Introduction

The year 1913 marks a turning point in the way urban space has been conceptualized and experienced in Sofia. On September 8, the Municipal Council voted in favor of the demolition of the old thermal bath,[1] one of several water facilities built by the Ottomans in Sofia's historic center in the early modern period. The men's bath was the last representative of the Ottoman approach to place-making in Sofia where built fabric and nature had been engaged in an intimate relationship that was most prominently expressed at *Banyabaşı*, the area of the hot spring. The bath was also one of the last architectural relics of a 500-year-long period that had seen Sofia's rise as the capital of the Ottoman Empire's European possessions in the mid-fifteenth century and its eventual decline to provincial obscurity in the nineteenth. At the beginning of the 1910s, the old Ottoman bath looked out of place in *Bath Square*, where new monumental buildings showcased the triumph of modernity in the young Bulgarian nation-state. Having taken the decision to demolish one of the structures most characteristic of Sofia's Ottoman experience, later the same year, the council made another decisive move laden with symbolic importance for the construction of Sofia's representative image. Of a fund of 33,334 *lev*s, collected over the course of four years for the specific purpose of writing the official narrative of Sofia's history, the council approved the disbursement of grants to three leading scholars for the publication of their monographs.[2] Once the physical traces of the Ottoman period had been

[1] Durzhaven Arkhiv Sofiia (DAS), 1k, op. 1, a.e. 104, l. 11a–b.

[2] DAS, 1k, op. 1, a.e. 104, l. 148b–149b. The three books published with financial contribution from Sofia's Municipal Council were Andrei Protich's *Arkhitektonicheskata forma*

done away with, Sofia resembled a clean canvas, ready to be filled in with meaning and revealed to the world. The majority of the finances, in the amount of 28,026 *lev*s, went to the Archaeological Society, indicating the priorities that would inform the study of Sofia's history in the following century.

Among the publications whose funding was approved by the Municipal Council in 1913 was Anastas Ishirkov's *Grad Sofiia prez XVII vek* [*The City of Sofia in the Seventeenth Century*], the first monograph on Ottoman Sofia produced by a Bulgarian author. Ishirkov was a professor of geography at Sofia University and one of the founders of the Bulgarian Geographical Society, with many contributions to the study of settlement geography and historical demography. His book examines Sofia's geographical location, the environmental features of the Sofia Plain, the state of the urban fabric, the composition of the urban population, and the staples of local economy and trade. Not an Ottomanist himself, in his work on Ottoman Sofia Ishirkov used the available Bulgarian translations of documents held by the National Library's Oriental Department. The book focuses on the seventeenth century when the landscape of Ottoman Sofia's monumental structures was already complete, but it also includes the author's reflections on the modern city's Ottoman architectural legacy. Ishirkov laments in the introduction,

> [w]e who could not stop condemning the Greeks for having destroyed our [literary] monuments, destroyed the Turkish ones with the utmost rage. With a little bit of work and good will we could now have at our disposal all Turkish inscriptions that carry importance for Sofia's history, we could have plans and photographs of all public and monumental buildings that were demolished during the regulation of the city, we could have a detailed plan of the city with the main buildings and the names of all neighborhoods and streets from the time prior to liberation marked on it. But too little has been done in this direction, and even today, when many who have experienced the Turkish city are still alive, the historian encounters tremendous difficulties when trying to determine the locations of streets and buildings that disappeared during the regulation.[3]

Ishirkov's monograph marked the end of an era in Sofia's history, but failed to establish a tradition in Sofia's historiography. The timing of its publication seems perfectly arranged to list the achievements of a vanished world

na Sofiiskata tsurkva Sv. Sofiia: khudozhestveno-istorichesko izsledvane (Sofia: Tsarska pridvorna pechatnitsa, 1912); Anastas Ishirkov's *Grad Sofiia prez XVII vek* (Sofia: Tsarska pridvorna pechatnitsa, 1912); and Bogdan Filov's *Sofiiskata tsurkva Sv. Sofiia* (Sofia: Sofiisko arkheologichesko druzhestvo, 1913).

[3] Ishirkov, *Grad Sofiia*, 2.

before the irrevocable obliteration of its last and most important monument. Although one can still chance upon a handful of Ottoman structures in Sofia's modern built fabric, 1913 symbolizes the end of the culture of water that had dominated the built landscape of the city and the daily experience of its inhabitants for five centuries.

This book explores the intersection of nature and culture in the production and transformation of urban space. It places the natural environment and the relationship between humans and water at the center of the study of Sofia's history. At the same time, I use the notion of nature metaphorically to introduce a discussion of the characteristic mechanisms of Ottoman urbanism. I argue that the Ottomans built strategically, integrating their own ideas of an urban environment with the technological traditions of the region into a coherent system of water management. The two cornerstones of this system were the constant supply of running water coming from the nearby mountain and the hot thermal water spring in the center of the city. Sofia's rich urban hydrography was at the root of a culture of water that had been accumulating the knowledge, spiritual beliefs, and daily practices of various populations for millennia, only to come to its full fruition under the Ottomans. The combined efforts of local, provincial, and central authorities, as well as the vested interests of the urban folk in the proper functioning of a public good, ensured the longevity of Sofia's system of water management and the continued maintenance of the city's public works. The city's water wealth, the efforts invested toward its proper use, and the cultural practices that had evolved around the daily interaction with this abundant natural resource, molded the local understanding of space and place.

The holistic nature of environmental research and its resistance to the chronological constraints of political history have enabled me to include the first three and a half decades of the post-Ottoman period in the timeframe of this study of Sofia's relationship with its natural environment. Challenging the dominance of the grand narratives of rapid modernization and de-Ottomanization, elaborated in the Ottoman successor states as the legitimate framework for the study of modernity, I argue that while the level of reconfiguration of urban space in Sofia in the decades following the end of Ottoman rule in 1878 was indeed staggering, some of the main directions in the transformation of the urban fabric had already been charted in the Ottoman period. My research points specifically to a high degree of continuity in the management of the city's water infrastructure, an area that was otherwise at the forefront of the modernization plans of the post-Ottoman authorities. A wide

chronological lens, therefore, circumventing traditional periodizations based on the nation and the nation-state as central categories of analysis, can help us, once and for all, tear down the narrative of stagnation and decay that has marked decades of thinking and writing about Ottoman Sofia.

Ishirkov's lament against the rapid disappearance of Sofia's old urban fabric echoed the voices of many Sofians who had objected violently to a large-scale demolition project that was carried out in the late 1880s and early 1890s in the historic center. What was at stake, the residents of Sofia's central neighborhoods feared, was not just their homes and workplaces, but the traditional way of life and the city's identity. Indeed, it is true that we will hardly ever be able to draw a precise map showing the exact locations of Ottoman Sofia's streets and architectural landmarks. Similarly, the creation of an even imprecise physical map of Ottoman Sofia's water supply system is beyond the abilities of any historian, archaeologist, or hydrological engineer. Yet, in this book I have attempted to map Sofia's water infrastructure by exploring the activities of the institutions and individuals that created and maintained it and by narrating the stories of the human communities that engaged with it on a daily basis. As *The Nature of the Ottoman City* shows, a focus on water facilitates the production of an engaging narrative of Ottoman Sofia's history. It advances our understanding of the relationship between built space and the natural environment and provides a vivid picture of urban life. Water was the foundational element for Sofia. It predetermined the contours of the urban fabric and, throughout the Ottoman period, was a defining characteristic of the urban experience and one of the mainstays of place identity.

SOFIA ANCIENT AND MODERN

The first traces of human settlement within the boundaries of present-day Sofia date back to the Neolithic, around 6000 years BCE. The area of the thermal spring has been continuously inhabited since sometime in the Bronze Age (3000–1100 BCE), forming the historic nucleus of the city. Sofia was an important political and administrative center in the Roman and Byzantine Empires as well as in medieval Bulgaria. The city was conquered by the Ottomans in the 1380s, and from the mid-fifteenth until the early nineteenth century it occupied the position of capital of Rumeli, the highest-ranked province of the early modern Ottoman Empire. Sofia's preeminence in the Ottoman administrative structure left a significant

imprint on its urban landscape. The city boasted some of the most representative works of Ottoman architecture in the Balkans resulting from the endeavors of provincial governors and men of local influence. By the turn of the nineteenth century, however, Sofia's fortunes had begun to dwindle. The approach of military frontlines and the internal instability of the period led to economic decline and decreasing population numbers. By the 1830s, Sofia had lost its position as the governor's residence to the more strategically located and modernizing Manastır (Bitola in present-day Republic of North Macedonia). In 1818 and 1858, two earthquakes dealt a harsh blow to Ottoman Sofia's built fabric, damaging most buildings and the water infrastructure. The Ottoman era in Sofia's history came to an end in 1878 in the aftermath of a war between the Ottoman and Russian empires that brought about the establishment of the Bulgarian nation-state. By the beginning of World War I, Sofia had largely received its image as a capital city, with an urban plan that interweaved the radial and grid systems and an architectural profile in line with contemporary European models.

Bulgarian historiography has addressed various aspects of Sofia's Ottoman past, but until the 1990s most publications were placed in a conceptual framework that privileged the experience of the Bulgarian community and ignored the broader imperial context. Among the publications on Ottoman Sofia are treatments of the city's history,[4] economy,[5] and material culture.[6] Studies of the Ottoman city's architecture have largely limited their scope to the several buildings that have made their

[4] Iordan Ivanov, "Sofiia prez tursko vreme," in *Iubileina kniga na grad Sofiia (1878–1928)* (Sofia: Knipegraf, 1928), 39–45; Bistra Tsvetkova, "Sofiia prez XV–XVIII vek," in *Sofiia prez vekovete*, Vol. 1, ed. Petur Dinekov et al. (Sofia: Izdatelstvo na BAN, 1989), 74–94.

[5] Matei Georgiev, *Ikonomicheskoto minalo na gr. Sofiia i Sofiisko (Izsledvaniia)* (Sofia: Pechatnitsa "Kambana," 1926); Strashimir Dimitrov, "Zanaiati i turgoviia v Sofiia prez XVIII vek," in *Sofiia prez vekovete*, Vol. 1, 95–112.

[6] Magdalina Stancheva, "Arkheologicheskoto nasledstvo na Sofiia. Formirane, sustoianie, problemi," in *Serdica: Arkheologicheski materiali i prouchvaniia*, Vol. 2, ed. Velizar Velkov, Teofil Ivanov, and Magdalina Stancheva (Sofia: Izdatelstvo na BAN, 1989), 6–35; Stancheva, "Usvoiavane na antichnoto nasledstvo na Serdika ot srednovekovniia Sredets (Po arkheologicheski danni)," *Izvestiia na bulgarskoto istorichesko druzhestvo* 29 (1974): 212; Stancheva, *Sreshti s arkheologiiata na sofiiska zemia* (Sofia: Bulgarski hudozhnik, 1985); Magdalina Stancheva and Tatiana Shalganova, "Arkheologicheski danni za vnos na zapaden portselan v Sofiia prez XVIII–XIX v.," in *Serdica*, Vol. 2, 125–132; Magdalina Stancheva and Tatiana Nikolova, "Novi prouchvaniia vurhu glinenite luli ot Serdica," in *Serdica*, Vol. 2, 133–142.

way into the present.[7] The 1940s witnessed two attempts at expanding on Ishirkov's work with studies of Ottoman Sofia's built fabric during the sixteenth and eighteenth centuries. Both publications are structurally based on the model established by Ishirkov but lack the conceptual breadth of their predecessor. Excluding even published Ottoman sources,[8] Georgi Iliev and Malena Nikolova's articles read as collections of chronologically arranged vignettes on the state of the built fabric and the development of urban life, largely dependent on Western travel literature as their main source of information.[9] This methodological deficiency – an overreliance on non-Ottoman sources – is particularly evident in the studies of Sofia's nineteenth century, invariably focused

[7] Andrei Protich, "Buyuk dzhamiia v Sofiia i neinoto miasto vsred iztochnata khristiianska i miusiulmanska arkhitektura," in *Vodach na Narodniia muzei* (Sofia: Naroden muzei, 1923), 21–49; Dimitur Hristodorov, *Tsurkvata Sv. Sedmochislenitsi v Sofiia* (Sofia: Tsurkovno nastoiatelstvo, 1940); Nikolai Markov, "Buyuk dzhamiia v Sofiia. Belezhki za neinoto minalo," in *Serdica-Sredets-Sofiia*, Vol. 3, ed. Magdalina Stancheva, Zhanet Miteva, Todorka Mladenova (Sofia: Muzei za istoriia na Sofiia, 1997), 51–66; Zara Kostova, "Dzhamiiata Sofu Mehmed Pasha i prevrushtaneto i v tsurkva," in *Balkanlar'da kültürel etkileşim ve türk mimarisi uluslararası sempozyumu. Bildirileri (17–19 Mayıs 2000, Şumnu – Bulgaristan)*, ed. Azize Aktaş Yasa and Zeynep Zafer (Ankara: Atatürk Kültür Merkezi, 2001), 427–438; Tsv. Raichevska, "Nov prochit na storitelniia nadpis na Imaret dzhamiia v Sofiia," in *Obshtestveni i religiozni sgradi XV–XIX vek*, ed. Rumen Kovachev, Penka Todorova, and Petya Tsoleva-Ivanova (Karlovo: Istoricheski muzei, 2006), 85–93; Lyubomir Mikov, "Osmanski pametnitsi v Sofiia (sgradi s promenena i zapazena funktsiia)," in Lyubomir Mikov, *Osmanska arkhitektura i izkustvo v Bulgariia. Izbrani studii*, Vol. 1 (Sofia: Akademichno izdatelstvo "Prof. Marin Drinov," 2012), 9–33; Paulina Andonova, *Osmanskiiat Elit i Blagotvoritelnostta v Tsentura na Provintsiia Rumeliia: Imaretut na Sofu Mehmed Pasha pri Chernata Dzhamiia v Sofiia, XVI–XIX Vek* (Sofia: IK "Gutenberg," 2020).

[8] Among the first Bulgarian-language publications of Ottoman documents concerning Sofia are Diamandi Ikhchiev, "Materiali za istoriiata ni pod turskoto robstvo," *Izvestiia na istoricheskoto druzhestvo* 1 (1905): 60–130; 2 (1906): 91–208; Petur Nikov, "Turskoto zavoevanie na Bulgariia i sudbata na poslednite Shishmanovtsi," *Bulgarska istoricheska biblioteka* 1/1 (1928): 130–132; Galab Galabov, "Kakvo kazvat turskite voenachalnitsi za prevzemaneto na Sofiia," *Serdica* 5 (1941): 59–61; Galabov, "Dokumenti ot XVI vek," *Serdica* 6 (1941): 56–58; 7 (1941): 51–54; 8 (1941): 30–32; Galabov, "Sofiia kum 1550 godina," *Serdica* 9 (1941): 39–43; Galabov, "Dokumenti ot XIV vek i opisaniia ot XVI i XVII vekove," *Serdica* 1–2 (1942): 87–96; Galabov, "Sudebni dokumenti ot XVI vek," *Serdica* 3–4 (1942): 87–97; Galabov, "Sudebni dokumenti ot XVII vek," *Serdica* 5–6 (1942): 104–118; 9–10 (1942): 97–98.

[9] Georgi Iliev, "Svedeniia za grad Sofiia prez XVI vek," *Izvestiia na seminarite pri Istoriko-filologicheskiia fakultet na universiteta "Sv. Kliment Okhridski"* 1 (1942): 181–266; Malena Nikolova, "Svedeniia za grad Sofiia prez XVIII vek," *Izvestiia na seminarite pri Istoriko-filologicheskiia fakultet na universiteta "Sv. Kliment Okhridski"* 2 (1943): 41–103.

on the Bulgarian national revival and its literary and epistolary output.[10] The last three decades have seen the study of Ottoman Sofia take on a new direction. Publications by Rossitsa Gradeva, Svetlana Ivanova, and Gergana Georgieva, based on a vast array of Ottoman sources, have placed Sofia in the context of the Ottoman Empire's legal and administrative networks, explored the dynamics of social status and intercommunal relations, and assessed the impact of evolving concepts of governance on the city's trajectory in the Ottoman provincial structure.[11]

Regardless of Ottoman Sofia's long and eventful history and its record of provincial leadership during the early modern period, our knowledge of the city's built space and its transformation over time has seen little advancement in the hundred years that have passed since the publication of Ishirkov's book. This historiographical shortcoming is the unfortunate corollary of the ideologically sanctioned decision that the study of Sofia's built environment and the quest for the essence of local urban character should be focused on Late Antiquity (fourth–sixth century CE) and the post-Ottoman period, the former cherished for its foundational role in the formulation of an urbanistic ideal, the latter hailed as a confirmation of the strength of tradition and the resolve of Bulgarians to return Sofia to its right civilizational place while transporting it forward along the highway of modernity.[12] Against the background of these two eras, the dominant narrative of Sofia's history has defined the Ottoman period as a breach in

[10] Matei Georgiev, *Vuzrazhdaneto na grad Sofiia (Istoricheski materiali)* (Sofia: Pridvorna pechatnitsa, 1920); Petur Dinekov, *Sofiia prez XIX vek do osvobozhdenieto na Bulgariia* (Sofia: Bulgarski Arkheologicheski Institut, 1937).

[11] Rossitsa Gradeva, *Rumeli under the Ottomans, 15th–18th Centuries: Institutions and Communities* (Istanbul: The Isis Press, 2004); Gradeva, *War and Peace in Rumeli* (Istanbul: The Isis Press, 2008); Svetlana Ivanova, "Sofya," *Encyclopaedia of Islam*, 2nd ed. (Brill Online Reference Works, 2012), https://referenceworks.brillonline.com/browse/encyclopaedia-of-islam-2/alpha/i; Gergana Georgieva, "Functions and Prerogatives of the Rumeli Vali in the First Half of the Nineteenth Century," *Études Balkaniques* 2 (2003): 57–77; Georgieva, "Za tsentura na provintsiia Rumeliia (ot kraia na XVIII vek do 1839 g.)," *Istorichesko budeshte* 8/1–2 (2004): 47–70; Georgieva, "Dinamika na teritorialnoto delenie na provintsiia Rumeliia," *Istorichesko budeshte* 1–2 (2008–2009): 10–62; Georgieva, "Gradskoto upravlenie na Sofiia i Bitolia v nachaloto na XIX vek," in *Balkanite mezhdu traditsiata i modernostta: Administrativni, sotsialno-ikonomicheski i kulturno-prosvetni institutsii v balkanskite provintsii na Osmanskata imperiia (XVIII–XIX vek)* (Sofia: IK "Gutenberg," 2009), 70–99; Georgieva, "Saraiat na provintsialnite osmanski upraviteli: miasto za zhiveene – miasto za upravlenie, purvata polovina na XIX vek," in *Chetiva za istoriiata i kulturata na Balkanite*, ed. Margarita Karamihova (Sofia: Paradigma, 2010), 79–102.

[12] For a discussion of the formulation and evolution of the national discourse on Sofia's history, see Stefan Peychev, "Sofia as an 'Oriental City': The Making of a Stereotype," in

the city's natural path of development. From the 1380s until the 1870s, Sofia was ruled by a conqueror who was unable to conceive of any ideas of urban space and lacked the resolve to carry out large infrastructural projects.

The two most eloquent and influential visions of what Sofia was, is, and should be, have emerged from within the fields of archaeology and architectural history. Their authors, Magdalina Stancheva and Hristo Genchev, whose prominent careers spanned several decades, left an imprint on both the surface of the city and the intellectual agendas of generations of scholars and lay readers. Stancheva, who was in charge of some of the major archaeological excavations in Sofia during the second half of the twentieth century, has produced through numerous publications a sustained vision defining the pillars of Sofia's urban identity and outlining the channels through which these pillars have survived to the present. The fundamental period for Sofia's urban development was antiquity, when intensive construction was carried out, leaving an indelible imprint on the city's urbanistic evolution. This imprint can be found not only in material remains; as intangible heritage, it finds expression in the traditions of urban life transmitted from generation to generation among the city's inhabitants.[13] The big challenge to Sofia's urban identity, "the first big urban planning violence," Stancheva maintains, was brought about by the Ottomans who had no knowledge of the European tradition of urbanism based on the Greco-Roman achievements.[14] The conflict was most visible in the demolition of the city wall and the destruction of the street grid.[15] The perfect system of urban planning, dating from antiquity, was replaced by "chaotic development."[16] During the long period of Ottoman domination, the old urban traditions were suppressed but did not die out. Their later rehabilitation in the regularization of the street network of modern Bulgarian Sofia only served to demonstrate the rationality of Roman urban planning and the strong

Re-Imagining the Balkans: How to Think and Teach a Region, ed. Augusta Dimou, Theodora Dragostinova, and Veneta Ivanova (Berlin: DeGruyter, 2023), 47–57.

[13] Magdalina Stancheva, "Formirane na gradoustroistvenite traditsii na Serdica," in *Sofiia prez vekovete*, Vol. 1, 36.

[14] *Ibid.*, 9. [15] Stancheva, *Sreshti s arkheologiiata*, 100.

[16] Magdalina Stancheva, *Sofiia v otdavna minalo vreme* (Sofia: Universitetsko izdatelstvo "Sv. Kliment Ohridski," 1999), 9.

connection between the young Bulgarian planners and their ancient predecessors.[17]

The link between modernity and antiquity, as seen in Sofia's urban development, is highlighted in Hristo Genchev's recent monograph on Sofia. Genchev argues that during all periods of upsurge Sofia has been guided by an overarching urban idea. This idea can be identified as *genius loci*, the spirit of place.[18] The Romans built Serdica in such a way that the city would still be standing had it not been violated for centuries. The Roman contribution, however, was not limited to the material. According to Genchev, Roman civilization is "a source and pillar of the nature of the Bulgarians." From Rome, the Bulgarians adopted concepts of spatial organization and technical and building skills. Ultimately, it was Roman thought and deeds that wrested Bulgarians out of archaism and introduced them into modernity.[19] As far as the Ottoman period of Sofia's history is concerned, Genchev sees it as the absolute antithesis of the local urban spirit. The centuries of Ottoman rule were a time when the urban substance degraded, succumbing to the mediocre building practices brought by the conquerors.[20] The Ottoman built environment was a foreign, "oriental" import, which had no relation whatsoever to the spirit of the city.

PUBLIC WORKS AND THE URBAN ENVIRONMENT

It was in the areas of urban planning, architecture, and the provisioning of public services, according to the national narrative of Sofia's history, that the Ottomans had most notably failed, unable to come up with a vision of a sophisticated urban environment. Sofia has been considered as an ideal illustration of the disastrous Ottoman public works system, a rudimentary system that remained static during the course of five centuries. Water, in particular, was the natural element that the Ottomans, due to their nomadic heritage, were never able to control or take full advantage of. The efforts of the Ottoman authorities toward providing an adequate public works system were limited to

[17] Magdalina Stancheva, "Za niakoi drevni gradoustroistveni traditsii na Sofiia," *Tekhnicheska misul* 24/5 (1987): 99.
[18] Hristo Genchev, *Sofiia, mislena v prostranstvoto i otvud vremeto* (Sofia: ArhLIBRI, 2009), 4.
[19] *Ibid.*, 149. [20] *Ibid.*, 159.

satisfying the basic needs of the population, such as laying water pipes for street fountains, building of baths, and sometimes covering the main streets with cobblestone pavement. The streets, even in big cities, were narrow and dirty, and in rainy weather the mud made walking difficult. Cars often got stuck in the ditches. In market streets there was a narrow sidewalk made of wood or rocks for the use of pedestrians.

This quotation, summarizing the standard image of a Bulgarian city during the Ottoman period, is taken from a history of Bulgarian architecture, published in the 1960s but still often referred to.[21] Significantly, it is Sofia that is presented as an example of the state of the public works and hygiene in the Bulgarian cities of the Ottoman period: "Wastewater infrastructure in Sofia was non-existent, the water running out of the five thermal baths ran freely toward the tanners' neighborhood where tanners worked day and night."[22] According to the study of urban life provided in this volume, the state of public works in Bulgarian cities did not change throughout the entire period of Ottoman rule. Twenty years after this publication, the *History of Bulgaria* – a multivolume work produced by the Bulgarian Academy of Sciences in the 1980s as the definitive narrative of the history of the Bulgarian lands – reproduced the same image, claiming that the Ottoman authorities' concern for public works was limited to the construction of wells and public fountains. Some of the main streets were covered with cobblestones, while the rest were narrow and muddy. Again, this point is supported with a reference to Sofia where the water running out of the five thermal baths went freely toward the tanners' neighborhood.[23]

The argument for the Ottomans' inability to reap the full potential of Sofia's water resources and to provide a coherent system of water management in the interest of the public good has traditionally been accompanied by analogies with Roman Antiquity, the golden age of Sofia's infrastructures. In a self-congratulatory article published in 1940 in celebration of his own hydroengineering feat that had solved early-twentieth-century Sofia's water shortage problem by carrying water over a fifty-one-mile (eighty-two-kilometer) distance, Ivan Ivanov, who at the time of publication of the article served as Sofia's mayor, contrasts the pitiful state of Ottoman Sofia's water facilities with the perfectly laid out water supply system of Roman times. The Romans who "needed the cold, nice water of the magnificent Vitosha as well for drinking, as for their private

[21] *Kratka Istoriia na Bulgarskata Arkhitektura* (Sofia: Izdatelstvo na BAN, 1965), 130.
[22] *Ibid.* [23] *Istoriia na Bulgariia*, Vol. 4 (Sofia: Izdatelstvo na BAN, 1983), 314–316.

and public baths, for their fountains and gardens," gave Serdica a comprehensive water system constructed in accordance with the requirements of contemporary Roman water supply. The Ottomans, who were responsible for the ultimate destruction of this flourishing public works system, were hardly able to manage twenty-one public fountains with spring water, thirty-three with river water, and several dozens of wells.[24] The legacy that they left to Sofia was miserable: broken pipes, polluted water, street fountains that caused flooding, and maintenance measures taken only during the outbreak of epidemics.[25]

In the first decades of the post-Ottoman period, when the autonomous Bulgarian state got down to the business of replacing the useless Ottoman heritage of its capital city with modern national architecture, one particular artifact, wood pipes, started to crop up in large numbers at construction sites in Sofia. The pipes had been used by the Ottomans to maintain damaged portions of the water system. These wood pipes have held a dear place in the national narrative of Ottoman Sofia's urban development. In a linear view of history, the nineteenth-century wood pipes represent the epitome of Ottoman technology, symbolic of the technological handicaps of an essentially "nomadic" culture foreign to the machinery and aesthetics of an urban environment. Projected onto the entire Ottoman period, the image of a water supply system based on wood pipes has been interpreted as evidence of the Ottomans' inability to construct and maintain a proper public works system. Another trope central to the discourse of a deficient Ottoman urbanism concerns the agents who were supposed to keep the mechanism of Sofia's water infrastructure in functioning mode. Bulgarian historiography of Ottoman Sofia has never failed to point, with a degree of sarcasm, to the three water-fountain technicians (*чешмеджия*, *çeşmeci*) who embodied the Ottoman concern for public works in the nineteenth century, supposedly being the only personnel in charge of this infrastructure.[26] Ultimately, the notion of a water supply system based on pine wood pipes and operated by an inadequate human workforce has been projected as representing *the* norm for many urban centers throughout the Ottoman period.[27] In these interpretations of Ottoman Sofia's environmental history and the Ottoman concern for

[24] Ivan Ivanov, "Voda za Sofiia," *Serdica* 9/10 (1940): 3.
[25] Ivan Ivanov, "Vodosnabdiavaneto na Sofiia," *Spisanie na BIAD* 7 (1924): 105.
[26] The roots of this trope can be found in a number of documents concerning Sofia's water supply, issued by the new municipal and state authorities in the first two years of autonomous administration. For more details, see Chapter 3.
[27] See Georgi Georgiev, *Sofiia i Sofiiantsi 1878–1944* (Sofia: Nauka i izkustvo, 1983), 36.

the public good, the water resources of the city appear pitifully mismanaged, dominated by a culture that was not refined enough to appreciate the region's natural wealth and the city's water-based identity.

Problematizing the narrative of ruin and decay that underpins the dominant discourse on the Ottoman period in Sofia's history, in this book I argue that the Ottomans harnessed the full potential of Sofia's rich hydrography, including surface and underground waters, into a system of water management that served the city until the eve of World War I, more than three decades after the end of Ottoman rule. I use a diverse source base to write the history of an era that has been wiped out from the surface of the modern city. Ottoman sources shedding light on the activities of pious foundations, tax records and law court records reflecting socioeconomic realities and changes in the built fabric, correspondence exchanged between the provincial and central governments, early modern travel accounts (Western European and Ottoman), nineteenth-century newspapers, memoirs, and documentation produced by the institutions of the Bulgarian nation-state prior to World War I make up most of the documentary evidence that this book draws on. The use of a variety of textual sources supported by archaeological findings has allowed me to reconstruct the implementation of the Ottoman system of water management in Sofia, the upkeep of Sofia's water infrastructure, and the roles that water facilities and their attendant cultural practices played in the making of urban space and place. Public works, I argue in this book, were not an afterthought for the Ottomans. On the contrary, the Ottoman state implemented a variety of mechanisms in the construction and maintenance of water facilities and infrastructures. Over the course of the empire's long lifespan, the provisioning of public services experienced breakthroughs and downturns, and Ottoman Sofia's trajectory is illustrative of both.

OTTOMAN CITY OR BALKAN CITY

One of this books' broader methodological interventions is to call for the demolition of the artificial spatial boundaries that still divide the study of the European, Asian, and African provinces of the Ottoman Empire. Despite all differences, the provinces of the empire were connected by institutions of governance and justice, networks of charity, urbanistic and demographic policies, and systems of natural resource management and food provisioning. Sofia occupied a key position within the Ottoman political and institutional landscapes, while also functioning as a hub of

cultural, economic, and technological exchange. The city's location in the central parts of the Ottoman Empire and its relative proximity to Istanbul – especially when compared to the more distant Ottoman strongholds on the western borders, in North Africa, or on the Arabian Peninsula – secured the longevity of Ottoman rule and its deep imprint on the built environment. Sofia's importance on both the imperial and regional levels makes it a good vantage point for a *longue-durée* study of Ottoman urbanism in its institutional, infrastructural, and environmental contexts.

The study of the imperial legacies of the Ottoman successor states in Europe, the Middle East, and North Africa has more often than not fallen victim to the political agendas of the nation-states that replaced the multiethnic and multireligious Ottoman polity. Affiliation with rival ideological blocs has made the interpretations of the shared past of the post-Ottoman space even more discordant. The study of Ottoman urbanism has reflected these epistemological tensions, and the urban history of the Balkans is a good case in point. The interest in cities and urban life in Bulgarian scholarship has its roots, like modern historical knowledge in general, in the nineteenth century when, in the context of intellectual revival and a struggle for national emancipation, geographical works of encyclopedic nature included descriptions of the main urban centers of the Bulgarian ethnic and cultural space. The entries provided concise data on geographical location, environmental conditions, and demography, and depicted the built fabrics with reference to several of the most characteristic architectural edifices. Since the purpose of these publications was to emphasize the formative contribution of the Bulgarians to urban space and culture, the other ethnic communities received much less attention even in cities where they vastly outnumbered the Bulgarians.[28] Sofia occupies a prominent place in this literature, and, as I show in Chapter 2, its thermal baths were regularly listed among the main features of the urban fabric. In spite of this early interest in urban life among the largely amateur historians and geographers of the last decades of the Ottoman period, when the scholarly discipline of ethnography – the one most directly involved with the study and systematic recording of human culture – took shape in the Bulgarian nation-state in the last quarter of

[28] Gatia Simeonova, "Vuzrozhdenskiiat grad (Opit za tipologiia spored vuzrozhdenskite avtori)," in *Problemi na bulgarskata gradska kultura. Vol. 7. V tursene na etnografski podkhod pri izuchavaneto na grada po bulgarskite zemi*, ed. Gatia Simeonova (Sofia: AI "Prof. Marin Drinov," 2009), 194.

the nineteenth century and the first half of the twentieth, its thematic repertoire centered on the village where traditional culture was preserved in a more pure form.[29] It is only since the mid-twentieth century, and mostly since the 1970s, that the argument for the historical value of urban culture has been asserted more firmly, accentuating, however, urban culture's importance as an expression of modernity.[30] Like the notion of the village as a pristine repository of national character, this formulation of an interest in urban culture is rather restrictive since Bulgarian scholarship has traditionally located the beginnings of modernity in the National Revival of the nineteenth century and linked them to the increasing European influences in all aspects of life, thereby excluding the Ottoman sphere, considered as Asiatic and irreversibly premodern, as a legitimate object of study.

The preoccupation with the local, non-Ottoman preconditions of city life in the Balkans has left a profound impact on the study of the urban history of the region, most notably in the period from the 1960s through the 1980s, when the construct of the 'Balkan city' was consistently expounded. The search for pre-Ottoman explanations of early modern urban realities was an initiative shared by the different Balkan historiographies, but its most influential proponent was Bulgarian historian Nikolai Todorov who in 1972 published his monograph entitled *The Balkan City*. Taking issue with the view that urban development in the Balkans during the Ottoman period resulted solely from the central state's energetic urbanistic policies, a view that dominated Turkish historical scholarship at the time, Todorov argued for the strength of the pre-Ottoman urban tradition and asserted that the local contribution to the consolidation of the Ottoman state and its social structure is what ultimately enabled the state to foster the development of urban life.[31] The

[29] This is the position expressed, for instance, in Ivan Shishmanov's programmatic article of 1889 on the importance and goals of Bulgarian ethnography. Ivan Shishmanov, "Znachenieto i zadachite na nashata etnografiia," *SbNU* 1 (1889): 1–64.

[30] Gatia Simeonova, "Sustoianie na etnografskite prouchvaniia po temite 'bulgarski grad' i 'bulgarska gradska kultura'," in Gatia Simeonova, *Problemi na bulgarskata gradska kultura. Vol. 5. V tursene na etnografski podkhod pri izuchavaneto na grada po bulgarskite zemi* (Sofia: AI "Prof. Marin Drinov," 2009), 279–295.

[31] Nikolai Todorov, *Balkanskiiat grad XV–XIX vek: sotsialno-ikonomichesko i demografsko razvitie* (Sofia: Nauka i izkustvo, 1972), 428–429. For the Turkish view, see Ömer Lütfi Barkan, "Quelques observations sur l'organisation économique et sociale des villes ottomanes des XVI[e] et XVII[e] siècles," in *Recueils de la Société Jean Bodin pour l'histoire comparative des institutions, Vol. 7, La Ville 2: Institutions économiques et sociales* (Brussels: De Boeck Université, 1955), 289–311.

concept of the 'Balkan city,' as elaborated by Todorov, applies only to those cities on the Balkan Peninsula that had been included within the boundaries of the Ottoman Empire for a long period of time, and only during that part of their history. The distinctive attributes of the 'Balkan city,' "its own unique architectural and planning features," were the lack of defensive walls, the small number of large stone buildings, the low-profile residential architecture typically made of wood, the numerous population, and the intensive commercial life.[32] Beyond Todorov's formulation, the 'Balkan city' has been invested with various meanings by the separate historiographical schools in the region, often without a clear definition of its characteristics, and sometimes simply in the sense of an urban settlement located in the Balkan Peninsula.[33] Both Todorov's concept and these less clearly defined approaches to the use of the term exhibit one central flaw by failing to explain what exactly distinguished the 'Balkan city' from the 'Islamic' or 'Oriental' one – constructs of earlier provenance whose definitions included many of the same characteristics that distanced them from the ideal of the medieval European city. This epistemological deficiency has been made possible by the reluctance on the part of Balkanists to make comparisons with cities in the other territories of the empire. The same weakness, however, has been exhibited by Ottomanist urban historians working in Turkish and international intellectual milieus, who have often ignored the cities of the former European provinces of the empire that nowadays fall outside the boundaries of the Turkish state (this includes most of the Balkan Peninsula).[34] In that case, a research agenda limited to the urban centers of Anatolia has led to the elaboration of another narrowly defined concept, that of the 'Anatolian city.'[35] Regardless of the insularity of the disciplines of Balkan and Ottoman studies, which have long shied away from engaging each

[32] Todorov, *Balkanskiiat grad*, 33–34.

[33] Alexander Vezenkov, "Entangled Geographies of the Balkans: The Boundaries of the Region and the Limits of the Discipline," in *Entangled Histories of the Balkans, Vol. 4, Concepts, Approaches and (Self-) Representations*, ed. Roumen Daskalov et al. (Leiden: Brill, 2017), 164–174.

[34] A good example is Edhem Eldem et al., eds., *The Ottoman City between East and West: Aleppo, Izmir, and Istanbul* (Cambridge: Cambridge University Press, 1999). The authors exclude the cities of the Balkans, citing the linguistic inaccessibility of an otherwise rich body of literature and difficulties posed by "unfamiliar techniques and models." *Ibid.*, 8.

[35] See Sevgi Aktüre, *19. Yüzyıl sonunda Anadolu kenti mekânsal yapı çözümlemesi* (Ankara: ODTÜ, 1978); Musa Çadırcı, *Tanzimat döneminde Anadolu kentlerinin sosyal ve ekonomik yapıları* (Ankara: TTK, 1991).

other in a productive conversation, Turkish and Western Ottomanists have time and again ventured into the study of the urban history of the Balkans during the Ottoman period. These inroads have often been very productive, with important contributions to urban history including that of Sofia.[36] Bulgarian Ottomanists have recently begun to expand their horizons beyond the confines of the Balkans, but the outcomes of this development are yet to be seen. Unfortunately, comparative studies of Ottoman urban histories and built fabrics spanning the tenuous disciplinary and regional boundaries that separate the Balkans from the rest of the former Ottoman realms are still practically nonexistent.

While this book does not employ an explicitly comparative lens, studying Sofia's history makes many empire-wide connections and similarities stand out. Throughout the Ottoman period of its history, Sofia was connected with various localities across the Ottoman Empire's European, Asian, and African territories via the workings of a network of pious foundations and the constant transfer of men of governance and letters. The city's Turkish population included people with roots in Western Anatolia and some of their places of origin were inscribed in the urban

[36] An exhaustive list would be impossible to fit in a footnote. Here I include some of the most prominent examples of this literature, with a focus on the ones addressing Ottoman Sofia's history: İlhan Şahin, "XV. ve XVI. Yüzyılda Sofya-Filibe-Eski Zağra ve Tatar Pazarı'nın Nüfus ve İskan Durumu," *Türk Dünyası Araştırmaları* 48 (1987): 249–256; Machiel Kiel, *Studies on the Ottoman Architecture of the Balkans* (Aldershot: Variorum, 1990); Kiel, "Urban Development in Bulgaria in the Turkish Period: The Place of Turkish Architecture in the Process," in *The Turks of Bulgaria: The History, Culture and Political Fate of a Minority*, ed. Kemal Karpat (Istanbul: Isis Press, 1990), 79–158; Mark Cohen, "Monastir: Oasis of Civilization, 1839–1863," *Turkish Studies Association Bulletin* 24/2 (Fall 2000): 3–22; M. Akif Erdoğru, "Onaltıncı Yüzyılda Sofya Şehri," *Tarih İncelemeleri Dergisi* 17/2 (2002): 1–15; Machiel Kiel, *Khora i selishta v Bulgariia prez osmanskiia period* (Sofia: Amicitia, 2005); Aşkın Koyuncu, "Bulgaristan'da Osmanlı Maddi Kültür Mirasının Tasfiyesi (1878–1908)," *Ankara Üniversitesi Osmanlı Tarihi Araştırma ve Uygulama Merkezi Dergisi* 20 (2006): 197–234; Meral Bayrak, "Sofya'da XVI. Yüzyıla Ait Bir Vakıf Örneği: Sofu Mehmed Paşa Külliyesi ve Camiden Kiliseye Çevrilmiş Bir Mabedin Hikayesi," *Türk Kültürü İncelemeleri Dergisi* 19 (2008): 1–42; Aşkın Koyuncu, "Sofya'daki Sofu Mehmed Paşa Camisi (Kara Cami)'nin Kiliseye Dönüştürülmesi," in *Uluslararası Balkanlarda Türk Varlığı Sempozyumu. Bildiriler II. Cilt*, ed. Ünal Şenel (Manisa: Celal Bayar Üniversitesi, 2010), 129–146; Bernard Lory, *La Ville Balkanissime: Bitola 1800–1918* (Istanbul: Les Éditions ISIS, 2011); Aşkın Koyuncu, "Sofya'da Osmanlı Mimari Mirasının Tasfiyesi (1878–1908)," *XVI. Türk Tarih Kongresi, 20–24 Eylül 2010, Ankara, Kongreye Sunulan Bildiriler* (Ankara: Türk Tarih Kurumu, 2015), 113–144; Maximilian Hartmuth, "Architecture, Change, and Discontent in the Empire of Mehmed II: The Great Mosque of Sofia, Its Date and Importance Reconsidered," in *Osmanlı Mimarlık Kültürü*, haz. Hatice Aynur ve A. Hilal Uğurlu (Istanbul: Kubbealtı, 2017), 347–348; Machiel Kiel, *Bulgariia pod osmanska vlast* (Sofia: Tendril, 2017).

toponymy. Sofia resembled Bursa in the extent to which an abundant and highly valued natural resource – thermal water – had left a strong imprint on the formation of built fabric and urban culture. Around the turn of the nineteenth century it shared the functions of provincial capital with Manastır, an urban center in the Western Balkans, whose political, economic, and military importance was expanding at the expense of Sofia's shrinking leverage in these same spheres. Finally, prior to the decline in the provincial hierarchy that Sofia experienced in the nineteenth century, throughout the early modern period its communication with Istanbul had functioned swiftly, allowing for the quick resolution of issues that required the intervention of the central government. It was precisely the high level of integration of central and provincial governance and administration that brought forward the institutionalization of water management in the Ottoman Empire in the sixteenth century. A Directorate of Waterworks, established under Sultan Süleyman Kanuni (the Magnificent, r. 1520–1566), with regional administrators in the provinces and specialized personnel in the urban centers, oversaw the water business across the empire's expansive territories. It was at the beginning of this period of technological achievement and institutional sophistication for the Ottoman water enterprise, at the turn of the sixteenth century, that Sofia received its water supply system established within the framework of Yahya Pasha's pious foundation that encompassed charitable institutions, agricultural lands, financial resources, and human personnel from across Ottoman Europe.

NATURE AND CITY

Sofia's water supply, however, was not simply the product of an Ottoman grandee's magnanimity or of the rigorous application of a program of water management. The infrastructure that secured the steady flow of drinking water for the Ottoman provincial capital was firmly set in the environmental context of the Sofia Plain. The Vitosha Mountain's streams guaranteed a constant supply of fresh water, while a well-populated rural hinterland provided the human force that was employed for the purpose of the system's continued maintenance. What makes Sofia a particularly relevant setting for a study of the relationship between nature and culture, though, is not just its geographical location and the features of its natural environment but also the consistency with which its historiography has avoided talking about the role of nature in the making of urban space. Neither Roman Antiquity when the *thermae* occupied

most of Sofia's center, nor the post-Ottoman period when meeting the water needs of a rapidly expanding city was a top priority, have ever been studied from an environmental perspective. That is why in this book I argue not just for the utility but for the dire necessity of an environmental perspective to comprehend the cultural underpinnings and historical trajectory of urban life.

Ever since its inception in the 1970s, environmental history has asserted its strength at modifying or completely subverting demarcations of time and space established by narratives focused on political, social, and economic developments. As J. R. McNeill has observed, "[h]uman history has always and will always unfold within a larger biological and physical context, and that context evolves in its own right."[37] Shifting environmental conditions have not infrequently altered the course of history by igniting revolutionary ferment, or at least tested the extent to which a state could preserve political order and social stability in a critical situation.[38] Natural disasters have wiped out entire cultures, but they have also stimulated the evolution of ideas and practices of coping with hazardous environmental realities, often introducing a new sense of time and space based on the frequency and magnitude with which nature reshapes the social habitats.[39] And as is becoming tragically evident in the era of the Anthropocene, some of the transformations that humans have been imposing on the natural environment are causing irreversible damage to the Earth's ecosystem. The study of the Ottoman Empire and its successor states has only recently joined in the environmental turn of modern historical research. This lag seems dumbfounding when one reflects on how much the empire, with its vast geographical dimensions including lands on three continents, and with the diversity of ecological zones and climatic conditions within these realms, can offer to environmental historians. Onur İnal has found the reason for this conceptual deficiency of Ottoman studies in the disciplinary seclusion and the lack of internal cohesion that has forced Ottomanist historians to work in

[37] J. R. McNeill, "Observations on the Nature and Culture of Environmental History," *History and Theory* 42/4 (2003): 6.

[38] Noelle Plack, "Environmental Issues during the French Revolution: Peasants, Politics and Village Common Land," *Australian Journal of French Studies* 47 (2010): 290–303; Sam White, *The Climate of Rebellion in the Early Modern Ottoman Empire* (New York: Cambridge University Press, 2011).

[39] See, for instance, Christof Mauch and Christian Pfister, eds., *Natural Disasters, Cultural Responses: Case Studies toward a Global Environmental History* (Lanham, MD: Lexington Books, 2009).

isolation and be less receptive to new paradigms and trends.[40] To this can be added the dominance of the nation as an interpretive framework for the histories of the Ottoman successor states, as well as – with respect to Southeast European historiography – the legacy of the socialist period when it was politically inappropriate to emphasize natural factors over social ones.[41] True, Ottoman historiography has addressed issues such as land, agriculture, food supply, animals, and population dynamics, but – at least until the beginning of the 2010s – not from an environmental standpoint.[42] The last decade, however, has seen the publication of the first monographs on Ottoman environmental history[43] as well as some important collaborative efforts that have showcased a variety of methodological approaches and highlighted the potential of an environmental perspective for the rethinking of old historiographical paradigms and debates.[44]

[40] Onur İnal, "Environmental History as an Emerging Field in Ottoman Studies: An Historiographical Overview," *Osmanlı Araştırmaları* 38 (2011): 24.

[41] McNeill, "Observations," 30.

[42] Listing even only the most important examples of this massive body of literature would overstretch the limits of a footnote, so I will confine myself to referring to İnal's historiographical article mentioned above.

[43] White, *The Climate of Rebellion*; Alan Mikhail, *Nature and Empire in Ottoman Egypt: An Environmental History* (New York: Cambridge University Press, 2011); Mikhail, *The Animal in Ottoman Egypt* (New York: Oxford University Press, 2014); Mikhail, *Under Osman's Tree: The Ottoman Empire, Egypt, and Environmental History* (Chicago: The University of Chicago Press, 2017); Nükhet Varlık, *Plague and Empire in the Early Modern Mediterranean World: The Ottoman Experience, 1347–1600* (New York: Cambridge University Press, 2015); Yaron Ayalon, *Natural Disasters in the Ottoman Empire: Plague, Famine, and Other Misfortunes* (New York: Cambridge University Press, 2015); Michael Christopher Low, *Imperial Mecca: Ottoman Arabia and the Indian Ocean Hajj* (New York: Columbia University Press, 2020); Faisal H. Husain, *Rivers of the Sultan: The Tigris and Euphrates in the Ottoman Empire* (New York: Oxford University Press, 2021); Chris Gratien, *The Unsettled Plain: An Environmental History of the Late Ottoman Frontier* (Stanford, CA: Stanford University Press, 2022); Samuel Dolbee, *Locusts of Power: Borders, Empire, and Environment in the Modern Middle East* (Cambridge: Cambridge University Press, 2023); Elizabeth Williams, *States of Cultivation: Imperial Transition and Scientific Agriculture in the Eastern Mediterranean* (Stanford, CA: Stanford University Press, 2023).

[44] One of the issues of the *International Journal of Middle Eastern Studies* for 2010 includes two articles on Ottoman Environmental history and a roundtable entitled "How Does Incorporating the Emerging Field of Environmental History into Studies of the Middle East Challenge Our Views of the Past and/or Present?." See Sam White, "Rethinking Disease in Ottoman History," *IJMES* 42 (2010): 549–567; Alan Mikhail, "An Irrigated Empire: The View from Ottoman Fayyum," *Ibid.*: 569–590. The roundtable is made up of Diana K. Davis, "Power, Knowledge, and Environmental History in the Middle East and North Africa," *Ibid.*: 657–659; Aaron Shakow, "'Oriental Plague' in the Middle Eastern Landscape: A Cautionary Tale," *Ibid.*: 660–662; Edmund Burke, "Pastoralism

Until as late as the early 1990s, the city had still not been firmly accepted as a legitimate object of inquiry in environmental history. Donald Worster had argued that environmental history's main theme of study is the nonhuman world, excluding the built environment as "wholly expressive of culture." The study of the city had, moreover, already been well advanced in urban history and the history of technology.[45] Shortly after its publication, Worster's definition of environmental history was criticized by Martin Melosi who argued that the city, as part of the physical world, interacts and sometimes blends with nature. In Melosi's own words, "isolating the 'natural world' in such an unnatural way denies the powerful holistic quality of environmental history which demands inclusion more than seclusion."[46] In the two and a half decades that followed this exchange, the study of the urban environment has flourished in Western academia, with an ever-increasing number of publications on urban habitats in the United States and Western Europe.[47]

and the Middle Eastern Environment," *Ibid.*: 663–665; Richard Bulliet, "The Camel and the Watermill," *Ibid.*: 666–668; and Giancarlo Casale, "The 'Environmental Turn': A Teaching Perspective," *Ibid.*: 669–671. Many of the articles in two subsequent edited volumes on the environmental history of the Middle East and North Africa address the Ottoman Empire's environmental policies and their legacies. See Diana K. Davis and Edmund Burke III, eds., *Environmental Imaginaries of the Middle East and North Africa* (Athens, OH: Ohio University Press, 2011); Alan Mikhail, ed., *Water on Sand: Environmental Histories of the Middle East and North Africa* (New York: Oxford University Press, 2013). It is ironic that the argument for the utility of an environmental perspective in the study of the Middle East and North Africa, two of the world's regions that have been most profoundly shaped by their natural environments, was not made much earlier. Most recently, since the middle of the 2010s, the Network for the Study of the Environmental History of Turkey, an international and interdisciplinary research platform whose goal is to advance the study of Ottoman and Turkish environmental history, has been exceptionally active in bringing together scholars from across academia whose projects shed light on various aspects of the environmental histories of the Ottoman and post-Ottoman worlds. The rich spectrum of topics explored by this flourishing field is illustrated by Onur İnal and Yavuz Köse, eds., *Seeds of Power: Explorations in Ottoman Environmental History* (Winwick, Cambridgeshire: The White Horse Press, 2019).

[45] Donald Worster, "Appendix: Doing Environmental History," in *The Ends of the Earth: Perspectives on Modern Environmental History*, ed. Donald Worster (New York: Cambridge University Press, 1988), 293.

[46] Martin V. Melosi, "The Place of the City in Environmental History," *Environmental History Review* 17/1 (1993): 4–5.

[47] Some examples of this burgeoning literature that have been particularly stimulating for my work are William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York: W. W. Norton, 1991); Martin Melosi, *The Sanitary City: Urban Infrastructure in America from Colonial Times to the Present* (Baltimore, MD: Johns Hopkins University Press, 2000); Ari Kelman, *A River and Its City: The Nature of Landscape in New Orleans*

Research on Ottoman cities, in contrast, with very few exceptions, is still largely situated within the conceptual frameworks of social and economic history, and the study of built fabrics and plans has traditionally been carried out by architectural historians. The interplay between human-made and natural habitats has rarely been addressed by this literature and only as a side note.[48] The study of the role that water played in the shaping of urban life and culture in the Ottoman Empire does not make an exception in this regard. This is not to say that literature on the water supply of Ottoman cities is nonexistent – on the contrary, Turkish historians and engineers have examined the construction of water systems and the provisioning of Ottoman cities with a special emphasis on the imperial capital.[49] Yet the publications on Ottoman water management, numerous as they are, cannot exceed the role of a 'bridge literature' – highly useful as an insight into the engineering thinking and achievements of the Ottomans, but limited in their technical specialization. Within the young but exponentially expanding field of Ottoman environmental history, on the other hand, the study of the urban environment has yet to carve its place as a major area of inquiry.[50]

(Berkeley: University of California Press, 2003); Matthew Gandy, *Concrete and Clay: Reworking Nature in New York City* (Cambridge, MA: The MIT Press, 2002); and Matthew Klingle, *Emerald City: An Environmental History of Seattle* (New Haven, CT: Yale University Press, 2007).

[48] One notable exception is Maurice Cerasi, "Open Space, Water and Trees in Ottoman Urban Culture in the XVIIIth–XIXth Centuries," *Environmental Design: Journal of the Islamic Environmental Design Research Centre* 2 (1985): 36–49.

[49] See, for instance, Kazım Çeçen, *İstanbul'da Osmanlı Devrindeki Su Tesisleri* (İstanbul: İstanbul Teknik Üniversitesi İnşaat Fakültesi Matbaası, 1984); Çeçen, *Sinan's Water Supply System in İstanbul* (İstanbul: İSKİ Genel Müdürlüğü, 1992); Burhan Oğuz, *Bizans'tan Günümüze İstanbul Suları* (İstanbul: Simurg, 1998); Çeçen, *İstanbul'un Osmanlı Dönemi Suyolları* (İstanbul: İSKİ, 1999); Neriman Meriç Köylüoğlu, *Edirne'de Osmanlıdan Günümüze Su Yapıları* (Edirne: Türk Kütüphaneciler Derneği Edirne Şubesi, 2001); M. Sabri Doğan, *Konya Su Tarihi* (Konya: Koski Genel Müdürlüğü, 2003).

[50] Among the pioneering steps in this direction are Onur İnal, "A Port and Its Hinterland: An Environmental History of Izmir in the Late-Ottoman Period" (PhD Dissertation, University of Arizona, 2015); K. Mehmet Kentel, "Nature's 'Cosmopolis': Villagers, Engineers and Animals along Terkos Waterworks in Late Nineteenth-Century Istanbul," in *Seeds of Power*, ed. İnal and Köse, 155–183; Mohamed Gamal-Eldin, "Cesspools, Mosquitoes and Fever: An Environmental History of Malaria Prevention in Ismailia and Port Said, 1869–1910," in *Ibid.*, 184–207; Aleksandar Shopov, "Cities of Rice: Risiculture and Environmental Change in the Early Modern Ottoman Balkans," *Levant: The Journal of the Council for British Research in the Levant* 51/2 (2019): 169–183; Shopov, "When Istanbul Was a City of Bostāns: Urban Agriculture and

This book treats nature as a physical agent in the production and transformation of urban space. I show that reading Sofia's history as a history of water can help us go beyond the landlocked civilizational paradigm of earlier research. Yes, Sofia does not have easy access to a large salt-water basin, and its river pales compared to the Danube, the Mississippi, or the Nile in terms of navigability and economic significance. Sofia, however, due to its rich hydrothermal resources, is one of those places where water has long been a central part of urban consciousness. Water holds the keys to understanding the logic of urban form and space and reconstructing the everyday life of the urban community during the Ottoman period. But water was far from being the only environmental actor involved in the making of urban space and place in Ottoman Sofia. In Chapter 3, I frame my discussion of nineteenth-century Sofia around the concept of disaster. Two severe earthquakes in the 1810s and 1850s damaged Sofia's water supply system and transformed the hydrothermal landscape of the plain, leaving few buildings in the city unscathed. And earthquakes were just one of the more extreme ways in which nature exercised its own power in Sofia. In the late nineteenth century, Sofia's proverbial mud would pose serious challenges to the modernization campaign carried out by the post-Ottoman authorities. Hence, while this book's lens is focused on water, it does not ignore the other elements and their contributions to shaping Sofia's history. An environmental perspective on urban history also helps reveal the link between city and countryside, which, as William Cronon showed us in *Nature's Metropolis*, are two sides of the same coin. In Ottoman times, Sofia's immediate rural hinterland provided labor for the maintenance of the city's water supply system in exchange for tax relief for the laborers. When the clay and wood pipes of its water supply needed maintenance, Sofia tapped from a regional economy of natural resource management. *The Nature of the Ottoman City* places Sofia in its widest environmental, social, political, institutional, and economic contexts, tracing how the relationship between nature and culture played out in Sofia and on the Sofia Plain from the late fourteenth until the early twentieth century.

Agriculturists," in *A Companion to Early Modern Istanbul*, ed. Shirine Hamadeh and Çiğdem Kafesçioğlu (Leiden: Brill, 2021), 279–308.

SPACE AND PLACE

The total area of the Sofia Plain is roughly 405 square miles (1,050 km²), with an altitude varying between 1,788 and 2,132 feet (545 and 650 meters) above sea level. A humid continental climate with four seasons and a mean yearly temperature of around 50°F (10°C), a variety of fertile soil types, and rich vegetation make the area highly suitable for cultivation. The plain is almost entirely enclosed by a ring of mountains providing a steady supply of wood and mineral resources. The city is located in the southeastern section of the plain, at the foot of the 7,513-feet tall (2,290-meter) Vitosha Mountain. With nine of its peaks topping 6,560 feet (2,000 meters), Vitosha hosts a variety of climatic zones, providing the optimal natural conditions for exuberant plant and animal life. In terms of its hydrographic characteristics, the Sofia Plain enjoys abundant amounts of water from the Iskar River and its numerous tributaries, natural wet areas such as lakes and marshlands, and a rich store of underground waters. The Iskar, taking its source from Rila (the highest mountain in the Balkan Peninsula, located just south of Vitosha) and flowing north all the way to the Danube, has a humid continental water cycle characterized by high water in late winter or spring caused by snowmelt and rainfall, and a period of low water levels in late summer and fall.[51] The region's distinctive hydrographic feature, however, is the abundance of thermal waters. The entire plain, together with some of the mountainsides surrounding it, represents a hydrothermal basin containing a significant store of all types of underground waters.[52] The temperature of the thermal waters varies between 68°F and 178°F (20°C and 81°C), with equal amounts of hypothermal (68°F–86°F or 20°C–32°C, 44 percent) and hyperthermal (above 98.6°F or 37°C, 42 percent), and a lower amount of isothermal waters (89.6°F–98.6°F or 32°C–37°C, 14 percent).[53] The hydrothermal network of the Sofia Plain has been one of the main factors shaping the structure of the settlement network. The center of the city itself has been designated by a hot thermal spring that, with its hygienic and medicinal qualities, has attracted human settlement for millennia (see Figure I.1).

[51] *Sofiia – 120 godini stolitsa* (Sofia: AI "Prof. Marin Drinov," 2003), 57–59.
[52] *Ibid.*, 65; Pavel Penchev and Velichko Velichkov, *Nahodishtata na mineralni vodi v raiona na Sofiia* (Sofia: Stolichna Obshtina, OP "Turistichesko obsluzhvane," 2011), 1.
[53] *Ibid.*, 1.

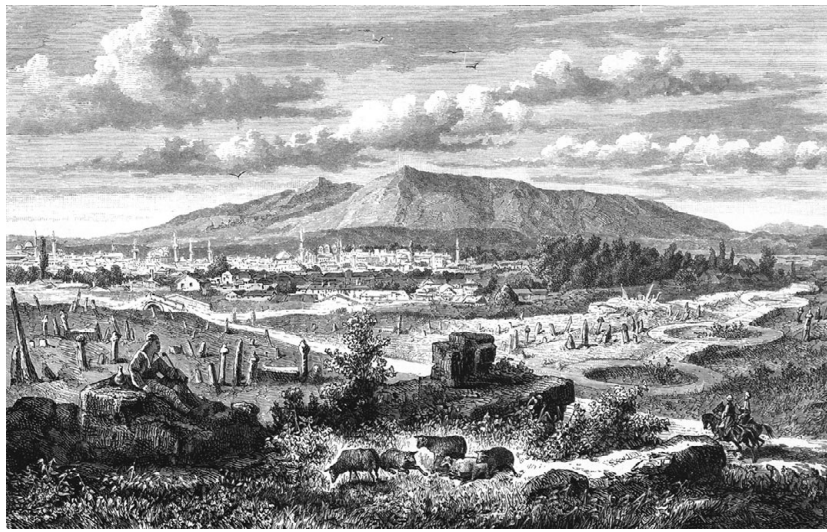

FIGURE 1.1 A nineteenth-century view of Sofia. *Source*: Felix Kanitz, *Donau-Bulgarien und der Balkan. Historisch-Geographisch-Ethnographische Reisestudien aus den Jahren 1860–1879*, Vol. 2 (Leipzig: Gebhardt & Wilisch, 1882), plate between pp. 22 and 23.

More than being merely the geographical and physical setting for human life, the Sofia Plain has played an active role in shaping the cultural identities and spatial perceptions of its inhabitants. In fact, as the authors of a study of place identity have argued, even the subjective sense of self is defined and expressed "not simply by one's relationship to other people, but also by one's relationships to the various physical settings that define and structure day-to-day life."[54] People experience not only the physical context of their habitats, but also the social meanings and beliefs attached to them. In the early modern period, when the boundary between urban and rural in the Sofia Plain was neither clearly defined nor particularly strictly observed, the natural environment was experienced very directly and very intensely. And, as cultural geographer Yi-Fu Tuan has demonstrated, when space feels thoroughly familiar to us, it has become place. According to Tuan, a place "achieves concrete reality when our experience of it is total, that

[54] Harold M. Proshansky, Abbe K. Fabian, and Robert Kaminoff, "Place-Identity: Physical World Socialization of the Self," *Journal of Environmental Psychology* 3 (1983): 57–58.

is, through all the senses as well as with the active and reflective mind."[55] Describing the high level of integration of the wild and human-made zones on the densely populated and well-cultivated Sofia Plain, I argue that by the early modern period the physical space of the plain, an undifferentiated landscape to the foreigner, had become for its inhabitants a familiar world of routes and places with the thermal springs serving both as structural features of that world and as spatial nodes for the culture of water that had evolved around them. The sense of place, however, was much more intense in the city itself. Tuan explains that in an urban setting the sense of place is based on a number of factors including architectural distinction, rich cultural memory, public rites and notable events.[56] Through these features, the unmistakable character of the city is concretized in the eyes of its inhabitants. In Ottoman Sofia, the thermal spring and the public baths were the most distinguishable environmental, architectural, and cultural characteristics around which the urban folk elaborated its place consciousness.

For Tuan, place is an organized world of meaning, and as such it is essentially a static concept. If we see the world as a process, that is, admit that it is constantly changing, we should not be able to develop any sense of place.[57] My proposition, however, and I align with Robert Rotenberg[58] on this point, is that we do not isolate a single moment and privilege it as truer than other moments. Only through comparisons across historical eras can we understand and appreciate the Ottoman contribution to urban development and the right place of the Ottoman period in the history of Sofia and in the formation and evolution of built fabric, urban culture, and local character. The construction of the Ottoman baths in Sofia's historic heart was a statement of the Ottomanization of urban space, but it was also an acknowledgment of the strong urbanistic role that the thermal spring had been playing since long before the Ottoman conquest. The choice of *Banyabaşı* as the setting for the elaboration and expression of the national architectural idiom by the Bulgarian state in the 1910s was

[55] Yi-Fu Tuan, *Space and Place: The Perspective of Experience* (Minneapolis, MN: The University of Minnesota Press, 1977), 18.
[56] *Ibid.*, 171–172. [57] *Ibid.*, 179.
[58] Robert Rotenberg and Gary McDonogh, eds., *The Cultural Meaning of Urban Space* (Westport, CN: Bergin & Garvey, 1993), xiv.

informed by a similar understanding of the significance of the thermal spring in the making of place. That is why this book is set in a longue durée framework, studying urban space and place in the process of their production and transformation over the course of five and a half centuries, and highlighting the continuities and commonalities between the Ottoman and post-Ottoman approaches to the management of Sofia's natural resources and water facilities.