

The Urban Morphology of Edirne

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Abstract

Serving as a cultural center and a border and a university town, Edirne is an important city of Turkey. Edirne also has historical significance as one of the three historical capitals of the Ottoman Empire (the other two are Bursa and Istanbul, respectively). The history of Edirne dates back to the 35th century BCE. This historically prosperous city hosts many monuments from the Ottoman period; however, there are only a few urban and architectural remains from other periods.

The creation of the form of the city of Edirne is an example of synoecism, by which a group of small elements in an open pattern of organization, i.e., not subject to a rigid preconceived order, coalesce over time to form a larger entity.

The form of Edirne is the result of three distinct types of urban development that are characteristic of three eras in the city's history: Roman/Byzantine, Ottoman, and Modern. The Roman/Byzantine form was incorporated into the Ottoman city that, in turn, was converted into a more homogeneous form in the modern era. Both the Roman/Byzantine and Ottoman patterns persist in the modern city. In this article, the city of Edirne is considered as a whole and the morphology of Edirne is shown to be an organic urban development model.

Keywords

Edirne, morphology, urban form, house typology, synoecism

1 Introduction

Edirne is important both as a border city and as a cultural center and university city. It is also historically significant as it served as one of the three historical capitals of the Ottoman Empire (the others being Bursa and Istanbul).

The city of Edirne presents an example in which an urban form has emerged from the fusion of autonomous settlements. This is called synoecism (*synoikismos*), in the Greek world, is the combination of several smaller communities to form a single larger community. Etymologically, the word means "dwelling together (*syn*) in the same house (*oikos*)."
The physical traces of synoecism can be traced back to the prehistoric period. Synoikisis, a Greek word, is generally defined as the merging of peoples from different settlements and establishing a single settlement by relocating or merging the lands of different settlements in the same region. Since the establishment of a settlement involves a new socio-political organization, synoecism is also characterized in the terminology of Ancient Greek politics as the unification of the governing orders of different peoples and the designation of a new single ruler or a common governing body.

Based on historical examples, synoecism appears in 5 main types:

1. Several small settlements establish a new settlement as their administrative center, usually located in the middle or equidistant from each other;
2. The gathering of people from different small settlements surround a new area with walls and settle in it;
3. Some of the inhabitants of an existing settlement move to another location, usually not too far away, and establish a new settlement;
4. The territories and populations of several settlements with independent status, without displacement, under a single political name and administration are unified;
5. The form seen especially in the Hellenistic period is the designation or establishment of an entirely new settlement by the sovereign power and the often involuntary relocation or expulsion of its inhabitants from elsewhere (Kahrstedt, 1932).

In determining a settlement area for synoecism, the strategic situation of this area, the topography of the land, its size, the fertility of its soil, sometimes its connection to the sea, and then the size of the territory, that is,

the countryside of this center, generally played a role according to the periods. In this respect, synoecism can be said to be the first step in the establishment of metropolises. It can be seen that the approach with physical elements in defining synoecism is not parallel to the socio-political approach; on the contrary, they complement each other (Akalin, 2003).

In the case of Edirne, it was the result of historical, cultural, economic and political conditions specific to the structure of the Ottoman Empire. In the modern era, this pattern of urbanism has been superseded by a pattern produced by a centralized bureaucratic administration. In this article, Edirne will be considered as a whole, and its morphology will be shown to be an organic urban development model.

The creation of the form of the city of Edirne is an example of synoecism, by which a group of small elements in an open pattern of organization, i.e., not subject to a rigid pre-conceived order, coalesce over time to form a larger entity. Synoecism may occur at the scale of an individual building or of a city¹. In the latter case, small communities form more or less independently. As their boundaries merge, they become a single physical and political urban network of connected nodes. The result is a pattern of varying density and complexity as one moves toward and away from the originating nodes. Furthermore, it is a pattern that does not depend on a pre-existing spatial armature, such as a grid, but rather on incremental, conditional decision making. To the untrained eye, synoecism may seem arbitrary and accidental. However, during the most important period of Edirne's development under the Ottomans, the process was a carefully considered strategy to control the social, economic and political factors of urban morphology².

The form of Edirne is the result of three distinct types of urban development characteristic of three eras in the city's history: Roman/Byzantine, Ottoman, and Modern. The Roman/Byzantine form became a component of the Ottoman city, which in turn was converted

administratively into a more homogeneous form in the modern era. Nevertheless, both the Roman/Byzantine and Ottoman patterns persist in the modern city.

2 Study of the history of urban form in Anatolia

The distinctive morphological features of cities of Ottoman and Turkish origin reflect their cultural, religious, and social patterns in Islam. Yenen (1992) studied the social and religious influences that shaped the form of cities at the foundation of the Ottoman state and the foundation of cities, and examined the spatial organization of Bursa, the first capital of the Ottoman Empire, from the late 14th century to the end of the 16th century. The Ottomans employed systematic measures, such as resettlement policies linked to voluntary and forced migrations, rearrangement of the network of trade routes, and establishment of social service institutions, to develop strategic cities as administrative, commercial, and cultural centers. Service facilities and buildings that met the religious and socio-economic needs of the society imaret complexes that provided charity to the poor, and managed foundation institutions were interpreted as foundations. These principles, especially the creation of the foundation-imaret system, played an important role in the development of the Turkish city (Yenen, 1992). The small settlement unit (neighborhood) in Anatolian towns is usually formed around a large or small mosque. Residents living on the streets of the neighborhood have a remarkable sense of social solidarity (Çadırcı, 1996). These neighborhoods were based on the foundation of the social organization of the Ottoman Empire, which preserved the same principles of organization until the early 20th century as the settlement units of the old Turkish cities (Aru, 1996). Pinon (2002) developed a method for analyzing the urban structure of streets, plots, and housing units of Ottoman cities in Anatolia and the Balkans, comparing the forms of Anatolian cities during the Ottoman period with their counterparts in the medieval cities of Europe and the Islamic and Arab world. Pinon proposed a typology of urban texture based on, for example, street patterns, density of different grid types, and density of dead end streets (Pinon, 2002).

Urban morphology studies on recent Turkish and Ottoman cities focus on the formation of settlements and the process of urban formation and transformation, trying to categorize the spatial structure and character of urban form. Topçu (2019) selected ten cities in Anatolia (fourteen Anatolian cities (Edirne and Bursa from the Marmara Region; Kastamonu and Trabzon from the Black

¹ Venice is another example of the process of synoecism. In its case, entire communities of refugees from wars on the mainland settled on separate islets in the Venetian lagoon. They gradually grew together, both physically and politically.

² In urban morphology, it was Jeremy Whitehand who raised the study of urban space to a higher level of determination. Whitehand also indicated the existence of a regional scale in urban morphology with his peripheral belt studies, the first example of which was Whitehand's work on the city of Newcastle. Undoubtedly, there have been previous studies on the concept of peripheral belt (Whitehand, 1967).

Sea Region; Sivas and Kayseri from the Central Anatolia Region; Kars and Erzurum from the Eastern Anatolia Region; Muğla and Kütahya from the Aegean Region; Urfa and Mardin from the Southeastern Anatolia Region) to examine the spatial structuring and morphological structures of historical cores: Bursa in which patterns belonging to the Ottoman period that are in parallel with the topography are visible. The city failed to maintain the grid-like road pattern of the Byzantine period. The organic urban pattern is dominant. However, Kastamonu created its present visible settlement pattern during the Ottoman period. Therefore, the visible form is an organic pattern. The historical pattern of the Kayseri reflects radial growth. Its growth pattern begins with the castle at its center and expands in the form of concentric rings.

Mardin A unique organic pattern emerged when, in harmony with the topography, this traditional fabric gave way to terraced housing that did not block each other's facades. The building–backyard–garden–street interaction, which was compatible with the city's natural topographic characteristics and cultural life, created an unprecedented landscape. The city enjoys warm winters and scalding and dry summers (Bölük, 2016)

Trabzon one can see spatial traces of all periods of the city, which has been under the influence of various civilizations. This situation results from the topographic structure of the city and the fact that it has been seen as a safe settlement due to the relationship this topography has established with the sea. The most obvious indication of this is the fact that the area where the city was first founded was between two deep valleys, which rendered it defensible and suitable for settlement (Dursun, 2002). The city displays an urban configuration that is squeezed between the sea and mountains in the north–south axis and the flatlands between two deep valleys in the east–west axis (Topçu, 2019).

The main factors affecting the morphological structure of the Gaziantep settlement can be categorized under three headings: climate, topography, and socio-cultural structure (Uğur, 2004). Depending on the continental climate characteristics, the buildings are positioned in the north–south directions to protect from the summer heat, and shaded spaces are created with narrow streets. Depending on the topographic (hill settlement) structure, the urban fabric has an organic shape. The socio-cultural structure determines the physical characteristics of the urban structure (number of stories of buildings, building materials, etc.). The Alleben stream, castle, and hills (Türktepe, Kolejtepe, Tepebaşı) played an active role as natural guides in the urban morphology.

3 Historical context

It is generally accepted that one of the Thracian tribes founded an open-planned city or marketplace where Edirne is located. Later, this place was expanded by the Macedonians and the Romans. The oldest city in this area was founded by the Odrysians, one of the Thracian tribes, at the place where the Meriç River meets the Tunca River. The Macedonians turned it into a colony of the Orestae, calling the city Orestia and its suburbs Gonnoi (Gökbilgin, 1988). The Odrysian Kingdom does not have as significant a presence in the history of that era (Umar, 2003). It began to fall apart in the 4th century BCE and was eventually annexed to Macedonia by Philip II, who pursued the policy of establishing a great Balkan state. Thrace entered the population of the kingdoms seen in the Hellenistic period, was subjected to a significant but temporary invasion by the Galatians or Celts in 280–279 BCE, and witnessed some uprisings for independence, coming under the population of Rome in 168 BCE after the Romans abolished the Macedonian kingdom. The Roman emperor Hadrian reestablished the city (117–138 CE), and it was named after him as Hadrianopolis (Darkot, 1965). The 2nd century and the first half of the 3rd century CE was a golden age for almost all regions of the Roman Empire, and the cities of Thrace were also highly developed. Hadrianopolis (Adrianople), which was in a very favorable position in terms of military, trade, and agriculture, also benefited from all the blessings of the peace and tranquility period and developed continuously. However, there are very few visible traces of buildings belonging to the Roman era. After the transfer of the capital from Rome to Byzantium, the city on the Bosphorus was called Constantinople. In this way, Thrace, the capital's hinterland, and Adrianople, the city on the road connecting the capital to Central Europe, gained significance. Edirne, with its increased strategic importance due to the capital being Constantinople (present-day Istanbul), was frequently attacked during this period. In particular, the raids of the Pannonian Avars in 582 and the Bulgarians in 914 and 928 caused significant damage to the city (Gökbilgin, 1988).

Ottoman influence in Edirne began during the reign of John VI Kantakouzenos, who was the clerk and advisor of the Byzantine emperor Andronikos III, and had been supported by the Ottomans since 1346. Edirne fell under the rule of the Ottomans in 1361. Sultan Murat I, son of Orhan Gazi, who remained on the throne between 1359–1389, crossed the Evros River and took the city (Gökbilgin, 1988). The capture of Edirne was a turning point in Balkan and European history, but it also facilitated the conquest of Constantinople. The fact that the

Ottomans made Edirne their capital in 1365 also led to the beginning of a new era for the city. After Edirne became the capital of the Ottoman Empire, it started to gain the characteristic of being a political center as well as having its military features.

Sultan Mehmet II (1451–1481) prepared for the conquest of Constantinople in Edirne. With the conquest of Constantinople and its becoming the capital, Edirne lost its character as a political city; however, its military significance remained the same, becoming an important base for the Empire. The development and reconstruction of Edirne continued in the 16th century. Suleiman the Magnificent (1520–1566) spent a lot of time there during his expeditions to the west. Prince Selim was responsible for the administration of Edirne during the reign of Suleiman. When Selim took the throne, he built the Selimiye Mosque in the city.

Starting especially from the second half of the 17th century, the sultans spent almost all their time in Edirne and made it the center of the State again. Ahmet I (1603–1617), Osman II (1617–1622), and Murat IV (1623–1640) made Edirne the center of attraction with their hunting expeditions that lasted for days. Edirne experienced the brightest periods of the city during the period of Mehmet IV (1648–1687), who became famous as Mehmet the Hunter. The new palace (Sarayıci district) and the mansions and pavilions were built during this period. However, he was dethroned as a result of the Austrian campaign and the resulting defeats (Gökbilgin, 1988). The State administrative power, which was improved due to the corrections made by his successor Suleiman II (1687–1691) in both the army and the administration, was again disrupted after Suleiman's death. This disorder continued until the death of his brother, Ahmed II (1691–1695), who had succeeded him. Mustafa II (1695–1703), who took the throne upon his death, ascended the throne in Edirne and loved the city very much; accordingly, he dealt with all state affairs there. The perpetuation of his residence in Edirne provoked reactions in the capital, Istanbul. Together with the influence of some other events, he was deposed and replaced by Ahmed III (1703–1730). The 18th century then marked a period of decline and abandonment for Edirne. After Ahmed III left Edirne and went to Istanbul, the new palace began to be idle (Peremeci, 1939).

When Edirne was taken from the Byzantines by the Ottoman Turks, there were Thracians in the city who became Greek, according to culture, and Christian, according to religion (Peremeci, 1939). In parallel with the physical development of Edirne under Ottoman rule, its

population increased. In the second half of the 14th century, many Turks in Anatolia were brought to Thrace and made to settle there. Even some Armenians came with the Turks and settled in Edirne. In the second half of the 15th century, many of the Jews who took refuge in Ottoman lands came to Edirne. However, due to the occupancies in the 19th century, Edirne's population structure, social and cultural balances changed. During the Ottoman-Russian War of 1828–1829, most of the Muslim people emigrated; Christians from nearby villages had been settled into the places left (Emecen, 1998). The city was first occupied during the Ottoman-Russian War in 1828–29 and was occupied by the Russians again in the '93 War (1877–1878) and by the Bulgarians in the Balkan War (1912–1913). Although the population of Edirne at the beginning of the 20th century, before the Balkan War, was around 87,000, 47,289 were Turks, 19,608 were Greek, 14,469 were Jewish, 4,000 were Armenian and 2324 were Bulgarian, it decreased after the Balkan War (Peremeci, 1939). Nevertheless, at the beginning of the 20th century, the Turkish population began to increase, and after the 1923 exchange, the number of non-Muslims decreased greatly. In the first census of the Republic of Turkey in 1927, the population of Edirne was 34,528 (Peremeci, 1939).

4 The Roman/Byzantine urban form

A Roman city was established during the reign of Emperor Hadrian, who would have passed through it during his two trips to Asia Minor in 123 CE and 128 CE. Since Hadrian was interested in architecture and urban design and played an active role in many such projects, he may have been personally involved with the city's creation. Named Hadrianopolis (Adrianople), the city took the rectangular form typical of provincial fortified Roman towns: a *castrum*. In a castrum, two main streets – the *cardo* and the *decumanus* – and oriented to the cardinal directions, subdivide the rectangle into four quadrants that were subdivided further by means of a rectangular grid. The purpose of Adrianople was to control trade routes that converged from the Balkans, the Adriatic and the Bosphorus Strait (Fig. 1). The city also occupied the center of a large area rich in agricultural products, minerals, and timber. So was a center of resupply for Roman armies. Lastly, it was one of a series of secure outposts along the vital route for armies between Rome and Asia Minor. Kaleiçi, which constitutes the oldest settlement core of Edirne, is surrounded by walls and built on a land of 360 decares. The area is shaped in a rectangular scheme on the plan of a Roman fortress (Fig. 2). "The sources state that there are nine castle gates with

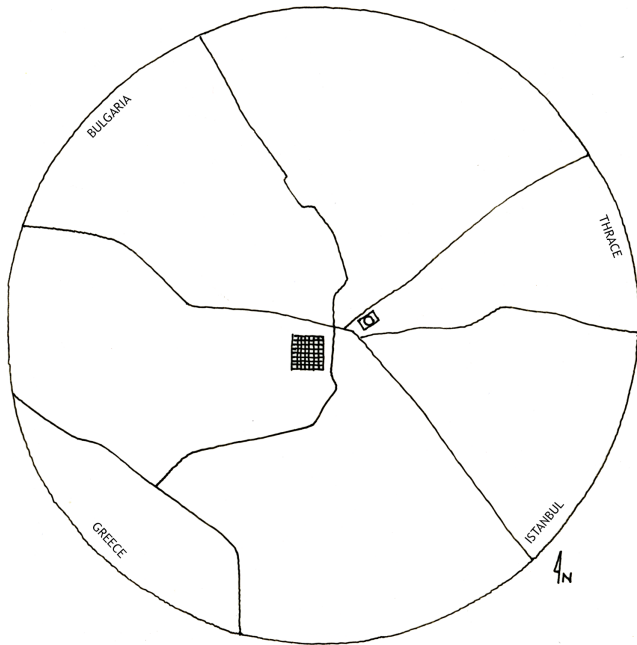


Fig. 1 Principal roads through Edirne in the 20th century

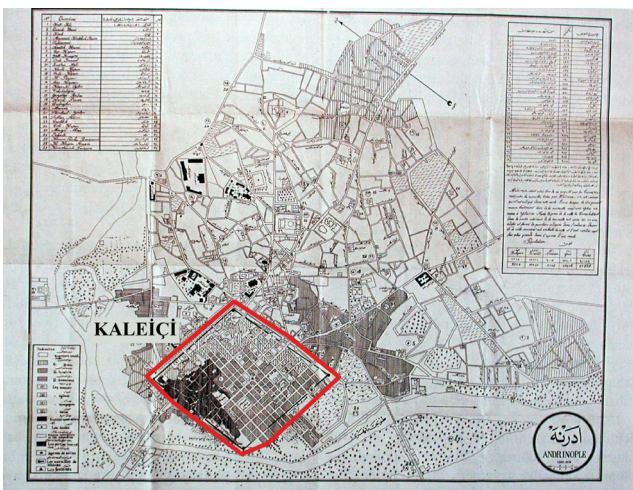


Fig. 2 Ancient settlement of Edirne /Map of Edirne in 1918
 (Bayatlı, 2019)

round bastions and twelve small towers at each of the four corners of the rectangle" (Eyice, 1965:p.124). Evliya Çelebi stated in his *Seyahatnamesi* that "6 gates of Kaleiçi surround an area of 260,000 square meters and although there are no vineyards or gardens in Kaleiçi, three hundred and sixty years have been opened like a chessboard and all of them have been paved in the old style with large slates" (Kahraman and Dağlı, 2006).

The pattern of the fort is still clearly discernable in the neighborhood of Kaleiçi, in the southwest corner of the historical city center overlooking the confluence of the Meriç and Tunca Rivers. The town maintained a cohesive European character under the Byzantines and continued to

be a Christian enclave throughout the Ottoman era. Almost the entire area of Kaleiçi burned down in the late nineteenth century and was rebuilt on the original Roman grid.

Since Neolithic times the location of Edirne has been an important crossroad of trading routes, primarily from the Balkans to Greece, and from the Adriatic to Anatolia. Radius = 5 km. Produced by Nevnihal Erdoğan (Özdeş, 1951).

5 The Ottoman urban form

The Ottomans seized Edirne from the Byzantines in 1362, and three years later transferred their capital to it from Bursa. The move of the Empire's administrative and military center westward into Thrace accomplished two strategic objectives: to encircle Constantinople and to establish a strategic base of operations for future campaigns in the Balkans and the Adriatic. Edirne's role as the Ottoman capital was relatively brief, less than a hundred years, but its importance for the Empire continued undiminished long after Istanbul became the capital in the mid-15th century. Annual military expeditions marched westward from Istanbul to Edirne and turned north into Bulgaria and Eastern Europe. As the Romans had used the city as a means to control their eastern possessions, similarly the Ottomans used the city to control their western possessions. In addition, the city and its countryside continued to be favored by the sultans for leisure and hunting, a respite from the rigors and intrigues of the court in Istanbul.

If the unique characteristics of the Ottoman city are examined within a wider geographical and time context, the Ottoman lifestyle and architectural styles were heavily influenced by Byzantium. When Ottoman mansions are compared with mansions, and city squares of Byzantium, similar elements in terms of environmental relations, such as plane trees of the same size, roof terraces and porticos of the same type, perspectives toward the same interior space, and the use of the most appropriate materials in the physical environment are observed (Cerasi, 1999).

According to Raymond, it is highly important to understand both the vast differences that exist between the Arab world and Anatolian-Balkan regions and their mutual influences (Raymond, 1985). Ottoman urban culture incorporated some Byzantine elements and combined them with cultural and technological elements found in Anatolian and Persian traditions.

Cerasi observed that Edirne's market area (*arasta*) was comprised of two long rows of stores connected by special architectural elements that formed the *arasta* shopping

center, and that it had borrowed from other Ottoman cities, giving it an appearance more like Samarkand or Bokhara than an Arab city (Cerasi, 1999)

The distinctive form of Edirne's urban development under the Ottomans – synoecism – was largely a result of a program of social engineering. One method the Empire used to control the diverse ethnic and religious communities it conquered was by moving them in their entirety, either by inducement or by force, to places where they could be administered (policed and taxed) more effectively. Much of the growth of Edirne in the 14th through 16th centuries was a result of this program. Since settlers came to Edirne from the Balkans as well as from Anatolia, the cultural character of the city was rich and diverse. Rural communities remained largely intact as they were resettled in Edirne and its environs, giving rise to a heterogeneous and informal urban pattern. These new settlements, known as *mahalle*, became neighborhoods distinguished one from another primarily by language, ethnicity and culture rather than by form. They all, however, shared one characteristic: each produced a compact core comprised of religious, educational and civic institutions called an imaret (Fig. 3).

Even as the boundaries between neighborhoods were blurred over time by the intermingling of their populations, their cores persisted. The foundation of urban neighborhoods, each coalescing around an imaret, formed the basic pattern of the development of Ottoman cities. Edirne

is an excellent example. It is important to note, however, that the State did not have a direct role in the organization of an imaret; instead, it was the product of a highly formalized system of charity, called the *waqf*.

5.1 The waqf system

In the Ottoman Empire, the State did not use the taxes it collected to provide the social services and civic institutions necessary for the maintenance of an urban population. Even though Islam was the State religion, funds for religious institutions did not generally come directly from the State treasury. Instead, Ottoman cities relied upon the waqf system, by which local administrators and wealthy benefactors provided all normal social and religious services through the establishment of charitable institutions and their perpetuation by means of endowments supported by rental property (Barkan, 1963). In all cases, the property that supported a waqf was donated from private sources, but it could also originate as a grant of land from the sultan, called a *temlik*. It should be noted, however, that a *temlik* was not technically State property since it was the personal property of the sultan. The waqf system did not merely provide essential services to the lower classes of urban society; by virtue of its great expense and charitable character, it bestowed considerable prestige upon its benefactor (Singer, 2007).

The waqf was an independent foundation established with a charter (*vakfiye*) that was authorized by the sultan and operated by its own financial administration. Theoretically, a waqf guaranteed the perpetual existence of the institutions it supported without impairing the original capital, whether it was rent from a village, agricultural land, or shops. At its inception, the benefactor of a waqf appointed an administrator, often a hereditary position and often within the benefactor's family, to ensure that the endowment was preserved, employees paid, and buildings maintained. However, as political, and economic conditions changed, in some cases these sources of income lost value or disappeared. Without financial support from either their waqf or the State, historic buildings fell into disrepair and were eventually lost (Master, 2009). This has occurred in many neighborhoods of Edirne where only a street name remains to mark the site of an imaret.

In effect, the waqf system was a form of taxation by which surplus wealth was transferred from the countryside to the city. Edirne, like all other Ottoman cities, was not a corporate entity, and was consequently without an independent central administration capable of taxing

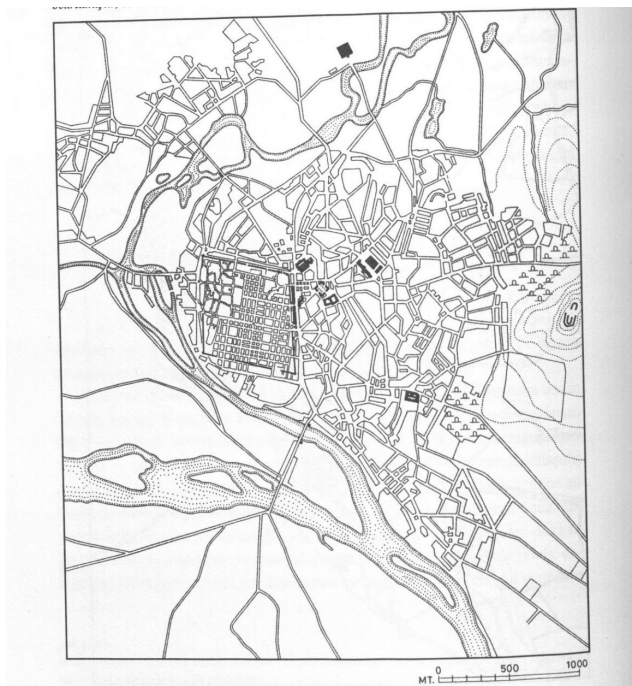


Fig. 3 19th century Ottoman settlements in Edirne (Cerasi, 1999)

its inhabitants. Nor did it receive direct financial support from the State. The waqf system was thus an indirect method of supporting all social services that would be funded otherwise by municipal or State taxation.

5.2 The imaret

The types of buildings that might comprise an imaret, or neighborhood core, customarily included institutions that provided free services, such as a fountain, a primary school, a medrese, a library, a hostel, public toilets, a hospital, and a soup kitchen, and those that were not free, such as a bath, markets, and a caravanserai. These were always clustered around a mosque that served the immediate neighborhood. The waqf that supported the imaret sometimes included other income-producing properties, such as a bakery, a covered market and a slaughterhouse that were often located far from the city center (Fig. 4) (Barkan, 1963).

These vary in size, complexity and relations depending on the neighborhood. Today, few survive due to the decline of the waqf system. In some cases, only a street name is left. Produced by Nevnihal Erdoğan (Erdoğan, 2006).

To encourage the settlement of entire communities in the city, imarets were located far enough apart on the urban periphery so that housing could develop around them. This ensured the perpetuation of the social traditions and religious beliefs of the separate immigrant groups who settled in the city. Generally, no house was located further than a ten-minute walk from the core of its neighborhood, thus promoting social cohesion. The tribal

and religious structures of the rural immigrant communities persisted in the social order of the new urban communities (Kuban, 1978). Therefore, despite the informal appearance of the distribution of imarets in Edirne, their locations were subject to systematic planning by which these neighborhood cores could, on the one hand, serve the immediate needs of small communities, and, on the other hand, be connected by streets to form a web of cultural and social nodes throughout the city within easy walking distance of one another (Kazancıgil, 1991).

The Christian and Jewish enclaves do not have cores. Imaret boundaries overlap, but traditionally distinctions among them are noticeable as differences in language, customs and social affiliations. Radius = 2.5 km. Produced by Nevnihal Erdoğan (Erdoğan, 2006).

Aside from the monumental core that forms the city center, there are two other types of imarets in Edirne, distinguished by their size and the significance of their institutions. The few major ones are the Yildirim Han, the Beyazit II complex (Fig. 5), the Muradiye, Ibrahim Paşa and Mezit Bey imarets. Numerous smaller neighborhood imarets grew between these (Fig. 6). The pattern of large and small imarets ensured that any individual lived close to essential social and religious institutions at the neighborhood level, such as a small mosque (Fig. 7), a fountain, and a bath, and within a short walking distance to major institutions, such as a congregational mosque, a hospital, and a large market (Fig. 8) (Kuban, 1978).

5.3 The city core

The city of Edirne, as a whole, has a core composed of major institutions, the most significant of which are two large mosques: the Üç Şerefeli and the Eski; two markets: the covered bazaar and the Ali Paşa Market; the Saatli Medrese, the Sokullu baths, and the Rüstem Paşa Caravanserai (Fig. 9). These are clustered informally around the intersection of the eastern road to Istanbul and the northern road to the Balkans, through which the armies of the sultan marched on their annual campaigns (Kuran, 1996).

The centerpiece of the city is the Selimiye Complex, designed by the incomparable Ottoman architect, Sinan, and constructed between 1569 and 1575. The placement of this spectacular building immediately north of the historical core of Edirne in the late 16th century indicates that the cultural and strategic importance of the city persisted long after the government was relocated to Istanbul. In the tradition of the Süleymaniye Mosque Complex in Istanbul, also by Sinan, the Selimiye comprises a large urban core,

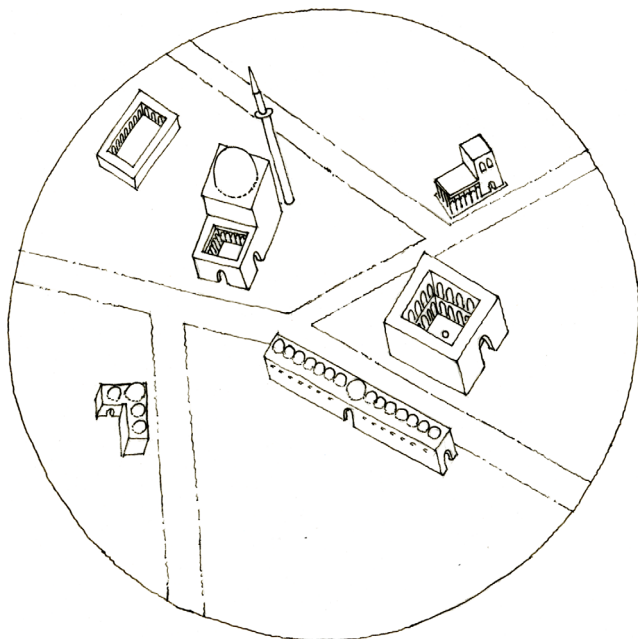
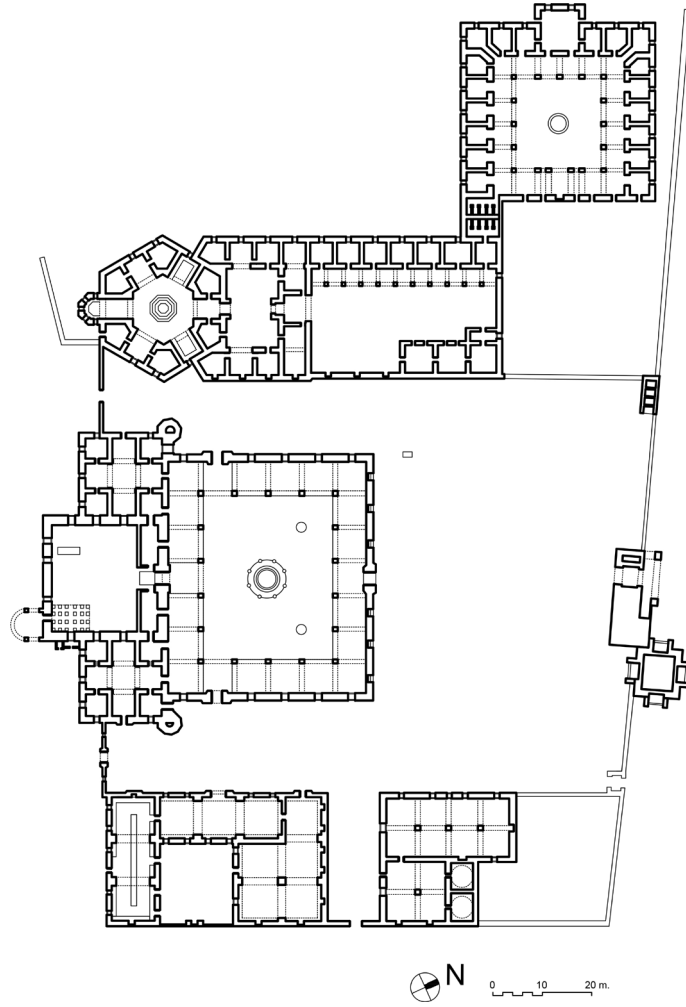
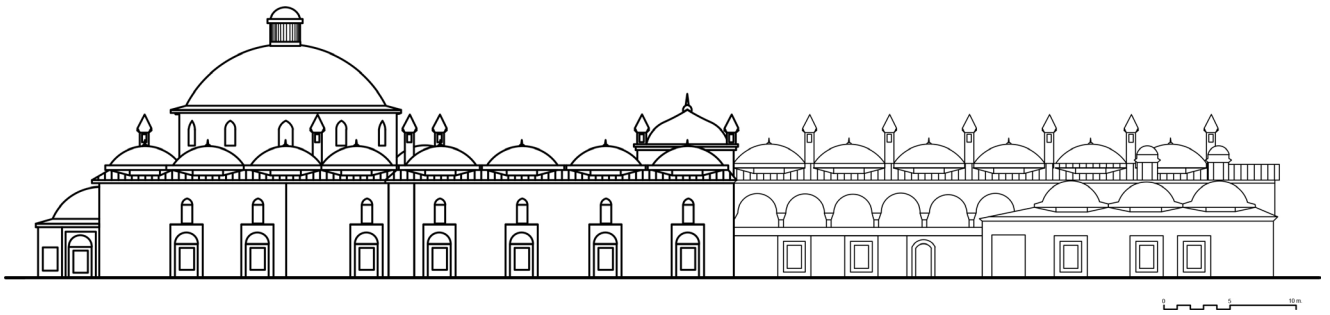


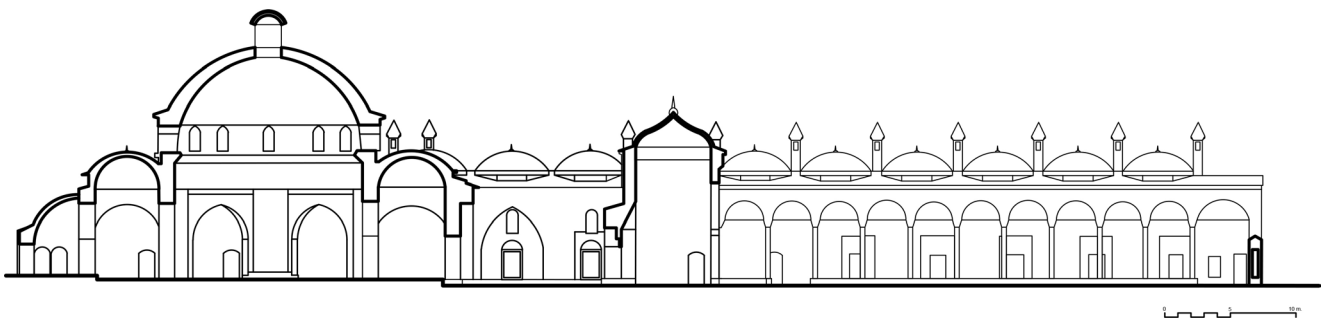
Fig. 4 Principal buildings comprising an imaret, or neighborhood core



(a)



(b)



(c)

Fig. 5 Plan, façade and section of the II. Beyazıt complex; (a) Muradiye imaret; (b) Ibrahim Paşa imaret; (c) Mezit Bey imaret (Erdoğan, 2019)

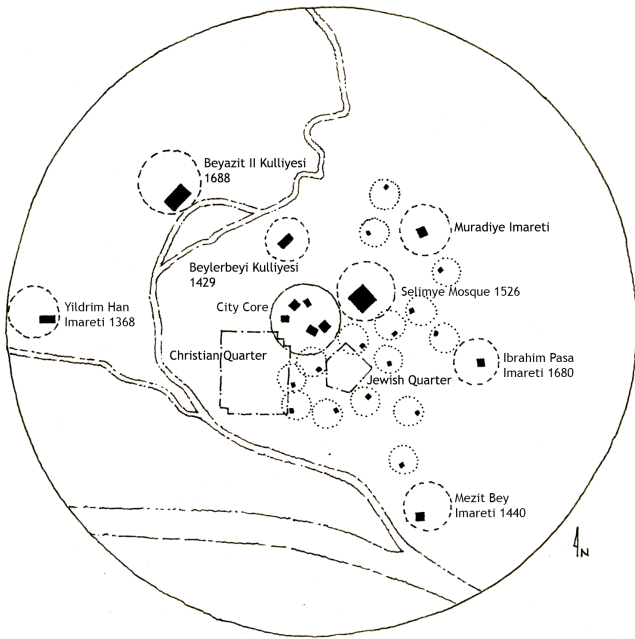


Fig. 6 Distribution of imarets around the city core

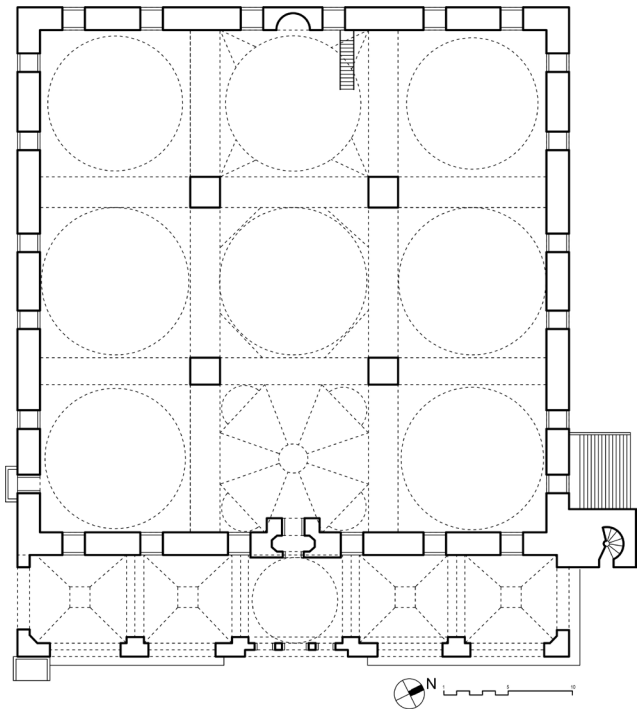
including two schools, a market, and several charitable institutions, in addition to the monumental congregational mosque (Goodwin, 1971).

South of the city core, the traditionally Christian district of Kaleiçi retains the pattern of the Roman fortress. Nearby, to the east, is the Jewish quarter, many of whose original inhabitants settled there at the end of the 15th century to escape persecution by the Christians in Spain.

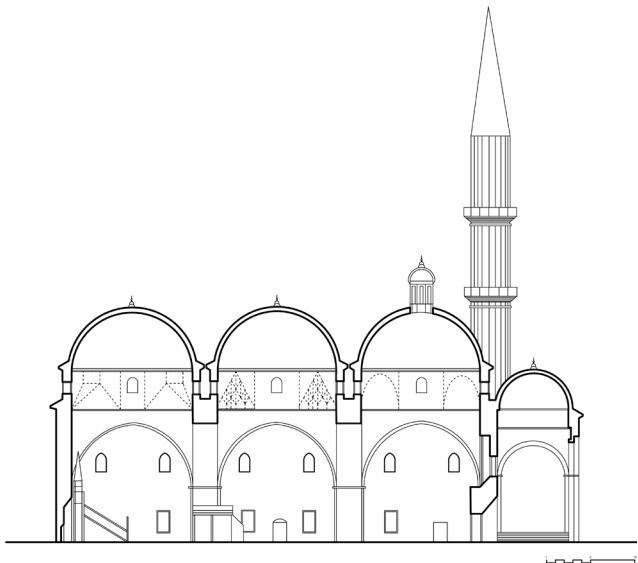
6 The modern urban form

The urban development of Edirne in the 20th century resulted in two major changes to the character of the city and its landscape. Under the Ottoman system, individual neighborhoods in the city were to a large degree able to regulate themselves with traditional tribal and religious leaders. Boundaries between neighborhoods were blurred by the interpenetrating patterns of housing and could be discerned only by subtle distinctions of culture and language. With the emergence of a modern Turkish State, a centralized bureaucracy supplanted the decentralized Ottoman arrangement (Figs. 10 and 11).

The imaret system quickly eroded as neighborhoods were consolidated into large urban districts. Boundaries were fixed under the new system, not on the basis of social and cultural considerations, but rather on the basis of administrative efficiency (Erdoğan, 2006). Whereas the transition between one traditional neighborhood and another had been gradual and informal, now the boundaries between administrative districts made up of major



(a)



(b)

Fig. 7 Plan and section of the Old Mosque; (a) plan; (b) section (Erdoğan, 2019)

streets (Fig. 12). As the waqf system weakened under the strain of rapidly changing economic conditions, particularly in respect to the structure of agricultural production and marketing, the institutions of the imaret that the waqf supported fell into disrepair and many were abandoned. In addition, new State sponsored institutions, such as schools and libraries, took their place. The importance of the imaret as a social and cultural core rapidly declined,

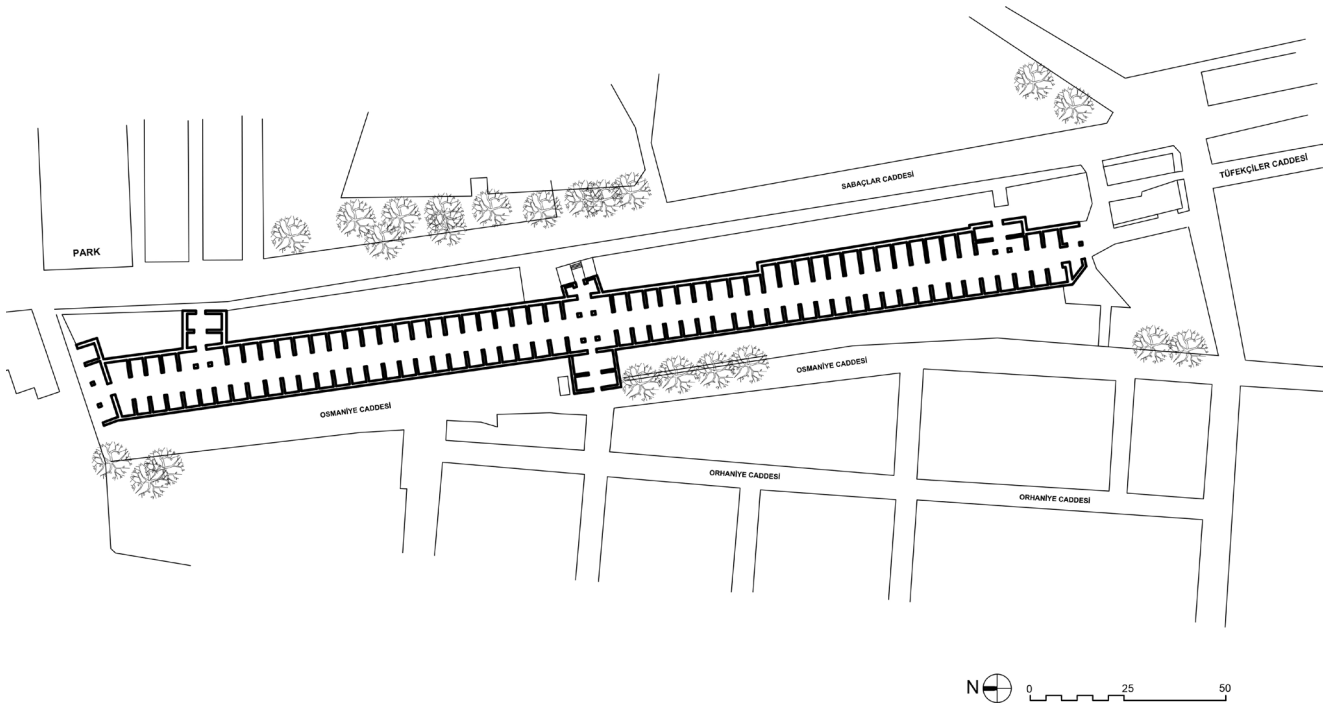


Fig. 8 Location of Ali Paşa market (Erdoğan, 2019)

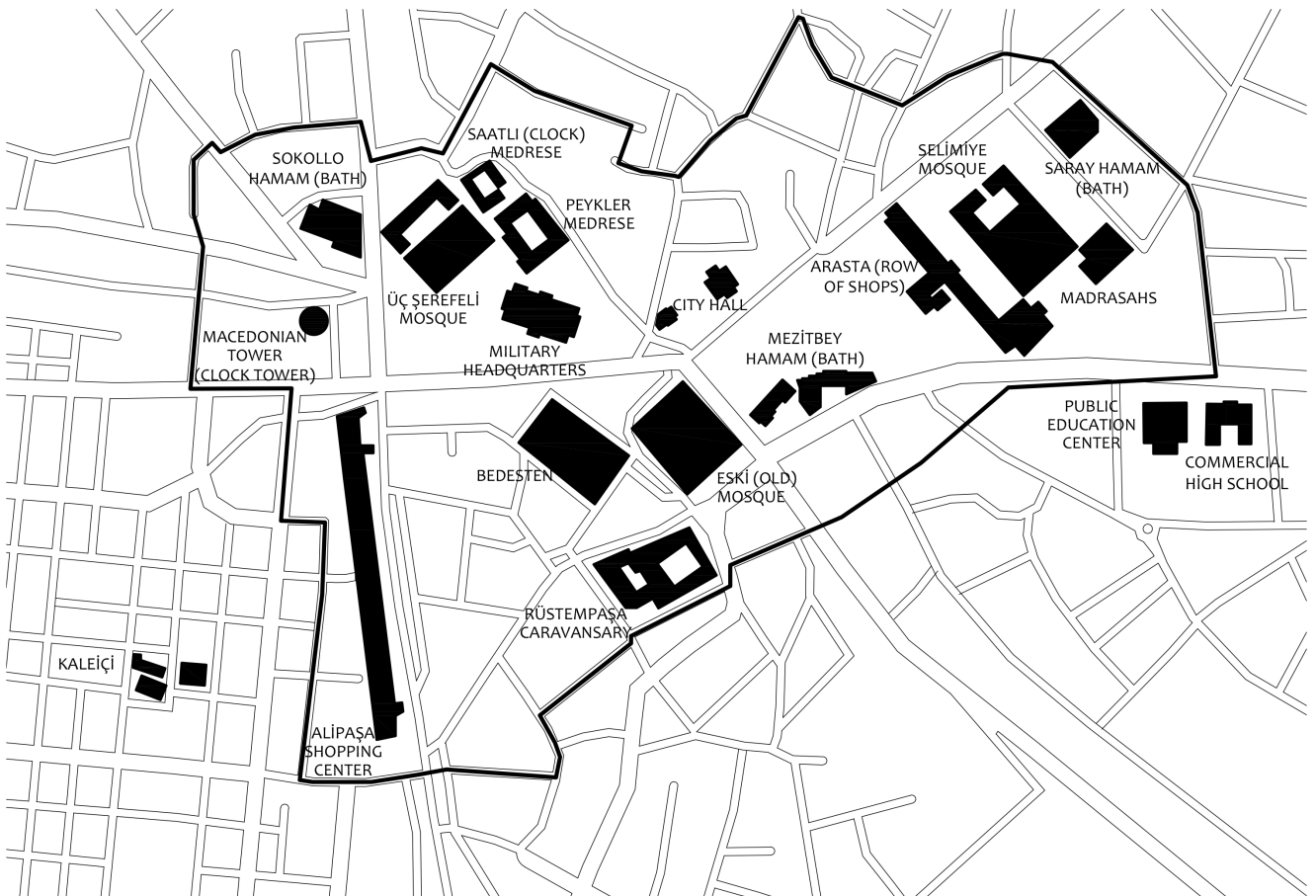


Fig. 9 City core (Erdoğan, 2024)



Fig. 10 In the second half of the 20th century (90s) urban area in Edirne (adapted from municipal archive map by Nevnihal Erdoğan)

thus weakening the social identity of neighborhoods and allowing them to be consolidated into larger districts.

Boundaries created by the central city administration in the modern era entirely disregard the more complex pattern of traditional imarets. The new boundaries generally follow the centerlines of major streets. Radius = 2.5 km. Produced by Nevnihal Erdoğan (Erdoğan, 2006).

The Roman fortress occupied the tip of the promontory overlooking the confluence of rivers. The Selimiye Complex occupies one of the highest hills near the center of the Ottoman city. Radius = 2.5 km. Produced by Nevnihal Erdoğan (Erdoğan, 2006).

The second major change in the modern era was to the landscape, the most distinctive feature of which is the confluence of the Meriç and Tunca Rivers. Edirne stands on a promontory that thrusts westward into a valley formed by

the two rivers. Behind the city, to the east, is the main road that connects it to Istanbul. Across the Meriç River valley to the south, the land rises gradually, whereas to the west and north across the Tunca River, the terrain is steeper (Fig. 13).

For centuries, from the founding of Adrianople through the Ottoman era, the rivers provided an important dimension of defense for the city, since it was impractical to march an army through their broad, marshy valleys. In effect, they created a moat on three sides of the peninsula of high ground on which the city stood. To augment this natural defensive feature, the Byzantines constructed small forts, which still existed into the 19th century, on the three hills overlooking the Y-shaped valley (Fig. 14).

The Ottomans built forts in three clusters on the three highlands overlooking the confluence of rivers. The river valleys were left unguarded because it was too



Fig. 11 Edirne urban settlement at the beginning of the 21st century (adapted from Google Earth (2011)), edited by Nevnihal Erdoğan

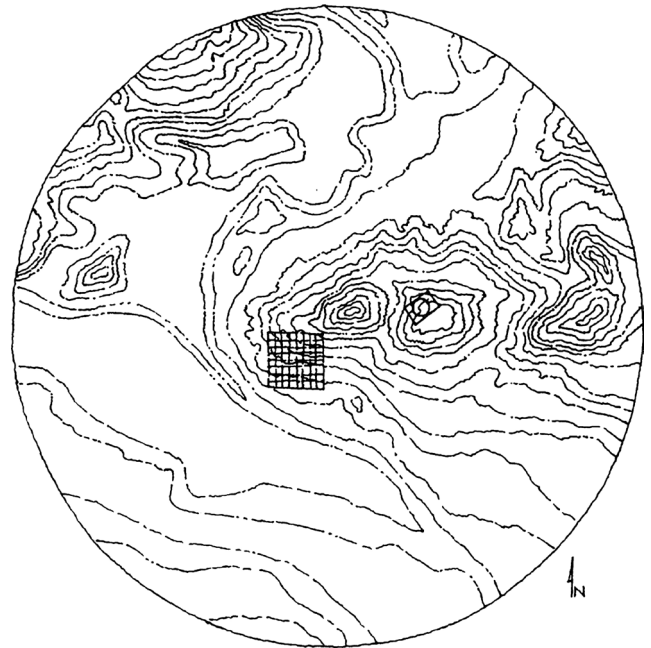


Fig. 13 Topography of the region



Fig. 12 Twentieth century administrative districts

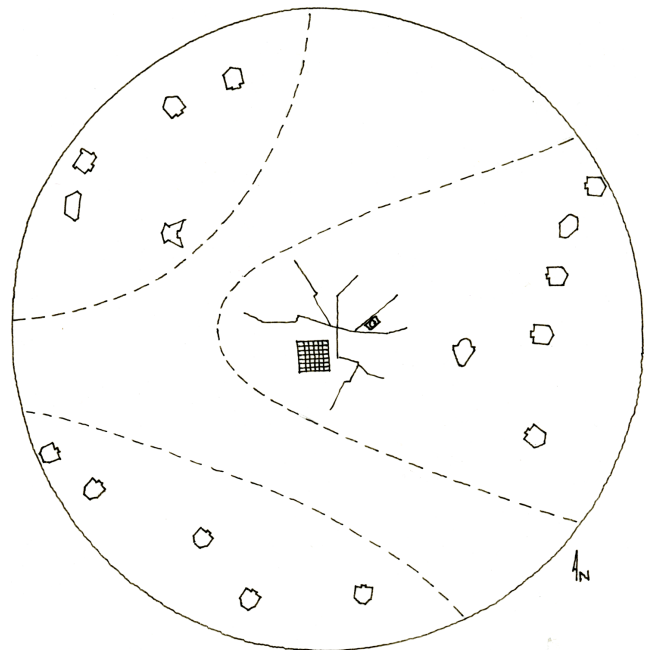


Fig. 14 Ottoman forts

difficult to march an army through the low marshy terrain Radius = 5 km. Fig. 14 produced by Nevnihal Erdoğan from Adivar et al. (1964).

Through the 19th century, the river system was left largely in its natural state, with long swampy meandering waterways, low lying islands, and numerous small tributary streams – all of which contributed to making the valleys impassable except on the few roads and bridges under the guns of the forts and the city (Fig. 15). However, the character of the landscape changed dramatically in the 20th century. The natural river system no longer had military value, and under pressure for more agricultural and

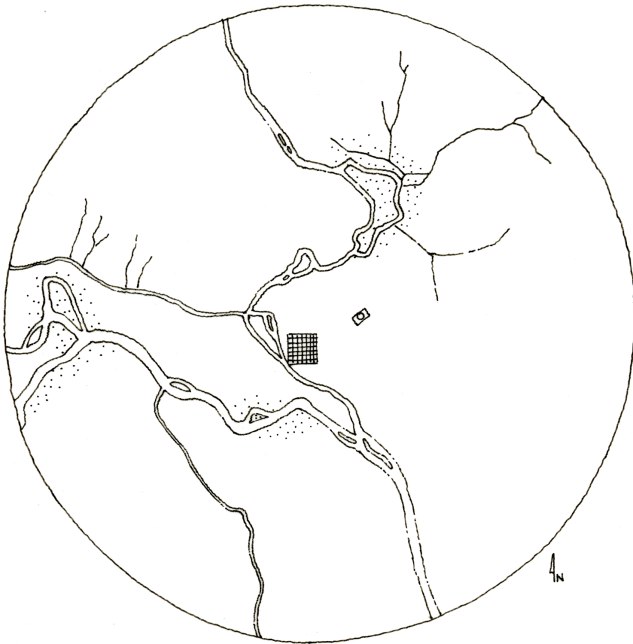


Fig. 15 The river system in the nineteenth century

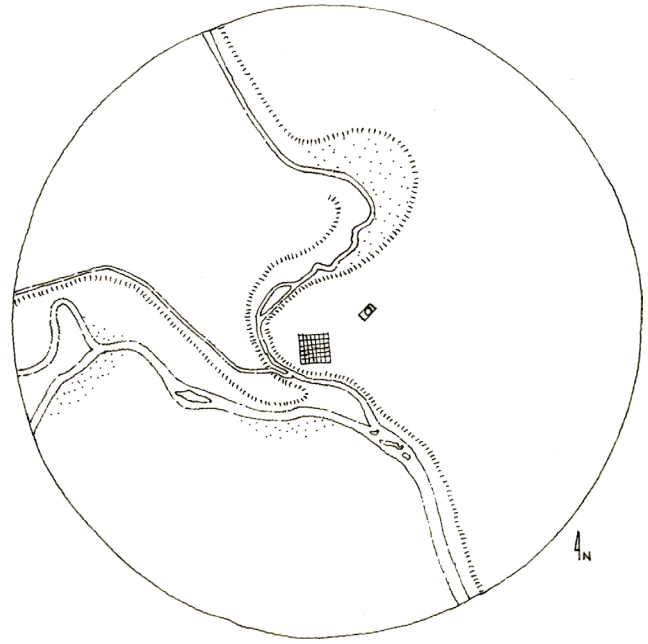


Fig. 16 The river system in the twentieth century

urban land, as well as to control flooding, the rivers were bracketed by long dikes and drainage canals. Tributaries were domesticated, either converted into canals or forced underground. The resulting artificial landscape allowed the city to expand as new land for development became available, notably the districts of Karaağaç on the south bank of the Meriç River (that included a train station for the Orient Express) and an expansion of Yeni imaret on the low lying land north of the Tunca River behind the magnificent 15th century hospital complex of Beyazıt II (Fig. 16).

The rivers were enclosed by broad marshes and were prone to flooding. These verdant areas were, however, favored for gardens and orchards related to the pleasure pavilions of the Ottoman upper classes. Radius = 5 km. Produced by Nevnihal Erdoğan (Erdoğan, 2006).

Dikes and canals were constructed in the early 20th century to control flooding and provide more stable land for development. Radius = 5 km. Produced by Nevnihal Erdoğan (Erdoğan, 2006).

7 House typology

Thus far, this analysis of Edirne has concentrated on the three patterns that have determined its monumental urban scale: the Roman fortress, the Ottoman imaret system, and the modern administrative system. Coexistent with these is a fourth pattern, that of the housing that produced the domestic scale of the city, and which comprises the largest proportion of the built form of the city. The three types of house form in Edirne, each characterized by their density

and plan, respond to their respective historical circumstances and urban conditions.

7.1 High density housing (Kaleiçi District)

Nothing remains of the Roman housing of Adrianople. Most of the housing of the Ottoman period in what became the district of Kaleiçi was destroyed in the late 19th century conflagration. However, the regular orthogonal grid of the district persisted and determined, to a great extent, the form and density of new housing (Fig. 2). Due to the compact character of the district and its relative wealth, these houses also tend to be of a smaller size and density than most others in the city. Lot sizes are generally quite small, so the houses do not conform to the typical Turkish custom of exposing three or four facades. Instead, they are row houses and, rarely, semi-detached types (Erdoğan, 2006).

The late 19th and early 20th century houses in Kaleiçi were built primarily for the city's non-Muslim residents, so they often display ornamental details derivative of eclectic European styles.

However, despite Edirne's cosmopolitanism and European influences, cultural forces emanating largely from Istanbul were also influential in the Marmara and Western Thrace regions.

Also in the Turkish custom, plans of houses in Kaleiçi are of the inner hall type, referred to as "sofa" (Eldem, 1968). There is a notable difference, however, between these and more traditional houses elsewhere in Turkey. Whereas the sofa in a traditional Turkish house is an expansive living

space full of light and air, in some houses of Kaleiçi, the sofa is reduced to little more than a central hallway, indicative of European influences.

The defining characteristic of Turkish house plan types is the relation between the sofa/hall and other rooms. Houses of Kaleiçi are of two plan types: the "outer sofa", in which it is adjacent to or in line with the rooms, and the "inner sofa", in which the sofa is between or among the rooms. The choice between the two approaches depends on two factors: the use of space internally and the specific situation of a house externally (Akansel and Çakır, 2005). Internal considerations include the shape of the sofa, the location of the staircase, the organization of adjacent rooms, and the relation of the sofa to the garden. External considerations are the relation of the house to adjacent buildings and whether the house has a back or side garden. Houses of the "outer sofa" type tend to be small, typically with two rooms per floor, a maximum of three, and are likely to have a side garden. Houses of the "inner sofa" type may have between two and five rooms per floor, typically four, and include a garden in the back (Fig. 17) (Akansel, 1990).

European influences in the plan and ornamentation are evident. The sofa is reduced to a hall suitable for little more than circulation (Schematic; not to scale). Produced by Nevnihal Erdoğan (Erdoğan, 2019).

7.2 Medium density housing (Kiyik, Taşlık, Sabuni, Çavuşbey, and Ayşe Kadın Districts)

Outside the citadel but close to the city center, the pattern of streets and housing lots is irregular. This required ingenuity to fit a house form to its site and provide opportunities for greater variation in the design of courtyards and gardens in relation to interior spaces, particularly the sofa. Though built in rows and fronting directly upon the street, many had both a side and a back garden (Erdoğan, 2006). There is no trace today of the grand mansions that once were situated in spacious gardens (Fig. 18).

In these districts, Ottoman houses generally follow the "inner sofa" plan, typically with three or four rooms per floor. Most also incorporate a semi-submerged basement that raises the ground floor several feet above the street level. Only a few have a second floor. "Outer sofa" plan houses are rare and have only two or three rooms per floor, most with basements and second floors. In all cases, the plans of all floors tend to be identical (Ünver, 1976). As is true of the houses in Kaleiçi, these houses also lack windowless ground floors or "mid-floors" so often seen in traditional Turkish houses. Also similar to the houses of

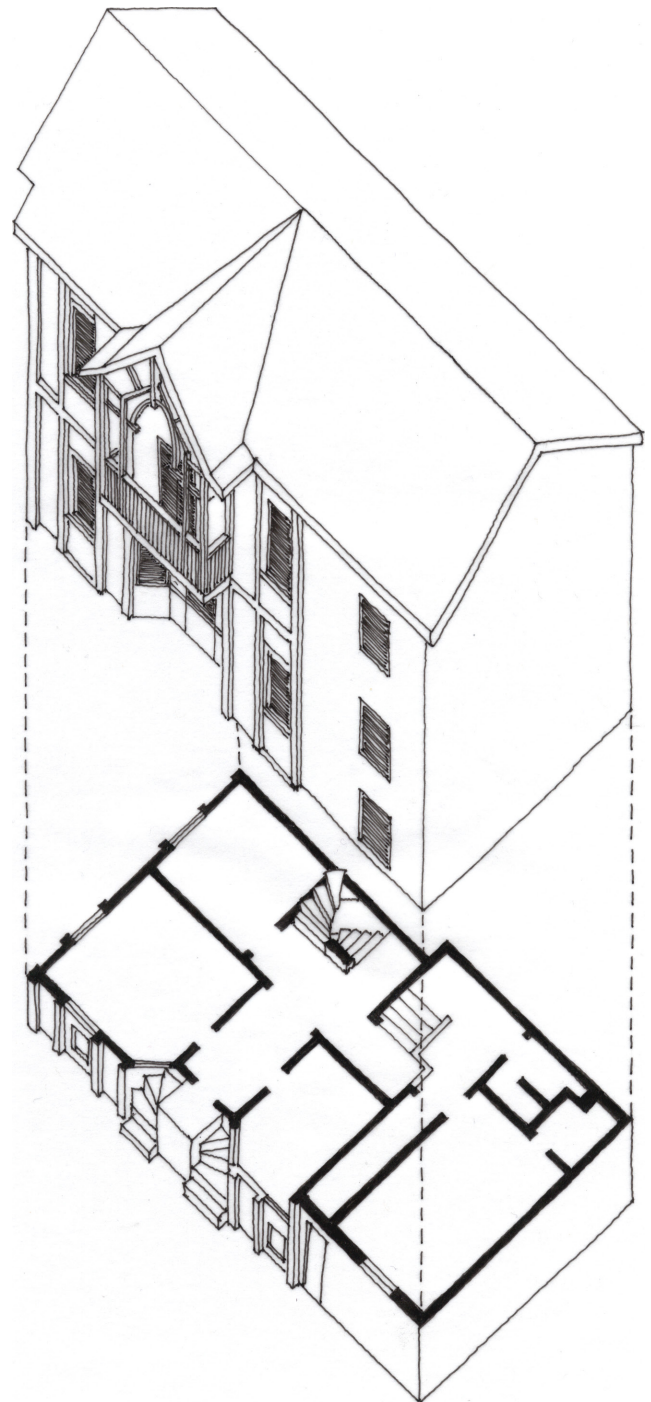


Fig. 17 High density housing

Kaleiçi, the houses of these less dense neighborhoods have plain facades on their lower floors and instead express their architectural character with lively galleries, balconies, and *cihannuma*³ above (Fig. 19).

³ In civil architecture, especially in old wooden Istanbul houses, a kind of room or patio with a balcony, often placed between the roof, overlooking the view, surrounded by a façade or surrounded by a glass screen.

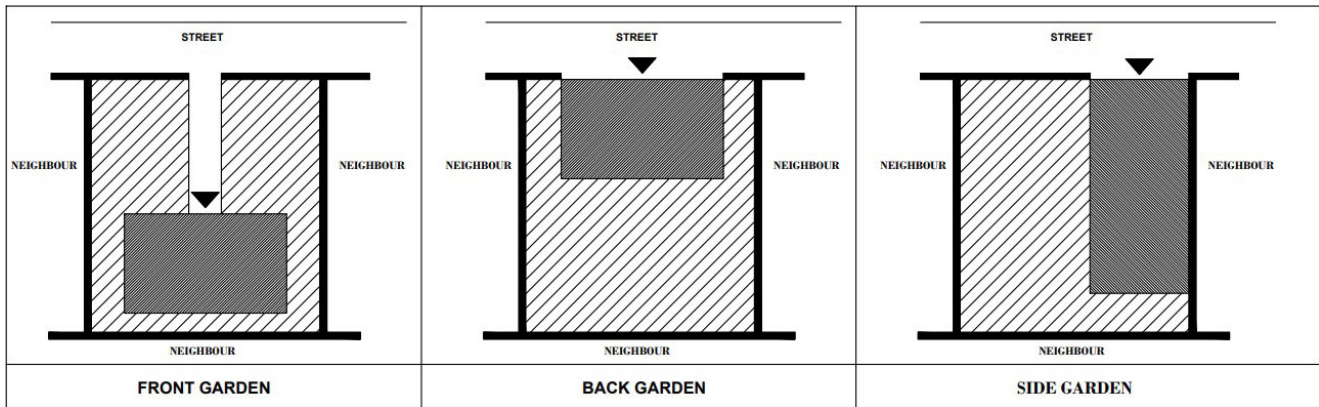


Fig. 18 Garden-street relation

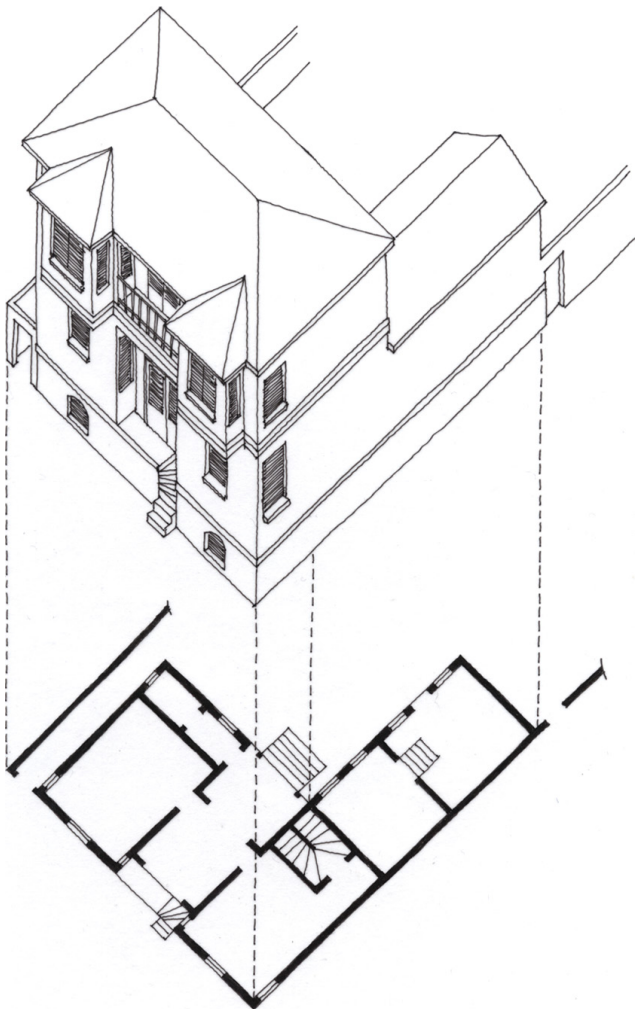


Fig. 19 Medium density housing

More typical of Turkish forms, the sofa is a central room and service functions are relegated to a wing facing a rear courtyard (Schematic; not to scale). Produced by Nevnihal Erdoğan (Erdoğan, 2019).

7.3 Low density housing (Yıldırım, Yeniimaret and Karaağaç Districts)

The outlying districts of Edirne were settled relatively recently by people who brought with them two house types common to the rural farming communities of Anatolia (Erdoğan, 2008). In the existing residential settlements of Edirne, the traditional Anatolian house types of the outer and open sofas can still be seen in some of the old outskirts of the city and even in some of its inner neighborhood plans. These same types of homes are still preferred by many people in rural areas who construct their own dwellings. These are one-story structures that are seen in the countryside and are of a type of timber brace structure that is packed with bricks for support, called *Hımış*.

The variants of the Anatolian types found in the Yıldırım, Yeniimaret and Karaağaç districts range from one and a half stories (ground floor over a semi-basement) to three stories. The plan of these types is symmetrical around a central hall or sofa, and all floors have the same plan. In another variation, the plan is not necessarily symmetrical and allows for more variety in the arrangement of the interior rooms (Erdoğan, 2006).

The plans and setting of the old homes in Yıldırım and Yeniimaret districts can be categorized into four basic groups according to placement:

1. house in yard,
2. house with courtyard,
3. cluster-type house located in courtyard,
4. cluster-type building in courtyard used for work and residential purposes - farm type cluster.

The traditional housing forms of Anatolia are clearly visible. Younger families in particular are constructing new buildings or adding courtyards, thus multiplying

the examples of cluster houses. Some houses have been remodeled to include more modern amenities. Their function, technology, and materials have changed over time (Erdoğan, 2011). A typical house is built into a high perimeter wall that encloses a courtyard and a lush garden. Although the house has at least one elevation on a street, family life is oriented inward toward private outdoor spaces. One-story outbuildings, such as a garden shed, a latrine, and a stable, are also situated in the courtyard, set against the outer wall and not visible from the street (Fig. 20).

Most of the traditional houses in Karaağaç are one and a half stories high, while the highest has three floors. Families live in homes that are positioned toward inner spaces, although the roads leading up to the houses and the house yards or gardens are interconnected. The homes are surrounded by lush gardens, giving the neighborhood a green appearance. Each house has a courtyard surrounded by high walls. This feature, however, only partially isolates the house from the street, and all of the homes have a home/street relationship on at least one or at the most, two sides. These historical homes have only been used as family residences (Erdoğan, 2001).

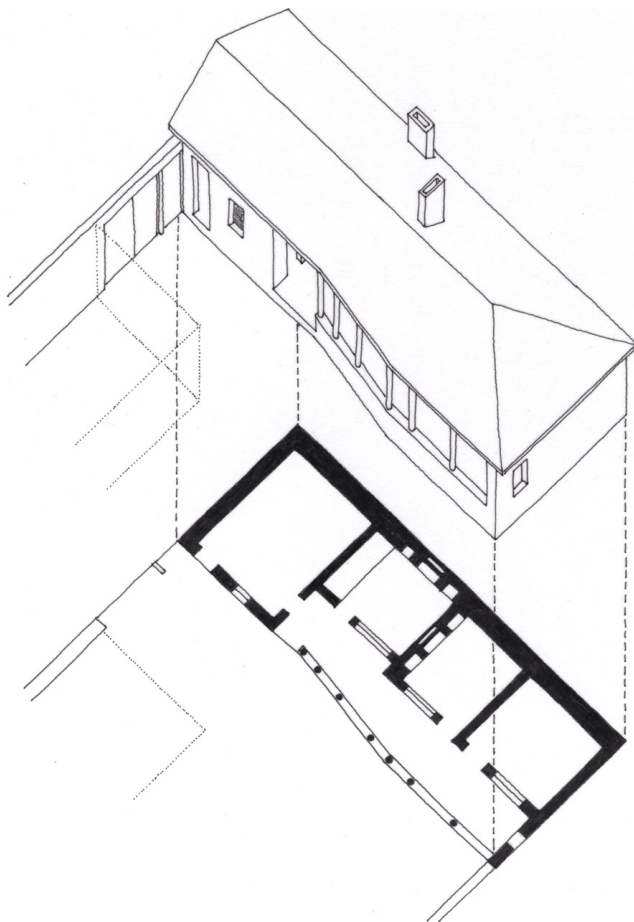


Fig. 20 Low density housing

Because every house is situated within a courtyard, there are some annex buildings that do not affect the overall silhouette of the street. These generally consist of one-story sheds that are used to house the farming tools and implements used by the inhabitants, most of whom work as farmers. The door to the house that leads from the garden opens onto a stone-floor courtyard that is usually rather small. The outer portion of this courtyard makes up the garden of the home. Almost every home researched had this arrangement, while some included an area for a vegetable garden. All of the houses have basements, so their first floors are a half-story off the ground. The houses are arranged around a central hall-like room (sofa) with two or more rooms that have been renovated over time and transformed into elements such as a kitchen, a toilet, and a bathroom. The few taller homes (2.5–3 floors) still maintain the same general type of plan. The same room plan is found on each floor, and the floors are connected by an inner staircase (Erdoğan, 2002).

This type retains its rural origins as a simple linear form with a broad porch overlooking a large court and garden enclosed by outbuildings for tools and animals (Schematic; not to scale). Produced by Nevnihal Erdoğan (Erdoğan, 2019).

8 Conclusion

Considered as a whole, the morphology of Edirne exhibits the best characteristics of an organic pattern of urban development: hierarchy, varying scale, orientation, diversity, adjustments of form to landscape, and an intelligible visual "reading" of history. These all result directly from the process of synoecism by which the monumental city core, the surviving characteristics of large and small imarets, and the three house types merge into a single composition.

Anatolia, located at a point where Asia and Europe meet, is a geography that has been home to many cultures since the establishment of the oldest civilizations in history. Anatolian cities have a historical heritage where the spatial structures of Roman, Byzantine, Ottoman, and Turkish cultures can be observed.

Conzen (1975) Urban morphology as a coherent unity in a historical-geographical approach urban patterns produced at different levels of stability of the city – lower, middle, and upper scales. Historic Edirne's morphology emphasizes the urban integrity of the city. Urban patterns produced at all scales from the upper scale (a historic city within the main boundaries, a peripheral area or campus area, transportation systems, open spaces, institutional and public

uses), middle scale (street, neighborhood, building island) to lower scale (building/street) are interrelated, and the city has a coherent integrity. It can be said that Edirne, like other cities in Turkey, has a synchronized structure, shows regular reflections, has organic systems compared to grid systems, and creates a higher intellectuality and synergy.

In addition, geographically different climatic conditions and topographical features appear to have an important effect on the spatial structuring of cultures as well as the morphological formation of geography. The comparative analysis of the historical cores of cities, which are shaped under the influence of rich historical and cultural heritage and geographical conditions, within the framework of a quantitative model in this study will make a significant contribution to studies in the fields of urban morphology, urban design, urban planning, and architecture.

A review of the literature reveals that the most significant contributions to the study of urban form in Turkey have come from architects and planners, who have mostly adopted a typomorphological approach, and urban geographers and historians, who have tended to examine urban form in relation to the factors underlying its evolution (Kubat, 2010:pp.41–42). This study was conducted with this approach in mind and can be considered a source for future morphological studies on historical Anatolian

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Notes

The scales for Figs. 1 and 5–10 are varying radii from the center of the city as needed for each subject. The city center is denoted by the position of the two principal landmarks: The Roman Fortress and the Selimiye Mosque.

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