to be an illusion, this part of his argument concerning the urban regions also collapses. This does not mean that one need reject the generality of his identification of the regions but Berger's detailed arguments concerning their limits—and so the location of those places described as on their boundaries—must be doubted.⁵⁰

This does not, of course, mean that we know nothing about the street system of Byzantine Constantinople. The Mese and several other major streets are well attested by written sources. There are also several places in the city where Early Byzantine streets have been excavated:⁵¹

1. A small part of the Mese, excavated adjacent to the palatial complex northwest of the Hippodrome and dating to the fifth century or earlier.
2. Possible traces of the same street just east of the Byzantine-period Forum of Constantine.
3. To the east of the Arch of Theodosius and under the arch, preserving the width of the Mese.
4. A short length of marble-paved colonnaded street in Çatalçeşme sk., a steeply sloping modern street running at a diagonal northeast of the Mese.
5. A marble-paved street on a North–South alignment past the front of the fifth-century Hagia Sophia. The sixth-century atrium overlay this street.

⁴⁸ Berger, 'Streets and public spaces in Constantinople', 161–72 (especially 163).

⁴⁹ Berger, 'Streets and public spaces in Constantinople', 161–72 (164).

⁵⁰ Berger, 'Regionen und Straßen', 349–41 (352–76).

⁵¹ W. Müller-Wiener, *Bildlexikon zur Topographie Istanbuls* (Tübingen, 1977), 269–70. M. Mundell Mango, 'The porticoed street at Constantinople', *Byzantine Constantinople*, ed. Necipoğlu, 29–52. For other sites: A. Pasinli, 'Pittakia' ve 'Magnum Palatium-Büyük Saray' Bölgesinde 1999 Yılı Çalışmaları (Eski Sultanahmet Cezaevi Bahçesi), *11. Müze Çalışmaları Ve Kurtama Kazıları Sempozyumu* (2001), 41–6; Istanbul Archaeological Museum (trans. V. Bulgurlu), *Palatium Magnum. Exhibition of the excavation finds. Area of the Great Palace* (Istanbul, 2002), 12–3; N. Firath, *A short guide to Byzantine works of art in the Archaeological Museum of Istanbul* (Istanbul, 1955), no. 4730, 12; W. Kleiss *Topographisch-Archäologischer Plan von Istanbul*, 2nd ed. (Tübingen, 1967), 2; Berger, 'Regionen und Straßen', 349–414 (393).

6. An Early Byzantine marble-paved North–South street, lined with contemporary buildings, on the ‘Old Law School’ site.
7. A short length of marble-paved street just outside the fifth-century Golden Gate on the land walls.
8. Two lengths of marble-paved streets in the area of the present Mosaic Museum.
9. Less certainly, a length of portico, perhaps part of a street, near Sokollu Mehmet Paşa Camii.

The first two sites produced evidence that the Mese had stone water pipes and brick or stone drainage conduits running beneath it. Beside the street were sidewalks paved with marble slabs and behind these there were small structures, conventionally called ‘shops’ by archaeologists, analogous to those in other Late Antique towns such as Sardis. The streets at Hagia Sophia, the ‘Old Law School’ site and at the Mosaic Museum, also had what may be evidence for sidewalks and multiple channels (for water and sewage?) under their surfaces, suggesting that streets of this design—with or without colonnades—were typical at least in the Early Byzantine city centre.⁵²

On archaeological grounds one may, therefore, say that at least some of the major streets of Early Byzantine Constantinople resembled those of other Roman towns in the eastern Mediterranean. The city did include porticoed streets lined with small rectilinear buildings that may have been used as shops, as textual evidence suggests.⁵³

It is possible that North–South and East–West streets together suggest a street grid, but this has not been demonstrated by excavated evidence or historical study. It may be worth noting that as two of the excavated fifth-century North–South streets were disused by the sixth century, the street system mentioned in the *Notitia* was not retained in its entirety throughout the Early Byzantine period.

Texts enable one to build from this archaeological picture, by suggesting that the city had contained many other colonnaded streets in the fifth century. Mundell Mango has produced convincing textual and visual evidence suggesting that the main streets of this sort remained in commercial use (albeit with their colonnades replaced by piers) into the Middle Byzantine period, perhaps until the loss of the city in 1204.⁵⁴

⁵² J. S. Crawford, *The Byzantine shops at Sardis* (Cambridge, MA, 1990); *Secular buildings and everyday life in the Byzantine Empire*, ed. K. R. Dark (Oxford, in press). For the problems of identifying such shops in Istanbul, compare: J. Bardill, ‘The Palace of Lausus and nearby monuments in Constantinople: A topographical study’, *American Journal of Archaeology*, 101 (1997), 67–95 (71, no. 20), and M. Mundell Mango, ‘The porticoed street at Constantinople’, *Byzantine Constantinople*, ed. Necropolğlu, 29–52.

⁵³ M. Mundell Mango, ‘The porticoed street at Constantinople’, *Byzantine Constantinople*, ed. Necropolğlu, 29–52. For comparison: A. Segal, *From function to monument. Urban landscapes of Roman Palestine, Syria and Provincia Arabia* (Oxford, 1997).

⁵⁴ M. Mundell Mango, ‘The commercial map of Constantinople’, *Dumbarton Oaks Papers*, 54 (2000), 189–207.

This is a view that would be consistent with the other evidence discussed here. As we have seen, domestic structures of Middle Byzantine date could still front onto the Early Byzantine main street of the city, suggesting that this remained a thoroughfare at that time. However, excavated data are of insufficient quality to tell what the overall state of the street surface was by this point.

7. Conclusion

Consequently, it would be untrue to say that we know nothing archaeologically of the houses, streets and shops of Byzantine Constantinople. However, it is also true that very few examples of well-dated secular buildings, streets or commercial premises have been published from the city. A focus on low-status houses and on shops, commercial premises and streets should be the key priorities in any future programme of archaeological excavation in Istanbul. Until more is known about the everyday life of the city for the majority of its inhabitants, it will be impossible to say exactly what sort of place it was and how it changed over time.

Ken Dark gained his PhD at the University of Cambridge, and was a lecturer at Oxford and a fellow at Cambridge, before moving to Reading in 1996. He has published widely in academic journals, and has written several books on archaeological and historical themes, including *Civitas to Kingdom; Britain and the End of the Roman Empire* and *Byzantine Pottery*. He also holds honorary professorships and fellowships from several US and EU universities and co-directs the Istanbul Rescue Archaeology Project.