This book explores archaeological excavations and investigations into the history of the Lykos valley, Turkey. The contributions discuss the latest discoveries at the Ploutonion of Hierapolis; the excavations of the tabernae in Tripolis; the Lykos Valley in prehistory and the second millennium BC; the origins of the marble used in Hierapolis; and archaeo-botanic studies in Hierapolis, among others. Taken together, all the articles gathered here reveal the strong connections between the cities of the valley.

Professor Celal Şimşek studied Archaeology at the Faculty of Science and Arts at Selçuk University, Turkey, before going on to complete his Master's and PhD Studies at the Institute of Social Sciences at the same university. He worked as an archaeologist at the museums of Adıvaman and Denizli from 1988 to 1997, before founding the Institute of Archaeology at the Faculty of Science and Arts at Pamukkale University, Turkey, of which he is currently Director. He is also the Chair of the Archaeology Department at Pamukkale University, and has directed excavations and restorations at the ancient city of Laodikeia on the Lykos since 2003.

Professor Francesco D'Andria teaches Archaeology and History of Greek and Roman Art at the University of the Salento, Lecce, Italy, where he also headed the School of Specialisation in Archaeology. He set up the archaeological parks of Cavallino, Acquarica, Vaste, and Castro in the Salento, and founded the Institute for Archaeological and Monumental Heritage of the Italian National Research Council in 2000. He has served as the Director of the Italian Archaeological Mission in Hierapolis in Turkey since 2000, and has authored numerous scholarly articles and books.

Cover images Laodikeia (1-2), Bottom Left: Tripolis (3), Bottom Right: Hierapolis (4)

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Landscape and History in the Lykos Valley Laodikeia and Hierapolis in Phrygia







Edited by Celal ŞİMŞEK Francesco D'ANDRIA

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Laodikeia and Hierapolis in Phrygia

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PREFACE

The Upper Maeander basin in southwestern Anatolia stands out with its unusual, colorful, rich and vivid character. The River Maeander rises near Dinar (Kelainai / Apameia) and is joined by the Işıklı (Eumeneia) tributary. It flows, having nourished many ancient civilizations on both banks for millennia, until it reaches the Aegean near Miletos. This geography steps forth, rich with archaeological remains.

The Kocabaş (or Denizli) Man, a *Homo erectus* from the northeast of the Lykos Valley, is dated to 1.2 million years ago, which is important evidence of continuous human life in the Lykos landscape. This evidence is further verified by the recent surveys by Assoc. Prof. Dr. Kadriye Özçelik of Ankara University, which have recovered numerous hand axes dating from 750,000 to 250,000 BC. The density of settlements in the concerned region accelerated in the Bronze Age. In the Upper Maeander Valley, Beycesultan, where the British Institute of Archaeology at Ankara (BIAA) started excavations in the 1950s, currently continued by Prof. Dr. Eşref Abay, is an important prehistoric site.

Kolossai, in the Lykos Valley, was an important settlement in the Classical period and earlier but Hierapolis, Laodikeia and Tripolis appeared on the stage in the Hellenistic period. Laodikeia, located in the middle of the valley, was particularly active during the Roman Imperial period as a metropolis in trade, arts, culture and sports.

The Lykos Valley is also located at the crossroads of routes connecting Southern, Western and Central Anatolia. Within the valley, Laodikeia is situated as the main junction. This geographical location, fertile land, favorable climate, and the Lykos River, which is connected to a lake in the middle of the plain and which flows into the Maeander River near Sarayköy in the west, all facilitated and contributed to the overseas trade of the region's cities.

With Christianity spreading rapidly in the early Christian period, Laodikeia, Kolossai and Hierapolis assumed a leading position. Laodikeia was one of the "Seven Churches" cited in the book of Revelation, and Hierapolis was the city where the Apostle Philip was martyred. It was also in this period that the Church of the Archangel Michael was built at Kolossai. The cities of the Lykos Valley lost their importance due to

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seismic activity in the region, its location as a route for marching armies, and epidemics of plague from the seventh century AD onwards.

Excavations of Hellenistic and Roman periods have been undertaken at Hierapolis by the Italian Archaeological Mission, uninterrupted since 1957. Currently the head of excavations is Prof. Dr. Francesco D'Andria. Excavations at Laodikeia have been conducted by Prof. Dr. Celal Şimşek of Pamukkale University since 2003. A brand new excavation in the valley is the site of Tripolis, undertaken by Assoc. Prof. Dr. Bahadır Duman since 2012. Excavations and research conducted at these three leading cities have made a great contribution to the archaeology of the region.

Excavations and restorations conducted at Hierapolis, Laodikeia and Tripolis, the cities in the Lykos Valley, have paved the way for an enormous amount of new data to be obtained, interpreted and presented to academia. In this book, Landscape and History in the Lykos Valley: Laodikeia and Hierapolis in Phrygia, published by Cambridge Scholars Press, Celal Simsek presents the work and progress in Laodikeia, while Francesco D'Andria presents the latest discoveries at the Ploutonion of Hierapolis. Bahadır Duman presents the data from the excavations of the tabernae in Tripolis; Tamer Koralay, Kıymet Deniz and Yusuf Kaan Kadıoğlu present their analyses of the polychrome travertine quarries near Tripolis and their use in the city; Erim Konakçı, Ali Ozan and Fulya Dedeoğlu focus on the Lykos Valley in prehistory and the second millennium BC; Giuseppe Scardozzi explores the origins of the marble used in Hierapolis through analyses conducted within the frame work of the Marble Quarries in Phrygia Project; and Girolamo Fiorentino presents the archaeo-botanic studies in Hierapolis. Each article here is equally important, and they reveal the strong connections between the cities of the vallev.

I would like to thank the contributing scholars as well as archaeologist Ayşegül Arığ and the Cambridge Scholars Press team for their efforts in the publishing process.

Prof. Dr. Celal ŞİMŞEK Laodikeia Excavation House Denizli, TR 2016

URBAN PLANNING OF LAODIKEIA ON THE LYKOS IN THE LIGHT OF NEW EVIDENCE

CELAL ŞİMŞEK*

Geographical Location of the City

The ancient city of Laodikeia on the Lykos is located on the Lykos (Çürüksu) Plain in inner Southwest Anatolia (Figs. 1-2). This plain is surrounded by the Babadağ (ancient Salbakos) range to the south, Mt. Çökelez to the north, Mt. Honaz (ancient Kadmos) to the southeast, and Buldan Mt. Sazak to the west (Figs. 3-4). The Maeander (Büyük Menderes) River, the source of which is near Dinar (ancient Apameia), flows northwest of the Plain and joins the Aegean Sea near Miletus in the west (Figs. 2-3).

The Lykos (Çürüksu) River¹, after which the Plain is named, rises at the foot of Mt. Honaz (Kadmos), and stretches from the east of the city to the north and northwest. It first flowed into the lake which once existed in the middle of the plain and then joined the Maeander near Sarayköy. The city is also surrounded by two other minor creeks: Kadmos (Gökpınar-Karakurt), coming from the Cankurtaran Valley in the southeast; and the Asopos (Gümüşçay-Goncalı), coming from the foot of Babadağ. These two streams flow into the lake in the middle of the Plain (Fig. 5). The Kapros emerges in the valleys where Babadağ extends westward, and flows into the Maeander near Sarayköy. The Kapros also forms the administrative boundary of Laodikeia in the west². In the east, the city's

^{*} Prof. Dr., Pamukkale University, Faculty of Science & Arts, Department of Archaeology, 20017 Denizli, Türkiye. E-mail: csimsek@pau.edu.tr.

¹ Many cities named Laodikeia were founded in the Hellenistic period. Our Laodikeia was called Laodicea ad Lycum, i.e. Laodikeia by the Lykos River. Weber 1898, 178-179; Ruge 1924, 722; Gagniers 1969, 1; Traversari 2000, 11; Sevin 2001, 203.

² Ramsay 1895, 35-36.

boundary reaches Kolossai³. Overall, the Lykos Plain was mainly within the territory of Laodikeia.

The lake that once existed in the middle of the Plain facilitated raft transport via the Maeander River down to Miletus (Figs. 2-3). The existence of the lake has been proven by an inscription discovered by Prof. Dr. Francesco D'Andria, the director of the Italian Mission at Hierapolis⁴. According to this inscription, the Laodiceans asked for payment for fishing privileges from the Hierapolitans; the case was taken to Emperor Hadrian by the Hierapolitans, and the emperor ruled in their favor. The lake, which can be seen on satellite images, actually existed until the previous century (Fig. 5). The name of Denizli comes from this lake and its underground sources. Locals still call a tributary of the Lykos that flows east into the lake "the stream flowing into the sea". In addition, Turks also called the lakes "seas".

In ancient geography, the Lykos Valley lies at the western tip of Phrygia (Figs. 2-4). The Mt. Salbakos (Babadağ) range in the south actually separates Phrygia from Karia. In the northwest, the Maeander River is the border between Phrygia and Lydia. In the southwest, Mt. Söğüt, before the Anauva (Çardak and Beylerli) Plain, constitutes the border with Pisidia.

The Maeander's route was one of the most important transit and commercial routes of antiquity. The Lykos Valley lies at its centre. Located in the middle of the Plain, Laodikeia is situated at the junction of routes leading to the west, east and south. It connects to Apameia (Dinar) in the east, to Perge and Side in the south via Kibyra (Gölhisar), to Ephesus end Miletus in the west, and to Sardis in the northwest (Fig. 2)⁶.

A Brief Chronological History of Ancient Laodikeia

Laodikeia, located within the boundaries of Eskihisar, Goncalı, Bozburun and Korucuk (neighborhoods 6 km to the north of Denizli town) was actually a Phrygian city. It rises on a platform surrounded by streams on three sides (Figs. 6-7). The urban areas stretch over 250-285 m in altitude. The highest point is where the Water Distribution Terminal II is located – 291-293 m above sea level (Fig. 13).

⁴ Scardozzi 2007, 86, Figs. 18, 19.

³ Jones 1971, 74.

⁵ Şimşek 2011a, 108-109.

⁶ Magie 1950, 127-128; Şimşek 2013a, 39, Figs. 37-38.

Evidence discovered since 2003 in the ancient city of Laodikeia has brought to light much previously unknown data. Above all, the earliest history of the city, traditionally attributed to the Hellenistic period, is now extended to the early Chalcolithic period (5500 BC), based on findings from the West Necropolis – prehistoric Kandilkırı Settlement⁷ (Figs. 8, 10) and Asopos Hill⁸ (Figs. 9-11). Hellenistic Laodikeia was founded in the mid-third century BC by the Seleucid King Antiochus II on behalf of his wife Laodike⁹. In this case, the date of the foundation of Laodikeia should be placed between 261 BC, when Antiochus III ascended the Seleucid throne, and 253 BC, when he divorced her in order to marry Berenike, the daughter of Ptolemaios.

Pliny (*NH* V.105) states that the ancient city's site was formerly occupied by a village which was first called Diospolis and then Rhoas¹⁰, and that the Hellenistic city was founded by Antiochus II (r. 261-247 BC). The first name means "City of Zeus" and reveals the presence of a deeprooted and very ancient sanctuary. Zeus was greatly venerated as the leading founder and chief deity of the city throughout the Hellenistic and Roman Imperial periods. The name Rhoas, on the other hand, is a typical ancient Anatolian name, as inferred from its etymology. Pliny's statement, however, should be corrected to state that the settlement was first called Rhoas and then Diospolis. The name was changed to Laodikeia in the midthird century BC.

The name Laodikeia is first seen in Polybius (IV, 48.5 and V, 57.5). Thus, Seleukos III Soter (r. 225-223 BC) gave the duty of settling the border dispute with the Pergamene King Attalos I (r. 269-197 BC) to his general and nephew Akhaios, who had the upper hand over Attalos at Sardis. In 223 BC, when Seleukos III was murdered, Akhaios took advantage of the turmoil that was emerging; he first supported Antiochus III (r. 223-187 BC) but then revolted against him, proclaiming himself king at Laodikeia in 222-221 BC and minting coins in his own name. The new king could not deal with Akhaios right away as he was involved in suppressing other revolts in Syria but Akhaios was finally defeated and

⁷ Oğuzhanoğlu 2014, 71-85, Figs. 2-23.

⁸ Şimşek 2013a, 47, 70-77, 400-407; Konakçı 2014, 87-114, Figs. 1-28.

⁹ Ramsay 1895, 32; Anderson 1897, 409-410; Head 1906, Ixxiii; Ruge 1924, 722, Buckler – Calder 1939, x; Magie 1950, 127, 986-987, no. 23; Gagniers 1969, 1-2; Jones 1971, 42; Head 1977, 678; Bean 1980, 213; Belke – Mersich 1990, 323; Bejor 2000, 15-16; Texier 2002, 383.

¹⁰ Ramsay 1895, 35; Bean 1980, 213; Belke-Mersich 1990, 323; Head 1906, lxxiii; Ruge 1924, 722; Gagniers 1969, 1; Jones 1971, 42; Texier 2002, 383-384.

executed at Sardis in 213 BC¹¹. Thus, Antiochus III restored Anatolia to his kingdom.

The Lykos (Çürüksu) Valley remained under Seleucid rule until the Battle of Magnesia between the Seleucids and Romans in 190 BC. Winning this battle with the help of the Pergamenes, the Romans left the Seleucid territory in this area to the Pergamenes, through the Treaty of Apameia (Dinar) which was signed in 188 BC. With the annexation of the Pergamene Kingdom to Rome, via the bequeathed of Attalos III on his death in 133 BC, Western Anatolia became part of the Provincia Asia that was founded in 129 BC¹².

In common with the Lykos Valley and neighboring towns, Laodikeia was besieged and destroyed by the Pontic armies during the First Mithridatic War (88-85 BC). It was defended by the Roman general Quintus Oppius and quickly became more wealthy, especially after the Mithridatic Wars¹³. Thereafter, Strabo (XII 8.13) cites Laodikeia as one of the two biggest cities of Phrygia, the other being Apameia Kibotos.

During the Roman Imperial period, Laodikeia paid its taxes regularly and assumed the title of *neokoros* in the reigns of Hadrian (r. 117-138 AD), Commodus (r. 180-192 AD), Caracalla (r. 211-217 AD) and Alexander Severus (r. 222-235 AD), and was thus tax-exempted¹⁴.

Laodikeia became one of the most important and developed commercial centres of Anatolia in antiquity. Great wealth and fame were brought to the city¹⁵ through the production of wool obtained from raven black sheep and the textiles that were woven with it (Cicero, *Letters to his Friends*, II, 17.4 and III, 5.4; Strabo XII 8.16). Strabo (XII 8.16) states that Laodikeia produced sheep that were excellent, not only for the softness of their wool, in which they surpassed even Milesian wool, but also for their raven-black color. Pliny (*NH*, XXI, 9. 27 and XXV, 9. 67) states that actually this wool was dyed red or purple with red ochre obtained from Rubia Tinctoria. L. Vitruvius (VIII 3. 14), on the other hand, ascribes the whitish brown, grey and raven black colors, as well as the softness of the wool, to the rotten-smelling water of the region. In the excavations, loom weights, a dyeing workshop, dye residue, and fabric fragments used as pipe-plugs were discovered¹⁶ (Figs. 11-12).

¹² Strabo, XIII 4.2; Humann *et al.* 1898, 19-23; Magie 1950, 127, 986-987, no. 23; Gagniers 1969, 3; Magie 2001, 39-41, 67-68.

¹¹ Balbank 1957, 15-21.

¹³ Magie 1950, 213-214.

¹⁴ Şimşek – Ceylan 2003, 148; Şimşek 2011a, 88; Şimşek 2013a, 57, 508.

¹⁵ Magie 1950, 47-48; Jones 1971, 74.

¹⁶ Şimşek 2013a, 392-394, 396-399, Figs. 518-520, 521-527.

In the reign of Tiberius (r. 14-37 AD) Laodikeia was the grandest and richest city in Phrygia. The earthquake of AD 60 razed the cities in the Lykos Valley to the ground; Hierapolis and other cities were renovated with the help of the Roman Empire but Laodikeia restored itself on its own¹⁷. At the south end of Stadium Street, before Trajan's Fountain, an inscription referring to water regulations has been discovered. It refers to the city as "the most magnificent city of the Laodikeians", attesting to the wealth of the city in the latter half of the first century AD¹⁸. The city centre extends over an area of 2.5 sq. km. and the insulae and the houses therein suggest that about 70,000-80,000 people lived there between the first and third centuries AD. Considering the close proximity of the expansion of the city, this population may amount to 170,000-200,000 people.

Laodikeia was an important city and perhaps the capital of the Kibyra (Gölhisar) Conventus during the Late Republic and Early Roman Imperial periods. Cicero stayed in Laodikeia for ten weeks during his governorate of Cilicia (51-50 BC)¹⁹ and attended to cases with the notorious *publicani*, ruling justly²⁰.

That Diocletian (r. 284-305 AD) declared Laodikeia as the metropolis of Phrygia (after 290) reveals the importance of the city during the Late Roman and Early Byzantine periods²¹. Laodikeia hosted emperors Hadrian in 135, Caracalla in 215, and Valens in 370²².

With the division of the Roman Empire into two, fortifications encircled the city in 395-396, following a decree issued by Theodosius (r. 378-395 AD) and Arcadius (r. 395-408 AD)²³. However, the walls did not fully circumscribe the city (Fig. 13). In the construction of the fortifications, blocks of existing buildings were used and walls of the North (Sacred) Agora, theatres and stadium were incorporated (Fig. 13). Surveys across the city indicate that life outside the walls continued for a while after the construction of the fortifications (Fig. 14). Those living outside the walls probably took refuge within it during times of danger.

Laodikeia was razed to the ground by the earthquake in AD 494 and could never again attain its former glory. Thereafter, the settlement

¹⁷ Simşek 2013a, 56.

¹⁸ Simsek 2015b, 67.

¹⁹ Cicero, Letters to his Friends, III, 7; IX, 25; XIII, 54 and 57; Letters to Atticus, V, 15, 16, 20, and 21; VI, 1, 2, 3, and 7; Against Verres, I, 30.

²⁰ Magie 1950, 391-392; Şimşek 2013a, 56.

²¹ Şimşek 2011a, 91; Şimşek 2013a, 57.

²² Şimşek 2013a, 57.

²³ Şimşek 2013a, 57.

gradually shrank. Another earthquake in the reign of Emperor Focas (r. 602-610 AD) wiped out the city entirely. This time, the waterways supplying the city from the springs at Başpınar, Denizli, were destroyed and security concerns arising from the Sassanids and Arabs paved the way for the relocation of the city to the foot of Mt. Salbakos (Babadağ) in the south, which was more favorable for defence and water sources²⁴ (Fig. 15). While a group of people settled at Kaleiçi, other groups settled at Bereketli, Hisarköyü and Asartepe (Hisar), building small fortresses for defence purposes. Excavations have shown that the doors of shops and houses were deliberately blocked, clearly indicating that the inhabitants had hopes of returning.

Remains of fortresses at Denizli Kaleiçi, Bereketli Hisarköy and Asartepe have survived²⁵. There are Bronze Age necropoleis at the Denizli Bağbaşı, İncilipinar, and Gümüşler mounds, while Hellenistic and Roman necropoleis have been found at the Pamukkale University campus site. It is also plausible that some Laodiceans may have moved to Hierapolis (Pamukkale). Laodikeia, as mentioned in the sources starting in the seventh century, actually means the settlement, especially at and around Denizli-Kaleiçi and around. The region was conquered by Turks in 1206, and the name was corrupted to Lâdik²⁶.

From very early times, favorable conditions in the Lykos Valley enabled human habitation. The earliest evidence of this is a skull of *Homo erectus* (Denizli-Kocabaş Man), found in a travertine quarry on the southeast foot of Mt. Çökelez and dated to 1,200 millennia before present²⁷. This discovery paved the way for archaeological excavations that revealed the earliest data in the Lykos Valley. Pottery, either plain or decorated with geometric motifs in red ochre, dated to the Early Chalcolithic period (5500 BC), was discovered at the West Prehistoric Necropolis: Kandilkırı Settlement of Laodikeia²⁸ (Figs. 10, 16). Pithos burials discovered at this prehistoric necropolis cast light on the burial customs of the region during the Early Bronze Age²⁹ (Figs. 8, 17). Denizli

²⁴ Şimşek 2007, 39-43, Res. 2, 4-17; Şimşek 2013a, 58.

²⁵ For remains see Şimşek 2007, 38-43, Figs. 2-10, 12-17.

²⁶ Şimşek 2007, 38-40; Şimşek 2011a, 91-93; Şimşek 2013a, 58, 513.

²⁷ Çokaman 2008, 4-5.

²⁸ Şimşek 2012b, 586-590, Figs. 13-14; Şimşek 2013a, 27, 47, 467-470, Fig. 676; Oğuzhanoğlu 2014, 72-73, Figs. 2-3.

²⁹ Simsek 2013a, 400-407; Oğuzhanoğlu 2014, 73-78, Figs. 4-14.

Museum formerly conducted rescue excavations at Akhan Bronze Age Necropolis, which was used from 3000 to 1200 BC 30 .

Solid evidence regarding Diospolis and Rhoas, mentioned by Pliny (*NH* V.105), was found at the twin mounds of Asopos I-II, to the west of Laodikeia (Figs. 9-11). Excavations at Asopos I-II brought to light data from the Late Chalcolithic, through to the fifth century AD, in seven strata³¹ (Fig. 10). The Middle Bronze Age is not represented at Asopos I-II, but there is evidence of the period concerned, as well as the Early Chalcolithic period, at the West Prehistoric Necropolis and Kandilkırı³² (Figs. 10, 16). Thus, excavations have clearly shown that the ancient city of Laodikeia was a typical Anatolian foundation and settlement.

Excavations at the Asopos Hill have cast light on the past of Laodikeia. Analyses of the Bronze Age obsidian pieces discovered at Asopos Hill I-II have indicated that almost half of the material originated in Central Anatolia, while the rest originated in the Aegean Islands (Fig. 18).

This shows that the Bronze Age city/settlement was already commercially well connected with the interior of Anatolia and the Islands³³. Bronze Age (second millennium BC) loom weights reveal the early phases of the textile industry, which was to be of great importance to the Hellenistic and Roman city³⁴ (Figs. 11-12). Pottery kilns from the Middle-Late Bronze Age³⁵ and Hellenistic period also indicate local pottery production as well as imported wares³⁶. Through analyses of their clay, type, and temper content, it has been proven that pottery discovered in various sectors of the ancient city was locally produced. Vessels, roof tiles and bricks, also of local production, bear various workshop monograms, stamps and marks³⁷.

³⁰ Şimşek 2013a, 39, Fig. 44. In addition, foundation excavations for a construction in the Bağbaşı neighborhood, conducted by Denizli Museum Directorate, brought to light pithos burials of the Bronze Age.

³¹ Şimşek 2013a, 70-77, 467-476, Figs. 68-74, 671,682-689; Konakçı 2014, 89-104, Fig. 4.

³² Şimşek 2013a, 400-407, 467-471, Figs. 529-536, 676-681. See Oğuzhanoğlu 2014 and Konakçı 2014.

³³ Şimşek 2011b, 449-450; Şimşek *et al.* 2014, 123-142, Figs. 7-15, Tables 1-3.

³⁴ Şimşek 2014a, 44, Fig. 10.

³⁵ Konakçı 2014, 95-99, Figs. 15-17.

³⁶ For Laodikeian type lamps see Duman 2010, 189, n. 486; Şimşek *et al.* 2011, 79-80, pl. 74/139-140; Şimşek 2013a, 72-75, 467-468, 476-478, Fig. 73, 671-672, 693; Simsek – Duman 2013, 151-180.

³⁷ Simsek *et al.* 2011, 14, 17-20, pl. 59-61; Simsek 2013a, 467, Figs. 673-675.

Water Supply System

Due to the absence of any springs within the urban limits of Laodikeia. water supply was a major concern from the very beginning. Before the Hellenistic period, water is thought to have been conveyed from the River Asopos (Gümüscay-Goncalı). This is why the early settlements clustered around the River Asopos, which was suitable for supplying the Asopos Hill and West Prehistoric settlements (Figs. 6-7). During the Hellenistic³⁸. Roman and Early Byzantine periods water was brought from the Mt. Salbakos (Babadağ) valleys some 18 km away; the water from Başpınar spring was stored in a basin, which today is located within military territory, and then conveyed via a system that incorporated a network of open channels, aqueducts and pipes, to the two water distribution centres within the city³⁹ (Figs. 15, 19). In the Hellenistic period, thick-walled terracotta pipes were used for conveying the water. In the Roman Imperial period the terracotta pipes were replaced with travertine pipes, which were more durable against high pressure, and the twin pipelines can be followed from the west side of the Eskihisar Neighborhood up to the Water Distribution Terminal I (Figs. 19-20). During the 2015 excavations, a thirty-line inscription was discovered in front of the east side of the semicircular shaped Trajan Fountain which was recently excavated at the south end of Stadium Street. This inscription, which is of utmost importance, addresses issues such as maintenance of the waterways to Laodikeia, their destruction, keeping the water uncontaminated and unlittered, and its use for orchard irrigation, as well as indicating severe fines for illegal use⁴⁰. Two main water distribution terminals in the urban area distributed water to the individual structures (Fig. 13). Water Distribution Terminal I provided water to the Stadium, South Baths Complex, Bouleuterion and others in the vicinity (Figs. 7, 13), while Water Distribution Terminal II supplied almost 70% of the urban area. Terracotta pipes ran from these

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³⁸ Due to ca. 50 m. level difference between the Eskihisar slopes and Water Distribution Terminal I, during the Hellenistic period terracotta pipes were secured to each other with lead clamps, against pressure. However, in the Roman Imperial period these were replaced by twin travertine pipes. See Şimşek 2013a, 63-69, Figs. 51-64.

³⁹ Şimşek – Büyükkolancı 2006a, 83-89; Şimşek – Büyükkolancı 2006b, 137-144, Figs. 1-11; Şimşek 2013a, 63-70, Figs. 51-67. Within the urban setting are monumental fountains, street fountains, and street water distribution points (see op. cit. 69-70, Figs. 65-67).

⁴⁰ Simsek 2015b, 67.

main terminals to civic, public and religious buildings⁴¹. With the decline of the city, starting in the fifth century, new distribution points were built in the streets to supply the buildings that were still in use⁴². This phase developed around churches.

Urban Planning of Ancient Laodikeia

Surveys and excavations conducted at the ancient city have already shed light on the urban chronology, settlement density, and Hippodamic urban design⁴³ (Figs. 7, 13-14). Pottery discovered in the course of surveys across the city shows a high density, from late antiquity to the Roman and Hellenistic periods. Coins discovered in the twelve years of work conducted by the author and his team show an interesting distribution over the centuries: the biggest group dates from the fourth century AD, followed by the fifth-sixth centuries AD, third century AD, seventh century AD, and first-second centuries AD respectively. Among the legible coins, half are from the fourth century⁴⁴ (Fig. 21). This naturally indicates that the city was the most crowded during the fourth century AD, before it was abandoned. However, the brightest period of the city was from the first to the third century AD.

The city, surrounded with rivers on three sides, does not contain within it any marble or travertine quarries. The material used in architecture was therefore obtained from the foot of Mt. Çökelez in the north, Mt. Salbakos (Babadağ) in the south and Mt. Kadmos (Honaz) in the southeast (Fig. 3). Timber was obtained mainly from Mt. Salbakos. As the region lies within an active seismic zone, the buildings were rebuilt many times and architectural blocks were re-used in other buildings or for repairs (Fig. 2).

⁴¹ According to Vitruvius (VIII.6.1/2), water terminals should have a distribution tank with three partitions, each furnished with a pipe so that the overflowing water flows into the central partition, which should serve all the basins and fountains via the installed pipes. The second partition should serve the baths in order to bring income to the state, while the third partition should serve private homes for the people because people cannot use the water of the other partitions if they are connected only to the central partition. This is why the water tank is partitioned. Thus, citizens who have water supplied to their houses, facilitate the procurement of water by contractors, through the taxes that they paid.

⁴² For the water distribution points in the streets see Şimşek 2013a, 70-71, Figs. 65-67.

For more information on the urban planning system of the city see Şimşek 2013a, 78-80, Figs. 75-77; Şimşek 2014a, 46-66, Figs. 4-5, 11, 15, 18, 20, 29, 36.
 Simsek 2013a. 509, Fig. 766.

The south part of the North (Sacred) Agora served as a debris dump after the earthquakes in the reign of Diocletian (r. 284-305 AD) and in 494 (Fig. 23). The deposit here reaches a thickness of 7 m in some places⁴⁵.

Excavations have shown that the insulae in the Hippodamic system to the north of Syria Street measure 42x51 m. In some cases, they reach 52-54 m. (Figs. 13, 24-25). This layout makes the rectangular insulae actually close to a square, reflecting the Syrian influence. However, at Hierapolis a few miles north, the insulae are oblong (30x75 m)⁴⁶. Structures placed in this layout, enriched with main streets and side alleys, indicate excellent planning. The main streets are flanked with porticoes that have shops behind them. Some shops are designed with storage areas either behind or next to them, creating a commercial unity. The 2015 excavations showed that Stadium Street terminated in a rectangular plaza in the south, and was joined to diagonal streets in the northwest and southeast. This layout reveals that topography dictated variations in some areas (Fig. 26).

Svria Street

The decumanus that extends for 904 m. westward from the Syria Gate to the junction with Stadium Street (cardo) at the city centre is called Syria Street. Excavations and ensuing restoration work have clarified the planning on both sides of the street (Figs. 7, 13, 24-26). Excavations clearly show that the street remained in use from the Early Roman Imperial period (first century AD) to the reign of Focas (r. 602-610 AD). The street was built in the Doric order, together with the Syria Gate at its eastern end in 84-85, by Domitian's freedman, Tiberius Claudius Tryphon, and was dedicated to the emperor and Zeus Magistos Soter⁴⁷. The Frontinus Gate and street in Hierapolis⁴⁸, as well as the main street in Tripolis⁴⁹, were also built in the Doric order at about the same time. Syria Street comprises a paved way which is 7.30 m. in width, and it has porticoes that rise on one or two steps with shops behind them. The widths

⁴⁷ Buckler - Calder 1939, 1-2; Corsten 1997, 67-71, no. 24, Figs. 1-2; Simsek 2013a, 95-97, Figs. 104-105.

⁴⁵ See Simsek 2014b, 85-87, Figs. 4-6; Simsek 2014c, 646, Figs. 10, 12; Simsek 2016, 485-486.

⁴⁶ D'Andria 2003, 34, 44-47.

⁴⁸ D'Andria 2003, 70-79, Figs. 43-53.

⁴⁹ Duman 2013, 189-193, Figs. 2, 6-8, 12, 15-17, Duman – Baysal 2014, 48-51. Figs. 5-6.

of the porticoes ranges from 3.70 m. to 4.30 m. They were covered with a lean-to roof in order to provide shelter om the sun and the rain⁵⁰.

Excavations and restoration work have been completed in Syria Street from the East Byzantine Gate up to the Caracalla Nymphaeum; traces of constant use and adjustments due to earthquakes are clearly evidenced by architectural finds. Columns and capitals of the Roman Imperial period that were found to have been re-used in the portico walls, superstructure. and sewage covers, indicate rearrangement after the earthquake of AD 494. This arrangement involves an order of two columns and one pier. alternating to support the roofs of the porticoes up to the East Byzantine Gate. Bases and capitals of Doric, Ionic or Composite orders taken from various buildings of the Roman Imperial period were reprocessed and used in the street (Fig. 27). These columns and piers have traces of painted inscriptions on the plaster, and engraved inscriptions and signs such as crosses. The capitals of the tetrapylon are decorated with crosses in low relief, because it is located in the side street leading to the east side of the Church of Laodikeia. In late antiquity, column capitals, bases, or voussoirs were placed near the doorways of the shops and were used as seats, or were engraved with various gameboards like tic-tac-toe, checkers, and duodecim scripta⁵¹. This is a typical custom of the region and can still be witnessed today. Patches of opus sectile and mosaic pavements can be seen in places in the portico floors. On the north side of the street is a rectangular fountain between the portico columns, commonly known from Pompeii and Herculaneum.

Stadium Street

At the west end of Syria Street (*decumanus*) is Stadium Street (*cardo*), which extends for 288 m. southward, as excavated (Figs. 13, 24, 26). It terminates at the Trajan Nymphaeum and Plaza in the south (Fig. 28). The portico arrangement, pavements, and arrangement of shops behind Stadium Street are reminiscent of those in Syria Street⁵². However, the street suffered much damage because it served as a quarry after the abandonment of the city. Single arched passages, such as triumphal arches, were built at certain intervals, underlining the street's importance. Statues and statue postaments with inscriptions placed between columns, indicate

⁵⁰ Şimşek 2013a, 112-124, Figs.129-133.

⁵¹ Simsek 2013a, 121, Fig. 145.

⁵² Şimşek 2011b, 458-460, Figs. 10-12; Şimşek 2013a, 125-130, Figs. 150-156; Şimşek 2014a, 50-51, Figs. 21-22; Şimşek 2014c, 637-638, Figs. 1, 4, 6-7.

that the street was adorned with statues, similar to Curetes Street in Ephesos⁵³ (Figs. 21-22).

The shops from the Caracalla Nymphaeum to the Central Baths on the east side of this street have vaulted storerooms at the back, which would have been especially practical for storing food during the hot summer months

On the east side of the excavated and restored part of Stadium Street are the Caracalla Nymphaeum, Central Baths, Nymphaeum B and Latrina, while on the west side are shops and the Ephesos Portico⁵⁴ (Figs. 13. 26. 28). Further south is an east-west main street, which passes by Water Distribution Terminal II further east. The 2015 campaign showed that this street narrowed from 6.50 m to 4.03 m., and that rearrangements were made in the vicinity of the Trajan Nymphaeum during late antiquity (Figs. 13, 28). The campaign brought to light the original sidewalk, rising one step from the street, and possibly a public structure that had an apsidal south end behind it, in the area stretching southward from the junction with the eastward main street. In this section of the street, the west side is arranged differently: five marble columns flanked by two travertine piers carry brick arches; behind this arched portico, there are shops (Figs. 28-29). With these arches soaring over them, the columns of the portico look higher. At the south end, a fountain was built on the axis of the portico that adjoined the back of the Trajan Nymphaeum, creating an impressive arrangement. Architectural elements of the portico were found to have toppled eastward, together with their arches, down into the street. This was due to an earthquake.

Ephesos Street Portico

The Ephesos Portico is an important ceremonial street that extends eastwest and joins the north-south Stadium Street at the west⁵⁵. This street. which is 130 m long, extends west into Ephesos Street. In the first phase of building it was 19.30 m. wide. In a later phase, pools of 1.85-1.90 m. width were built onto the street, adjoining the northern and southern porticoes, thus narrowing it to 13.30 m. The total width is 30.60 m. (Figs. 13, 24, 26). At the west end of the portico is an arched gateway. The portico is accessed via three steps down from Stadium Street. Its floor was built with mortared creek stones and then paved with marble slabs. In a

⁵³ For Curetes Street in Ephesos see Scherrer 2000, 114-115, Figs. 1-2.

⁵⁴ Simsek 2013a, 125-130, Figs. 150-152.

⁵⁵ Simsek 2013a, 131-137, Figs. 157-166.

later period, four travertine piers were built at the portico's junction with Stadium Street; their west sides were blocked with a north-south wall. The complex features pools on either side of the plaza, piers connected with arches, and galleries that vary from between 5.60 and 6.00 m. in width, and which contain statues (Figs. 30-31). At the back of the north and south galleries are the entrances to the shops, with storerooms behind. The grandeur and width of this portico clearly reveal its function: hosting festivals and feasts, and as a protocol site used on special occasions. This special location is bounded by an arched gate at the west and by Stadium Street to the east. Archaeological evidence indicates that the site was in use from the Late Hellenistic period. However, the highest frequency of use was from the third to the sixth century AD. Ephesos Street extends to the west of the portico and terminates at the triple-arched Ephesos Gate, built at the same time as the Syria Gate⁵⁶. This gate leads to the western road to Ephesos.

Temple A East Alley

The side street leading north from Syria Street to the North Theatre has been entirely excavated and restored⁵⁷ (Figs. 13, 25). From south to north on the east side of this alley are: the first insula, which encompasses civic houses with a row of shops in front; the second insula, with the Church of Laodikeia; and the third insula, with civic houses and shops. The doorway with a tympanum of brick *opus spicatum* of a house, has been re-erected in this alley⁵⁸. On the west side of the alley is Temple A, which occupies one-and-a-half insulae. Between the naos wall of Temple A and the street are shops and work areas. Then comes the Peristyle House with the Oratory that adjoins the North Theatre.

House A Alley

This alley leading north from Syria Street is bordered on the east side by the House A complex, which occupies a full insula, shop entrance, and entrance to a peristyle house⁵⁹ (Figs. 13, 24-25, 32). Along the east side of the alley is a sidewalk for pedestrians. At the southwest corner of the junction, bordering this insula on the northwest, is the Street Water

⁵⁶ Bejor - Bonetto 2000, 105-113, Figs. 1-10; Şimşek 2013a, 89-92, Figs. 94-97.

⁵⁷ Simsek 2013a, Figs. 150, 329, 357-358.

⁵⁸ Şimşek 2014a, 53, Fig. 25.

⁵⁹ Simsek 2013a, 318-319, Figs. 420-422, 431-432.

Distribution Terminal of the Early Byzantine period. Triple pipes that leave this box on four sides supplied water to nearby buildings. The second insula, on the west of this alley, is occupied by the Church of Laodikeia, which has a fountain. The alley reaches the North Theatre after the third insula, which has not yet been excavated.

Another parallel alley, leading north from Syria Street, borders the House A complex on the east and has entrances to two peristyle houses in the complex. At the north end of the insula, on the east side of the junction, is a balcony projection of another house, which was built protruding into the alley during late antiquity⁶⁰.

East and West Alleys of S. Severus Nymphaeum

The monumental fountain, dedicated to Emperor Septimius Severus, is an oblong positioned along the north side of Syria Street and bordered on the east and west sides by two alleys that lead north⁶¹ (Figs. 13, 24-25). The eastern alley is accessed via steps from the main street and is bounded at the east by the courtyard wall of Temple A. The west alley leaves the main street through an arched pylon and is bounded to the west by the North (Sacred) Agora. This alley was probably connected to the Agora via two entrances: one which has been discovered; and a second one which should be positioned further north. At the beginning of the alley is a row of rooms built in the Early Byzantine period to adjoin the Agora wall. On the east side of the alley is the Greens Clubhouse with a peristyle layout that adjoins the S. Severus Nymphaeum.

Constructions Associated with the Spread of Christianity in Laodikeia

Excavations have shown that Christianity started to spread in Laodikeia from the very beginning (Figs. 7, 13, 33), and accelerated after the Edict of Milan in AD 313⁶². The high number of churches built in the city, as well as private oratories created within houses, reveal the importance of the new religion. In common with the other cities of the Seven Churches mentioned in the book of *Revelation*, the spread of Christianity in Laodikeia was connected to the great wealth and honour that had been

⁶¹ Simsek 2013a, 143-146, Figs. 182, 371.

⁶⁰ Şimşek 2014a, 54, Fig. 27.

⁶² See Akşit 1970, 293-296; Brown 2000, 52-53; Şimşek 2012a; Şimşek 2015a; Franco 2012, 56-59, Figs. 1-2; Marcone 2012, 46-47.

gained from commerce. However, the Jewish communities that were active in these cities were involved in commerce as well⁶³, and it is also the case that Judaism, with its monotheism, facilitated the spread of Christianity in these cities of commerce⁶⁴. This is why these cities are cited in the New Testament: because the money that was needed for the spread of the new faith was abundant in these places.

The buildings named as Peristyle House with Oratory and Central Church include one part of a residence converted to a private chapel (Figs. 33-35), reflecting an age-old Anatolian custom of replacing rooms that had been used for the cult of the ancestors within paganism, with private oratories of the new faith⁶⁵.

As of the fourth century AD, a Christian quarter developed around the Church of Laodikeia, whereas the pagan quarters gradually diminished and moved out of the city. The buildings flanking Syria Street in the centre were in constant use until the city was abandoned due to the earthquake in the reign of Focas, after which they were exploited as guarries for ashlars and lime (Figs. 13, 24-25, 37). With Christianity taking over, the pagan temples within the North (Sacred) Agora (possibly the Corinthian order temple dedicated to Athena, and the Ionic order temple dedicated to Zeus) were dismantled and their architectural elements re-used in the east and west porticoes⁶⁶. This was an act that also removed their sacredness (Figs. 13, 23-24). The fragments of a colossal Athena statue in the style of the sculptor, Pheidias, discovered on the Asopos Hill, suggest that the cult statue was smuggled out by the temple staff for protection⁶⁷. This is clearly linked to the rapid Christianisation of the city. As all the churches in Laodikeia are dated to the fourth through to the end of the sixth century AD, their architectural features cast light on the early period of Christian religious architecture⁶⁸.

The ancient city houses many churches, both within and outside the city walls⁶⁹ (Fig. 33). The churches whose remains have survived include the Church of Laodikeia, North Church, Southwest Church, and Stadium

⁶³ For the Seven Churches see Wilson 2010, 23, 183-188, 199-232, 245-254, 279-321.

⁶⁴ Şimşek 2006, 343-346, Figs. 2-3.

⁶⁵ Şimşek 2013a, 319-328, 360-372, Figs. 433-437, 468-477; Şimşek 2013b, 103-104, Figs. 2-3.

⁶⁶ Simşek 2013a, 274-279.

⁶⁷ Şimşek 2013a, 278-296, Figs. 376-403; Şimşek 2013b, 103-104, Figs. 2-3.

⁶⁸ See Şimşek 2012a; Şimşek 2013a, 341-391, Figs. 453-516; Şimşek 2015a.

⁶⁹ For the churches in Laodikeia see Sperti 2000, 93-97, Figs. 54-63; Şimşek 2012a; Şimşek 2013a, 341-391, Figs. 453-516.

Church, which are all basilican in layout. The Church of Laodikeia also has a corridor on the north side, leading to the baptistery. Three Christian buildings, which have different appearances, all feature a rotunda with an octagonal interior at the east and a rotunda to the south⁷⁰. In addition, some of the houses and Roman Imperial period structures had one of their sections transformed into an oratory [Peristyle House with Oratory and Central Church⁷¹ (Figs. 34-35)]. On the west portico of Temple A is a chapel with a single apse, dated to the fourth century AD⁷² (Figs. 33, 36).

Location Preferences for the Public Structures

Public structures seem to have been distributed all over the city of Laodikeia. This distribution is believed to have arisen from population density and accessibility. Four public baths are placed in four quarters of the city⁷³ (Figs. 7, 13, 24-27, 38). These baths are also connected with agorae.

To the north of the unexcavated portion of Syria Street, between the Syria Gate and the East Byzantine Gate, are the East Baths, possibly connected at the west to the East Agora (Fig. 7). The Central Baths are connected at the north to the Central Agora (Figs. 7, 13). The West Baths, located to the south of Ephesos Street, are connected at the north to the West Agora (Figs. 7, 13). The South Baths are a twin baths structure and are connected to the South Agora, located to the north. To the north of the South Agora is the Bouleuterion⁷⁴ (Figs. 7, 13, 38). Therefore, the South Agora is the state agora. Starting from the south corner of the junction of Stadium Street, with the east-west street leading to the Water Distribution Terminal II, the original sidewalk, and a public structure likely to be the Basilica, are along the east side. At the south end of the street is the Trajan Fountain and Plaza, with an administrator's building (that includes an atrium) located at the far south end.

Monumental Fountains

Nymphaea in Laodikeia were built as single- or double-storey structures at the corners of main streets or in plazas (Figs. 6-7, 13, 24-26, 28).

⁷⁰ Şimşek 2013a, 345-360, 372-383, 387-391.

⁷¹ Şimşek 2013a, 319-328, 360-372.

⁷² Simsek 2013a, 263-265, Fig. 350.

⁷³ For detailed information on the agorae and baths in Laodikeia see Sperti 2000, 54-62, 74-81, Figs. 18-25, 33-41; Bejor-Bonetto 2000, 114-124, Figs. 11-24; Şimşek 2013a, 179-185, 188-207, Figs. 233-274.

⁷⁴ Sperti 2000, 42-54, Figs. 9-13, 17; Simsek 2013a, 240-243, Figs. 239-240, 318-322.

Nymphaeum B (Fig. 39), of the Early Roman Imperial period, and the Trajan Nymphaeum (Fig. 13, 28), dated to AD 114, are single-storey. In terms of urban planning, the criteria for these nymphaea were visual quality, accessibility, and distribution all over the city.

A total of seven fountains are known and have been discovered⁷⁵: the Stadium Nymphaeum adjoining the Water Distribution Terminal I; the West Agora Nymphaeum in Ephesos Street; the Caracalla Nymphaeum at the corner of Syria Street and Stadium Street⁷⁶; the Septimius Severus Nymphaeum on the north side of Syria Street; Nymphaeum B, designed together with a water tank and latrina⁷⁷ in Stadium Street; the Trajan Nymphaeum at the south end of Stadium Street; and the East Byzantine Nymphaeum, located between the north tower of the East Byzantine Gate and the city wall (Figs. 6-7, 13, 24-26, 28, 39-40).

Water Distribution Terminal I supplied the Stadium Nymphaeum, while Water Distribution Terminal II supplied the West Agora Nymphaeum, the Caracalla Nymphaeum, the S. Severus Nymphaeum, Nymphaeum B, the Trajan Nymphaeum, and the East Byzantine Nymphaeum⁷⁸.

Stadium and Theatres

The Stadium, with double sphendones, is located next to the baths complex in the south part of the city (Figs. 6-7, 13, 38). It thus has a physical connection with the baths which would have benefitted the athletes. The West Theatre is located in the northwest quarter, while the North Theatre is on the north edge of the city centre. Both of the theatres and the Stadium were built on hollowed out hillsides. The West Theatre was built in the Hellenistic period but the North Theatre is dated to the second century AD (Figs. 6-7, 13, 41). Based on an inscription, the Stadium is dated to AD 79. The existence of two theatres and one of the largest stadia in Anatolia sheds light on the population, and reveals the importance of sports, arts and culture⁷⁹.

The North (Sacred) Agora is one of the most important monuments unearthed in Laodikeia (Figs. 6-7, 13, 23-24, 42). It is located in the flat

 $^{^{75}}$ For more information on the nymphaea in Laodikeia see Şimşek 2013a, 146-176, Figs. 180-228.

⁷⁶ For the Caracalla Nymphaeum see also Gagniers 1969.

⁷⁷ Şimşek 2013a, 177-179, Figs. 229-232.

⁷⁸ For more information on the nymphaea see Şimşek 2013a, 146-174.

⁷⁹ For detailed information on the stadium and theatres in Laodikeia see Sperti 2000, 29-42, 63-73, 81-91, Figs. 1-5, 17, 30-32, 42-51; Şimşek – Sezgin 2012, 103-128; Şimşek 2013a, 208-240.

area between the two theatres and Syria Street. It housed two temples: a Corinthian one, probably dedicated to Athena, the goddess of weaving; and an Ionic one, probably dedicated to the chief deity of the city. Zeus Laodikeus⁸⁰. In Syria Street is Temple A, which has been fully excavated and restored, dated to the Antonine period (Figs. 6-7, 13, 24-25, 42-43). According to excavation finds, Temple A was dedicated to Apollo, Artemis and the Imperial cult⁸¹. In addition, there was a temple to the south of the West Baths. With Christianity gaining the upper hand in the fourth century AD, all of these temples were destroyed. However, depictions of the city on Roman-period civic city show that there were many temples. Capitals of the Doric, Ionic and Corinthian orders shown attested in the course of excavations as spoliated, indicate the presence of more temples⁸². Architectural evidence points to the fact that these temples were built mainly in the second and third centuries AD, which was the most successful period for the city. From the fourth century, the temples were replaced by churches.

Civic Residences

Civic houses in Laodikeia were built on the insulae not occupied by public and religious monuments. These houses can be categorised as those within the city and those outside. The Southern Roman Villa outside the city is a complex that was positioned to dominate over the Asopos (Gümüscay) Valley and agricultural land. Part of the villa sits on a filled area that actually contains graves from an earlier period (Figs. 6-7, 44). The owners of this villa are believed to have not only cultivated the land but also to have manufactured and marketed other things such as glass, wine, and olive oil, during the Late Roman Imperial period (third century to the first guarter of the fifth century AD). Coins of Attouda and Hierapolis, as well as lead seals, demonstrate commercial relations with these cities. Thus, this villa is a complex that was intended for agricultural and industrial production⁸³.

House A has been entirely unearthed, whereas the Peristyle House with Oratory, only partially⁸⁴ (Figs. 6-7, 13, 32, 34-35). The evidence obtained points to the high frequency of two-storey peristyle houses. The building located at the southernmost end of Stadium Street features a tetrastyle

⁸⁰ Simşek 2013a, 274-285.

⁸¹ Sperti 2000, 91-92, Figs. 52-53; Şimşek 2013a, 245-274, Figs. 326-370.

⁸² Simsek 2013a, 245-274, 298.

⁸³ Şimşek et al. 2011, 1074-1076; Şimşek 2013a, 299-307. 84 Simsek 2013a, 307-328, Figs. 420-438.

atrium (with Ionic columns at the four corners, and postament bases), frescoes on its walls, a mosaic pavement in the corridors, and a basin in the atrium. According to the inscriptions and the statues that were discovered, it was an administrative building (Fig. 6-7, 13, 28). The blind arches on the upper floor of a house in the Temple A East Alley reveal the attention paid to static resistance against earthquakes. The protruding balcony in the east alley of House A indicates the construction of balconies on the upper floors. The street sides of the houses were arranged as shops, which functioned as both commercial premises and dwellings. The peristyle tradition is also seen at Greens Clubhouse (Figs. 6-7, 13, 24-25), which features fountains and dining rooms around its peristyle courtyard⁸⁵.

Following the conversion to Christianity, cult rooms in some houses were converted into oratories (Figs. 13, 34-35). This is the influence of an ancient tradition of religious monotheism. The division of the Empire into two paved the way for economic decline in Laodikeia, just as it did for all of Western Anatolia. Regular architecture was abandoned and rows of rooms were built either in the streets or within existing structures, to retain a sense of commercial vivacity. The earthquake of AD 494 was a turning point for the city, though, which became a rapidly declining town. The earthquake in the reign of Focas (r. 602-610 AD) ended the city altogether. with only a few families remaining, before the site was exploited as a quarry for stones and lime⁸⁶. Excavations have clarified that the opus sectile floorings and marble revetments were deliberately removed (Fig. 45). Starting in the early thirteenth century, the site of the ancient city served as a campsite for the nomads and as a stone guarry for the İlbadı Cemetery of Denizli⁸⁷. Destruction of the remains and the quarrying actually continued until the 1990s⁸⁸. The city is surrounded on all sides by necropoleis which house a variety of burials⁸⁹. Excavations have constructed an uninterrupted chronology from the Early Bronze Age through to the seventh century AD. Excavations at the necropoleis have brought to light rich data regarding the tomb types and burial traditions.

⁸⁵ For more information on civic houses see Simsek 2013a, 307-333.

⁸⁶ Şimşek 2013a, 435-438, Figs. 596-603.

⁸⁷ Şimşek 2013a, 15-20, Figs. 10-15, 17.

⁸⁸ Şimşek 2013a, 509-513, Figs. 763-770.

⁸⁹ For details on the necropoleis see Bejor *et al.* 2004; Şimşek *et al.* 2011; Şimşek 2013a, 400-434, Figs. 529-594.

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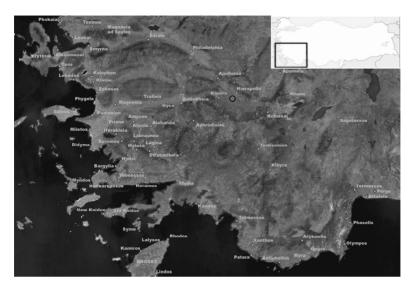


Fig. 1. Satellite map of Southwest Anatolia, showing ancient settlements

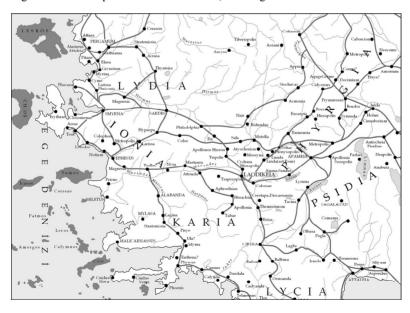


Fig. 2. Ancient settlements and Roman road system in Southwest Anatolia

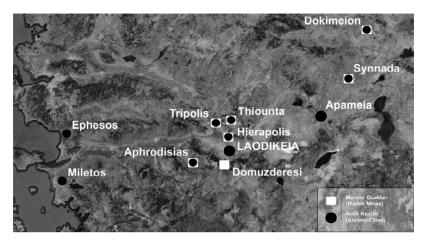


Fig. 3. Satellite map of the Maeander Valley and ancient settlements

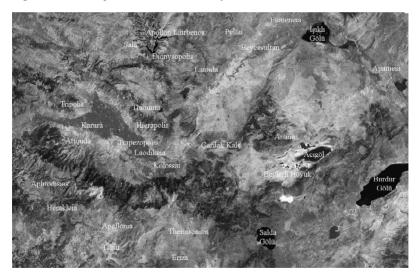


Fig. 4. Satellite map of ancient settlements in the Lykos Valley and environs



Fig. 5. Lykos Valley lake appearing after flooding in 2015



Fig. 6. Satellite photos of Laodikeia and the rivers nearby: Asopos, Kadmos, and Lykos

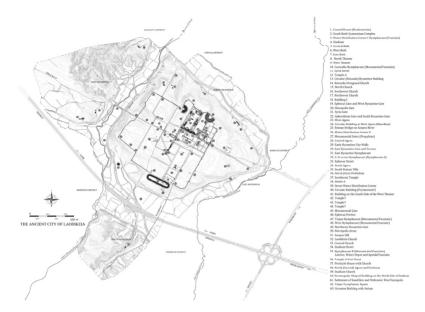


Fig. 7. Plan of Laodikeia and its buildings



Fig. 8. Pithos graves of the Kandilkırı settlement from Laodikeia's West Necropolis





Fig. 9. Asopos Hills I and II (Hierapolis Street and the gate in the center of the hills)



Fig. 10. Pottery from Kandilkırı Settlement (Early Chalcolithic) and Asopos Hill (Bronze and Iron Ages)



Fig. 11. Loom weights from Asopos Hill (Bronze Age)

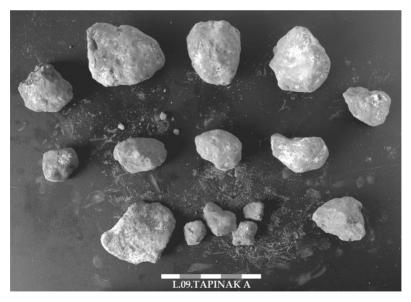


Fig. 12. Dye residue from Temple A (5th c. AD.)

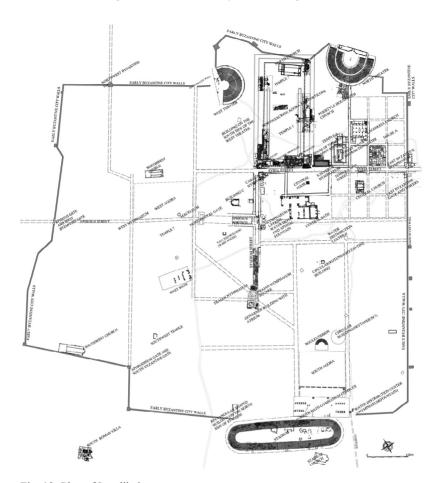


Fig. 13. Plan of Laodikeia



Fig. 14. Percentage and distribution of the potsherds from late antiquity



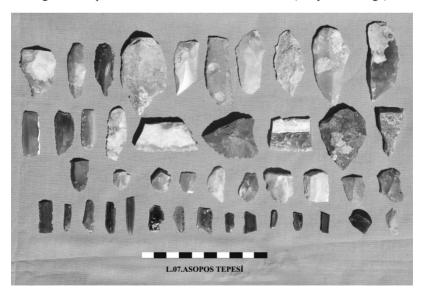
Fig. 15. Ancient aqueduct and nomads in an engraving by Laborde (1838)



Fig. 16. Pottery fragment from Kandilkırı Settlement (Early Chalcolithic Age)



Fig. 17. Composite vessel from Kandilkırı Settlement (Early Bronze Age)



 $Fig.\ 18.\ Obsidian\ and\ flintstone\ finds\ from\ Asopos\ Hill\ (Middle\ Bronze\ Age)$

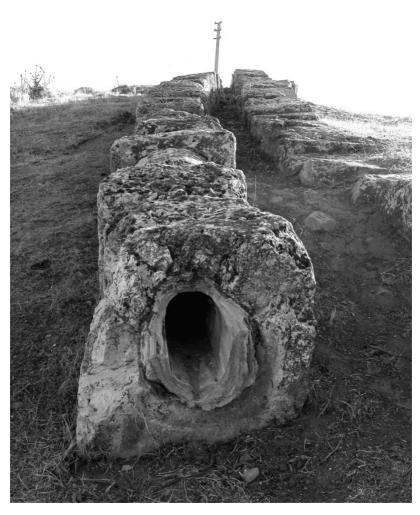


Fig. 19. Twin travertine pipes near Eskihisar



Fig. 20. Water Distribution Centre I

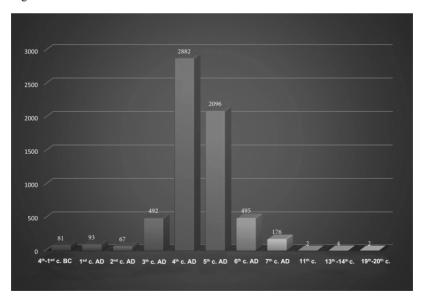


Fig. 21. Graphic of coin finds from 2012 to 2015



Fig. 22. Re-used architrave block with decoration

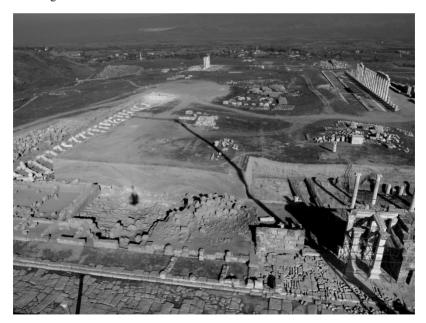


Fig. 23. Excavation and restoration work at the North (Sacred) Agora; columns and walls of the West Portico fallen in the earthquake in AD 494 $\,$

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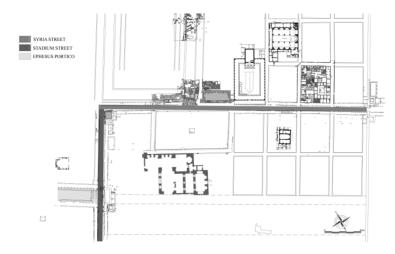


Fig. 24. Main streets (Syria and Stadium) and buildings on both sides in Hippodamic plan



Fig. 25. General view of Syria Street, the East Byzantine Gate, House A, Laodikeia Church, Temple A, the S. Severus Nymphaeum and the Clubhouse of the Greens in Hippodamic layout



Fig. 26. Corner of Syria Street and Stadium Street in Hippodamic layout



Fig. 27. Syria Street, seen from the west

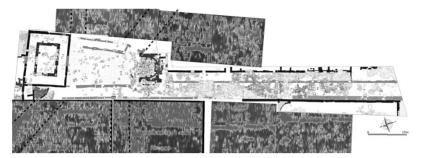


Fig. 28. Plan of Stadium Street: Trajan Nymphaeum and square, house with atrium



Fig. 29. Columns and arches fallen due to the earthquake in AD 494 on the West Portico of Stadium Street



Fig. 30. Portico of Ephesus

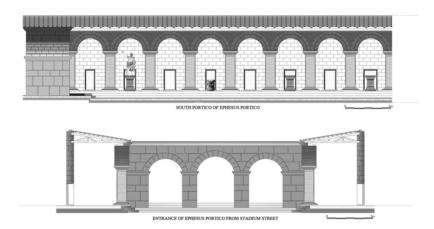


Fig. 31. AutoCad drawing of the Portico of Ephesus, gate and south portico

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Fig. 32. Plan of House A

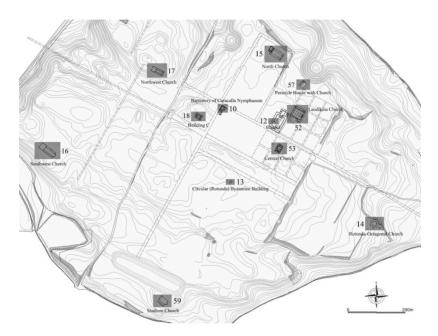


Fig. 33. Churches in the city plan



Fig. 34. Peristyle House with Oratory and North Theatre



Fig. 35. Peristyle House with Oratory



Fig. 36. Chapel in the courtyard of Temple A

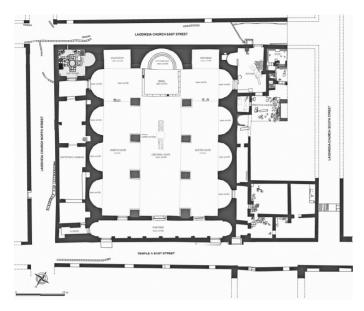


Fig. 37. Plan of the Church of Laodikeia

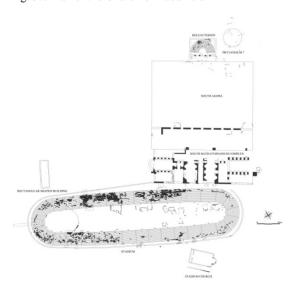


Fig. 38. Plan of the Stadium, the South Baths Complex, the South Agora and the Council House (Bouleuterion)

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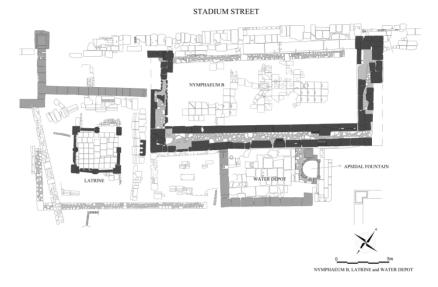


Fig. 39. Plan of Nymphaeum B, Latrines, Water Depot and Byzantine Fountain



Fig. 40. 3D reconstruction of the S. Severus Nymphaeum

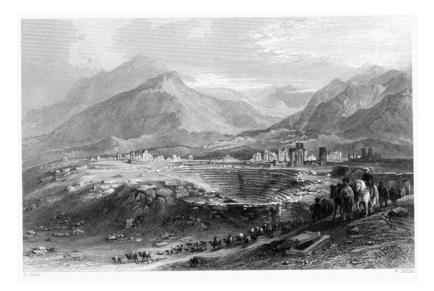


Fig. 41. West Theatre and nomads (engraving by Thomas Allom, 1846)



Fig. 42. 3D reconstruction of Temple A and North (Sacred) Agora





Fig. 43. Temple A (Antonine period)



Fig. 44. 3D reconstruction of the South Roman Villa

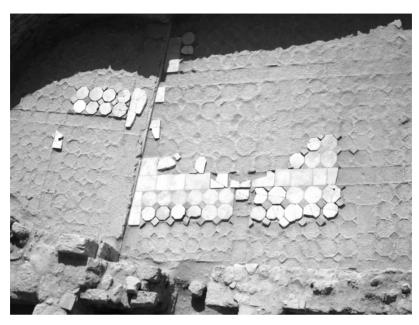


Fig. 45. Opus sectile from Peristyle House with Oratory