

Transportation and Communication Networks in Late Ottoman Salonica:

1800-1912

by
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ABSTRACT

This thesis argues that the development of new transportation and communication networks in and around the Ottoman city of Salonica was largely responsible for its remarkable growth in the late nineteenth and early twentieth-century. The success of these new networks of steamships, telegraphs and railways, hinged upon their ability to overcome the geographical limitations of the region which, as in any pre-industrial society, had made the movement of people and goods both glacially slow and thus costly since time immemorial. The development of these new networks had many serious effects: it served to bring Salonica and the Empire under greater influence of the European powers, deeply link it to the emerging international economy and all but destroy traditional networks such as caravans and sailing vessels. Salonica was a central part of the late Ottoman story for a variety of reasons, and thus, attempting to understand its development provides us with a way to understand the late Ottoman story as a whole.

RÉSUMÉ

L'argument principal présenté dans cette thèse est que le développement des nouveaux réseaux de transport et de communication à l'intérieur de la ville ottomane de Salonique, ainsi que dans ses environs, est grandement responsable de la croissance remarquable que connût cette ville à l'aube et au tournant du vingtième siècle. Le succès de ces réseaux de bateaux à vapeur, de télégraphes et de trains, tient à leur habileté à surpasser les limites traditionnellement imposées par la géographie de la région, qui, comme dans toutes sociétés préindustrielles, rendaient les déplacements d'individus et de marchandises excessivement lents et coûteux. Le développement de ces réseaux eut plusieurs effets notables: il permit aux puissances européennes d'exercer une plus grande influence sur Salonique et l'empire, il lia la ville à l'économie internationale naissante, tout en menant à la quasi-destruction des réseaux traditionnels de caravanes et de voiliers. Pour plusieurs raisons, Salonique est une région centrale à l'histoire ottomane de la période tardive. Par conséquent, comprendre son développement nous fournit une perspective pour comprendre la période tardive d'une manière plus globale.

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Note on Place Names

For the sake of clarity and simplicity, modern place names are used in this thesis. Thus, Üsküb becomes Skopje and Konstantiniyye becomes Istanbul. Furthermore, well established English names are also used. Thus, Salonica is used instead of Thessaloniki, Salonika or Selânik.¹

¹ This is consistent with established practices in the field of Ottoman history. See: Donald Quataert. The Ottoman Empire 1700-1922. (New York: Cambridge University Press, 2005): xiv-xv.

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Transportation and Communication Networks in Late Ottoman Salonica: 1800-1912

In 1961, Bernard Lewis formulated his theory of the “decline” of the Ottoman Empire.² Until recently, this teleological, Orientalist narrative provided the dominant conceptual framework for historical work on the latter half of the Ottoman Empire. Borrowing from a tradition that began with Edward Gibbon, the “decline” narrative constituted accepted wisdom. In recent years, as Donald Quataert has argued, Ottoman scholars have challenged and modified this conventional interpretation of late Ottoman history.³ The more nuanced and historically sensitive view argues that the late Ottoman period was, rather, one of constant growth and transformation.

It is in this new and sophisticated framework that this study of the transportation and communication networks in late Ottoman Salonica is situated. This research contributes to our understanding of the reorganization taking place in the late Ottoman Empire.

The nineteenth century is well-known as a period of great change and transformation in world history. Tremendous growth in food production, scientific research, technological innovation and a resultant stimulation of population

² Bernard Lewis. The Emergence of Modern Turkey. (New York: Oxford University Press, 1961).

³ Donald Quataert. “Ottoman History Writing and Changing Attitudes Towards the Notion of “Decline” History Compass 1, (2003): http://www.blackwellcompass.com/subject/history/article_view?article_id=hico_articles_bsl038. Accessed: 2 February 2006.

brought humans into a new era of living that many have labeled as the “modern era.” According to its most prominent analyst, Max Weber, the intrinsic features of this era included the rise of capitalism, the reorganization of life through legal, economic and political regulation, and a new dominance of “reason” over faith.⁴

The city of Salonica, located within north-western part of the Ottoman Empire, was no exception. It underwent massive transformations during the late nineteenth century. In the early 1800s, Salonica was an important regional outpost of the Ottoman Empire, with a population of approximately 30 000. It closely resembled other medium sized cities in the empire.⁵ However, by 1912, when Ottoman rule ended in Salonica, the city was amongst the five most developed and important cities within the entire Empire.⁶ Its population had swollen to over 150 000.⁷ By the turn of the twentieth century, Salonica possessed large flour and cotton mills and cigarette factories,⁸ its streets were lit by gas powered street lamps and running water flowed to houses in pipes beneath its paved roads.⁹ In addition, it contained military and police academies and even a school of law,¹⁰ and over seven different newspapers in four different languages were in print. Branches of a number of Western European and Ottoman banks operated in the city and its labour unions were recognized by the 2nd Communist International.¹¹

⁴ Max Weber in Mark Harrison. Disease and the Modern World: 1500 to the Present. (Cambridge: Polity Press, 2004): 1.

⁵ Mark Mazower. Salonica: City of Ghosts: Christians, Muslims and Jews, 1430-1950. (New York: Alfred A. Knopf, 2005.): 208.

⁶ The others were Istanbul, Izmir, Beirut, and Alexandria.

⁷ In 1912 Salonica was captured by the Kingdom of Greece, ending 482 years of Ottoman rule. See: Ibid: 275-285.

⁸ Basil Gounaris. “Salonica” Review (Fernand Braudel Center) 16,4 (1993): 506.

⁹ Mark Mazower. Salonica: City of Ghosts: Christians, Muslims and Jews, 1430-1950: 227-230.

¹⁰ Basil Gounaris. “Salonica” Review: 513.

¹¹ Mark Mazower. Salonica: City of Ghosts: Christians, Muslims and Jews, 1430-1950: 203.

It was also the destination of many European visitors, eager to experience “the East” without having to venture too far into “unknown” lands. Finally, it was the birthplace of the Young Turk movement which overthrew the Sultan in 1909 and of the future founder of modern Turkey, Mustafa Kemal Atatürk. It is thus evident that Salonica underwent a period of significant development and transformation in the nineteenth century. It was forever changed into a cosmopolitan social, political and economic powerhouse of the southern Balkans and the Ottoman Empire.

What was the cause of this enormous growth? Upon speculation, the industrial revolution surfaces as an obvious catalyst for change during this period. Surely, it had a significant role to play, along with a corresponding increase in the city’s trade and involvement in the world economy.¹² However, “modernization” is too vague as an explanation for its rapid and massive development: as not every city that was involved in the global economy or experienced industrial development flourished like Salonica.

This paper argues that the selection of Salonica as a major hub for new sea and land-based transportation and communication networks was responsible for its growth. These new networks facilitated the trade and commerce within the city, providing the most significant impetus for development in the nineteenth century.¹³ The success of these new transportation and communication networks, which included steamships, telegraph and railways, hinged upon their ability to

¹² For example, Salonica’s imports increased over four-fold from 1870-1910. See: Basil Gounaris. Steam Over Macedonia, 1870-1912: Socio-Economic Change and the Railway Factor. (New York: Columbia University Press, 1993): 185.

¹³ There is no mono-causal reason to explain Salonica’s growth in the nineteenth century but this paper will only focus on this one factor as it is believed to be the most decisive.

overcome the geographical limitations of the region which, as in any pre-industrial society, had made the movement of people and goods both glacially slow and thus costly since time immemorial.

This process was, however, not without many unexpected and important consequences. For example, these new networks altered traditional land and sea-based networks and brought the Ottoman Empire under increasing financial, technological and material reliance on foreign powers. An examination of the development of land and sea-based communication and transportation networks around Salonica demonstrates how they were the root source of the city's growth in the late nineteenth century.

The first chapter of this paper outlines the geographical setting of Salonica and its main land-based networks in the early nineteenth century. Chapter two does the same for sea-based networks. Both of these chapters demonstrate Salonica's long standing position as a break-in-transport point (or hub) between extensive land- and sea-based networks and thus, its long history as an important trading centre. Chapter three discusses the factors that influenced the development of new transportation and communication networks in and around Salonica, and details the development of new sea-based networks. Chapter four traces the development of new land-based networks. These last two chapters highlight the effects of these new networks including their impact on traditional networks in and around Salonica and the increasing reliance on foreign financing, technology and materials for their functioning. Both of these chapters argue that the increased trade brought by these new transportation and communication networks lies at the

heart of Salonica's late nineteenth-century growth. It is not merely a coincidence that Salonica's boom occurs at the same time that traditional means of transport were superseded by rail, telegraph, and steamships.

Literature Review

The existing historiography surrounding late Ottoman Salonica has largely neglected the role of communications and transportation networks in its explosive nineteenth-century development. Furthermore, the studies that have discussed the traditional or "modern" networks have failed to demonstrate the requisite sensitivity to the role of geography played in shaping their make up. While numerous studies exist on the growing reliance of the Ottoman Empire on foreign capital for construction of the new steamships, telegraphs and railways, little exists on the associated reliance on foreign technological know-how and building materials. Although a lengthy examination of all previous studies is not possible, given the scope of this paper, this literature review examines the most relevant and significant previous works on nineteenth and early twentieth-century Salonica. It is evident that these studies have left some important gaps in the historiography which need to be filled.

The domination of nationalism in popular discourse throughout the twentieth century infiltrated popular historiography on the Balkan Peninsula, resulting in numerous works that focused on the growth of "nations" and their struggles for independence. Indeed, the numerous nationalist and nationalist-

influenced insurgencies and wars fought throughout the nineteenth and twentieth centuries on the Balkan Peninsula virtually guaranteed that nationalism was the focus of most works on the Balkan Peninsula. Furthermore, with the dissolution of Yugoslavia in the late twentieth century and the ensuing wars of succession, studies appeared that assigned the “roots” of the current problems to the nineteenth century.¹⁴

Among the most reputable works which discuss the rise of nationalist movements in the Balkans are Barbara Jelavich’s well known work, History of the Balkans (Volume 1): Eighteenth and Nineteenth Centuries, and Misha Glenny’s equally prominent The Balkans: 1804-1999: Nationalism, War and the Great Powers.¹⁵ Both of these works focus on the emerging political movements, the development of new states and involvement of the European powers. Discussion of the economic development of Balkan Peninsula in these works is thus limited and brief. Salonica is discussed in reference to its multi-national character and the role of its industrialization in furthering national cleavages. Neither author mentions the tremendous impact of new transportation and communication networks, such as the railroad, in their discussions of Salonica.¹⁶ Furthermore, in focusing on the perilous state of Ottoman control of parts of the Balkan Peninsula and ignoring areas which experienced remarkable economic development, these authors are implicitly reflecting the now defunct notion of

¹⁴ For example see: Robert D. Kaplan. Balkan Ghosts: A Journey Through History. (New York, Picador, 2005). For a detailed study on historiography of the Balkan Peninsula in the Ottoman period see: Fikret Adanır and Suraiya Faroqhi (eds.) The Ottomans and the Balkans: A Discussion of Historiography (The Ottoman Empire and its Heritage) (Leiden: Brill, 2004.)

¹⁵ Barbara Jelavich. History of the Balkans: Volume 1: Eighteenth and Nineteenth Centuries. (New York: Cambridge University Press, 1983); Misha Glenny. The Balkans 1804-1999, Nationalism, War and the Great Powers. (London: Granata Books, 2000).

¹⁶ On the development of Salonica see Ibid (Jelavich): 97; Ibid (Glenny): 179-185.

Ottoman “decline.”¹⁷ Thus, while works such as these have greatly advanced our understanding of the development of the states of the Balkan Peninsula, they have unfairly cast a shadow on the economic growth of the region (including Salonica), helping to explain why so little attention has been paid to these important developments.

Nicholas Svoronos’ Le commerce de Salonique au XVIIe siècle represents one of the few works from the mid-twentieth century that focus specifically on Salonica’s economic history in the late Ottoman period.¹⁸ Based largely on French consular reports from Salonica, Svoronos’ study is rich in quantitative evidence about the trade between Salonica and the European powers in the eighteenth century. Since its publication in 1948, this study remains as a credible source regarding eighteenth century Salonica.¹⁹ However, Svoronos’ study lacks the requisite sensitivity to the role of geography in shaping this trade. In chapter one, Svoronos details what he calls the “conditions of commerce” in and around Salonica. While covering a number of financial factors, the role of wars, pirates and the plague, he fails to address the glaring importance of Salonica’s favourable geographical position, or the difficulties involved in seafaring in the Mediterranean.²⁰ Despite this omission and the lack of Ottoman sources, he does,

¹⁷ Donald Quataert. “Ottoman History Writing and Changing Attitudes Towards the Notion of “Decline” History Compass

¹⁸ Nicholas Svoronos. Le Commerce de Salonique au XVIIIe siècle. (Paris: Presses Universitaires de France, 1956).

¹⁹ Svoronos’ study remains one of the core sources on foreign trade in the Ottoman Empire in eighteenth century. For example, Elena Frangakis-Syrett.’s recent study on Izmir relies heavily on Svoronos. See: “Izmir and the Ottoman Maritime World of the Eighteenth Century” Oriente Moderno. 20 (2001): 109-128.

²⁰ On page 125, beginning his section on pirates, Svoronos declares “*Les pirates etaient un danger perpetuel pour le commerce en Mediteranne*” but fails to explain why! Surely a discussion of the region’s geography would help to explain this situation to the reader.

however, manage to provide a good picture of Salonica's trade with major European powers in the eighteenth century. However, his omission of the role of geography signifies that his analysis of Salonica's involvement in Mediterranean trade is somewhat incomplete and thus leaves the door open for further research.

Over the last three decades, the study of the economic history of the Balkan Peninsula under Ottoman rule has finally come out of the shadows and been given its time in the spotlight. Backed largely by Ottoman documents and a sophisticated framework of economic development, the field of Ottoman economic history has greatly advanced and deepened our understanding of the massive changes wrought upon the territories of the Empire between the eighteenth and the twentieth centuries.²¹ Influenced to a great deal by the work of Immanuel Wallerstein,²² this field broke new ground in its treatment of the late Ottoman Empire as a part of the emerging global capitalist system and no longer as an isolated unit.²³ Ottoman economic change is thus seen as a result of both internal and external pressures.²⁴ Donald Quataert is one of many scholars at the forefront of this new wave of Ottoman history, including his work, "Part IV: The

²¹ For example see: Charles Issawi. The Economic History of Turkey 1800-1914. (Chicago: Chicago University Press, 1980); Vedat Eldem. Osmanlı İmparatorluğu'nun İktisadi Şartları Hakkında bir Tetkik. (Ankara: Türk Tarih Kurumu Basımevi, 1994); Şevket Pamuk., The Ottoman Empire and European Capitalism 1820- 1913. (New York: Cambridge University Press, 1987). Michael Palariet, R. The Balkan Economies c.1800-1914: Evolution Without Development. (New York: Cambridge, 1997); Roger Owen. The Middle East in the World-Economy 1800-1914. (New York: Methuen, 1981).

²² Immanuel Wallerstein. The Modern World-System. 3 vols. (New York: Academic Press, 1974).

²³ Huri İslamoğlu-İnan and Çağlar Keyder "Agenda for Ottoman History" in The Ottoman Empire and the World Economy. ed. Huri İslamoğlu-İnan. (Cambridge: Cambridge University Press, 1987): 42-62.

²⁴ In the older historiography, the performance of the Ottoman economy was based largely on internal factors such as the poor decisions of the Sultan. See Huri İslamoğlu-İnan. "Introduction: 'Oriental Despotism' in the World-System Perspective." in The Ottoman Empire and the World Economy: 1-24.

Age of Reforms 1812-1914,” featured in An Economic and Social History of the Ottoman Empire and his introductory text The Ottoman Empire 1700-1922.²⁵

Throughout these works, Quataert demonstrates a profound comprehension of the massive changes to Ottoman transportation and communication networks during the nineteenth century, their effects on the structure of the Ottoman Empire and their importance in facilitating global trade. Quataert and his fellow scholars are leading the way for new research on economic change in the late Ottoman Empire. While no comprehensive studies on late Ottoman Salonica in this field have emerged, many often briefly discuss the city. Their conclusions about other cities in the empire undergoing similar processes can also be used to help to explain the changes taking place at Salonica.

Basil Gounaris is one of the few scholars who have focused their research on the development of Salonica’s transportation and communication networks. Most notable of his works are “Salonica” in Review and his published PhD. thesis, Steam Over Macedonia, 1870-1912: Socio-Economic Change and the Railway Factor²⁶ In these works, Gounaris shows that the development of new transportation and communication networks was a complicated process. For example, Gounaris shows a keen understanding of the interconnectedness of each element of the transportation system when he discusses how the introduction of steamships around Salonica created the need to enlarge the port. While his work

²⁵ Inalcık, Halil, and Donald Quataert. (eds.) An Economic and Social History of the Ottoman Empire, 1300-1914. 2 vols. (Cambridge; New York: Cambridge University Press, 1994); Donald Quataert. The Ottoman Empire 1700-1922. (New York: Cambridge University Press, 2005). See also: Donald Quataert. Social Disintegration and Popular Resistance in the Ottoman Empire 1881-1908. (New York: New York University Press, 1983).

²⁶ Basil Gounaris. “Salonica” Review (Fernand Braudel Center) 16,4 (1993):499-518; Basil Gounaris. Steam Over Macedonia, 1870-1912: Socio-Economic Change and the Railway Factor. (New York: Columbia University Press, 1993).

has greatly advanced current understanding of the development of new transportation and communication networks, it also evinces a number of inadequacies that need to be addressed.

Gounaris' discussion of traditional forms of transportation and communication networks is extremely small: it runs to only three pages.²⁷ Furthermore, little attention is paid to the influence of geography on both traditional and new "modern" networks. However, these omissions are relatively trivial when compared to the lack of primary Ottoman sources and the limited use of secondary studies based on Ottoman sources.²⁸ This problem is at its worst when his findings sharply contrast with established works in Ottoman economic history (see chapter 4 below). Thus, while Gounaris has pioneered the study of the importance of transportation and communication networks in Salonica's economic development, in light of the above mentioned omissions, more work needs to be done.

In recent years, two works on the cultural and social history of late Ottoman Salonica have appeared and have played a major role in advancing our understanding of contemporary daily life in the city. Both Mark Mazower's Salonica, City of Ghosts: Christians, Muslims and Jews 1430-1950 and Meropi Anastassidou's Salonique, 1830-1912: une ville ottomane a l'age des Réformes attempt to create a picture of daily life in Ottoman Salonica.²⁹ Both present

²⁷ Basil Gounaris. Steam Over Macedonia, 1870-1912: Socio-Economic Change and the Railway Factor: 24-26.

²⁸ Gounaris' works are based largely on British and Greek documents.

²⁹ Mark Mazower. Salonica: City of Ghosts: Christians, Muslims and Jews, 1430-1950. (New York: Alfred A. Knopf, 2005) and Meropi Anastassidou. Salonique, 1830-1912: Une Ville Ottomane a L'age Des Réformes. (New York: Brill, 1997).

Salonica as a vibrant, cosmopolitan city at the crossroads of the Christian, Muslim and Jewish worlds. Both authors argue that massive changes occurred in the city during the nineteenth-century and were a result of its deepening contact with Western capitalism.³⁰ Detailed and comprehensive analyses of transportation and communication networks are neglected in these works, because the authors elect to focus upon the social and cultural aspects of its development. Thus, while providing a great view of change within Salonica, they do not attempt to explain and detail the roots of this change.

This brief overview of the historiography of late Ottoman Salonica demonstrates this study's unique approach to the dramatic growth of the city. While studies on nineteenth-century Salonica exist, none have attempted to explain the root causes of its growth through analysis of the development of new transportation and communication networks. This study addresses this omission and, moreover, traces the important role of geography in shaping both traditional and modern networks. Unlike other discussions of the development of transportation and communication networks in the late Ottoman Empire, this study discusses many forms of dependence on foreign powers. This study contributes to our knowledge on late Ottoman Salonica by filling these omissions in the current historiography.

Despite the efforts of scholars in the last thirty years, much work remains to be done on the history of the Ottoman Empire. This study is by no means comprehensive. However, it aims to broaden the horizons of the field of nineteenth-century Ottoman history and moreover, to provide some avenues for

³⁰ Ibid. (Mazower): 11; Ibid. (Anastassidou): 5.

future research. Salonica was a central part of the late Ottoman story for a variety of reasons, and thus, attempting to understand its development provides us with a way to understand the late Ottoman story as a whole.

Chapter 1: Traditional Forms of Land-Based Transportation and Communication

In the first half of the nineteenth century, land-based transportation and communication networks in and around Salonica appeared much as they had centuries before: animal and manpower served as the basis for the movement of

goods and people.³¹ Owing to the geography of the surrounding region, Salonica was naturally positioned to be the regional hub of a large system of land-based networks. However, this same geography underlay the factors determining the flow of traffic and contributed to the slow pace of the movement of and goods and people. As in any pre-industrial society or other part of the Ottoman Empire, land-based travel was restricted by the environment, which was unpredictable, dangerous, slow and thus, costly. This chapter will discuss the multitude of factors that coalesced to produce this situation.

Following French historian and author of The Mediterranean and the Mediterranean World in the Age of Phillip II, Fernand Braudel, for whom geography and climate both play a fundamental role in shaping human activity,³² it is here argued that, in order to better understand the relationship between Salonica and the transportation and communications networks that operated in and around it, it is imperative to examine the underlying factors that shaped their development.

The city of Salonica lies on the southern coast of the Balkan Peninsula, Europe's largest and eastern-most peninsula. The Balkan Peninsula is bordered on the East by the Black Sea, on the South by the Aegean Sea (a part of the Mediterranean Sea), and on the West by the Adriatic Sea (also part of the Mediterranean Sea). This region, also known as South-Eastern Europe, is chiefly characterized by large, dramatic crisscrossing mountain ranges including the

³¹ This is not to say that land-based transportation and communication remained static until the mid-nineteenth century. However, in comparison to the new technologies of the mid-nineteenth century, the earlier forms change very little.

³² See introduction in: Fernand Braudel. The Mediterranean and the Mediterranean World in the Age of Phillip II. trans. Sian Reynolds. (Los Angeles, University of California Press, 1995).

Pindus, Rhodope and Dinaric Alps. Indeed, almost 70 percent of the entire peninsula is covered by mountains.³³ The Dinaric Alps is the most significant of these ranges. This range is of massive stature, that all but blocks coastal penetration as it runs down the Western side of the peninsula. Due to its mountainous nature, large, steep ravines and isolated plateaus exist throughout the peninsula.

In the North, the Balkan Peninsula is crossed by the Danube River, its sole inland waterway. The river begins in Central Europe and flows south-east across the northern portion of the Peninsula to the Black Sea. The river runs through the middle of a large plain that comprises some of the most fertile land on the peninsula.³⁴ At its south-eastern extremity, the peninsula all but touches Asia Minor, creating a bottleneck between the Black and the Mediterranean Seas, where Istanbul is located. This link to Asia Minor is crucial to the geographical importance of the Balkan Peninsula: it forms a land bridge between Europe and Asia. To the south-west, the peninsula continues deep into the Mediterranean. Its southern-most section is known as the Greek Peloponnesus. While most of the peninsula has a typically “continental” climate, with warm, humid summers and freezing winters, its southern portions, including the Mediterranean littoral and Greek Peloponnesus have a hot and dry, subtropical or “Mediterranean” climate.³⁵

³³ Dennis P. Hupchick. The Palgrave Concise Historical Atlas of the Balkans. (New York: Palgrave, 2001.): Map 1.

³⁴ Ibid.

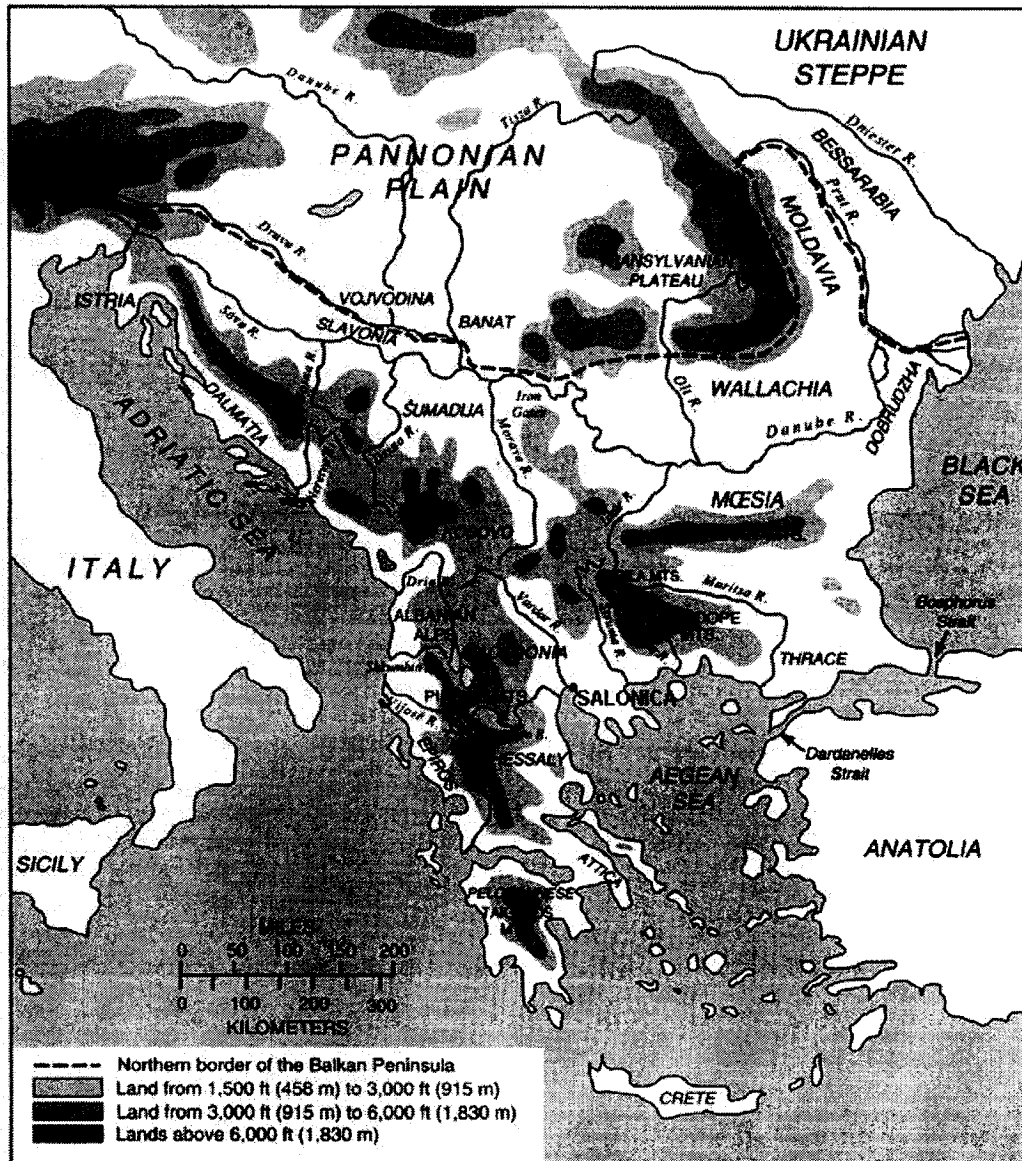
³⁵ J.R. Staats, and G.E. Harding. Elements of World Geography. (New York: Van Nostrand, 1951.): 156-73; Allan G. Ogilvie. “A Contribution to the Geography of Macedonia” The Geographical Journal 55, 1 (1920): 8

Salonica occupies a central position on the southern coast of the main body of the Balkan Peninsula, at the edge of the Mediterranean Sea. To the immediate East and South-East lies a small mountainous peninsula known as Chalcadice which resembles a three fingered-paw that reaches roughly 65 kilometres into the Mediterranean. Salonica's hinterland is Macedonia, which surrounds the city to the West, North and East for roughly 100 kilometres.³⁶ Salonica and its hinterland are unique in that they straddle both the mountainous and littoral zones and thus experience both continental and Mediterranean climatic influences.³⁷ Indeed, one early twentieth-century commentator has noted that, "whereas the British Empire must stretch from Canada to India in order to exert Dominion over Palm and Pine, the Sultan of Turkey includes both in Macedonia."³⁸

³⁶ The geographical definition of Macedonia is mired in controversy. For a full discussion see: Basil Gounaris. Steam Over Macedonia: ix-x.

³⁷ Ibid; Anonymous. Geographical Review. "The Natural Regions of the Balkan Peninsula (After Cvijic)" Geographical Review, 9, 3. (1920):204.

³⁸ Noel Buxton. "Balkan Geography and Balkan Railways." The Geographical Journal: 224.



Map 1: Topographical map of the Balkan Peninsula. Adapted from Dennis P. Hupchick. *The Palgrave Concise Historical Atlas of the Balkans*. (New York: Palgrave, 2001.): Map 1.

There are three main components to the physical make-up of Macedonia: mountains, isolated plateaus and alluvial plains.³⁹ All of these elements are intersected by rivers, including the Struma, Aliakmon and Vardar (Axios). These

³⁹ Allan G. Ogilvie. "A Contribution to the Geography of Macedonia" *The Geographical Journal*: 4

main rivers descend from the mountains to form alluvial plains before reaching the Mediterranean Sea. The Struma River is located in Eastern Macedonia and flows past the major city of Serres. The Aliakom flows along to the south-western border of Macedonia, running east to the Vardar plain and then into the Mediterranean Sea. To its north-west lie the cities of Florina and Bitola (Monastir). Salonica sits on the eastern extreme of the Vardar plain: a large alluvial plain in central Macedonia, crossed by the Vardar River.⁴⁰ Much like the Nile Valley in Egypt, these lands are somewhat marshy, extremely fertile, and always under cultivation. Annual flooding deposits a wealth of minerals and nutrients from the mountaintops onto the plain⁴¹ which produces some of the most important crops in the region, including figs, almonds, grapes, olives, poppy (for opium), tobacco, sesame and rice.⁴² Due to the river's high silt content, the mouth of the Vardar River is a large delta that is continuously expanding into the Mediterranean Sea. In the dry months (March to October) the volume of water carried by Macedonia's rivers and streams is sharply reduced and some water courses even dry up.⁴³

The large plateaus found in the mountainous interior of Macedonia, which are comprised of dried-up prehistoric lake beds or alluvial plains,⁴⁴ possess rich

⁴⁰ Michelin Staff. Michelin Greece [map] (Michelin Travel Publications, 2004); Allan G. Ogilvie. "A Contribution to the Geography of Macedonia" The Geographical Journal: 36-37.

⁴¹ Allan G. Ogilvie. "Physiography and Settlements in Southern Macedonia" Geographical Review 11, 2 (1921): 179, 186.

⁴² Marion I. Newbiggin. Southern Europe: A Regional and Economic Geography of the Mediterranean Lands. (New York: Dutton, 1949): 366.

⁴³ Division, England Admiralty. Naval Staff. - Naval Intelligence. A Handbook of Macedonia and Surrounding Territories, Etc. (London, 1920): 13; Allan G. Ogilvie. "A Contribution to the Geography of Macedonia" The Geographical Journal: 9.

⁴⁴ Ibid: 4; R. Kay Gresswell. Physical Geography (London: Longmans, 1967.): 164-165.

chromium, antimony, manganese, copper, zinc, lead and coal deposits.⁴⁵ The region is characterized by pastoralism and animal husbandry and produces much wool.⁴⁶ Like the alluvial plains which reach the Mediterranean coast, these high plateaus possess highly fertile soils. In the dry summer months, much of the surface of these plains becomes hard-packed, which in turn facilitates human and animal traffic. However, in winter months, when the waters are high and rain is frequent, the rivers swell and the marshy zones expand, making movement all but impossible.⁴⁷ During the nineteenth century, malaria was endemic to these marshy areas of Macedonia, making it even more perilous to human and animal settlement and traffic.⁴⁸

Outside the plateaus, the mountainous zones of Macedonia present major hindrances to transportation and communication. Steep, sharp rocks are commonplace, covered in low-lying brush to about 1900 metres in altitude, and above that by thick forest cover.⁴⁹ Furthermore, Macedonia is uniquely disadvantaged in that it has no large navigable rivers. While the Danube is accommodating to human travel, it is situated too far north to have any significant impact on transportation and communication networks in and around Salonica.

Macedonian rivers are generally unsuitable for transport. In the mountains they usually flow too fast, are often shallow and rock-strewn and are constantly

⁴⁵ Meropi Anastasiadou. Salonique, 1830-1912: Une Ville Ottomane a L'age Des Réformes: 103.

⁴⁶ Ibid: 102 ; Allan G. Ogilvie. "Physiography and Settlements in Southern Macedonia" Geographical Review 11, 2 (1921): 203.

⁴⁷ Division, England Admiralty. Naval Staff. - Naval Intelligence. A Handbook of Macedonia and Surrounding Territories, Etc.: 13.

⁴⁸ Marion I. Newbigin. Southern Europe: A Regional and Economic Geography of the Mediterranean Lands: 366; Division, England Admiralty. Naval Staff. - Naval Intelligence. A Handbook of Macedonia and Surrounding Territories, Etc.: 65.

⁴⁹ Ibid: 10.

interrupted by rapids and falls. On the plains, their flow becomes sluggish, and they tend to meander.⁵⁰ Where this happens, the banks and beds are often muddy from silt deposits making fording them difficult and treacherous. Also, periodically heavy rainfall can cause flash flooding which significantly enhances the dangers of navigation.⁵¹

Not surprisingly, transportation and communication in the Macedonian interior is dependent upon overland transport. Here too, rugged and mountainous terrain has shaped the roads which permit human movement in the region. People were thus, “prisoners of a limited amount of choices” of possible routes, thanks to this intraversable terrain, including deep rivers, steep mountains and large marshes.⁵² Indeed, the same roads have been in use in Macedonia for millennia. As these roads have changed little throughout the ages, it is possible to discern from limited sources, dating from a later period, the structure of transportation routes of the past.⁵³

As most mountain passes in Macedonia are filled with rivers or streams, roads are generally located above the water on the steep slopes of the mountains.⁵⁴ Thus, mountain roads are narrow and dangerous, permitting the movement of only one person or animal at a time in either direction.⁵⁵ In some of the mountain

⁵⁰ Division, England Admiralty. Naval Staff. - Naval Intelligence. A Handbook of Macedonia and Surrounding Territories, Etc: 13-14.

⁵¹ Ibid.

⁵² Ibid; Division, England Admiralty. Naval Staff. - Naval Intelligence. A Handbook of Macedonia and Surrounding Territories, Etc: 10.

⁵³ This section relies heavily upon a British source from 1916. (Division, England Admiralty. Naval Staff. - Naval Intelligence. A Handbook of Macedonia and Surrounding Territories, Etc). As these roads have changed little over time it is possible to presume that the roads of 1916 as described in this source, appeared much as they did in the early nineteenth century.

⁵⁴ Ibid: 15.

⁵⁵ Ibid: 15-16.

passes, the rivers dry up in the summer months, allowing the use of the river beds as seasonal roads or passageways. The power of the mountains to determine the shape and form of the roads in turn creates strategic points where two or more roads meet.

Salonica is situated at precisely such a juncture, at the crossroads of two major natural corridors that cut through the Macedonian mountains: a major East-West route linking the Adriatic Sea to Istanbul and a major North-South route that links Salonica to Belgrade, Vienna and beyond. It was this strategic geographic position which ensured that Salonica was an important military, trade and administration centre for the Hellenistic Greeks, Romans, Byzantines and Ottomans alike.

Three major routes emanate from Salonica. In the 2nd century B.C.E, the Romans constructed a military road across the southern Balkan Peninsula in order to link Rome with the burgeoning city of Byzantium (later renamed Istanbul). By cutting through mountain passes and reshaping otherwise impassable stretches of land, the Romans created a road so useful that it was largely still in use two thousand years later by Ottoman subjects.⁵⁶ Salonica's central position on this old road and its role as the only port between the Adriatic coast and Istanbul made it a crucial transportation and communication hub for the entire region.

The main route west of Salonica passed through the western Macedonian plateau city of Bitola and ended in the Albanian port of Durazzo on the Adriatic

⁵⁶Dennis P. Hupchick. The Balkans: From Constantinople to Communism. (New York: Palgrave, 2002): 22.

Sea.⁵⁷ The main route east of Salonica ran through the eastern Macedonian cities of Serres and Drama and afterwards cut across the Thracian plains to link up with the road network that connected the central Balkan Peninsula to Istanbul.⁵⁸

Salonica was also the southern terminus of a major North-South corridor which permitted access deep into the interior of the peninsula and thus to the major routes running to Western Europe.⁵⁹ The Vardar river valley provides a natural guideline for this road to the northern Macedonian town of Skopje (Üsküb).⁶⁰ A road linked Skopje to Kumanovo where it continued on to Belgrade, Vienna and Berlin.⁶¹ Salonica's location on these three major routes lies at the heart of its economic and strategic importance in Balkan Peninsula and the Ottoman Empire. Without a support network to help travellers on the way, however, the movement of people and goods on these roads would not have been possible.

Roads around Salonica were long and often treacherous. The small, rocky paths, rose and descended through steep mountainous terrain, presenting people and animals alike with the threats of exhaustion and potentially deadly falls. Furthermore, the length of these roads prohibited their passage in a single day. Thus, in order to facilitate long and difficult journeys, a support network was

⁵⁷ Ibid: 23.

⁵⁸ Ibid: 284.

⁵⁹ Marion I. Newbiggin. Southern Europe: A Regional and Economic Geography of the Mediterranean Lands: 365; Margaret R. Shackleton. Europe: A Regional Geography. (London: Longmans, 1958): 447.

⁶⁰ Division, England Admiralty. Naval Staff. - Naval Intelligence. A Handbook of Macedonia and Surrounding Territories, Etc: 240-245.

⁶¹ Ibid: 245.

eventually developed to ensure successful voyages.⁶² In Ottoman lands, temporary shelters or hotels existed every 30 kilometres, roughly equivalent to the average distance that could be covered in one day on animal-back.⁶³ Cities or important cross-roads ideally had a *han* (also known as *caravanserai*, *kervanseray*, *bedestan*, or *menzil*): a place where travellers could eat, sleep and be protected while breaking for rest and rejuvenation.⁶⁴ Ottoman *hans* were square in shape, with sleeping quarters on the outside walls. Typically, travellers could safely stow their belongings and animals in the courtyard stables of these *hans*.⁶⁵ Alternatively, *hans* sometimes had windows in the dormitory spaces, permitting travellers to keep watch over their animals or goods left outside. These buildings were largely either state-funded initiatives or the endowments of pious foundations (*vakıf*). They existed in all the important cities of Macedonia including Bitola, Serres and Salonica.⁶⁶

In many cases, the *hans* pre-dated the towns which later formed around them. Uzunköprü, a town on the Thracian plains on the road to Istanbul provides a good example of this. In the fifteenth century, the Ottoman government built a large stone bridge over the Ergene River near Edirne to speed up transportation (and thus commerce) in the region.⁶⁷ At one end of the bridge, a *han* and a

⁶² Basil Gounaris. Steam Over Macedonia, 1870-1912: Socio-Economic Change and the Railway Factor: 25-26; Indeed this is common throughout the pre-industrial world, see: Fernand Braudel. Civilization & Capitalism 15th-18th Century: Volume 1: The Structures of Everyday Life: 416-418.

⁶³ "MANZIL" in Encyclopedia of Islam 2nd edition. [online] Leiden: Brill, 2004.

<http://www.encyislam.brill.nl>

⁶⁴ "KHAN" in *Ibid*.

⁶⁵ Suraiya Faroqhi. Towns and Townsmen of Ottoman Anatolia: Trade, Crafts and Food Production in an Urban Setting 1520-1650. (New York: Cambridge University Press, 1984.): 61.

⁶⁶ Inalcik, Halil. The Ottoman Empire: The Classical Age 1300-1600. (New York: Phoenix Press, 2002.): 143.

⁶⁷ *Ibid*: 147

mosque were built for travelers. Soon after, a small market developed; within thirteen years, more than 400 families were living and working around the bridge and *han*. It was in this context that Uzunköprü was born.⁶⁸

In instances where travelling groups were extremely large, such as in the case of caravans, they would have to sleep in the open, outside the village. In smaller villages, only a simple hostel might exist. Travellers were often forced to spend the night in the house of a friendly villager or in a Dervish convent (*zaviye* or *tekke*).⁶⁹ Outside of the cities, the open road was a dangerous place.

The mountains of the Balkans were ideal brigand country. Indeed, from at least the early Roman empire, Macedonian roads were infested with thieves, rogues and petty criminals.⁷⁰ Travellers and caravans could be easily ambushed, robbed and even kidnapped in small mountain passes. With their intimate knowledge of the local terrain, bandits could attack quickly and escape with ease.⁷¹ The Ottoman state recognized the threat posed by banditry and the importance of protecting its main transitways. It thus created institutions to help and protect travellers, the most important of which was the *derbend* system.⁷²

In certain villages along major routes, selected inhabitants were appointed as *derbentçis*, or pass-guards. In Macedonia, *derbentçis* guarded all three of its

⁶⁸ Ibid.

⁶⁹ Suraiya Faroqhi. Towns and townsmen of Ottoman Anatolia: Trade, Crafts and Food Production in an Urban Setting 1520-1650: 62.

⁷⁰ Robert K. Sherk. "Roman Imperial Troops in Macedonia and Achaia" The American Journal of Philology. 78, 1 (1957): 55.

⁷¹ Mark Mazower. The Balkans: A Short History. (New York: Modern Library, 2000): 21-23.

⁷² Fatih Müderrisoğlu. "Menzil Roads and Menzil Complexes in the Ottoman Empire" in The Great Ottoman-Turkish Civilization Volume 4: Culture and Arts. ed Kemal Çicek. (Ankara: Yeni Türkiye, 2000): 384.

main routes (Salonca – Bitola, Salonica - Serres / Drama, Salonica – Skopje).⁷³

Derbentçis, who had a profound knowledge of the local terrain, were made responsible for the security of a stretch of road or particular mountain-pass close to where they lived. In return, they would profit from taxes and tolls that they would impose on those using their roads.⁷⁴ However, should a traveller or caravan be harmed or robbed on their stretch of road, the state might force local *derbentçis* to pay for any losses incurred.⁷⁵

Although the *derbend* system helped promote security on some of the Empire's roads, it was not without its problems. Ironically, many *derbentçis* were former bandits themselves, and frequently abused their power by imposing extortionate tolls on travellers.⁷⁶ In such cases, as Suraiya Faroqhi notes, *derbentçis* “might only with difficulty be distinguished from robbers.”⁷⁷ Nevertheless, the roads were generally safe and the *derbend* system enabled movement of travellers and their caravans across Macedonia and the Empire. The travellers on these roads included *Hajj* pilgrims, European travellers, state officials and couriers. Most often, however, the networks were used by Ottoman

⁷³ See map appended to Cengiz Orhonlu. Osmanlı İmparatorluğunda Derbend Teşkilatı (Istanbul: İstanbul Üniversitesi Edebiyat Fakültesi, 1967).

⁷⁴ Inalcik, Halil. The Ottoman Empire: The Classical Age 1300-1600: 149.

⁷⁵ Suraiya Faroqhi. Towns and townsmen of Ottoman Anatolia: Trade, Crafts and Food Production in an Urban Setting 1520-1650: 60.

⁷⁶ Bruce McGowan. “Part III: The Age of the Ayans 1699-1812” in An Economic and Social History of the Ottoman Empire, 1300-1914. eds. Halil Inalcik and Donald Quataert. (New York: Cambridge University Press, 1994): 667.

⁷⁷ Suraiya Faroqhi. Towns and townsmen of Ottoman Anatolia: Trade, Crafts and Food Production in an Urban Setting 1520-1650: 60.

merchants and peasants heading to and from weekly markets and important annual fairs, held in various towns, including Serres and Prilep.⁷⁸

Animals provided the main means of transportation as Macedonian roads were too rough and unpredictable to support the passage of carts and other wheeled vehicles.⁷⁹ Moreover, rough roads damaged goods during transport on wheeled vehicles.⁸⁰ A variety of animals were used for transportation and hauling in and around Salonica, including oxen, mules, donkeys, horses and camels. Each had its advantages and disadvantages. Donkeys are sure-footed, can carry 77 kilograms, and are relatively inexpensive to maintain.⁸¹ Comparatively, the more expensive mules and horses can carry roughly 190 kilograms of goods. Camels, famed for their ability to go for long periods without food or water, can carry over 250 kilograms on their backs.⁸² Maintaining animals in the nineteenth century was a costly affair. Indeed, it has been remarked that the price of keeping a good horse surpassed that of raising a child.⁸³ In many cases, the cost of feeding and maintaining an animal outstripped the value of the goods on its back.⁸⁴

⁷⁸Basil Gounaris. Steam Over Macedonia, 1870-1912: Socio-Economic Change and the Railway Factor: 24-25; Nicholas Svoronos. Le Commerce de Salonique au XVIIIe siècle. (Paris, Presses Universitaires de France, 1956): 210-213; Charles Issawi. The Economic History of Turkey 1800-1914. (Chicago: Chicago University Press, 1980): 157. A discussion of imported goods will be made in relation to the port in Chapter 2 below.

⁷⁹Donald Quataert. "Part IV: The Age of Reforms 1812-1914." In An Economic and Social History of the Ottoman Empire, 1300-1914. eds. Halil Inalcik and Donald Quataert. (New York: Cambridge University Press, 1994): 817.

⁸⁰ Ibid.

⁸¹ Ibid: 817.

⁸² Ibid; See also Richard W. Bulliet. The Camel and the Wheel. (New York : Columbia University Press, 1990)

⁸³Suraiya Faroqhi. Towns and townsmen of Ottoman Anatolia: Trade, Crafts and Food Production in an Urban Setting 1520-1650: 50.

⁸⁴Donald Quataert. The Ottoman Empire 1700-1922. (New York: Cambridge University Press, 2005): 119.

For security reasons, most travelling was done in caravans. Lone travelers generally limited themselves to small voyages if they were peasants or merchants, while state officials and couriers could travel alone more often if travelling on horseback.⁸⁵ While the purpose of the caravan was largely based on trade and the movement of goods, European travellers, pilgrims and others would also join. Before a caravan set out, a *kervan başı*, or caravan leader, would be appointed or elected by the merchants in the caravan. This person would be responsible for determining the best route and resting spots, and for maintaining order.⁸⁶

The size of a caravan could vary greatly. According to Basil Gounaris, the smallest a caravan would consist of 20 to 50 animals and 20 to 80 men to ensure safety from a bandit attack.⁸⁷ However, they could be much larger, especially for long-distance travelling. For example, in 1812 caravans *en route* north from Salonica to Skopje and then to Vienna employed up to 20 000 horses and camels.⁸⁸ There were however, local caravans, like the ones which came from “Khortach Dağ” which brought mountain ice down to Salonica in the hot summer months and employed solely donkeys.⁸⁹

No matter the size of the caravan, the operation was a thoroughly slow-going affair. Rugged terrain caused the already slow-moving animals to travel at a snail’s pace. Packed with goods on their backs, they could travel for no more than

⁸⁵Suraiya Faroqhi. Towns and townsmen of Ottoman Anatolia: Trade, Crafts and Food Production in an Urban Setting 1520-1650: 64.

⁸⁶Ibid: 51.

⁸⁷Basil Gounaris. Steam Over Macedonia, 1870-1912: Socio-Economic Change and the Railway Factor: 25.

⁸⁸Donald Quataert. in An Economic and Social History of the Ottoman Empire, 1300-1914: 817.

⁸⁹Allan G. Ogilvie. “A Contribution to the Geography of Macedonia” The Geographical Journal: 20. It remains to be seen where Khortach Dağ is located as modern Greek maps do not list a mountain with that name.

8 hours a day, and required frequent breaks.⁹⁰ The voyage from Salonica to Bitola took 35 hours of traveling time. In comparison, the trip to Kavala took 23 hours and that to Skopje 48 hours; it took fifty days to get from Salonica to Vienna.⁹¹

Caravans almost always carried high-cost, low-bulk goods, such as manufactured items or luxury goods such as spices, in order to maintain a profit despite the slow pace of travel and a limited carrying capacity. Manufactured goods, such as European textiles, were moved from the port of Salonica to areas throughout Macedonia. Raw items such as silk, cotton and wool were brought to Salonica for export. Foodstuffs were rarely transported outside of Macedonia on animal-back as the costs would exceed the profit.⁹² For example, if a caravan going from Erzurum to Trabzon in Eastern Anatolia (302 kilometres) chose to transport grain, the merchants would have to sell it for three times as much as the purchase price to still make a profit!⁹³ Thus, land-based transportation was also limited in the types of goods that could be viably transported.

Thus, it can be seen that Salonica occupied an important geographic location for the movement of people and goods on the Balkan Peninsula. The unique topography of the mountainous region funneled traffic from three major routes directly through it. These roads were, however, incredibly dangerous on account of their ruggedness. They were also notorious hunting grounds for bandits and thieves. Thus, while Salonica played an important role in the movement of

⁹⁰ Basil Gounaris. Steam Over Macedonia, 1870-1912: Socio-Economic Change and the Railway Factor: 8

⁹¹ Ibid.

⁹² One glaring exception is the movement of Macedonian wheat to the port which was then shipped to Istanbul. See Chapter 2 below.

⁹³ Donald Quataert Ottoman Empire 1700-1922. (New York: Cambridge University Press, 2005): 112.

people and goods in the Balkan Peninsula and the Ottoman Empire in the early nineteenth-century, this movement was treacherous, slow and thus costly.

Chapter 2: Traditional Sea-Based Transportation **and Communication Networks**

Salonica played a significant role in the movement of people and goods in the Balkan Peninsula not only through the fortuities of its topography, but also, because of its strategic position at the intersection of a number of significant trade routes along the sea. Indeed, Salonica's role as the link between the deep interior of the Balkan Peninsula and the open seas of the Mediterranean is at the heart of its important position in the Ottoman Empire. Its location on the Mediterranean enabled it to become involved in extensive transportation and communication networks, linking it to Western Europe, Africa and Asia. Sea-based transportation on the Mediterranean was much faster, cheaper and thus more practical than land-based transportation. Therefore, in the early nineteenth century it was arguably the more significant of the two types. However, it is also arguably the more dangerous of the two, as sea-based transportation and communication were entirely dependent upon climactic conditions. This chapter discusses Salonica's role in early nineteenth-century maritime trade and argues that, due to its unique position as a link between land-based networks on the Balkan Peninsula and sea-based networks, it an enjoyed an important and unique place in this trade.

Salonica's maritime setting is of central importance when considering the development of the particular forms of sea-based transportation and

communication networks during the early nineteenth century. It will be demonstrated that Salonica's location on the Mediterranean was of central importance to the movement of people and goods throughout the region, which does much to attest to its importance to the Ottoman Empire.

Salonica is located on the northern edge of the Mediterranean Sea, a vast "inter-Continental Sea" of over 2 500 000 square kilometres, lying between the African and Eurasian continents. It is thus a significant zone of human interaction since humans began to take to its waters.⁹⁴ To the East, its waters squeeze through a bottleneck at Istanbul which links it to the Black Sea. To the South-East, the Nile River permits deep access into Eastern Africa and almost touches the Red Sea and the Indian Ocean.⁹⁵ A number of other rivers link the Mediterranean to central and north-western Europe. Finally, to the West, the Mediterranean is linked to the Atlantic Ocean via the straits of Gibraltar.

The Mediterranean itself can be divided into two main regions representing two natural zones of interaction:⁹⁶ the Western Basin, consisting of all the lands to the West of Sicily and Cap Bon (Tunisia); and the Eastern Basin, comprising of all lands to the East of that point.⁹⁷ This Eastern Basin, where Salonica is located, is arguably the most commercially valuable of the two, with its deep links to the Silk Route, and Indian Ocean world.

⁹⁴ Marion I. Newbiggin. Southern Europe: A Regional and Economic Geography of the Mediterranean Lands: 1.

⁹⁵ This is of course before 1869 when the Suez canal linked the Red Sea and the Mediterranean.

⁹⁶ Fernand Braudel. The Mediterranean and the Mediterranean World in the Age of Phillip II: 134-135.

⁹⁷ Sean McGrail. Boats of the World: From the Stone Age to Medieval Times. (New York: Oxford University Press, 2001): 88.

The Eastern Basin of the Mediterranean can be further sub-divided into two smaller seas: The Adriatic in the North- West and the Aegean in the North-East. Salonica sits in the western-most corner of the northern coast of the Aegean Sea. This sea is bordered by Asia Minor to the East, Crete to the South and to the West by the Greek Peloponnesus.⁹⁸ Owing to the continuation of the Dinaric mountain range deep into its waters, the Aegean Sea is characterized by long, rugged coastlines with a large number of small offshore islands formed by submerged, partially protruding mountains, scattered throughout.⁹⁹

Apart from Istanbul, Salonica is the only city with a well-endowed port on the Balkan Peninsula.¹⁰⁰ Its position at the end of the large Thermaic Gulf provides natural protection for the city. Furthermore, the natural curve of the shoreline funnels maritime traffic towards the city. The gulf, which measures roughly 100 kilometres in length and narrows considerably towards Salonica, comprises of the western-most 'finger' of the Chalcidice Peninsula and the eastern coast of the Greek Peloponnesus. Salonica's position is enhanced by its large, deep and sheltered natural bay, formed by a piece of land protruding from the western shoreline.¹⁰¹

⁹⁸ Michelin Staff. Michelin Greece (map).

⁹⁹ Marion I. Newbiggin. Southern Europe: A Regional and Economic Geography of the Mediterranean Lands: 4; J.L. Myers. "The Islands of the Aegean" The Geographical Journal. 97, 3 (1941): 137.

¹⁰⁰ Division, England Admiralty. Naval Staff. - Naval Intelligence. A Handbook of Macedonia and Surrounding Territories, Etc.: 35.

¹⁰¹ Allan G. Ogilvie. "Physiography and Settlements in Southern Macedonia" Geographical Review: 185.

Salonica's importance in Mediterranean trade is bolstered by the proximity of its rich Macedonian hinterland to the sea.¹⁰² Whereas most of the Aegean littoral produces a similar range of crops, including: olives, fruits, almonds, figs and grapes, Salonica is one of the few major sources of "non-Mediterranean goods" (notably, grain and wool).¹⁰³ As Braudel has pointed out, most of the Aegean territory consists of "a succession of barren islands and even poorer coasts,"¹⁰⁴ (characterized chiefly by poor and rocky soil) and thus it is heavily dependent upon Macedonia and its port of Salonica as an external source of food.¹⁰⁵

Pre-industrial maritime transportation and communication networks relied mainly on natural factors (wind, water etc.) for their power. Thus, it is necessary to briefly discuss the environmental context in which the vessels operated. Although direct evidence of the particular climatic conditions of the early nineteenth-century Ottoman Mediterranean is scarce, reliable inferences may be drawn from current conditions. It is possible to draw upon current data because environmental trends for the region have remained relatively constant for the past few millennia.¹⁰⁶

The characteristic climatic conditions of the Mediterranean have always made the region optimal for seafaring. These conditions enabled sea-based transportation and communication networks to stretch out across the entire

¹⁰² Apostolos Vakalopoulos. A History of Thessaloniki. Trans. T.F. Carney. (Thessaloniki: Institute for Balkan Studies, 1984): 3.

¹⁰³ Marion I. Newbiggin. Southern Europe: A Regional and Economic Geography of the Mediterranean Lands: 24.

¹⁰⁴ Fernand Braudel. The Mediterranean and the Mediterranean World in the Age of Phillip II: 115.

¹⁰⁵ *Ibid*: 152.

¹⁰⁶ Sean McGrail. Boats of the World: From the Stone Age to Medieval Times: 88-89.

Mediterranean. First, its waters are generally deep, with few areas of shallow or dangerous navigation due to hidden rocks in the open waters.¹⁰⁷ Second, tides and strong sea currents are markedly absent in the Mediterranean due to the region's near-encirclement by land and its warm, year-round climate.¹⁰⁸

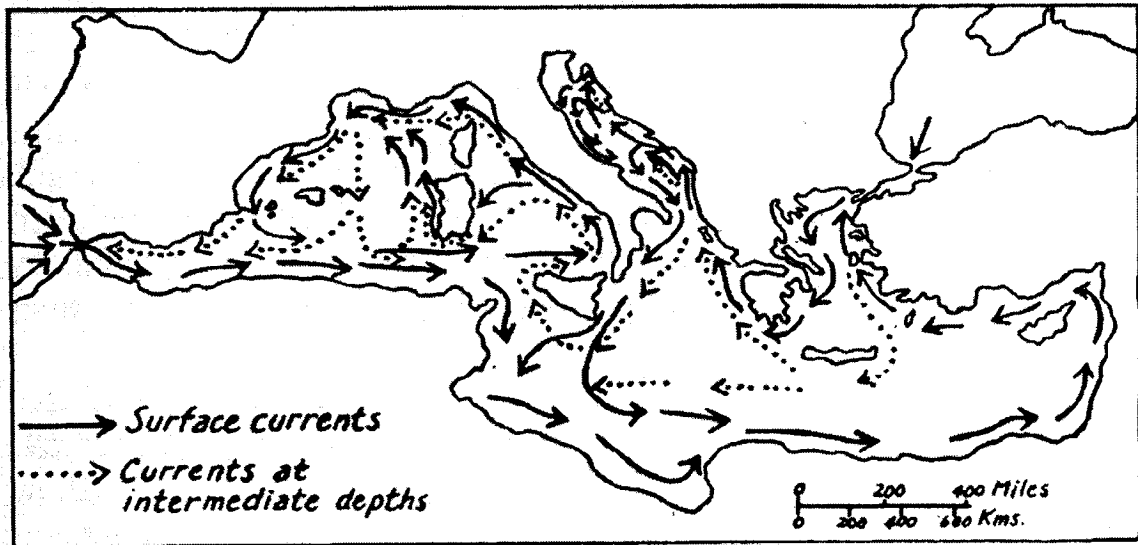
The circulation of water in the Mediterranean makes navigation largely predictable and safe. Water circulates counter-clockwise: the sea's high rate of evaporation draws water in from the Atlantic through the straits of Gibraltar, where it flows eastwards along the southern or African coast.¹⁰⁹ As the water reaches western Asia it flows northwards. Upon reaching Asia Minor, it flows back along the northern, or European, coast to Gibraltar. Thus, navigation is made easy by the unidirectional flow of water. There are also exists, however, many local systems of currents. The closest of these to Salonica in the Aegean Sea is the outflow of water from the Black Sea along the west coast of Asia Minor, which can, at times, drive boats southwards.¹¹⁰

¹⁰⁷ Ibid: 1.

¹⁰⁸ Ibid: 89, 92; Marion I. Newbiggin. Southern Europe: A Regional and Economic Geography of the Mediterranean Lands: 6.

¹⁰⁹ Ibid (Newbiggin): 9-10.

¹¹⁰ Sean McGrail. Boats of the World: From the Stone Age to Medieval Times: 92.



Map 2: The flow of water in the Mediterranean Sea. J.M. Houston. The Western Mediterranean World: an Introduction to its Regional Landscapes. (London: Longmans, 1964): 39.

By and large, winds in the area blow with a predictable regularity. The summer is ideal for sailing in the Aegean, as the wind blows from the North-West 90 percent of the time.¹¹¹ Indeed, the name of this wind, *Etesian* (*Meltemi* in Turkish) is Greek for “annual;” recent evidence has shown that it is related to the Indian Ocean monsoon winds which are known for their clockwork-like regularity.¹¹² However, the summer months can also be very calm as roughly 25 percent of days lack the wind required for sailing.¹¹³ Sailing north is unhindered in the spring and fall because the *Etesian* is absent at this time. Winter can be very dangerous as gale force winds and rough seas can develop without warning.¹¹⁴

The rough, rocky islands that protrude into the path of sailing vessels combine

¹¹¹ Great Britain. Hydrographic Department. The Mediterranean Pilot. Vol. IV 8th edition. (London : Hydrographic Dept., under the authority of the Lords Commissioners of the Admiralty, 1968): 14.

¹¹² Sean McGrail. Boats of the World: From the Stone Age to Medieval Times: 93.

¹¹³ *Ibid*: 92.

¹¹⁴ *Ibid*: 94.

with reduced visibility during storms to produce a great increase in the risk of shipwrecks, a constant fear for sailors of the Aegean.¹¹⁵

Other environmental conditions particular to Salonica can also be detrimental to sailing. In the winter, a strong wind known as the *Vardis*, similar to the *Mistral* of Southern France,¹¹⁶ travels across the Macedonian mountains carrying cold winter air from the North.¹¹⁷ As it reaches the Aegean coast near Salonica, it is funneled through the Vardar river valley and thus increases in intensity. This wind is particularly dangerous because it can appear without warning and reach up to gale force.¹¹⁸ Spring run-off from the mountains also has the potential to create dangerous conditions. During the months of March and April, melting snow swells the rivers of Macedonia. This fast-moving water pours into the Thermaic Gulf, creating a strong outward-flowing current that hinders the movement of ships sailing towards Salonica.¹¹⁹ While these particular hazards affect the movement of ships in and around Salonica, they can be easily overcome by skilled and experienced sailors. Thus, the waters around Salonica are generally favourable to navigation.

The potentially dangerous multitude of small islands scattered throughout the sea can also function as navigational tools. Located in relatively close proximity to the mainland, the islands are useful markers for determining a ships' position. Unlike the southern coasts of the Eastern Mediterranean, the northern

¹¹⁵ Mustapha El-Ghachi. "Les Route Maritimes et les Conditions de Voyage Dans la Mediterranee aux XVIIe-XVIIIe siecles: France-Empire Ottoman." *Revue d'histoire Maghrbine*. 25 (1998): 69.

¹¹⁶ Fernand Braudel. *The Mediterranean and the Mediterranean World in the Age of Phillip II*: 106, 250-253.

¹¹⁷ Great Britain. Hydrographic Department. *The Mediterranean Pilot*. Vol. IV: 40.

¹¹⁸ Sean McGrail. *Boats of the World: From the Stone Age to Medieval Times*: 94.

¹¹⁹ Great Britain. Hydrographic Department. *The Mediterranean Pilot*. Vol. IV: 276.

coastline near Salonica is covered with tall mountains, allowing the land to remain in easy sight and thus limiting the chance of being lost at sea.¹²⁰

Furthermore, the rugged terrain creates numerous sheltered bays in the naturally deep waters of the Aegean, providing ready refuge for ships. Sailors navigated along the coast and hopped from island to island in order to have shelter near by in case of sudden storms or unexpected dangers.¹²¹ Thus, in comparison to land-based networks, the Aegean Sea or Eastern basin of the Mediterranean is well suited to the movement of people and goods. For this reason, it also constitutes one of the earliest sites of human marine activity.

Although the geographical and environmental conditions of the Mediterranean Sea makes it favourable to human navigation, in the early nineteenth-century there were also many unpredictable hazards. In addition to the threat of inclement weather, seafarers needed to be wary of attacks by pirates. A pirate attack could mean delays, the loss of goods, or even death. The rugged coastlines that protected trading ships also created numerous coves that provided the perfect cover for pirate ships.¹²² The aforementioned dearth of food and resources on the islands created conditions which would make the turn to piracy for some all too easy.¹²³ The threat of pirates in the Aegean was a longstanding problem: their existence had been known there since at least the time of the

¹²⁰ Ibid: 95.

¹²¹ Fernand Braudel. The Mediterranean and the Mediterranean World in the Age of Phillip II: 103.

¹²² Restifo Giuseppe. "Maritime Routes, Epidemic Routes in the Eastern Mediterranean (1750-1800)." Arab Historical Review for Ottoman Studies. 21 (2000): 85.

¹²³ Nicholas Svoronos. Le Commerce de Salonique au XVIIIe siècle: 127.

Ancient Greeks.¹²⁴ The risk of being attacked was heightened during times of war, most notably during the period of Anglo-French rivalry in the late eighteenth and early nineteenth centuries.¹²⁵

The duration of typical sailing voyages during the nineteenth century in the region is difficult to gauge. The many variables that influenced speed were wide-ranging and in a state of constant flux. For example, a quick voyage from Istanbul to Venice could take as little as 15 days, but accounts exist of vessels beset by bad weather and other problems taking up to 81 days to cover the same distance.¹²⁶ Likewise, French mariners are known to have sailed the Istanbul – Marseille route in 15 to 20 days, although it commonly took twice as long.¹²⁷

Transportation and communication by sea was significantly faster than over land as the average ship could carry many times the cargo of any animal or cart. In general, the main source of transportation and communication in the early nineteenth century was small sailboats.¹²⁸ These vessels averaged from 50 to 100 tons, and generally carried six crew members although some reached 200 tons.¹²⁹ Making use of the natural advantages of the Aegean Sea, these small ships

¹²⁴ See: Janice J. Gabbert. "Piracy in the Early Hellenistic Period: A Career Open to Talents." *Greece & Rome*. 32, 3 (1986): 156-163.

¹²⁵ Nicholas Svoronos. *Le Commerce de Salonique au XVIIIe siècle*: 127; Elena Frangakis-Syrett. "Izmir and the Ottoman Maritime World of the Eighteenth Century" *Oriente Moderno*. 20 (2001): 119; This is also the period of increased pirate activity due to Greek War of Independence.

¹²⁶ Donald Quataert *The Ottoman Empire 1700-1922*: 119.

¹²⁷ Mustapha El-Ghachi. "Les Route Maritimes et les Conditions de Voyage Dans la Mediterranee aux XVIIe-XVIIIe siecles: France-Empire Ottoman." *Revue d'histoire Maghrbine*: 58, 62.

¹²⁸ Donald Quataert. "Part IV: The Age of Reforms 1812-1914." In *An Economic and Social History of the Ottoman Empire, 1300-1914*: 799.

Donald Quataert *The Ottoman Empire 1700-1922*: 119.

engaged mostly in coastal shipping or island-hopping in order to maintain a good course and ensure their safety.¹³⁰

Sea-based transportation provided additional flexibility over land-based travel because of the multitude of navigable routes.¹³¹ This differs sharply from land-based transportation, where traveling was limited to a few, clearly defined paths.¹³² The routes taken by sea-going vessels were almost infinitely varied, as open water permitted naturally unrestricted passage. Of course, a ship's proximity to land had some role in shaping its route, along with human interferences, but sea-going travel is naturally unstructured. Nevertheless, it is possible to discuss the main sources and destinations of shipping to and from Salonica. Before, doing so, it is first important to explain the unique nature of sea-based transportation and communication networks in the Ottoman Empire, as it largely determined the sources and destinations of people and goods and their movement.

One unique aspect of sea-based networks illustrates their central role in the development of Salonica's cosmopolitan nature: both domestic and international trade networks were largely dominated by foreigners and Ottoman minority subjects.¹³³ This is in sharp contrast to land-based networks, which were controlled solely by Ottoman denizens. Unlike most European states, where transportation vessels in domestic waters operated under the national flag, the

¹³⁰ Elena Frangakis-Syrett. "Izmir and the Ottoman Maritime World of the Eighteenth Century" *Oriente Moderno*: 121; Mustapha El-Ghachi. "Les Route Maritimes et les Conditions de Voyage Dans la Mediterranee aux XVIIe-XVIIIe siecles: France-Empire Ottoman." *Revue d'histoire Maghrbine*: 67.

¹³¹ *Ibid* (Frangakis-Syrett): 112.

¹³² *Ibid*.

¹³³ For the classic study on the role of Greeks in Ottoman trade see: Traian Stoianovich. "The Conquering Balkan Orthodox Merchant." *The Journal of Economic History* 20, 2 (1960): 234-313.

Ottoman Empire allowed foreign carriers to be heavily involved in trade in their waters.¹³⁴ Adding to this, Ottoman merchants tended to prefer European ships for their skilled and knowledgeable captains, who were better equipped to ward off pirate attacks with faster and better-armed ships. Furthermore, European ships were also subject to lower Ottoman taxes than their Ottoman counterparts.¹³⁵ Thus, external influences played a large role in shaping the structure of the Empire's sea-borne networks as a whole and of Salonica's in particular.

Historian Daniel Panzac has pointed out that the early nineteenth-century was a period of extensive change and development in the Ottoman Empire's external and domestic trading networks.¹³⁶ During the previous century, France and Venice were the dominant European trading partners of the Ottoman Empire.¹³⁷ French dominance in Ottoman trade was largely a result of the waning of their power in the Americas which caused them to search for alternative sources of goods in the Eastern Mediterranean and Indian Ocean.¹³⁸ For example, mid-eighteenth century trade with Marseilles accounted for an average of over 50 percent of all of Salonica's exports.¹³⁹ However, this primacy did not last indefinitely as the French Revolution and the Napoleonic Wars at the turn of the nineteenth-century all but removed them from the waters of the Eastern

¹³⁴ Daniel Panzac. "International and Domestic Trade in the Ottoman Empire during the 18th Century." *International Journal of Middle East Studies* 24, 2 (1992): 196.

¹³⁵ Ibid: 197; Elena Frangakis-Syrett. "Izmir and the Ottoman Maritime World of the Eighteenth Century" *Oriente Moderno*: 113.

¹³⁶ Ibid (Panzac): 204.

¹³⁷ Ibid: 191; There was a large number of European countries involved in Ottoman shipping and included: the British, Dutch and Swedish, and many Italian city states.

¹³⁸ Giuseppe Restifo. "Maritime Routes, Epidemic Routes in the Eastern Mediterranean (1750-1800)." *Arab Historical Review for Ottoman Studies*: 84.

¹³⁹ Nicholas Svoronos. *Le Commerce de Salonique au XVIII^e siècle*: 319.

Mediterranean and thus the port of Salonica as well.¹⁴⁰ Furthermore, with the suppression of Venice in 1797 by the French and Austrians, they too disappeared from Ottoman ports.¹⁴¹

Thus, in the early nineteenth century new trading partners and shippers were emerging in Ottoman sea-based networks in and around Salonica. The ports of Ancone in Italy and Trieste in Austria were the main beneficiaries of the decline of French and Venetian power in Eastern Mediterranean shipping.¹⁴² Both cities developed into major ports of trade between Salonica and Europe in the early nineteenth century,¹⁴³ as did the Dalmatian port of Ragusa, an autonomous region within the Ottoman Empire. Indeed, Ragusan traders made such an impression on one French mariner that he called them the “Dutch of the Mediterranean.”¹⁴⁴ Ottoman Greeks emerged as another significant group in Ottoman shipping in the late-eighteenth century. The ‘rise of the Greek nation’ has exercised the minds of many Ottoman historians; therefore it will only be discussed briefly here.¹⁴⁵ In the mid-eighteenth century the Russian Empire began to offer various forms of support to Greek merchants in the Ottoman Empire. This was done in the hopes of winning their favour and to help to weaken the Ottoman

¹⁴⁰ Donald Quataert. “Part IV: The Age of Reforms 1812-1914.” In An Economic and Social History of the Ottoman Empire, 1300-1914: 800.

¹⁴¹ Daniel Panzac. “International and Domestic Trade in the Ottoman Empire during the 18th Century.” International Journal of Middle East Studies: 204.

¹⁴² For further information on the port of Trieste see: Jan Morris.. Trieste and the Meaning of Nowhere. Cambridge: De Capo Press, 2002.

¹⁴³ Elena Frangakis-Syrett. “Izmir and the Ottoman Maritime World of the Eighteenth Century” Oriente Moderno: 119; Bruce McGowan. “Part III: The Age of the Ayans 1699-1812” in An Economic and Social History of the Ottoman Empire, 1300-1914: 725.

¹⁴⁴ Gilbert Buti. “Aller en caravane: le cabotage lointain en mediterranee XXVI^e et XXVII^e siecles.” Revue d'Histoire Moderne et Contemporaine 52, 1 (2005): 35.

¹⁴⁵ See: Richard Clogg. A Concise History of Greece. (New York: Cambridge University Press, 2002): 7-46; Traian Stoianovich. “The Conquering Balkan Orthodox Merchant.” The Journal of Economic History: 234-313.

state, the Russian Empire's sworn enemy. Also, during the continental blockade of European ports during the Napoleonic wars of the early nineteenth-century, Greek merchants willing to risk capture reaped huge profits for their efforts.

Furthermore, the Greeks' historical connection to, and knowledge of, the seas gave them a distinct advantage in the Eastern Mediterranean. They were also generally well regarded and trusted by European merchants who felt safer trading with their fellow Christians and heirs to the glories of Ancient Greece. These factors combined to permit the Ottoman Greeks to also become deeply involved in both domestic and international shipping.¹⁴⁶ Thus, in contrast to land-based transportation and communication, early nineteenth-century sea-based trade in and around Salonica was dominated by a number of different groups and not just Ottoman subjects. The reliance of the Ottoman Empire on external groups for shipping meant that it was, to a large degree, vulnerable to the effects of external conflicts and interests. Thus, the structure of shipping in and around Salonica was very unstable.

In the early-nineteenth century, primary exports to European ports consisted of wool, silk, skins, olive oil and increasingly, tobacco and cotton.¹⁴⁷ Wheat was also exported even though it was restricted to internal consumption (on account of the needs of Istanbul, see below).¹⁴⁸ Salonica imported from Europe luxury and typical "colonial goods," including felt caps, brocade, metal,

¹⁴⁶ Daniel Panzac. "International and Domestic Trade in the Ottoman Empire during the 18th Century." International Journal of Middle East Studies: 203; Buti, Gilbert. "Aller en caravane: le cabotage lointain en mediterranee XXVI^e et XXVII^e siecles." Revue d'Histoire Moderne et Contemporaine: 36; Bruce McGowan. "Part III: The Age of the Ayans 1699-1812" in An Economic and Social History of the Ottoman Empire, 1300-1914: 728.

¹⁴⁷ Ibid (Panzac): 191; (McGowan): 727.

¹⁴⁸ Ibid: (McGowan): 736.

paper, fabrics, medicines, glass, indigo, coffee, and dyes which were then either loaded onto caravans for sale in the interior of the peninsula or for its own consumption.¹⁴⁹

The precise nature of domestic trade within the Ottoman Empire, and Salonica in particular, remains unknown as Ottoman documents are lacking in detail. Noted Ottoman historian Bruce McGowan argues that this is because the central government was not concerned with the trade per se but only in the resultant profits. Thus, official registers detailing the specifics of internal Ottoman trade are scarce and the existing sources do not permit general conclusions on its main features.¹⁵⁰ However, Salonica's role in early nineteenth-century domestic trade can be roughly outlined with the help of a general understanding of trade networks in the Eastern Mediterranean.

From the foundation of the Ottoman Empire, internal trade routes were largely geared towards servicing the imperial capital, Istanbul. As the largest and most important city in the Empire, enormous amounts of food had to be imported on a daily basis to sustain its large and flourishing population. Indeed, the city's ovens used roughly 250 tons of wheat per day during the mid seventeenth-century.¹⁵¹ All regions of the Empire were required to provide foodstuffs to Istanbul for the Empire's maintenance.¹⁵² The central axis of domestic Ottoman trade in the Eastern Mediterranean was the North-South Istanbul-Izmir-

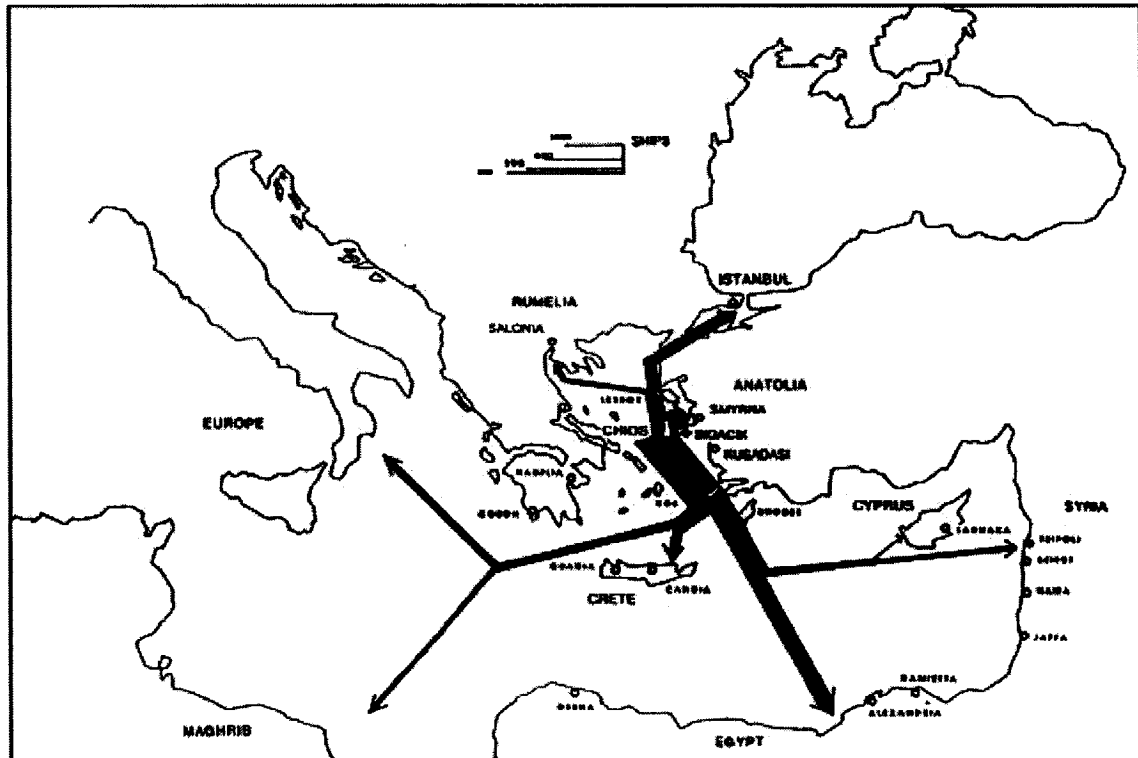
¹⁴⁹ Ibid.; Daniel Panzac. "International and Domestic Trade in the Ottoman Empire during the 18th Century." International Journal of Middle East Studies: 191.

¹⁵⁰ Ibid (McGowan): 729-730.

¹⁵¹ Halil Inalcik. The Ottoman Empire: The Classical Age 1300-1600. (New York: Phoenix Press, 2002): 145.

¹⁵² Daniel Panzac. "International and Domestic Trade in the Ottoman Empire during the 18th Century." International Journal of Middle East Studies: 198, 200.

Alexandria route.¹⁵³ Salonica was the major port on a branch route emanating from Istanbul. Salonica's prime exports in the domestic trade were non-Mediterranean products. Macedonia was thus one of Istanbul's major suppliers of wheat.¹⁵⁴



Map 3: The structure of trade in the Eastern Mediterranean in the late eighteenth century through the island of Chios. Daniel Panzac. "International and Domestic Trade in the Ottoman Empire during the 18th Century." *International Journal of Middle East Studies*: 196.

In return for these commodities, Salonica received goods mainly from the Empire's southern regions. The most important of these was coffee. Grown in the Ottoman Empire's Indian Ocean territories (especially Yemen), coffee was

¹⁵³ Ibid: 198.

¹⁵⁴ Elena Frangakis-Syrett. "Izmir and the Ottoman Maritime World of the Eighteenth Century" *Oriente Moderno*: 111; Donald Quataert. "Part IV: The Age of Reforms 1812-1914." In *An Economic and Social History of the Ottoman Empire, 1300-1914*: 799.

shipped through Alexandria to the rest of the Empire.¹⁵⁵ Salonica also had a developed trade relationship with the nearby Aegean islands from which it received goods such as olive oil.¹⁵⁶ Thus, Salonica was an integral part of the international and domestic trade in the Ottoman Empire in the early nineteenth-century.

The city also played a prominent role in the movement of people to and from the Balkan Peninsula. *Hajj* pilgrims, especially those coming from Albania and Bosnia, travelled by sea from Salonica to Jerusalem or Alexandria and where they would continue on to Mecca by caravan. As Salonica was the site of a large military garrison and an administrative centre for the whole region, many state officials also traveled it.¹⁵⁷ Furthermore, there existed a brisk slave trade, mostly from Libyan ports such as Benghazi, via Crete to Salonica. Ottoman landlords in the Balkan Peninsula often acquired concubines or servants by having them shipped from Salonica.¹⁵⁸ Salonica was thus also a central player in the movement of people through the region.

There existed one key element that ultimately enabled the movement of people and goods in and around Salonica: the workers in the port. As Salonica was a major break-in-transport point between sea and land-based networks, it took

¹⁵⁵ Ibid (Frangakis-Syrett): 110; See also: Daniel Panzac. "Affreteurs Ottomans et capitaines français à Alexandrie: la caravane maritime en Méditerranée au milieu du XVIII^e siècle." Revue de l'Occident Musulman et de la Méditerranée. 34 (1982): 23-38.

¹⁵⁶ Nicholas Svoronos. Le Commerce de Salonique au XVIII^e siècle: 208, 279.

¹⁵⁷ Daniel Panzac. "International and Domestic Trade in the Ottoman Empire during the 18th Century." International Journal of Middle East Studies: 197.

¹⁵⁸ The most detailed study on the slave trade in the Ottoman Empire is: Ehud Toledano. The Ottoman Slave Trade and its Suppression. Princeton: Princeton University Press, 1983; For information regarding Salonica's slave trade see: P. Ford et al (eds.) The Irish University Press Series of British Parliamentary Papers : Correspondence with British Representatives and Agents Abroad and Reports from Naval Officers and the Treasury Relating to the Slave Trade., vol. 57: 1878-1880 (Shannon: Irish University Press, 1969):112, 174.

a large number of labourers in the port to effectively and smoothly link the two. The port workers consisted of two different groups: boatmen and porters.¹⁵⁹ Boatmen earned their living by moving people and goods to and from the larger ships in their small canoe-like boats.¹⁶⁰ Porters carried goods from the shore to the customs house or *vice versa*, either on their backs or with the help of donkeys or camels.¹⁶¹ These workers were essential to the functioning of Salonica's busy trading networks as they were the physical link between the land and sea-based networks.

During the early nineteenth-century, Salonica was a vibrant and cosmopolitan port city on the Mediterranean Sea that was involved in both domestic and international trade. The nature of its rugged terrain and watery surroundings dictated that movement around Salonica was much easier by sea than by land. In sharp contrast to the land-based networks, sea-based transportation and communication was conducted almost entirely by foreigners. Salonica played an active part in the Ottoman Empire's long-distance shipping and served as a transition point for the importation of non-Mediterranean products from deep in the Balkan Peninsula to the Mediterranean World. Thus, it can be seen that Salonica occupied an important position in both land and sea-based trading networks in the early nineteenth-century.

¹⁵⁹ Donald Quataert. "Part IV: The Age of Reforms 1812-1914." In An Economic and Social History of the Ottoman Empire, 1300-1914: 803

¹⁶⁰ Mark Twain offers a somewhat comical description of his experience on one of these boats in Mark Twain. The Innocents Abroad. Mineola, (New York: Dover Publications Inc., 2003.): 358.

¹⁶¹ Donald Quataert. "Part IV: The Age of Reforms 1812-1914." In An Economic and Social History of the Ottoman Empire, 1300-1914: 803.

Chapter 3: Development of New Forms of Sea-Based Transportation and Communication

This chapter outlines the major impact of the new technologies associated with the Industrial Revolution and their resultant effects on Salonica's sea-based networks. In the early part of the nineteenth century, the pace of goods and people moving to and from Salonica was not much faster than it had been centuries and possibly even millennia before.¹⁶² However, this soon changed as major technological developments associated with the Industrial Revolution in Britain and Western Europe transformed the latter into the centre of global commerce and power.¹⁶³ The Industrial Revolution also produced massive increases in the speed and frequency of transportation and communication worldwide.¹⁶⁴ The development of new technologies incorporating the prime inventions of the Industrial Revolution, namely, the steam engine and electricity, freed human beings from many of the environmental constraints that had long limited their movement. These new technologies, including the steamship, telegraph and railroad, slowly diffused from their origins to the rest of the world, including the Ottoman Empire. When these new technologies touched Ottoman Salonica, they

¹⁶² J. R. McNeil and William H. McNeil. The Human Web: A Bird's Eye View of World History. (New York: W.W. Norton and Company, 2003): 214.

¹⁶³ Ibid: 238.

¹⁶⁴ Roger Owen. The Middle East in the World-Economy 1800-1914. (New York: Methuen, 1981): 83; Jürgen Osterhammel and Niels P. Petersson. Globalization: A Short History (Princeton: Princeton University Press, 2005): 8.

wove it into a newly-developing web of international connections, which had profound impact on the development of the city.

Salonica was among the earliest sites in the Ottoman Empire to be affected by the Industrial Revolution because of its position as a major port city. The importation of foreign technologies was not entirely beneficial to the Ottoman Empire, however. The phenomenon came with the loss of autonomy to the European powers. Moreover, the incorporation of new networks made old forms of transportation and communication all but obsolete. It is clear however, that the development of new transportation and communication networks in and around Salonica in the mid-nineteenth century was a watershed in its history and played a major role in its growth.

The adoption of these new technologies in Salonica was rooted in global pressures that arose alongside them. Indeed, some historians have argued that, due to the growing global linkages being made at this time, the Ottoman Empire no longer constitutes a proper object of study in its own right.¹⁶⁵ Growing foreign control and dependence on external powers quickly came to play a central role in the development of new transportation and communication networks.

The beginning of major foreign penetration and exploitation in the Ottoman Empire began with the signing of various Free Trade agreements with the European powers in the early nineteenth century.¹⁶⁶ Following its victory over Napoleon and the French, the Britain emerged as the unrivalled trading nation and

¹⁶⁵ Huri İslamoğlu-İnan and Çağlar Keyder “Agenda for Ottoman History” in The Ottoman Empire and the World Economy. ed. Huri İslamoğlu-İnan: 62.

¹⁶⁶ Şevket Pamuk. The Ottoman Empire and European Capitalism 1820- 1913: 19.

the world's first hegemonic power.¹⁶⁷ Britain's demand for raw materials and new markets for its finished goods pushed it to form more intense trading links with other parts of the world. At that time, the Ottoman Empire was in the midst of a major crisis: a revolt in Egypt. In the hopes that the British would assist in repressing the rebellious province, the Ottoman government signed a Free Trade Treaty with the British in 1838.¹⁶⁸ Soon thereafter, other European industrial powers such as France, Austria, Russia and Germany, also signed free trade agreements with the Ottoman Empire, with the hope of also gaining access to new markets and raw materials. Consequently, traditional Ottoman monopolies over such things as the export of wheat were abolished.¹⁶⁹ These free trade agreements had precisely the effect that the European powers desired. For example, Ottoman trade with Britain and France increased fivefold in the two decades following their signing.¹⁷⁰ While the value of domestic Ottoman trade continued to surpass that of its international trade, the Free Trade pacts with the European powers opened the door to all aspects of the Ottoman economy for foreign traders¹⁷¹

The signing of the free trade agreements was only the first stage in direct foreign economic penetration. Imperialist expansion and rivalry also played a significant role in furthering European involvement in the Ottoman Empire and

¹⁶⁷ P.J. Cain and Anthony Hopkins. British Imperialism: 1688-2000: 342.

¹⁶⁸ Erik Jan Zürcher. Turkey: A Modern History: 40; The Ottoman Empire would have eventually signed this agreement. These circumstances merely accelerated the process. See also: Şevket Pamuk. The Ottoman Empire and European Capitalism 1820- 1913: 19

¹⁶⁹ Ibid (Pamuk): 20; Mark Mazower. Salonica: City of Ghosts: Christians, Muslims and Jews, 1430-1950: 211; P.J. Cain and Anthony Hopkins. British Imperialism: 1688-2000: 342.

¹⁷⁰ Stanford J. Shaw. History of the Ottoman Empire and Modern Turkey Volume II: Reform, Revolution and Republic. (Cambridge: Cambridge University Press, 1977): 122.

¹⁷¹ Çağlar Keyder, Y. Eyüp Özveren and Donald Quataert. "Port Cities in the Ottoman Empire: Some Theoretical and Historical Perspectives." Review (Fernand Braudel Center) 16,4 (1993): 529.

the resultant introduction of new transportation and communication technologies. During the Crimean War (1854-1858), the inefficiency of the Ottoman military was revealed to its French and British allies. The war was also extremely costly for the Ottoman government, which required both military and financial support from its allies in order to maintain its efforts.¹⁷² For the first time in its history, the Ottoman Empire began to take out loans from the British and French in an attempt to modernize its army and infrastructure.¹⁷³ The British and the French hoped that aiding the Ottoman Empire would serve to weaken Russian imperialist expansion in the region and thus protect their interests.¹⁷⁴ Thus, imperialist rivalry was central to the development of new communications networks and technologies in the Ottoman Empire.

The terms of these loans were, however, balanced in favour of the British and French. It was not long after the first loans were secured that the Ottoman Empire began to fall into debt.¹⁷⁵ Furthermore, by taking loans to purchase foreign technologies and goods such as weapons, the Ottoman state achieved only short-term gains. In the long-term, the borrowing was detrimental to the Empire because the money was not invested in projects that could have potentially resulted in profit and thus a return to self-sufficiency.¹⁷⁶ By the 1870s the debt problem was immense: payments to the European powers swallowed up no less than one third of the treasury's annual income. In a desperate attempt to extricate

¹⁷² Şevket Pamuk. The Ottoman Empire and European Capitalism 1820- 1913: 12.

¹⁷³ Stanford J. Shaw. History of the Ottoman Empire and Modern Turkey Volume II: 120-121.

¹⁷⁴ P.J. Cain and Anthony Hopkins. British Imperialism: 1688-2000: 343; Eric Hobsbawm. The Age of Capital: 1848-1875. (London: Abacus, 2004): 96.

¹⁷⁵ Ibid (Pamuk): 12. On a similar process in Iran see: P.J. Cain and Anthony Hopkins. British Imperialism: 1688-2000: 351-359.

¹⁷⁶ Ibid (Pamuk).

the Empire from this predicament, Ottoman administrators took out new loans to repay old ones, setting in motion a cyclical process that would culminate in a declaration of bankruptcy. By the 1870s, half to two-thirds of new borrowing was of this nature.¹⁷⁷ Compounding its problems, the Ottoman Empire was also hit with a number of internal rebellions, endured numerous wars with Russia, and was suffering from a world-wide economic depression. Finally, in 1875, the Ottoman Empire defaulted on its debt payments to its European financiers and declared bankruptcy. This allowed a group of European creditors to move in and take control of Ottoman finances, further bringing the Ottoman Empire under control of the European powers.¹⁷⁸

In 1881, the Ottoman Public Debt Administration (PDA) was created by European powers and given a mandate to re-order the finances of the Ottoman Empire. Its primary goal was to ensure that the loans the Empire had already taken would be paid back to European investors.¹⁷⁹ Composed of members representing the major European powers (the British and French had the majority,) it was hoped that the PDA would also bring a sense of stability to the Ottoman economy, making it once again appealing to foreign investment. It was believed by both the Ottoman government and the PDA that giving concessions for the development of infrastructure to European companies would stimulate the Ottoman economy and enable it to repay its debt.¹⁸⁰ Thus, the PDA, in

¹⁷⁷ Erik Jan Zürcher. *Turkey: A Modern History*: 67-68.

¹⁷⁸ For a full discussion of this process see: Donald C. Blaisdell. *European Financial Control in the Ottoman Empire: a study of the Establishment, Activities and Significance of the Administration of the Ottoman Public Debt*. (New York: Columbia University Press, 1929).

¹⁷⁹ Immanuel Wallerstein, Hale Decdeli and Reşat Kasaba. "Incorporation of the Ottoman Empire into the World-Economy." in *The Ottoman Empire and the World Economy*: 94

¹⁸⁰ Şevket Pamuk. *The Ottoman Empire and European Capitalism 1820- 1913*: 69-70

cooperation with the Ottoman government, played an important role in attracting a large amount of European investors for the development of new transportation and communication technologies.¹⁸¹

Control the Empire's finances by foreign powers represents the final chapter of the incorporation of the Ottoman Empire into the European industrial-capitalist system.¹⁸² The new communication and transportation developments that occurred in and around Salonica must be understood within this context of growing European influence and control of the Ottoman economy.

Increased interaction with the outside world had a strong effect on the spatial orientation of the Empire. This was notably the case with its port cities whose role was transformed by a nine-fold increase in Ottoman foreign trade between 1840 and 1914.¹⁸³ As Çağlar Keyder, Y. Eyüp Özveren and Donald Quataert have shown, port-cities such as Salonica “emerge[d] as privileged locales of contact with the capitalist world economy.”¹⁸⁴ Ports acted as the conduit through which increased trade was funneled. As one of the pre-eminent ports of the Ottoman Empire, Salonica was among the earliest Ottoman sites to benefit from the new transportation and communication technologies of the Industrial Revolution.

Steamships were introduced to Ottoman waters early in the nineteenth century, before the major period of foreign involvement. For example, in 1831, a

¹⁸¹ Stanford J. Shaw. History of the Ottoman Empire and Modern Turkey Volume II: 226-227. The Ottoman government's interest in these new technologies is an important aspect that needs to be addressed by future scholars.

¹⁸² Immanuel Wallerstein, et al. “Incorporation of the Ottoman Empire into the World-Economy.” in The Ottoman Empire and the World Economy: 94-95.

¹⁸³ Çağlar Keyder, Y. Eyüp Özveren and Donald Quataert. “Port Cities in the Ottoman Empire: Some Theoretical and Historical Perspectives.” Review: 519

¹⁸⁴ *Ibid.*

Russian steamship traveled to Istanbul where it created a scene of curiosity and excitement.¹⁸⁵ The first British steamship arrived in the Levant in 1836.¹⁸⁶ These were however, relatively insignificant ventures and only after the free trade agreements did the development of regularized steamship service to Ottoman ports really develop.

The opening of regularized steamship service at Salonica was initially hindered by the high number of pirates in the Thermaic Gulf. The Greek War of Independence (1827-1831) increased the number of pirates and thus the frequency of their attacks.¹⁸⁷ However, after the war, Greek and Ottoman fleets engaged in a joint naval operation that successfully eradicated the pirate menace from the Aegean Sea, opening the door to renewed investment in trade and transport in the region.¹⁸⁸

The first significant development in Salonica's sea-based transportation infrastructure came in 1840 when the Austrian Lloyd Company (the main foreign interest in Ottoman shipping), created a weekly steamship service between Salonica and Istanbul.¹⁸⁹ The vessel used was in fact a "river boat"¹⁹⁰ which was transferred from service on the Danube where the Lloyd already had a brisk

¹⁸⁵ P.E Schoenberg. "The Evolution of Transport in Turkey (Eastern Thrace and Asia Minor) Under Ottoman Rule 1856-1918." Middle East Studies 13, 3 (1977): 360.

¹⁸⁶ Mark Mazower. Salonica: City of Ghosts: Christians, Muslims and Jews, 1430-1950: 211.

¹⁸⁷ Ibid: 212.

¹⁸⁸ Basil Gounaris. "Salonica" Review: 502; Mark Mazower. Salonica: City of Ghosts: Christians, Muslims and Jews, 1430-1950: 212. Neither author gives an exact date of the joint naval operation.

¹⁸⁹ Charles Issawi. The Economic History of Turkey 1800-1914: 162.

¹⁹⁰ Basil Gounaris. "Economic Developments in Macedonia, 1430-1912." Modern and Contemporary Macedonia: History – Economy – Society – Culture: Volume 1: Macedonia Under Ottoman Rule. eds. Ioannis Koliopolous and Ioannis Hassiotis. (Thessaloniki: Papazissis Publishers, 1993.): 70.

steamship service.¹⁹¹ This boat, however, was inadequately equipped to deal with the open seas and was forced to track along the coast, much like sailing vessels.¹⁹² Indeed, most of these early steamships were primitive, with their top speeds reaching not much more than 6.5 kilometres per hour. Resultantly, they were unable to make much progress against strong headwinds.¹⁹³

By the mid-1840s, a number of steamship companies were running regular service to Salonica. These included, Austrian Lloyd, which connected Salonica to Piraeus (the port of Athens), Corfu, Trieste, and other Adriatic ports, and the Ottoman Steam Navigation company, which opened a weekly service between Salonica, Kavala and Istanbul. By the end of the 1840s, Salonica was connected to the major Mediterranean ports, including Trieste, Genoa, Malta, and Marseilles by numerous Austrian, French and British companies.¹⁹⁴

The Crimean and American Wars in mid-century, which interrupted international supplies of cotton, tobacco and wheat, boosted the level of foreign shipping to Salonica whose hinterland produced all three in abundance.¹⁹⁵ By 1874, the French *Messagerie Maritimes* had a well-established, brisk steamship service to Salonica.¹⁹⁶ By the late 1880s, two British steamship companies had linked Salonica to the port of Izmir and a third began to dominate local trade

¹⁹¹ See: Virginia Paskaleva. "La role de the navigation a vapeur sure le bas Danube dans l'etablissement de liens entre l'europe centrale et constantinople jusqu'a le guerre de crimee." Bulgarian Historical Review 4, 1 (1976): 64-74.

¹⁹² This reflects Braudel's assertion that coastal and river navigation are very similar. See: Fernand Braudel. Civilization & Capitalism 15th-18th Century: 105.

¹⁹³ P.E. Schoenberg. "The Evolution of Transport in Turkey (Eastern Thrace and Asia Minor) Under Ottoman Rule 1856-1918." Middle East Studies: 360.

¹⁹⁴ Basil Gounaris. Steam Over Macedonia, 1870-1912: Socio-Economic Change and the Railway Factor: 27, 207.

¹⁹⁵ Basil Gounaris. "Salonica" Review: 503

¹⁹⁶ Basil Gounaris. Steam Over Macedonia, 1870-1912: Socio-Economic Change and the Railway Factor: 207.

around Salonica in the Thermaic Gulf.¹⁹⁷ By the turn of the century, steamship companies from as far away as Denmark, Sweden, Belgium, Russia and Germany had also established services to Salonica.¹⁹⁸ Some American and German companies were even operating regular service between Salonica and the United States.¹⁹⁹ Thus, as the nineteenth century progressed, European steamship lines became increasingly active and eventually came to dominate large-scale Ottoman maritime activity around Salonica (and indeed around the Empire). By 1914 (two years after the loss of Salonica from the Empire) 90 percent of the total tonnage in the Eastern Mediterranean was European owned.²⁰⁰

At the same time, steamships became more efficient and powerful. While the first steamers were not much of an improvement on the speed and reliability of sail boats, they eventually were able to push through opposing tides, currents and winds to go where ever they needed or wanted.²⁰¹ In a sense, these ships had begun to conquer the environmental conditions which had for so long limited shipping in and around Salonica. These new steamships were also much larger than any sailboat. The development of more sophisticated and efficient ship-building technologies meant that steamships towered over their predecessors. By 1870, the average size of a steamer in the Eastern Mediterranean was one

¹⁹⁷ Ibid: 208.

¹⁹⁸ Ibid: 212.

¹⁹⁹ P.E. Schoenberg. "The Evolution of Transport in Turkey (Eastern Thrace and Asia Minor) Under Ottoman Rule 1856-1918." Middle East Studies: 360.

²⁰⁰ Donald Quataert. "Part IV: The Age of Reforms 1812-1914." in An Economic and Social History of the Ottoman Empire, 1300-1914: 801.

²⁰¹ Donald Quataert. The Ottoman Empire 1700-1922: 119.

thousand tons, making it roughly 10 to 20 times larger than the average sailboat.²⁰²

In addition, steamships traveled much faster than sailboats. As early as 1844, a trip from the Eastern Mediterranean to London would take less than 20 days.²⁰³ Later in the century, goods or passengers from Salonica could reach the streets of Paris via Marseille in less than 2 weeks.²⁰⁴ These trips were not only fast but, because they were not as limited by inclement weather as sailboats, also became predictable. Schedules and timetables developed as transportation and communication was regularized. Thus, it can be seen that steamships had many distinct advantages over the sail ships.

Beginning in the 1840s, steamships began to call at the port of Salonica to load up with raw materials from the interior and drop off finished goods for Salonica's markets and stores. In overcoming the environmental limitations of the region, they quickly began to dominate shipping in and around Salonica. They were for the most part, foreign owned and operated. The new steamship lines were, however, only one part of new developments which served to deepen and accelerate the global commerce in and around Salonica.²⁰⁵

The dramatic growth of shipping around Salonica put pressure on its port infrastructure which, in common with all other Ottoman ports, had changed little

²⁰² Ibid.

²⁰³ Charles Issawi. The Economic History of Turkey 1800-1914: 163; P.E. Schoenberg. "The Evolution of Transport in Turkey (Eastern Thrace and Asia Minor) Under Ottoman Rule 1856-1918." Middle East Studies: 360.

²⁰⁴ Mark Mazower. Salonica: City of Ghosts: Christians, Muslims and Jews, 1430-1950: 216.

²⁰⁵ Ibid: 175.

over the centuries.²⁰⁶ The lack of facilities able to accommodate the increased tonnage and volume of ships meant that the movement of goods and people was unnecessarily slowed.²⁰⁷ Thus, the need to enable a quick and efficient transfer of goods and people to and from sea-based networks was an important aspect of the development and functioning of these new transportation and communication networks.

The construction of new port infrastructure began in 1869 when the great sea walls, which had since Byzantine times fortified the city and also sharply divided the sea from the living space, were demolished.²⁰⁸ In the following year, the stones and debris from the walls were pushed into the sea and used to create a simple rectangular stone pier that jutted 23 metres out into the bay.²⁰⁹ While it permitted higher numbers of small boats and steamships to dock in the city, it was still too small to accommodate larger vessels. Just as before, larger vessels continued load and unload cargo with the help of smaller boats.²¹⁰ Furthermore, the development of the railroads (see chapter 4 below) created a new problem: off-loaded goods had to be carried by porters 800 metres from the jetty to the train station.²¹¹

²⁰⁶ Donald Quataert. *The Ottoman Empire 1700-1922*: 119; Eyal Ginio "Migrants and Workers in an Ottoman Port: Ottoman Salonica in the Eighteenth Century." in *Outside In: on the Margins of the modern Middle East*: 126-127.

²⁰⁷ Donald Quataert. "Part IV: The Age of Reforms 1812-1914." in *An Economic and Social History of the Ottoman Empire, 1300-1914*: 802.

²⁰⁸ Meropi Anastassiadou. *Salonique, 1830-1912: Une Ville Ottomane a L'age Des Réformes*. 140; Basil Gounaris. "Salonica." *Review*: 500; Basil Gounaris. "Economic Developments in Macedonia, 1430-1912." *Modern and Contemporary Macedonia*: 169.

²⁰⁹ Meropi Anastassiadou. *Salonique, 1830-1912: Une Ville Ottomane a L'age Des Réformes*: 141.

²¹⁰ Ibid.

²¹¹ Donald Quataert. "Part IV: The Age of Reforms 1812-1914." in *An Economic and Social History of the Ottoman Empire, 1300-1914*: 802.

Only a large, efficient, quay and port, such as already had been established at Izmir and Istanbul would solve these problems.²¹² Recognizing that it was harming their business, foreign merchants put pressure on the local government to solve this situation. In 1897, a French company received the rights to build such a facility that would finally resolve the problems in the port.²¹³ However, for a variety of reasons, including the Greco-Turkish War (1897) and difficulties obtaining ownership of the lands to be used, the project took over 10 years to complete.²¹⁴ Nevertheless, by 1909 an impressive 1800 metre-long quay had been built enabling trains to roll directly onto it and unload their cargo onto the ships.²¹⁵ The following year, a breakwater was completed and other improvements made, enabling Salonica's maximum potential as a transportation and communication hub to be realized.²¹⁶ By 1909 Salonica was competing for the position of leading port in the Empire.²¹⁷

Steamships rapidly undermined traditional means of sea-based transportation and communication. This was largely a result of their ability to overcome the environmental factors which had made sailing treacherous and unpredictable and their ability to transport large quantities of goods cheaply and quickly. While information on this process around Salonica is yet to be fully studied, Quataert has found that by 1900, only 5 percent of vessels visiting

²¹² Eyüp Özveren and Donald Quataert. "Port Cities in the Ottoman Empire: Some Theoretical and Historical Perspectives." Review: 531.

²¹³ Basil Gounaris. "Salonica." Review: 500.

²¹⁴ Meropi Anastasiadou. Salonique, 1830-1912: Une Ville Ottomane a L'age Des Réformes: 141-143.

²¹⁵ Donald Quataert. "Part IV: The Age of Reforms 1812-1914." in An Economic and Social History of the Ottoman Empire, 1300-1914: 802; Basil Gounaris. "Salonica." Review: 505.

²¹⁶ Meropi Anastasiadou. Salonique, 1830-1912: Une Ville Ottomane a L'age Des Réformes: 145.

²¹⁷ Donald Quataert. "Part IV: The Age of Reforms 1812-1914." in An Economic and Social History of the Ottoman Empire, 1300-1914: 802.

Istanbul were sail ships.²¹⁸ However, shipbuilding technology did eventually filter down to sail ships and by the late-nineteenth century, were much more efficient and safer than they had been fifty years earlier.²¹⁹

Sailing vessels, however, did not disappear entirely from the waters around Salonica. As noted above, unloading and loading cargo from the new, large steamships without the necessary infrastructure was problematic. This created a new opportunity for the much smaller sail ships until the development of the new quay. Their size, maneuverability and shallow displacement, allowed them to play an important role in ferrying people and goods from the larger boats to the shore.²²⁰ Furthermore, because of a rise in the volume of shipping in the nineteenth century, more opportunities for such work existed. Thus, it is of no surprise that, Quataert argues there was an increase in the number of small sailing vessels in Ottoman waters in the late nineteenth-century.²²¹

There is evidence to suggest that sailing vessels remained important for illegal commerce, such as the slave trade across the Mediterranean.²²² According to British documents, many Ottoman vessels suspected of transporting slaves were sailboats, even very late into the nineteenth century. The reasons for this are clear: a sailboat was not only cheaper but its ability to move silently at night and

²¹⁸ Ibid: 800.

²¹⁹ Ibid.

²²⁰ Meropi Anastassiadou. Salonique, 1830-1912: Une Ville Ottomane a L'age Des Réformes: 140; Charles Issawi. The Economic History of Turkey 1800-1914: 168.

²²¹ Donald Quataert. "Part IV: The Age of Reforms 1812-1914." in An Economic and Social History of the Ottoman Empire, 1300-1914: 801.

²²² By the late nineteenth century, the trade of slaves in the Ottoman Empire was illegal. The British Navy actively policed the waters of the Mediterranean for suspected slaving activities. See: Ehud Toledano. The Ottoman Slave Trade and its Suppression.

hide in the many small coves made it extremely valuable to smugglers.²²³ Thus while sailboats had been superseded in many of their old functions, they were by no means completely outmoded and were still important to smugglers. More research, however, is required to fully describe the impact of the steamship on the structure of the Ottoman slave trade.

In contrast to this continued use of sailing vessels, the boatman in the port of Salonica, who had traditionally played an important role in the transportation of goods and people from the larger boats to the shore, found that the development of the quay rendered them largely out of work.²²⁴ By the early twentieth century, due to the enlargement of the quay and port, even the largest of ships could dock and thus no longer required the help of a team of boatmen and porters. The new private, foreign ownership and administration of the quay also had serious consequences for the porters.²²⁵ When needed, foreign companies looked outside of the porter's guilds for cheap labour, thus further threatening the livelihood these workers. Saturday, long held as the traditional day of rest for the (mainly Jewish) porters in Salonica, was made a regular work day in order to maximize movement of goods and people.²²⁶ Furthermore, in 1909, rail tracks were extended directly onto the quay, all but eliminating the potential for work for porters. Thus, both boatmen and porters were marginalized by the new

²²³ P. Ford et al (eds.) The Irish University Press Series of British Parliamentary Papers : Correspondence with British Representatives and Agents Abroad and Reports from Naval Officers and the Treasury Relating to the Slave Trade., vol. 57: 1878-1880: 112, 174.

²²⁴ For the most complete study of this process see: Donald Quataert Social Disintegration and Popular Resistance in the Ottoman Empire 1881-1908. (New York: New York University Press, 1983): 95-120.

²²⁵ Donald Quataert. "Part IV: The Age of Reforms 1812-1914." in An Economic and Social History of the Ottoman Empire, 1300-1914: 803.

²²⁶ Basil Gounaris. "Salonica." Review: 508.

transportation and communication networks in Salonica. In response, their highly organized guilds held numerous and, from 1908, successful, demonstrations in an attempt to slow down work at the quay.²²⁷ There is evidence to suggest that the porters of Istanbul, undergoing similar marginalization, through demonstrations and other protests, were able to safeguard some jobs – although it is unclear whether their counterparts in Salonica were as successful.²²⁸ While serving to increase the volume of goods and people passing through Salonica's port, these new transportation and communication networks also largely put traditional labourers of the port out of business.

The development of new forms of transportation and communication also accentuated the reliance of the Ottoman Empire on foreign ship building and technology. Where once Ottoman ships were on par with the ships of their Mediterranean rivals, steamship technology quickly put the Ottoman Empire at a disadvantage: the technological know-how and the building materials were either insufficient or non-existent in Ottoman lands.²²⁹

Furthermore, the high cost of owning and operating a steamship company meant that only those with a large amount of capital (in most cases, foreigners) could successfully build and operate a fleet of ships. Local groups, such as the Ottoman Greeks, who had for centuries played an important role in Ottoman

²²⁷ Donald Quataert. "Part IV: The Age of Reforms 1812-1914." in An Economic and Social History of the Ottoman Empire, 1300-1914: 804.

²²⁸ Donald Quataert Social Disintegration and Popular Resistance in the Ottoman Empire 1881-1908: 95.

²²⁹ Studies on Ottoman ship technology are lacking. Sufficient evidence could not be found for a definitive conclusion.

shipping, simply did not have enough money to keep up.²³⁰ Furthermore, the profits of these foreign companies did not re-circulate in the Ottoman economy, but rather went back to the investors and owners (in most cases, Western Europeans), and thus contributed to the dependency and entrenchment of the Ottoman Empire on the outside world.²³¹

Following the Crimean War, European industrial powers, eager to access new resources and untapped markets, supported the creation of new transportation and communication networks in the Ottoman Empire. With their help, new steamship lines quickly appeared all over the Empire, including Salonica. These ships were much faster and could carry much more than traditional sailing vessels. In order to accommodate their immense size, however, a new and modern port facility was required. The resulting growth in the volume of Salonica's trade came at the cost of furthering the financial, technological and material reliance of the Ottoman Empire on foreign powers. Furthermore, Salonica's traditional sea-based networks were all but destroyed. Despite these problems, the development of new sea-based transportation and communication networks around Salonica accelerated the movement of people and goods and is thus responsible for the city's remarkable growth.

²³⁰ Charles Issawi. The Economic History of Turkey 1800-1914: 146. This is not to say that there were no domestic shipping lines, but that the majority were foreign owned at operated.

²³¹ P.E. Schoenberg. "The Evolution of Transport in Turkey (Eastern Thrace and Asia Minor) Under Ottoman Rule 1856-1918." Middle East Studies: 360.

Chapter 4: The Development of New Land-based Transportation and Communication Networks

The development of new land-based transportation and communication networks in and around Salonica continued the process begun at sea. As with the sea-based networks, foreign intervention following the Crimean War served as the main impetus for their development. These new land-based networks, consisting mainly of telegraphs and railroads, were able to overcome the geographical limitations which had traditionally rendered transportation and communication hazardous, unreliable, sluggish and thus costly. Despite some minor problems, these new networks were largely successful in accelerating the movement of people and goods in and around Salonica. This is most evident in how they affected traditional land-based networks. These advances, however, came at the cost of increasing the Ottoman Empire's reliance on foreign powers as the required technology, materials and expertise had to be imported. Salonica's role as a break-in-transport point between these new land and sea-networks was central to its late nineteenth-century growth.

The invention of the telegraph marked the beginning of a new era in global communication. The machine's secret lay in its use of the emerging technology of electricity. First applied extensively in the United States and

England, it used a specialized code to send electromagnetic pulses through long copper wires which were then received at the other end by a machine capable of deciphering them. By 1848, a worldwide telegraph system was being established so fast that maps of this system constantly required updating.²³² The telegraph enabled almost instantaneous, global communication, increasing the speed at which, among other things, commerce and business transactions could be done.²³³

The telegraph first arrived in Ottoman lands as a result of war. British and French soldiers stationed in the Crimean Peninsula needed to communicate quickly with their home countries during the Crimean War.²³⁴ In 1854, the British laid a submarine cable from Balaklava to Varna on the Bulgarian Black Sea coast. A second line was laid from Varna to Istanbul, enabling the Ottoman government and its allies to direct the war effort at a distance for the first time in history. In the spring of the following year, Istanbul was connected to Europe through Bucharest and the Austrian telegraph network.²³⁵ Thus began a telegraph boom in the Ottoman Empire which by 1904, possessed a network of over 36 640 kilometres of wire linking the business and administrative centres to the most remote villages and the rest of the world.²³⁶

²³² Tom Standage. The Victorian Internet: Remarkable Story of the Telegraph and the Nineteenth Century's On-line Pioneers. (New York: Walker, 1998): 57.

²³³ Stanford J. Shaw. History of the Ottoman Empire and Modern Turkey Volume II: 120.

²³⁴ Ibid.

²³⁵ Roderic Davison. "The Electric Telegraph" in Essays in Ottoman and Turkish History, 1774-1923: The Impact of the West. (Austin: The University of Texas Press, 1990): 133-134.

²³⁶ Ibid: 138; Issawi, however, argues that the number of kilometers of wire in 1900 is 50 000. See Charles Issawi. The Economic History of Turkey 1800-1914: 151.

Although, as Gounaris notes, details of the initial development of telegraphic communication in and around Salonica are as yet obscure,²³⁷ by the mid-1860s, Salonica was undoubtedly connected to the emerging global telegraph network. Salonica's telegraph communications with Western and Central Europe passed through Durazzo, in Albania, and with the rest of the Ottoman Empire via a submarine cable linking it to Istanbul.²³⁸ Moreover, the system expanded so rapidly that by 1875, towns and villages of Macedonia were able to communicate with each other without having to first direct their messages through Salonica.²³⁹ Thus, by the last quarter of the nineteenth century, Salonica possessed the means to communicate rapidly with nearly every major city on earth.

Unfortunately, the impact of the new telegraph system on the economic development of Salonica and other major Ottoman cities has been largely undocumented.²⁴⁰ As Roderic Davison notes:

It would be interesting to know how Ottoman merchants [and presumably others] used the telegraph--- whether to offer goods, check on prices in distant markets, make purchase or sale agreements, learn of weather and crop conditions, secure loans, follow foreign exchange rates, or send and receive business messages from business agents and representatives elsewhere.²⁴¹

These questions will no doubt be answered fully by Ottoman scholars in the future. It is certain, however, that the economic impact of the telegraph, in eliminating the dependence of communication on transportation and thus

²³⁷ Basil Gounaris. "Economic Developments in Macedonia, 1430-1912." Modern and Contemporary Macedonia: 72.

²³⁸ Ibid.

²³⁹ Ibid.

²⁴⁰ The one notable exception is: Eugene Rogan "Instant Communication: The Impact of the Telegraph in Ottoman Syria" in The Syrian Land: Processes of Integration and Fragmentation. eds. Thomas Phillip and Birgit Schaebler. (Stuttgart: Steiner, 1998): 113-128.

²⁴¹ Roderic Davison. "The Electric Telegraph" in Essays in Ottoman and Turkish History, 1774-1923: 154.

removing geography as a major inhibitor, was revolutionary.²⁴² Messages could be sent and received within minutes all over the world, transforming the speed and reliability of all types of transactions. For instance, the telegraph played such an important role in the controlling and signaling of trains that rail and telegraph networks developed in tandem.²⁴³ In the future, Ottoman historians will accurately detail the role of the telegraph in the economy of Salonica. For now, it can only be assumed that the telegraph played an important role in increasing the volume of trade.

Foreign investment, chiefly British and French, was largely responsible for supplying the skilled labour, technology and equipment (machines, copper wire and submarine cables), as well as for establishing the telegraph network in the Ottoman Empire.²⁴⁴ Indeed, a British military officer was appointed to direct the entire development of the empire-wide telegraph system.²⁴⁵ Ottoman officials were quick to realize that once the network was set up it was not too expensive or difficult to maintain, and thus an effort was made to gradually dispense with foreign personnel and aid.²⁴⁶

This effort to become 'self-sufficient' in telegraphy led to the creation of many new employment opportunities for Ottoman subjects.²⁴⁷ Schools were opened to teach people how to operate and repair the machinery and wires. Furthermore, the need to maintain the lines made the job of protecting the wires

²⁴² Stanford J. Shaw. History of the Ottoman Empire and Modern Turkey Volume II: 120.

²⁴³ Roderic Davison. "The Electric Telegraph" in Essays in Ottoman and Turkish History, 1774-1923: 155.

²⁴⁴ *Ibid*: 135.

²⁴⁵ *Ibid*.

²⁴⁶ *Ibid*: 143.

²⁴⁷ *Ibid*, p.141; Tom Standage. The Victorian Internet: 62.

very important. As it was mandated that every three to five kilometers a guard-post would be built to protect the lines, new employment opportunities also appeared in the hinterlands. The introduction of the telegraph might have also provided Ottoman subjects, previously employed as horseback couriers, with new a source of employment.²⁴⁸

One of the more striking elements of the development of the telegraph in the Ottoman Empire is the degree to which British imperial interests in the India played a critical role. Early in the nineteenth century, British military strategists recognized that the telegraph could play an important role in the maintenance of their power in India.²⁴⁹ A Britain-India telegraph connection would also serve to bolster British influence in the region against growing Russian involvement.²⁵⁰ Indeed, the problems of administering India from a distance were underlined by the Indian Mutiny of 1857, news of which took a staggering 40 days to reach London.²⁵¹ Thus, in 1863 the British government, using its post-Crimean War influence on the Ottoman government, obtained the authority to construct and administer a telegraph connection to India that ran through Ottoman territory.²⁵² By 1865 this link was completed.²⁵³ Thereafter, all telegraph networks developed within the Ottoman Empire possessed three sets of wires, one for official Ottoman

²⁴⁸ Ibid, p.145; Stanford J. Shaw. History of the Ottoman Empire and Modern Turkey Volume II: 120.

²⁴⁹ Soli Shahvar. "Concession Hunting in the Age of Reform: British Companies and the Search for Government Guarantees; Telegraph Concessions Through Ottoman Territories, 1855, 1858." Middle East Studies. 38, 4 (2002): 169-171.

²⁵⁰ Roderic Davison. "The Electric Telegraph" in Essays in Ottoman and Turkish History, 1774-1923: 136

²⁵¹ Ibid: 137.

²⁵² C.P. Harris. "The Persian Gulf Submarine Telegraph of 1864." Geographical Journal.135, 2 (1969): 177.

²⁵³ Roderic Davison. "The Electric Telegraph" in Essays in Ottoman and Turkish History, 1774-1923: 137.

government usage, another for the public and businesses and another solely for British imperial interests (to communicate with India).²⁵⁴ Thus, the development of the telegraph in and around Salonica was a part of the ever growing involvement of foreign imperial interests in the Ottoman Empire.

The development of railroads is the other key component of Salonica's new land-based transportation and communication networks. The history of railroads has caught the imagination of many scholars and thus a great deal is known about its development and effects, both generally and in the Ottoman Empire.²⁵⁵ In 1850, when thousands of kilometres of rail were operating in places such as England and Germany, the Ottoman Empire had still not laid a single piece of track.²⁵⁶ The reasons for this are many and complicated, but can be reduced to two main factors: low population density and lack of capital.

The long-term financial viability of a railroad could only be guaranteed if it carried a large passenger and freight traffic. As the majority of people in the early nineteenth-century Ottoman Empire lived on small farms, demand for and thus the viability of railroads could not be guaranteed.²⁵⁷ Furthermore, unlike many other countries, the Ottoman government was slow to realize important role that railroads could play in the military and administrative planning.²⁵⁸ More

²⁵⁴ Ibid: 137; Soli Shahvar. "Concession Hunting in the Age of Reform" Middle East Studies: 174; Basil Gounaris. "Economic Developments in Macedonia, 1430-1912." Modern and Contemporary Macedonia: 72.

²⁵⁵ For example, Pierre Berton. The Last Spike: The Great Railway 1881-1885. (Toronto: McClelland and Stewart, 1971) magnificently portrays the construction of railroads in Canada as part in parcel in the construction of Canada itself.

²⁵⁶ Donald Quataert. "Part IV: The Age of Reforms 1812-1914." in An Economic and Social History of the Ottoman Empire, 1300-1914: 804.

²⁵⁷ Donald Quataert. The Ottoman Empire 1700-1922: 122.

²⁵⁸ See the discussion of the Salonica – Alexandroupoli rail line below. The most famous of the state-backed rail lines was the Hejaz line constructed in the early twentieth-century. See: Donald

importantly, the amount of capital required to develop a rail network was very high, and thus, without foreign help (in the form of loans and technological support), the task of developing rail networks comparable to those operating in Britain, Germany, the United States, etc., with domestic capital would have been impossible. In consequence, as with similar infrastructural developments, the Ottoman state turned to foreign, notably British and French, finance.²⁵⁹ Concessions were issued to foreign companies and investors to build and operate extensive rail networks. Furthermore, the Ottoman government guaranteed the profitability of these lines, thus creating an incentive for potential foreign investors.²⁶⁰ Through a “kilometric guarantee,” the Ottoman government pledged a fixed minimum revenue for each kilometre of track laid, should the line prove unprofitable.²⁶¹ Such government measures ensured heavy foreign investment and served to increase the influence of European financiers on the Ottoman government.²⁶²

Any society in which rail technology was not native posed huge technical and logistical problems.²⁶³ Thus, the reliance of the Ottoman Empire on foreign intervention to create and maintain new rail networks went well beyond capital.²⁶⁴ Despite the lack of available data, it is known that the majority of skilled workers on the rail lines, including engineers, drivers, repairmen, accountants and clerks

Quataert. “Part IV: The Age of Reforms 1812-1914.” in An Economic and Social History of the Ottoman Empire, 1300-1914: 808-809.

²⁵⁹ Ibid.

²⁶⁰ Stanford J. Shaw. History of the Ottoman Empire and Modern Turkey Volume II: 121.

²⁶¹ Donald Quataert. “Part IV: The Age of Reforms 1812-1914.” in An Economic and Social History of the Ottoman Empire, 1300-1914: 807.

²⁶² Stanford J. Shaw. History of the Ottoman Empire and Modern Turkey Volume II: 121.

²⁶³ Donald Quataert. “Part IV: The Age of Reforms 1812-1914.” in An Economic and Social History of the Ottoman Empire, 1300-1914: 806.

²⁶⁴ Charles Issawi. The Economic History of Turkey 1800-1914: 148.

were Europeans. This was not only the result of the necessary technical expertise being unavailable in the Ottoman Empire but also because the foreign companies operating the rail lines controlled who they employed. Ottoman subjects were largely limited to unskilled jobs such as cleaners, porters or maintenance workers.²⁶⁵

The exact sources of the materials used on the Macedonian lines are also largely unknown. Throughout the Empire, the locomotives were usually Austrian built, the rolling stock Belgian, French or German and the steel rails from South Wales.²⁶⁶

Despite the construction of a few good repair shops for the trains, such as the one at Eskişehir in Western Anatolia, there existed no factories capable of building trains or producing high-grade steel for rails.²⁶⁷ The Ottoman government was thus forced to continue purchasing these items from abroad. Although it would have required further foreign aid to train skilled workers and build specialized factories, in the long-term it would possibly have given the Ottoman government a means to limit its dependency on foreign powers.

The development of the steam engine (for use both in locomotives and steamships) also required a shift to a new energy source, from human power to fossil fuels.²⁶⁸ There was however, no readily available high-quality coal and thus, it too had to be imported. The Ottoman government quickly became aware of this

²⁶⁵ Basil Gounaris. Steam Over Macedonia, 1870-1912: Socio-Economic Change and the Railway Factor: 63, 67-68. The Ottoman government put pressure on the foreign companies to hire Ottoman subjects but was largely unsuccessful.

²⁶⁶ S.H. Beaver. "Railways in the Balkan Peninsula." Geographical Journal. 97, 5 (1941): 275.

²⁶⁷ Donald Quataert. "Part IV: The Age of Reforms 1812-1914." in An Economic and Social History of the Ottoman Empire, 1300-1914: 813.

²⁶⁸ J.R. McNeil and William H. McNeil. The Human Web: A Bird's Eye View of World History: 213-214.

problem, and following the “discovery” of a massive coal field on the western Black Sea coast near the city of Zonguldak, a mine was built around 1850 in the hopes of making the Empire self-sufficient.²⁶⁹ As with the construction of the railroads and steamships, however, a mine capable of delivering high yields was out of the realm of Ottoman technological and financial capabilities. Thus, in 1890s the rights to manage and operate the coalfield were sold to a French company in the hopes that their expertise would help to increase productivity.²⁷⁰ Soon thereafter, this coalfield began to supply steamships and railroads all over the Empire, including those in Macedonia.²⁷¹ It was, however, poorly managed and operated and consequently never lived up to its much-hyped potential. The Ottoman Empire and the railroads in and around Salonica, therefore continued to be reliant on foreign sources of coal until the Empire’s demise.²⁷²

The first rail lines in the Empire were small and constructed mainly under British military influence in the same area as the first telegraphs, in modern-day Romania. In 1856, British investors built a link from Izmir to its rich agricultural hinterland around Aydin.²⁷³ Soon afterwards, rail networks began to be constructed all over the empire. The potential of Macedonia to be a major agricultural producer for the world market and for Salonica to play an important

²⁶⁹ Donald Quataert. Miners and the State in the Ottoman Empire: The Zonguldak Coalfield 1822-1920. (New York: Berghahn Books, 2006):1. The Ottoman government’s first priority was to make their navy self-sufficient. However, the smooth functioning of their new coal-powered economy was also a major concern.

²⁷⁰ Ibid: 5.

²⁷¹ Ibid: 50-51.

²⁷² Ibid: 4.

²⁷³ Donald Quataert. “Part IV: The Age of Reforms 1812-1914.” in An Economic and Social History of the Ottoman Empire, 1300-1914: 807; P.E. Schoenberg. “The Evolution of Transport in Turkey (Eastern Thrace and Asia Minor) Under Ottoman Rule 1856-1918.” Middle East Studies: 365; Yaqub Karkar. Railway Development in the Ottoman Empire, 1856-1914. New York: Vantage Press, 1972): 65.

role in the global movement of peoples and goods was enormous.²⁷⁴ As early as 1852, plans existed to link Salonica to its hinterland and to the ever-expanding European rail network.²⁷⁵ However, it took almost two more decades before construction began.

A British team of engineers and surveyors was sent to Salonica to map out its hinterland in preparation for a railroad. In 1869, following numerous abortive negotiations, the Ottoman government finally signed an agreement with a Belgian financier representing British, French, Belgian and Austrian companies to create a massive railway network across the Balkan Peninsula, with the main line running North-West to South-East, from Vienna to Istanbul via Belgrade and Edirne. A series of branch lines would connect from other major cities such as Salonica.²⁷⁶

The first line to be built in Macedonia was from Salonica via Skopje to Mitrovitsa, a distance of roughly 363 kilometres.²⁷⁷ Mitrovitsa is located on Kosovo Polje, a large fertile plain with major potential for agricultural exports - which indubitably influenced investors. Started in 1871, the project was slightly delayed by a revolt in Bosnia and by the Franco-Prussian War²⁷⁸ but by 1874 the

²⁷⁴ Mark Mazower. Salonica: City of Ghosts: Christians, Muslims and Jews, 1430-1950: 213.

²⁷⁵ Basil Gounaris "Railway Construction and Labour Availability in Macedonia in the Late-Nineteenth Century." Byzantine and Modern Greek Studies. 13 (1989):143.

²⁷⁶ P.E. Schoenberg. "The Evolution of Transport in Turkey (Eastern Thrace and Asia Minor) Under Ottoman Rule 1856-1918." Middle East Studies: 365; Apostolos Vakalopoulos. A History of Thessaloniki. trans. T.F. Carney. (Thessaloniki: Institute for Balkan Studies, 1984): 112; Basil Gounaris "Salonica" Review: 504.

²⁷⁷ Ibid (Gounaris): 504; Donald Quataert "19. yy'da Osmanlı İmparatorluğu'nda Demiryolları." trans. Ahmet Günlük. in Tanzimat'tan Cumhuriyet'e Türkiye ansiklopedisi. ed. Murat Belge (İstanbul: İletişim Yayınları, 1985): 1633.

²⁷⁸ Basil Gounaris. Steam Over Macedonia, 1870-1912: Socio-Economic Change and the Railway Factor: 44.

line was fully operational.²⁷⁹ More than a decade later in 1888, the opening of a smaller 131 kilometre line from Skopje to Nish via Kumanovo linked Salonica with the main line across the Balkans, and hence to Vienna, Berlin, Paris and beyond.²⁸⁰ This line was funded by British and French capital through the foreign-owned Ottoman Bank, *Bank-ı Osmani-i Şahane*.²⁸¹ In late 1888, the first train rolled into Salonica's station from Paris with much fanfare and excitement, heralding the dawn of a new era of transportation.²⁸²

Construction of the second line began in 1891 and was completed in 1894. This line ran 219 kilometres to Bitola, which, by that time was emerging as a major town on a plateau of western Macedonia. The new railroad enabled its products to be quickly moved to Salonica and the Mediterranean.²⁸³ Unlike the other two lines from Salonica, this one was funded mainly by German capital through the Deutsche Bank.²⁸⁴ It was hoped by many, especially the Italians, that the line could be extended to the Adriatic port of Durazzo.²⁸⁵ However, due to political wrangling and disagreements, the extension was never built.²⁸⁶

²⁷⁹ Ibid; Quataert gives the construction dates as 1872 to 1872 and is surely a typographical error. See: Donald Quataert "19. yy'da Osmanlı İmparatorluğu'nda Demiryolları." in Tanzimat'tan Cumhuriyet'e Türkiye ansiklopedisi: 1633.

²⁸⁰ Ibid (Quataert); Basil Gounaris "Railway Construction and Labour Availability in Macedonia in the Late-Nineteenth Century." Byzantine and Modern Greek Studies: 144.

²⁸¹ Selcuk Aksin Somel. Historical Dictionary of the Ottoman Empire. (Maryland, Scarecrow Press, 2003): 131.

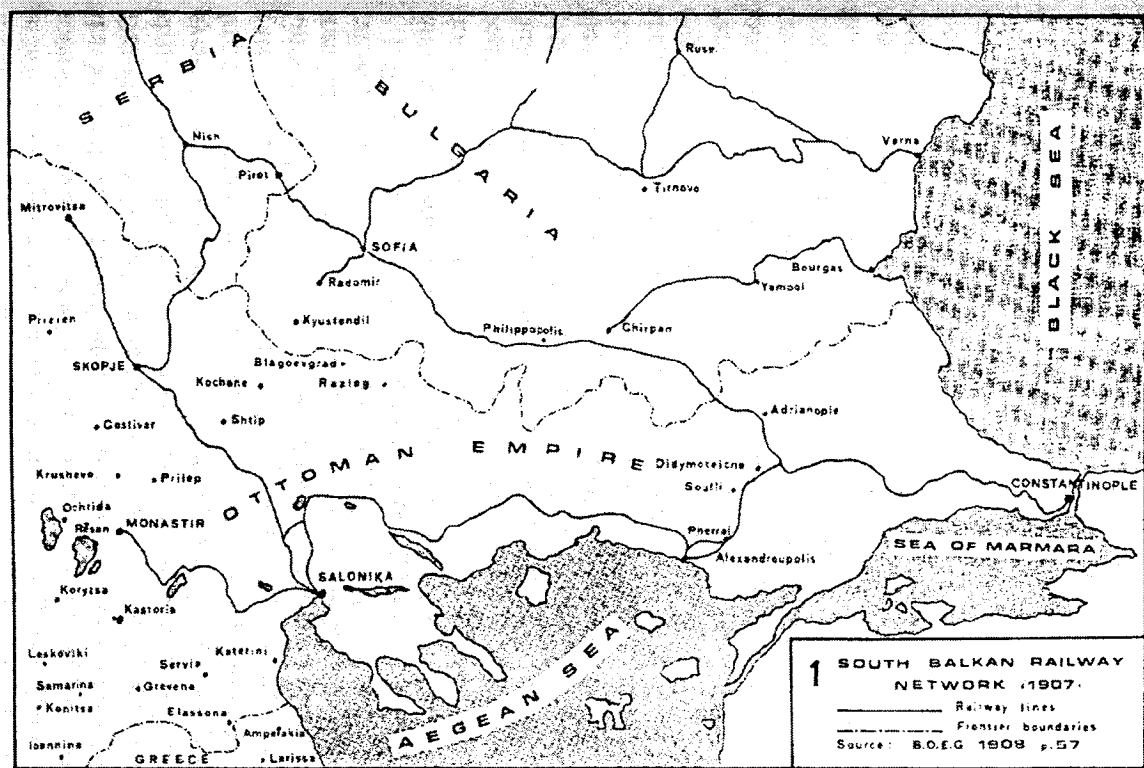
²⁸² Mark Mazower. Salonica: City of Ghosts: Christians, Muslims and Jews, 1430-1950: 216.

²⁸³ Donald Quataert "19. yy'da Osmanlı İmparatorluğu'nda Demiryolları." in Tanzimat'tan Cumhuriyet'e Türkiye ansiklopedisi: 1633; Basil Gounaris "Salonica" Review: 504.

²⁸⁴ Ibid (Gounaris): 504.

²⁸⁵ Charles H. Woods. "Communications in the Balkans." Geographical Journal. 47, 4 (1916): 274; Noel Buxton. "Balkan Geography and Balkan Railways" The Geographical Journal. 32, 3 (1908): 231.

²⁸⁶ Arthur J May "Trans-Balkan Railway Schemes." The Journal of Modern History. 24, 4 (1952): 353.



Map 4: The Railways of the southern Balkan Peninsula in 1907. Basil Gounaris. Steam Over Macedonia, 1870-1912: Socio-Economic Change and the Railway Factor: 48.

The third and final line to be built in and around Salonica was a link through Serres in eastern Macedonia to Alexandroupoli (Dedeağaç). The construction took place from 1891 to 1894. At Alexandroupoli, this line linked up with the main rail line on the Balkan Peninsula which continued on to Istanbul.²⁸⁷ With a length of 508 kilometres it is by far the longest of the three lines²⁸⁸ but because much of it travels across the flat Thracian plains, its construction was

²⁸⁷ Charles H. Woods. "Communications in the Balkans." Geographical Journal: 274.

²⁸⁸ Donald Quataert "19. yy'da Osmanlı İmparatorluğu'nda Demiryolları." in Tanzimat'tan Cumhuriyet'e Türkiye ansiklopedisi: 1633; Basil Gounaris "Salonica" Review: 504.

relatively easy in comparison to the others.²⁸⁹ Although paid for by foreign capital (the Ottoman Bank and others), it was built mainly to fulfill the strategic aims of the Ottoman state which wished to use it to move troops quickly to Salonica and beyond in the eventual outbreak of hostilities in the Balkan Peninsula.²⁹⁰ In order to protect the line against future enemy bombardment by sea, it was kept well away from the shore.²⁹¹ However, like the other lines, it was also used to move goods and people rapidly to and from Salonica.

By 1897, Salonica became the railhead of three major lines cutting across the Balkan Peninsula. These railways brought Salonica in closer contact with other cities on the peninsula, its own rich hinterland and indeed the world. Linking major land and sea- routes, Salonica's economic importance and growth, was guaranteed.

It is important to note that the construction of these new rail lines was shaped largely by the environment and rugged geography in and around Salonica. Due to the mountainous terrain, the possible routes of the new rail lines were extremely limited. Thus, it is of no surprise that the Salonica-Mitrovitsa route followed the course of the age-old North-South road from Salonica along the Vardar river valley. Both the Salonica-Bitola and Salonica-Alexandroupoli lines followed the route of the ancient *Via Egnatia*.²⁹² Despite huge advances in

²⁸⁹ Basil Gounaris. Steam Over Macedonia, 1870-1912: Socio-Economic Change and the Railway Factor: 58

²⁹⁰ *Ibid*: 57; This railroad proved to be the decisive factor in the 1897 war against the young Greek state.

²⁹¹ Mark Mazower. Salonica: City of Ghosts: Christians, Muslims and Jews, 1430-1950: 213.

²⁹² S.H. Beaver. "Railways in the Balkan Peninsula." Geographical Journal. 97, 5 (1941): 279; Charles H. Woods. "Communications in the Balkans." Geographical Journal: 274.

transportation technology and construction techniques, it can be seen that topography still dictated the make-up of these new networks.

The annual spring flooding in the mountains posed a major problem for the construction of rail bridges. For example, during the construction of the Salonica-Mitrovitsa line, the flooding of the Gallikos river destroyed a bridge and delayed work for months.²⁹³ Another bridge and was lost in an 1880 flood on the Salonica-Alexandroupoli line.²⁹⁴

The swampy marshes of the Vardar plain and its endemic malaria also impacted the construction of the lines. Many of the labourers were from abroad and were thus unaware of the dangers of working in the marshes.²⁹⁵ Predictably, many died from malaria. Indeed, the problem became so severe that the Italian government advised its citizens not to work there.²⁹⁶ Thus, it can be seen that the environment and rugged geography of the region had a marked impact on the construction of the new transportation networks in and around Salonica.

A detailed and conclusive analysis of the effects of the rail on the commerce of Salonica is not only out of the realm of this paper, but also extremely difficult.²⁹⁷ The literature on the changes wrought on the traditional trading patterns in the Ottoman Empire and Salonica is incomplete and at times

²⁹³ Basil Gounaris. Steam Over Macedonia, 1870-1912: Socio-Economic Change and the Railway Factor: 44.

²⁹⁴ Ibid: 64.

²⁹⁵ Basil Gounaris "Railway Construction and Labour Availability in Macedonia in the Late-Nineteenth Century." Byzantine and Modern Greek Studies:147-149; Donald Quataert. "Part IV: The Age of Reforms 1812-1914." in An Economic and Social History of the Ottoman Empire, 1300-1914: 810. Labourers came from all over the world including Austria, Germany, Switzerland, Russia, Serbia and Italy to work on the Salonica-Bitola line. When the contactors realized local Ottoman subjects were just as capable and willing to work for a lower wage, they quickly began to employ them as well.

²⁹⁶ Ibid (Gounaris): 147-149.

²⁹⁷ Donald Quataert. "Part IV: The Age of Reforms 1812-1914." in An Economic and Social History of the Ottoman Empire, 1300-1914: 811.

contradictory. For example, while general surveys of the impact of the railroad in the Ottoman Empire, such as those of Issawi and Quataert, show that they served to promote agricultural exports, Gounaris argues that in the case of Salonica, they ultimately did not.²⁹⁸ Furthermore, as noted above, the information regarding the domestic use of Salonica's rail lines is, as of yet, fragmentary. Therefore, only a brief overview of its impact on commerce in and around Salonica is offered here.

The introduction of the railroad enabled the shipment of bulk goods over long distances. Each car could carry at least the equivalent of 125 camels' backs, and each train could travel in an hour what the average horse or oxen travel in a full day.²⁹⁹ Thus, a single train from Salonica could deliver thousands of tons of goods to Bitola in less than 12 hours.³⁰⁰ Furthermore, with the linkage to the European system in 1888, hundreds of passengers could arrive in Salonica from London in 72 hours and from Paris in a mere 63 hours.³⁰¹

Salonica became the entry and exit point for the ever-growing world market to the interior of Macedonia and a good portion of the Balkan Peninsula.³⁰² Indeed, traffic that would have otherwise gone to the ports on the Albanian coast or other near-by ports such as Kavala was now being diverted to

²⁹⁸ Compare: Ibid: 814; Charles Issawi. The Economic History of Turkey 1800-1914: 150, 200; Basil Gounaris. Steam Over Macedonia, 1870-1912: Socio-Economic Change and the Railway Factor: 127. Unfortunately, Gounaris does not seek to explain why his findings contrast with Issawi and Quataert's.

²⁹⁹ Donald Quataert The Ottoman Empire 1700-1922: 122; J.R. McNeil and William H. McNeil. The Human Web: A Bird's Eye View of World History: 220.

³⁰⁰ Basil Gounaris. Steam Over Macedonia, 1870-1912: Socio-Economic Change and the Railway Factor: 238.

³⁰¹ Mark Mazower. Salonica: City of Ghosts: Christians, Muslims and Jews, 1430-1950: 216; Noel Buxton. "Balkan Geography and Balkan Railways" The Geographical Journal: 218.

³⁰² Basil Gounaris "Salonica" Review: 504.

Salonica.³⁰³ Some northern Macedonian cities which had previously done extensive trading with the Austro-Hungarian Empire, also switched their business to Salonica.³⁰⁴ By the early twentieth-century, Salonica's imports had increased over four-fold since the introduction of the railways.³⁰⁵

These imports consisted largely of manufactured or finished goods. Where once foreign merchants had to rely on local traders to do their business, European merchants, especially British, Austrian and Italian, were now loading large quantities of goods onto trains and having them quickly arrive to their customers in towns deep within the peninsula.³⁰⁶

Exports consisted largely of agricultural goods (made possible by the 1838 Free Trade agreements) such as cereals, tobacco and cotton. Furthermore, where once Salonica's goods were largely limited to consumption within the Mediterranean basin, they were now bound for markets as distant as Britain, Europe and America.³⁰⁷

One interesting point concerns one of Macedonia's most important exports: wheat. Before the advent of railroads, Macedonian animals transported wheat to Salonica where it was then shipped to Istanbul to satisfy its massive food consumption. However, following the abolition of the state monopoly on the grain trade, most wheat, like other cereals, left through Salonica for foreign consumption. The government in Istanbul, fearing that this trend meant that food

³⁰³ Basil Gounaris. Steam Over Macedonia, 1870-1912: Socio-Economic Change and the Railway Factor: 182.

³⁰⁴ Ibid. Gounaris does not offer any evidence for his argument but it does seem likely.

³⁰⁵ Ibid: 185-186.

³⁰⁶ Ibid: 124-126: The French and many others were in Macedonia as well but these three were the most dominant.

³⁰⁷ Ibid.

from Macedonia could no longer be guaranteed and recognizing the political instability in the Balkans, constructed a new rail line into the interior of Anatolia to access new sources of wheat.³⁰⁸

As the break-in-transport point, through which all the region's import and export trade flowed, Salonica greatly benefited from the railroads. However, there existed some problems with their functioning. First and foremost, the kilometeric guarantees which provided the initial safeguard for their construction acted as an inhibitor on profitability of the rail enterprises. The foreign companies involved, assured of a handsome profit from the Ottoman state, were not concerned about ensuring the long-term viability of the lines. The result was that they built shoddily, and laid unnecessary amounts of track.³⁰⁹

The second problem was a consequence of the first: rail stations were built where they would be easy to construct and not necessarily where they would best serve the local population. Thus, many rail stations were built well outside of the cities which they were supposed to serve.³¹⁰ Furthermore, although additional taxes were often levied from local populations to pay for the construction of feeder roads from the cities to the railway stations, the roads were often not built.³¹¹ This, however, might indicate more of a problem with the Ottoman administration than with the foreign companies. In addition, because the rail lines

³⁰⁸ Donald Quataert. "Part IV: The Age of Reforms 1812-1914." in An Economic and Social History of the Ottoman Empire, 1300-1914: 818; Donald Quataert. "Limited Revolution: the Impact of the Anatolian Railway on Turkish Transportation and the Provisioning of Istanbul 1890-1908." Business History Review. 51, 2 (1977): 141.

³⁰⁹ Noel Buxton. "Balkan Geography and Balkan Railways" The Geographical Journal: 233; Donald Quataert. "Part IV: The Age of Reforms 1812-1914." in An Economic and Social History of the Ottoman Empire, 1300-1914: 807.

³¹⁰ Basil Gounaris. Steam Over Macedonia, 1870-1912: Socio-Economic Change and the Railway Factor: 72.

³¹¹ *Ibid.*

across the Balkans were built by different engineers and different foreign companies, they utilized different gauges of track.³¹² Thus, moving people or goods across the Balkan Peninsula often required them to switch trains, slowing down their movement.

Moreover, not only did train fares prove expensive for the average Ottoman denizen but merchants were also upset by high freight tariffs imposed by the owners of the rail lines. These high tariffs were enacted partly to take maximum advantage of their monopoly on rapid transportation in the region and partly to pay unexpected fees imposed on them by the Ottoman government.³¹³ This led to the odd situation whereby some local firms continued to use the older, much slower, but also greatly cheaper, methods of land-transport.³¹⁴ Despite these problems, the overall effect of the railroads on the transportation of goods and people in and around Salonica was immense. Looking at the effect of the railroads on traditional land-based transportation networks exemplifies their impact on the movement of people and goods in and around Salonica.³¹⁵

After the Crimean War, the Ottoman state embarked on a largely unsuccessful effort to upgrade and repair its poor road network. The few roads upgraded quickly fell into disrepair and consequently the road system remained much as it had been for centuries.³¹⁶ Some provincial lords, realizing the commercial benefits to be gained from upgrading their own road system, did so

³¹² Noel Buxton. "Balkan Geography and Balkan Railways" The Geographical Journal: 230.

³¹³ Basil Gounaris. Steam Over Macedonia, 1870-1912: Socio-Economic Change and the Railway Factor: 74-76.

³¹⁴ Ibid: 76.

³¹⁵ Quataert takes a similar approach. See: Donald Quataert. "Part IV: The Age of Reforms 1812-1914." in An Economic and Social History of the Ottoman Empire, 1300-1914: 817.

³¹⁶ Mark Mazower. Salonica: City of Ghosts: Christians, Muslims and Jews, 1430-1950: 213; Issawi, p.147

out of their own pocket. This was, however, the exception to the rule.³¹⁷ One reason for the failure to improve and expand the road network was the development of the railroads to which most of the traffic quickly passed. Roads running parallel to the rail tracks fell into disrepair, for without constant traffic, their surfaces became rapidly overgrown.³¹⁸ Only after 1908, when foreign (European) road contractors were hired was the road system modernized.³¹⁹

Nevertheless, the road system as a whole did not decay. Indeed, caravan operators proved highly flexible in creating a new system of overland feeder routes linking both town and country to the railways.³²⁰ In fact, some elderly villagers in present-day Macedonia recall seeing camels coming to their village laden with goods well after the advent of railroads.³²¹ With the increase in commerce due to the advent of the railroads, caravans transport possibly increased.³²²

The re-organization of the caravan system and the new way in which railroads brought goods to the interior also had a drastic effect on the trade fairs. Where once the arrival of goods from Salonica was a monthly event, the railways ensured that goods were delivered deep into the interior on a daily basis. Thus, the fairs which had once been the hinges of the economic system of Macedonia and indeed the whole peninsula fell into decline and by the turn of the twentieth

³¹⁷ Basil Gounaris. "Economic Developments in Macedonia, 1430-1912." Modern and Contemporary Macedonia: 67.

³¹⁸ Mark Mazower. Salonica: City of Ghosts: Christians, Muslims and Jews, 1430-1950: 216.

³¹⁹ Basil Gounaris. "Economic Developments in Macedonia, 1430-1912." Modern and Contemporary Macedonia: 69.

³²⁰ Donald Quataert. The Ottoman Empire 1700-1922: 125.

³²¹ Anastasia N. Karakasidou, Fields of Wheat, Hills of Blood: Passages to Greek Nationhood in Greek Macedonia, 1870-1990. (Chicago: Chicago University Press, 1997): 49.

³²² *Ibid.* These caravans, however, would have been much smaller than their predecessors. And in no way competed with the new rail system.

century were all but gone.³²³ Their demise and the collapse of major caravans throughout Macedonia also destroyed the inn network that had once served the traditional road system.³²⁴

Following the Crimean War, telegraph and rail lines were constructed in and around Salonica. The development and functioning of these new networks required the Ottoman Empire to become reliant on foreign sources of capital, workers and technology. When completed they enabled the quick and cheap movement of information, people and goods in and around Salonica. Despite some minor problems, these new networks were so effective that they all but destroyed traditional caravan routes, and diverted traffic from other cities. As the hub of new land and sea-based transportation and communication networks, Salonica became a focal point of both regional and global trade and thus ensured its rapid growth.

³²³ Basil Gounaris "Salonica" Review: 504.

³²⁴ Basil Gounaris. Steam Over Macedonia, 1870-1912: Socio-Economic Change and the Railway Factor: 73.

Conclusion

In the early nineteenth century, Salonica was a small but important city in the Ottoman Empire. Located at a crossroads of major routes across the Balkan Peninsula and on the edge of the Mediterranean Sea, Salonica was a natural hub of the movement of people and goods. However, a number of environmental factors conspired to ensure that this movement was both slow and costly. Land-based networks were limited by rugged terrain and were dependent upon the abilities of pack-animals. Sea-based networks, while generally providing a faster and safer alternative, were also subject to environmental stresses. Salonica's position as a natural transportation hub meant that it was also vulnerable to external influences.

Following the Crimean War, European industrial powers, eager to access new resources and untapped markets, supported the creation of new transportation and communication networks in the Ottoman Empire. Salonica's long-standing position as a centre of trade meant that it was among the first cities in the Empire to be affected. By the turn of the twentieth century, steamships arrived at the city's new large and modern port on a daily basis, transporting massive amounts of people and goods. Salonica was part of a telegraph network that stretched to every corner of the earth. Similarly, it was the railhead of three major lines connecting it to, not only its own rich hinterlands, but also, the rest of the Empire and Western Europe. Despite the slow pace of transformation and the complications involved, the construction of these networks funneled a growing

amount of people and goods through the port of Salonica. It is these new networks that are at the heart of the city's rapid growth in the late nineteenth and early twentieth centuries.

The development of these networks had many unexpected and far-reaching side effects. Salonica was increasingly subjected to European control after exacting financial, technological and material loans from its European partners for the development and maintenance of the new networks. These networks also linked Salonica inextricably with the emerging international economy and all but destroyed traditional transportation and communication networks of caravans and sailing vessels.

The impact of these new networks upon Salonica was far-reaching and permanent. This study has raised many questions about the city's development that remain to be addressed. How were the railways and telegraph used by Ottoman subjects? How did the new networks alter the structure of Salonica's African slave trade? Did the new networks provide a net job gain for local populations? To what degree did the Ottoman Empire become dependent upon foreign aid during this period? Furthermore, further research is required to understand how the Ottoman government itself used these new networks. Many of these questions necessitate the use of primary Ottoman sources and undoubtedly provide areas of inquiry for future historians.

The remarkable growth of Salonica during the late nineteenth and early twentieth centuries is conspicuously absent from Bernard Lewis' seminal work, The Emergence of Modern Turkey. How can this be accounted for? Quite simply,

these developments and changes are not in harmony with Lewis' teleological theory of the decay and "decline" of the Ottoman Empire.

In recent years, a more nuanced and historically sensitive view is emerging in the field of Ottoman history that views the late Ottoman period as one of constant growth and transformation. Indeed, the notion of a "decline" is now defunct. A number of developments in the Ottoman Empire, including the rise of consumerism, the vitality of small-scale Ottoman manufacturing and increasing domestic trade during this period attest to the over-simplistic nature of Lewis' paradigm.³²⁵ It is within this new framework that the development of Salonica should be seen. Its growth, fueled by the development of new transportation and communication networks, adds to the evidence challenging Lewis's paradigm.

In 1900, British professor and traveler G.F. Abbott declared that "there are few cities in the Ottoman Empire more interesting than Salonica—interesting alike to the student and to the strategist, to the busy trader and to the idle tourist."³²⁶ This could be no more accurate. The student would be interested in the cause and effects of its massive growth. The strategist would value the city as the stronghold of the southern Balkan Peninsula and an economic powerhouse with easy access to both Eastern European and the Mediterranean worlds. The busy trader would be pleased with the ease at which new transportation and communication networks created many new money-making opportunities. The tourist would be delighted by the contrast of Roman and Byzantine ruins with the

³²⁵Donald Quataert. "Ottoman History Writing and Changing Attitudes Towards the Notion of Decline." *History Compass*.

³²⁶G.F. Abbot. *A Tale of a Tour in Macedonia*. (London: Edward Arnold, 1903): 12.

new factories, railways and steamships all shaped by the cities uniquely “oriental charm.” During the nineteenth century, Salonica experienced a five-fold increase in its population. Factories and new businesses, including international banks, lined newly paved streets lit by gas-powered lamps. The port was teeming with goods and people from all over the world, its countless new schools were filled with students from all over the Empire. It was the development of new transportation and communication networks that enabled this remarkable growth.

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