Taming the Iron Horse:
Austerity, Subversion, and Revolution in Colonial Egyptian Railways, 1876-1924

by

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DEDICATION

To our child to come, Tarik

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The idea of writing a history of the Egyptian railway came about as a result of an unexpected yet lucky encounter. On a scorching summer afternoon of 2015, I finally received the access to the Egyptian National Archives. At that time, the project in my head remained related to my master thesis—on a completely different topic from railways. As I browsed the title of every document, I became alarmed at the scarcity of useful information on my older topic. But another word, *al-sikka al-ḥadīdiyya* (railways), constantly appeared before my eyes. Growing up in an industrial area in eastern China, railway tracks used to be my childhood playground and a source of youthful joy. Roaring trains were such an ordinary and everyday scene in my memory that they could hardly be associated with the academic work that I was struggling with at an American university. Even when I was in Egypt, the railway's only function had been to satisfy my curiosity in exploring the country's different cities, and nothing more beyond that.

The transformation of my excitement with the subject of railways based on my personal experiences into an academic work could not have been achieved without the support and assistance of numerous scholars, interlocuters, institutions, family and friends. I am most indebted to Juan Cole, who has been a knowledgeable, inspirational, revered, and supportive advisor of mine in the past seven years. His wide and inclusive field of vision transformed my limitations in research directions, and to a great extent, my provinciality in the outlook on the world, life, and values. Of course, this dissertation would not have been possible without his insightful feedback on papers, rough drafts, and chapters. Alexandria Knysh offered careful

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TABLE OF CONTENTS

DEDICATION ii

ACKNOWLEDGEMENTS iii

LIST OF FIGURES iv

LIST OF TABLES x

LIST OF ABBREVIATIONS xi

ABSTRACT xii

INTRODUCTION 1

Infrastructure as Social Assemblage 1

Imperial Infrastructure and Circular Economy 12

Technology, Modernity, Locality 16

Critiques of State-Generated Archives 20

Structure of the Dissertation 23

CHAPTER I Railway Economy, Political Institutions, and Engineering Deficiency 27

From a Money Burner to a Money Tree: A Financial History of Egyptian Railways 31

Increasing Transportation and the Limit of Carrying Capacity 43

The Cessation of Public Investment and Partial Privatization 54

Conclusion 65

CHAPTER II Progress in Technology and *Nahda* in Thought 67

The Railway as a Measure of Progress 70

The Railway in Danger 85
Reframing the Railway, Rebuilding the Nation 94
Conclusion 106
CHAPTER III Managing Space, Organizing People 108
Porters, Guild, and Civil Servants 110
Spatial Management of the New Railway Police 110
Fare Evasion and the Enclosure of Egyptian Stations 134
The Iron Cage of Capitalism: Travel Classes and Gendered Spaces 141
Conclusion 153
CHAPTER IV Usurpers of Technology: Train Robbery and Theft 155
Rural Egypt: Everyday Knowledge, Centralized Supervision, Technological Innovation 161
Railway Station: Insider Crimes, Network, Accountability 171
Macro-Criminology: Macroscopic Analyses of Egypt's Railway Crime 178
Conclusion 188
CHAPTER V Petitions, Strikes, and Insurrections in Revolutionary Railways 191
Labor Petitions: Negotiation, Accusation, and Declaration 194
Railway Workers During the Revolution 206
Sabotage and Murder: Insurrections Along the Rail 215
Conclusion 223
CONCLUSION 225
Paradoxes of Colonial Railways 228
BIBLIOGRAPHY 231

LIST OF FIGURES

Figure 1 The Interior of the Cairo Station, ca. 1930 1

Figure 2 A map of the Egyptian khedivial railway during the reign of Saʿid Pasha (r. 1854-63).. 4

Figure 3 A map of the Egyptian State Railways in 1870 4

Figure 4 A map of the Egyptian State Railways in 1919 5

Figure 5 Financial circulation of the Egyptian railway in the second half of the nineteenth century 15

Figure 6 The photo shows one of the 45 “0-6-0 type” freight locomotives that were imported to Egypt between 1898 and 1899 51

Figure 7 A postcard with a portrait of the Ramleh Casino in Alexandria, owned by the Alexandria and Ramleh Railway Company, Limited 59

Figure 8 A table of railway length rankings by nation in *al-Muqtataf* 81

Figure 9 Cecil Rhodes's vision of the Cape to Cairo Railway and British dominions in Africa 101

Figure 10 “An African Map with African Ruling Powers and the Cape to Cairo Railway” 102

Figure 11 “A Native Shayyal” 112

Figure 12 Photo of an Egyptian porter 112

Figure 13 The Cairo Station in the early twentieth century 117

Figure 14 Three tickets from the Egyptian State Railways, representing three different travel classes 136

Figure 15 Internal structure of the “H. H. State Saloon” for the Viceroy of Egypt 143

Figure 16 “E.S.R. Composite First- and Second-Class Carriage” 145

Figure 17 “Third Class Old Type” 146

Figure 18 A level-crossing in Egypt, with an example of mechanical signaling, ca. 1930 168

Figure 19 “Cane being transported by railroad to the factory,” ca. 1900 181

Figure 20 British soldiers taking trains from Egypt to the Palestinian frontline during World War I 211

LIST OF TABLES

Table 1 Financial situation of the Egyptian State Railways between September 11, 1874 to December 31, 1879 37

Table 2 Contribution of the ERA's revenue to the Caisse, 1876-1904 38

Table 3 Railway revenues, number of passengers, and goods carried 1880-1904 45

Table 4 Number and ranks of railway policemen in the stations of Tanta, Alexandria, and Sidi Gabir in 1894 122

Table 5 Average annual income of the railway policemen of each rank in 1893..... 123

Table 6 Distribution of railway crimes by railway line and province, 1876-1904 180

Table 7 The number of Egyptian and European employees in the railways and telegraphs administration in 1896 and 1906 respectively 208

LIST OF ABBREVIATIONS

List of Archives:

ANOM: Les Archives nationales d'outre-mer
BL: British Library
BNA: The (British) National Archives
BRM: The (British) Railway Museum
DK: Dar al-Kutub (Egyptian National Library)
DWQ: Dar al-Wathaʾiq al-Qawmiyya (National Archives of Egypt)
ERM: Egyptian Railway Museum
LOC: Library of Congress

List of Institutions:

Caisse: The Public Debt Fund (La Caisse de la Dette Publique)
EDLR: The Egyptian Delta Light Railway
EEF: Egyptian Expeditionary Force
ESR: Egyptian State Railways
ERA: Egyptian Railway Administration (Administration des chemins de fer, des télégraphes et du port d'Alexandrie)
IRSE: Institute of Railway Signal Engineers
MTWU: Manual Trade Workers Union
SGR: Sudan Government Railway
SR: Sudanese Railways

ABSTRACT

Taming the Iron Horse analyzes the Egyptian railway as a site of political arrangements and social engagements during the period when British officials wielded control over the railway system between 1876 and 1924. From the perspectives of infrastructure studies and social history, it considers how the railway assembled technological expertise, administrative management, grassroots experiences, and sheds light on how the railway became central to public conversations and activities. Notably, I have discovered that the heterogeneous actors involved in the Egyptian railway did not always peacefully coexist. The Egyptian railway became an arena of controversies, contestation, and even direct confrontation, which reflected wider socioeconomic crises in the colonial society of Egypt. These crises included but were not limited to diminished government spending, ossified social class stratification, and overt as well as opaque racism. I argue that because the railway imaginatively or, in some instances, practically epitomized these social crises, it became a locus of these struggles throughout the colonial period.

This dissertation approaches Egypt's railway system from two opposite yet related perspectives. From the perspective of colonial governance, I examine how critical yet vexing ideas about a balanced budget, public security, and rationalized management played into the policy-making of the British-supervised railway administration. From the beginning of international intervention in 1876, austerity was implemented as the colonial financial guideline to mitigate Egypt's enormous public debts. In turn, these austerity measures had a substantial impact on how British officials restructured railway-related departments to achieve substantial

increases in the railway's overall revenue and profitability. To ensure that all policies were well executed, railway administrators also introduced a series of modernizing management methods that strengthened the central government's control over Egypt's ever-expanding railway network. By reviewing and analyzing measures of financial austerity and administrative centralization, this dissertation demonstrates that the praxis of modernity was entangled with a colonial redistribution of power. Subsequently, this redistribution of power canonized European technical and managerial knowledge production, demarcated social inclusion/exclusion, and ultimately consolidated British domination of the Egyptian railway sectors. In this respect, this dissertation contributes to the studies of coloniality and modernity, by showcasing their interchangeability and embodiment in the history of Egypt.

This dissertation also highlights the multivalent experiences of local Egyptians who lived under colonial railway policies, as well as their responses and reactions. Ranging from intellectuals who observed and commented on global railway development, middle- to lower-level railway employees who coordinated and implemented railway modernization, train travelers who were assigned to specific travel classes, and robbers and thieves who preyed on transported goods for living, this study addresses the effect of colonial railway policies on daily and civic life. It demonstrates how people engaged with different aspects of the railway, including how they repurpose its infrastructure for material gains, adhered to their principles of morality and identity, or envisioned and pursued new political agendas. In doing so, they raised contending visions of modernities and sought to expand technological possibilities beyond what had been inscribed by colonial modernization plans. I conclude that these multiple visions shattered the colonial dream of exerting comprehensive control over the Egyptian railway.

Therefore, this dissertation also contributes to studying plural modernities from postcolonial viewpoints in a non-Western society.

INTRODUCTION

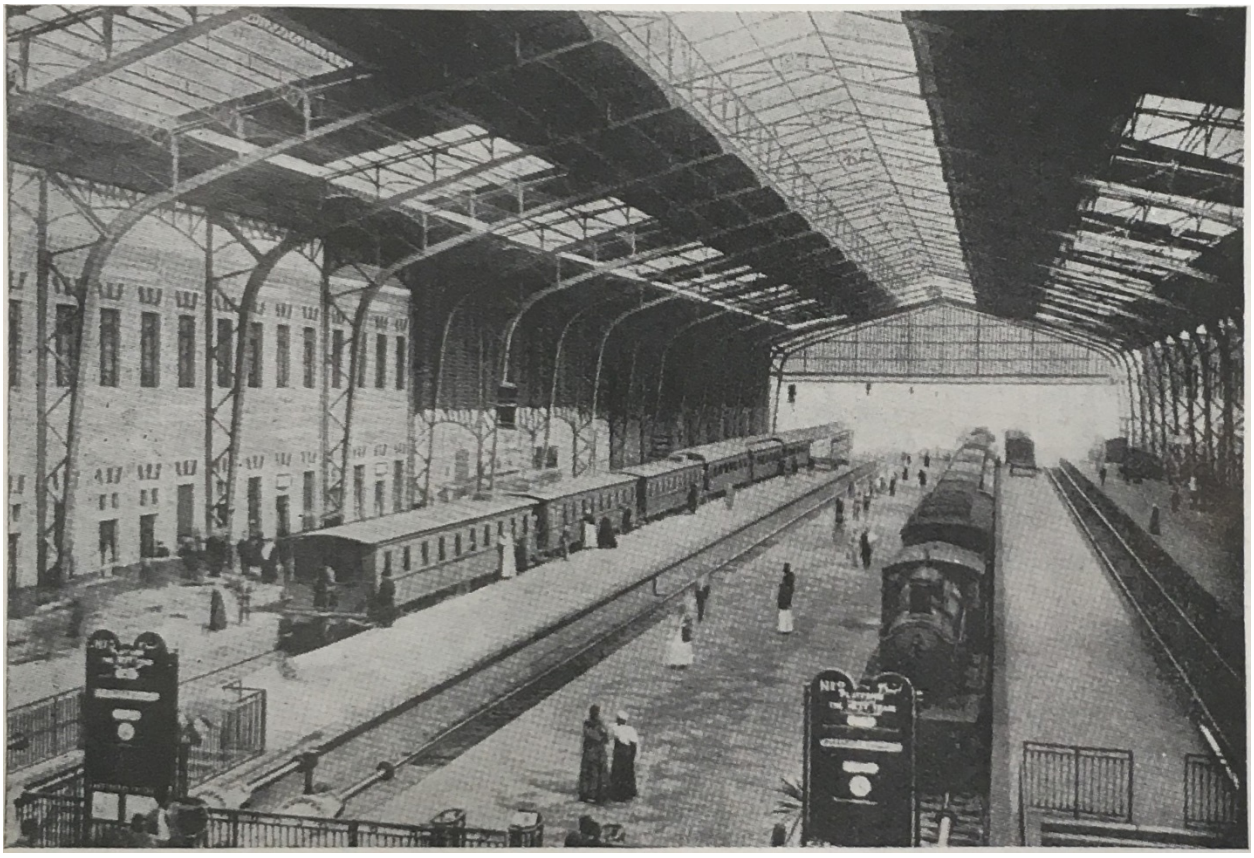


Figure 1 The Interior of the Cairo Station, ca. 1930.
Source: "The Egyptian State Railways," *The Locomotives*, December 15, 1932.

Infrastructure as Social Assemblage

"This is Cairo Station, the heart of the city. Every minute a train departs and every minute another arrives. Thousands of people meet and bid farewell; people from all over, locals and foreigners, rich and poor, people with and without jobs."[1] In the 1958 film *Bab al-Hadid* (*Cairo*

Station, directed by Youssef Chahine), the Cairo Station was the epicenter of restless movement, perpetually busy with smoking trains and running travelers. The station harbored parting and reunion, expectation and disillusion, joy and tears. It set the scene for the film's romantic and tragic story that examined the intense yet destructive obsession of a dislocated and youthful life. For Egyptian viewers, the film was more than a mere artistic representation, because in many respects, it mirrored their real-life experiences associated with the Egyptian railway. The Cairo Station (Figure 1) reflected the most realistic and everyday dimensions of Egyptian society, as well as the spirit of the times. This is the charm of the railway, hustling and bustling yet firmly rehearsing the sound and the fury of modern life, and the repeating rhythm of the age in which modernity manifests to its full potentials.

The Egyptian railway, as a concrete infrastructure, occupied a definite physical space and functioned to connect Egyptian cities, towns, and villages. Cartographers explicitly delineated rail lines and stations on maps ever since the first tracks were laid in Egypt (Figure 2, Figure 3, and Figure 4). As early as 1851, Egyptian Khedive Abbas Hilmi I contracted and commissioned British engineer and businessman Robert Stephenson to build the country's first railway line. [2] This line started from the country's Mediterranean coastal city of Alexandria and ended in the Nile Delta's inland city of Kafr al-Zayat. Taking three years to complete, the Alexandria-Kafr al-Zayat line marked the first railway in Africa and the Middle East.[3] Two successors of Abbas I, Saʿid Pasha and Ismaʿil Pasha, continued to expand the state railway network south to Upper Egypt, east to the Suez Canal, and west to the Western Desert. The iron horse, the ultimate

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[1] Youssef Chahine, *Cairo Station*, 1958.
[2] The English version of the Abbas I-Stephenson contract is available at the (British) National Archives (henceforth BNA), Colonial Office (henceforth CO) 1069/855, "Colonial Office and Successors: Photographic Collection," December 31, 1851, Annexe A. The Arabic version is preserved in the Egyptian Railway Museum.
[3] For Robert Stephenson's journey in Egypt, see Alan Clothier, *Robert Stephenson Abroad: Egypt 1847- 1859* (Newcastle, UK: Robert Stephenson Trust Ltd., 2006).

representation of the modern and industrial world, opened new connections among Egypt's major cities: Cairo in 1856, Suez in 1858, Talkh/Mansura in 1863, Ismailia in 1868, Damietta in 1869, Minya in 1876, and Asyut in 1874. [4] The khedivial railway—lines that were built following the Egyptian khedives' decrees before 1876—formulated the principal arteries of the infrastructure system and it was transformed into the Egyptian State Railways (henceforth ESR) to distinguish from later-established private railway companies. During the period of British occupation, the colonial railway administration turned to building more branch lines that supplemented the existing trunk lines of the ESR and thus further complicated local networks. The only major achievement in the main lines was the extension of the Upper Egyptian section to Aswan in 1898. In the second half of the nineteenth century, the explosion of railways fundamentally shaped the Egyptian landscape. Trains traversed the country's rivers and the deserts, as if no geographical barriers could impede their tireless motion. Railways linked cities together, and also with their suburbs and nearby towns. Moreover, railway lines were extended to plantations, ports, quarries, mines, workshops, and factories. As every railway map indicated, the existence of railways marked fundamental changes in the country's geography and signified new potential for greater connectivity and mobility.

[4] For the development of railways during the khedivial years, see Osama Ettouney, *Railways Along the Nile and the Renaissance of Modern Egypt* (1798-1879) (North Charleston, SC: Create Space Independent Publishing Platform, 2014), 16-35; Gary Goldfinch, *Steel in the Sand: The History of Egypt and its Railways* (Swanage, UK: Finial Pub., 2003).

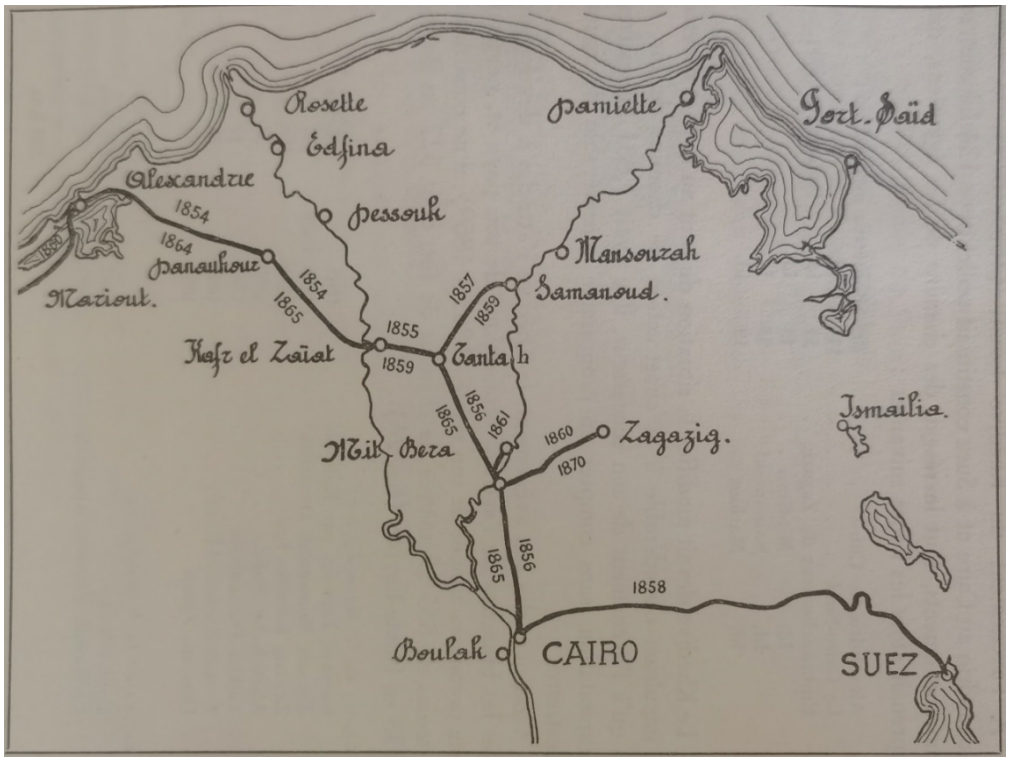


Figure 2 A map of the Egyptian khedivial railway during the reign of Saʿid Pasha (r. 1854-63)
Source: Lionel Wiener, *L'Égypte et ses chemins de fer* (Brussels: M. Weissenbruch, 1932), 87.

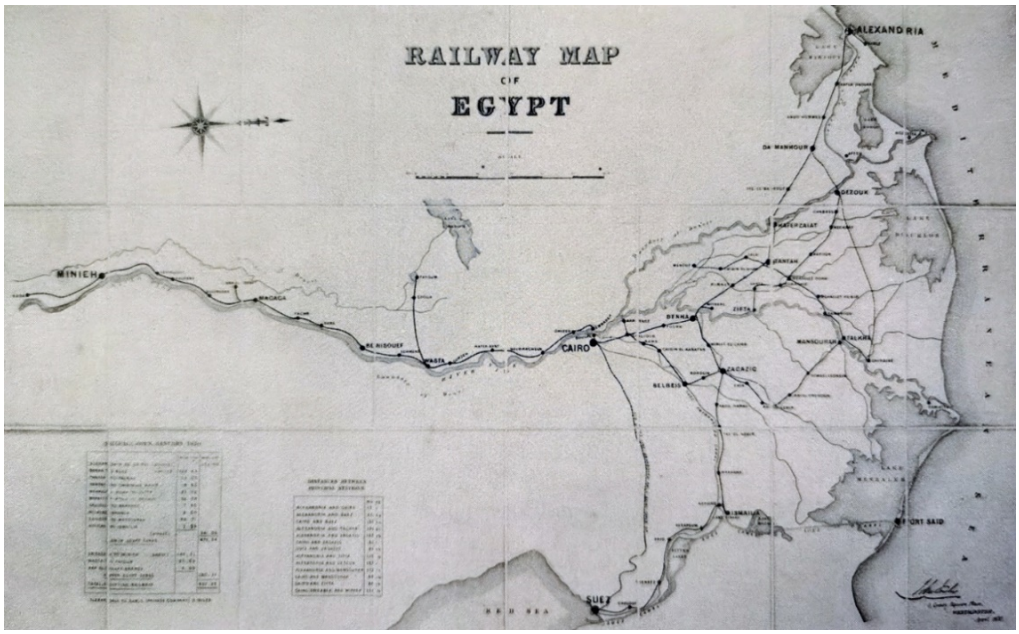


Figure 3 A map of the Egyptian State Railways in 1870.
Source: Lionel Wiener, *L'Égypte et ses chemins de fer* (Brussels: M. Weissenbruch, 1932), 79.

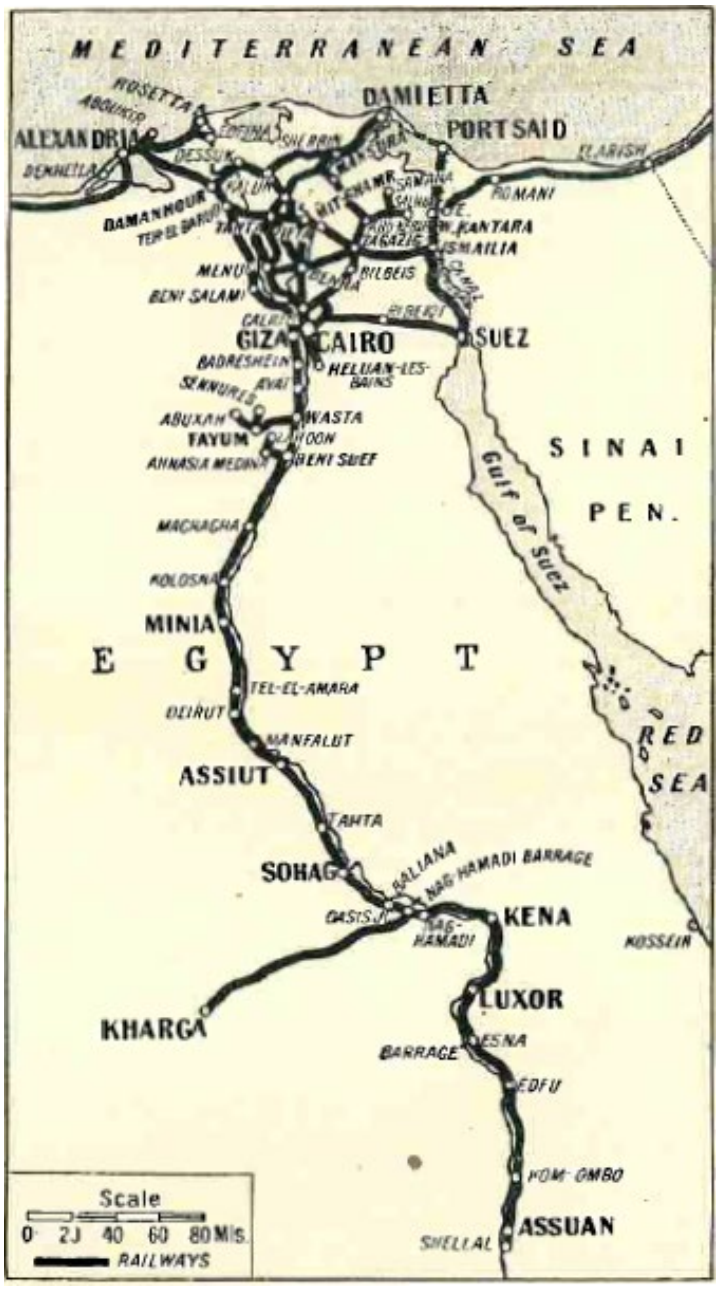


Figure 4 A map of the Egyptian State Railways in 1919.
Source: "In the Nile Valley: Train Operation in Modern Egypt," *Railway Wonders of the World* 2, part 41 (1935): 1314.

The physical attributes of railways, as reticulated systems of transportation, are often what initially attract scholars of the infrastructure and introduce them to its intricacies. Indeed, the infrastructure's physicality provides possibilities of connection and movement. Yet Egyptian

railways cannot be limited to merely physical and spatial objects. As the film *Bab al-Hadid* illustrates, the Cairo Station is as equally a social space as it is a physical one. The vitality of this infrastructure depends on the constant presence of human beings, and their routine and everyday activities and engagements with a complex combination of objects, technologies, spaces, and architectures. Susan Leigh Star observes that an infrastructure "both shapes and is shaped by the conventions of a community of practice."[5] In AbdouMaliq Simone's reflections on urban Johannesburg, he insists that scholars need to incorporate people and their activities as inseparable components to the making of infrastructure.[6] The signification of human activities emerges more saliently when a piece of infrastructure is abandoned. During the 1984 Winter Olympics, stadiums and other sporting facilities in Sarajevo hosted incessant clapping and enthusiastic cheering in the Olympic spirit of "higher, faster, and stronger." But decades later, the once-crowded buildings are no longer the center of athletic competitions and only occasionally attract tourists who want to witness their vanished fame. Once it loses its resident, an infrastructure's social life is depleted and eroded, thus leaving nostalgic memories of its splendid past.

In contrast to Sarajevo's abandoned Olympic venues, the Egyptian railway was climbing toward its historical zenith in the period under my investigation. The railway's rise was not only embodied in its physical aspects—more complex rail networks and upgraded trains, but also in ever-evolving social aspects as an assemblage of increasingly heterogeneous actors and activities converged, bringing together old and new ideas, natives and the foreigners, in various forms of

[5] Susan Leigh Star, "The Ethnography of Infrastructure," *American Behavioral Scientist* 43, no. 3 (1999): 377-91.
[6] AbdouMaliq Simone, "People as Infrastructure: Intersecting Fragments in Johannesburg," *Public Culture* 16, no. 3 (2004): 407-29.

collaboration and contestation.[7] The railway did more than reshape the country's geographical landscape, but also limned the contours of its societal landscape, engaged people of multiple origins, provided for their activities, and extended their relational capacities. It configured specific social engagements, from financial operations to material production, from institutional management to various forms of everyday entanglement with people's desires, identities, and senses of belonging. It signified an expanding ensemble of government institutions, a more crucial node of social networks, and an increasingly pronounced embodiment of political imagination. The railway's social life continued to thrive so long as it gave shape to and was shaped by social actors, their activities, and their sentiments of hope, excitement, frustration, and anger. Thus, my dissertation raises questions concerning the social construction of infrastructure: who participated in the construction of the railway's social space? Why were they involved? How did they influence the changes that occurred in the railway's infrastructure?

To view infrastructure as a social collective is a difficult task, because not every actor has equitable access to it and not all activities are given the same amount of significance and influence. Infrastructures are primarily associated with the dispositions of regularity—technical, commercial, and administrative rules to promote certain directions of activities while prohibiting other directions. But in many public discourses, infrastructure is associated, explicitly or implicitly, with the semiosphere of universal equality. For instance, the discourse of benign colonialism wrongly equates mobility with freedom, and views technology transfer from the West to East as a liberating force to all colonial subjects.[8] In anticolonial nationalist discourse,

[7] Gilles Deleuze and Pierre-Félix Guattari's concept of "assemblage" tends to be metaphorical and suggestive rather than analytical or empirical. See Gilles Deleuze and Pierre-Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans Brian Massumi (Minneapolis: University of Minnesota Press, 1987); Manuel Delanda, *A New Philosophy of Society: Assemblage Theory and Social Complexity* (London: Continuum, 2006).

[8] The discourse of benign colonialism at times also appears in academia, for instance the since withdrawn article by Bruce Gilley, "The Case for Colonialism," *Third World Quarterly* (2017). For the analyses of colonial discourse of

nationalization of infrastructure and removing colonial supervision is viewed as a means to regain national independence, to revitalize the national economy, to restore national dignity, and eventually as an intoxicating promise to benefit all citizens of the nation.[9] While the articulation of the former is polymorphous and the latter sounds metaphorically inspirational, both discourses propose an unachievable and deceptive presumption that the infrastructure's social space is equally accessible and that social resources attached to the infrastructure can be shared by all members of society. They view infrastructure as void of power. But the reality is often the opposite.

This dissertation approaches the social complexity of the Egyptian railway by acknowledging the prevalence of power and the inevitability of unequal access, and by studying the relationship between the two. These questions are central to the historical narratives and analyses of this dissertation: How did the Egyptian railway reflect and represent the long-term dynamics and accumulations of finance, expertise, institutional and sociopolitical power? With the deepening of British colonization in Egypt, how did experts and authorities maneuver interpretations and perform practices to "tame" the railway infrastructure in their envisioned direction? Besides recognizing power from the top town, my dissertation also examines interruptions, modifications, grassroots subversions, and nationwide revolutions. These powers from below exhibited desires and practices to "untame" the Egyptian railway, as well as the

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the railway, see Marian Aguiar, *Tracking Modernity: India's Railway and the Culture of Mobility* (Minneapolis: University of Minnesota Press, 2011), 24-47.

[9] Bipan Chandra, "Economic Nationalism and the Railway Debate, circa 1880-1905," in *Our Indian Railway: Themes in India's Railway History*, ed. Roopa Srinivasan, Manish Tiwari, and Sandeep Silas (New Delhi: Foundation Books, 2006), 77-120; Barnaby Crowcroft, "Egypt's Other Nationalists and the Suez Crisis of 1956," *The Historical Journal* 59, no.1 (2016): 253-85; Donald M. Reid, *Contesting Antiquity in Egypt: Archaeologies, Museums, and the Struggle for Identities from World War I to Nasser* (New York: The American University in Cairo Press, 2015), 51-80; and Mikiya Koyagi, *Iran in Motion: Mobility, Space, and the Trans-Iranian Railway* (Stanford: Stanford University Press, 2021), 63-84.

impulse to liberate themselves from the Gramscian "hegemony" of colonial authorities.[10] I consider what strategies were in use to repurpose, alter, and populate the railway and how these strategies engaged with broader social structures and changes during the colonial period of the Egyptian railway.

The Heterotopic Railway

The history of Egyptian railways that I write in this dissertation aims to reach out to the broader political, socio-economic, and cultural history of the late nineteenth- and twentieth-century Egypt. The period under review witnessed unprecedented passion over new infrastructure construction, as well as accelerated development in centralized and scientific management. These modern progresses, along with their utopic promises and shattered dreams, projected onto the concrete object of railways, leading to Egypt's colonial status and foreshadowing heterogenous social problems associated with the unbalanced distribution of power. In this sense, the Egyptian railway offers an analytical prism to examine broader and more structural issues that have intrigued substantial scholarly interests in the historiography of Egypt.

In his early-career talk given to a group of architects, Michel Foucault tentatively brought forward the concept of heterotopia to describe some well-demarcated yet often disturbing social, institutional, or discursive spaces.[11] He presented a few thumbnail sketches and real-life examples such as brothels, prisons, ceremonies, fairs, and Ottoman baths. But he has never clearly defined the concept or developed it into a coherent idea. What we can tell from Foucault's speech is that heterotopia is not a simple mixture of utopia and dystopia, as both of

[10] Antonio Gramsci, *Prison Notebooks* (New York: Columbia University Press, 2011).
[11] The talk is preserved in Mitchel Foucault, "Of Other Spaces," *Diacritics* 16 (Spring 1986), 22-27.

the latter represent a pure and unreal virtual space. Heterotopia, however, is a physical microcosm that exists in a single real space yet juxtaposes several incompatible sites. The existing "mirror world" distinguishes from the external world, serving as a corruption of the perfect version of society—the utopia—and a convergent place of undesirable bodies and social images.[12]

Foucault in his later works did not refer to heterotopia as his research directions gradually shifted toward more abstract and theoretical power disciplines, in which he downplayed the capacity of space's physical attributes. However, space as an analytical category has begun attract scholars from divergent intellectual traditions. Henri Lefebvre, who has been associated with cultural Marxism, broke new ground in explicating space's multiple layers of meaning. From Lefebvre's perspective, the physicality of a bounded space cannot be understood separately from spatial practices whereby human beings construct social relations and form social conventions.[13] According to Lefebvre, spatial arrangements—material conditions to visualize certain types of matters from particular perspective angles—do not randomly perpetuate; but they are productions of a coding process through which fixed forms of knowing and social practice capture commonsensical perceptions of everyday life. Spatial experiences of the everyday compose crucial parts of the culture, a customized system of duties and expectations that in turn stabilizes the meaning(s) of space.

Edward Soja's concept of Thirdspace derives from both Foucauldian and Lefebvrian traditions in which he clarifies his trialectics of understanding social space. A Thirdspace is "simultaneously real and imagined."[14] It is real because it is fixed in the concrete materiality of

[12] Ibid.
[13] Henri Lefebvre, *The Production of Space* (Hoboken, NJ: Wiley-Blackwell, 1992).
[14] Edward W. Soja, *Thirdspace: Journey to Los Angeles and Other Real-and-Imagined Places* (Cambridge, MA: Blackwell Publishers, 1996), 11.

spatial forms, on things that can be empirically mapped, and on tangible experiences and appreciable effects of human life. Meanwhile, the spatial order of human existence also marks a mental creation of disciplinary power that forecloses any ontological questioning of the existential meanings of spatiality and human consciousness. In this respect, Soja's Thirdspace demonstrates sufficient explanatory power for scholars situating at different ends of the political spectrum. For cultural Marxists, the Thirdspace theory typifies the enduring processes that all social relations, including mental practices governed by power and discipline, were spatially inscribed—that is, concretely represented—in the social production of space. For Hegelians, Thirdspace means spatial concretization from the realms of pure abstraction, representation, and ideology into the everyday and lived experiences of society.

Back to this dissertation's topic, is it possible to view the Egyptian railway as a heterotopic space of a broader world? If it is possible, what is the world in front of the mirror, and why examining the railway—the mini-world inside the mirror—would enable meaningful reflections of the broader world?[15] In this dissertation, I propose that the colonial Egyptian railway—including its infrastructure materiality, institutional mechanisms, and everyday practices—reified the making and perpetuation of the colonial structural order, as well as forces that attempted to undo it. While drawing all sorts of people in the infrastructure—as capital investors, maintenance workers, station peddlers, or even pickpockets who hide in passengers crowd, it also assigned them different social positions in conformity with the existing or forging social categorizations of race, ethnicity, gender, and class. The reticulated material network

[15] For an experimental attempt to use the concept of heterotopia in a historical context of the Middle East, see Shehab Fakhry Ismail, "Engineering Heterotopia," *International Journal of Middle East Studies* 47, no. 3 (2015), 566-569. This Foucauldian concept has been more productive in the field of literary criticism, see Yaseen Noorani, "Heterotopia and the Wine Poem in Early Islamic Culture," *International Journal of Middle East Studies* 36, no. 3 (2004): 345-366; Wen-Chin Ouyang, "Utopias, Dystopias and Heterotopias: The Spatiality of Human Experience and Literary Expression," *Middle Eastern Literatures* 15, no. 3 (2012): 227-231; and Paulo Lemos Horta, "Heterotopia as a Site of Cross-Cultural Collaboration: Ibrāhīm Al-Dusūqī and Edward Lane," *Middle Eastern Literatures* 15, no. 3 (2012): 273-285.

constituted by stations and tracks was only able to function by regulating the circulation of people, commodities, and ideas. It formed the key site for examining the production, exercise, struggle, and transmutation of powers against the background of Egypt's colonization and capitalization.

Imperial Infrastructure and Circular Economy

Scholars who study the world economy of the nineteenth and twentieth centuries have emphasized the global circulation of commodities and its central role in the formation and stabilization of global capitalism. Early dependency theorists describe an exploitative cycle of the world economy. In this framework, the poor and underdeveloped periphery offers cheap labor and raw materials on the world market, in return for high-priced industrial products from the rich and developed core. Because this global exchange cycle depletes capital from the periphery, the dependency school attempts to explain the historical underdevelopment of peripheral countries.[16] This school of thought has left a profound impact on how scholars perceive global economic (under)development. Immanuel Wallerstein complicates the binary opposition of the core and the periphery by replacing it with the global division of labor in the world-systems theory.[17] Along with the deepening of post-Cold War global trade, the circular economy of commodities became a more salient feature of capitalism and has received widespread recognition among scholars. Kojin Karatani further confounds this economic structure by closer analyses of the site of consumption.[18] Global transportation networks, in this globally circular economy, play the critical role to ensure the safety and efficiency of commodity

[16] Vicent Ferraro, "Dependency Theory: An Introduction," in *The Development Economics Reader*, ed. Giorgio Secondi (London: Routledge, 2008), 58-64.
[17] Immanuel Wallerstein, *World-Systems Analysis: An Introduction* (Durham, NC: Duke University Press, 2004).
[18] Kojin Karatani, *The Structure of World History: From Modes of Production to Modes of Exchanges*, trans. Michael K. Bourdaghs (Durham, NC: Duke University Press, 2014).

movement. As David Harvey argues "a very specific spatio-temporal structure to capital accumulation arises" in accordance with "transportation capacities and the means, cost, and time taken."[19]

Working within the Egyptian context, Charles Issawi raises the concept of "lop-sided development" to address the unbalanced and exploitative nature between Egypt's export sector—notably long-staple cotton—and the rest of the country's economy, especially the industrial sector.[20] He contends that Egypt's seamless transition into an export-oriented economy in the early nineteenth century resulted in the accumulation of many difficulties and structural challenges, notably rapid population growth, which consequentially delayed its later transition into a more complex economy.[21] Railways constituted a crucial part of the export economy by providing efficient transportation for cotton, and sugar—as I would supplement Issawi's argument—that fit both the purposes of export and population growth. Additionally, On Barak's recent work draws scholarly attention to the consumption aspect of the steam engine because locomotives in Egypt almost exclusively consumed imported fossil fuel from the British Isles as their sole energy source.[22] In practical terms, almost every component of early Egyptian railways was made in Britain. These components included iron for tracks, wood for sleepers, various styles of locomotives and wagons, and beyond a shadow of doubt, engineering expertise. Egyptian railways consumed British industrial materials and products, as it transported agricultural crops to Britain. The global division of labor and circulation of commodities is the

[19] David Harvey, *Spaces of Global Capitalism* (New York: Verso, 2006), 95.
[20] Charles Issawi, "Egypt Since 1800: A Study in Lop-sided Development," *The Journal of Economic History* 21, no.1 (1961): 1-25.
[21] Issawi's concept of "lop-sided development" is slightly revised in Roger Owen's history of Egyptian economy, but the basic logic remains unchanged. For Owen's critiques, see "Issawi's Notion of Egypt's 'Lop-sided Development' Revisited," *Topics of Middle Eastern and North African Economics* 4 (2002), 1-7. For the Ottoman context, see Donald Quataert, "Limited Revolution: The Impact of the Anatolian Railway on Turkish Transportation and the Provisioning of Istanbul, 1890-1908," *Business History Review*, 51, no. 2(1977): 139-60.
[22] On Barak, *Powering Empire: How Coal Made the Middle East and Sparked Global Carbonization* (Oakland, CA: University of California Press, 2020).

first circular economy that I highlight, an economy that has been more exhaustively researched. In this economy, railways functioned as the unceasing engine of capitalist exploitation that integrated the world economy and solidified and expanded the British Empire

This dissertation highlights a different yet equally vital form of circular economy that is less studied and narrated in terms of railways in Egypt. This is the circulation of capital (Figure 5). Capital takes on different forms in the real world and relevant to our discussion are three types of capital: cash (liquid capital), debt, and infrastructure (capital asset). Eric Hobsbawm demonstrates that British capital had completed capital's primitive accumulation in the first phase of the industrial revolution before 1840, whereas by the second phase from 1840 to 1895, capital sought to expand globally to continue pursuing its interests. Since the second phase also underwent the global circulation of communities, investments in transportation infrastructure became one of the most popular and profitable trends of that era. As Hobsbawm explicates, "it [was] the pressure of the increasingly vast accumulations of capital for profitable investment, which is best illustrated by the construction of the railways."[23] Investments of European capital in Egyptian infrastructures, from the perspective of Egyptian khedivial government, constituted the ultimate source of Egypt's enormous public debt since the 1860s and 1870s, representing the third form of capital—debt. This dissertation studies the transitions among the three forms of capital: what and how did the transitions achieve? What kinds and levels of political and socioeconomic impacts emerged in Egypt following these transitions?

[23] Eric Hobsbawm, *Industry and Empire: From 1750 to the Present Day, 2nd ed* (New York: The New Press, 1999), 88.

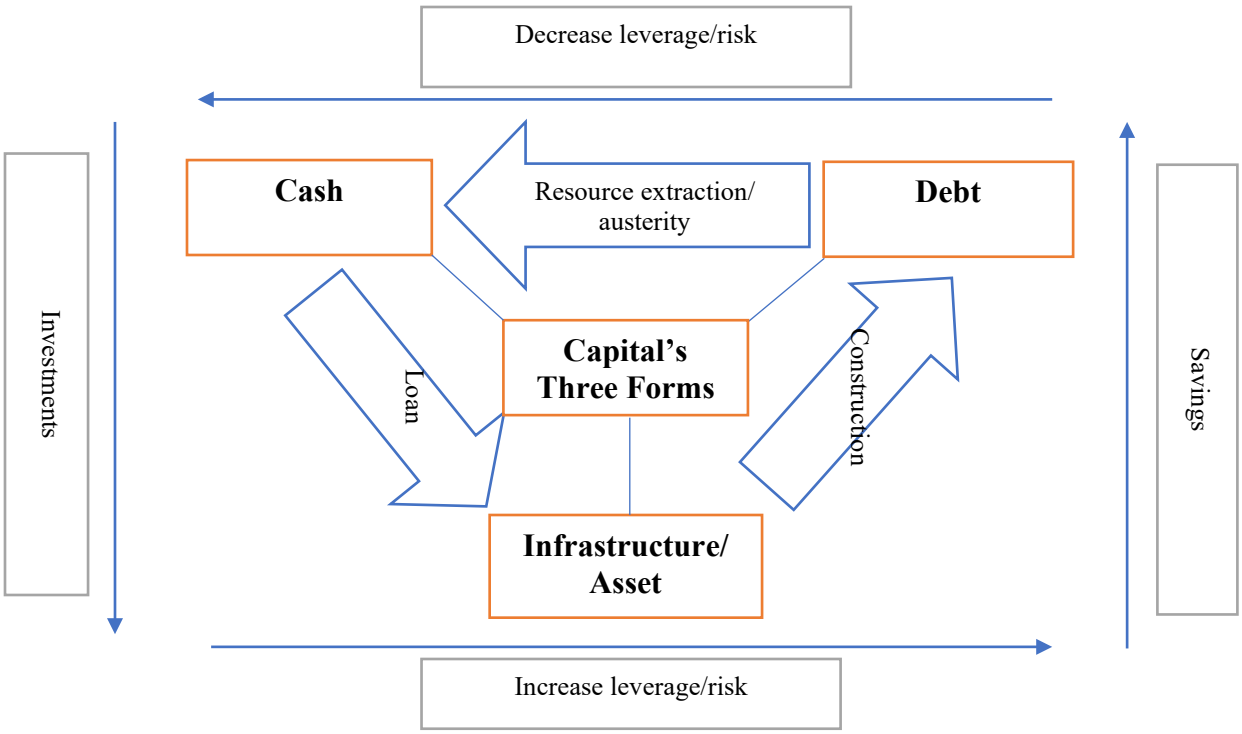


Figure 5 Financial circulation of the Egyptian railway in the second half of the nineteenth century.

Among the three transitional processes of capital's forms, this dissertation pays the most attention to the transition from Egypt's public debt to cash flow for European creditors. Compared to the other two processes of capital transition that were more or less limited to the domain of business, this transition from debt to cash involved complicated political arrangements that epitomized and embodied British imperialism. The repayment policy enforced the use of international intervention when the debtor suspended debt repayment, a situation that happened in Egypt in 1876. Although Britain's territorial occupation of Egypt was completed in 1882 by taking the excuse of suppressing the proto-nationalist ʿUrabi Revolt, I maintain that the colonial history of Egypt was already in full swing by 1876 rather than, as is more widely accepted, six year later. Of note, by 1876 the Anglo-Egyptian relationship ceased to be that of equitable and equal partners. International committees and British officials within the Egyptian cabinet held a

joint mission—to guarantee the debt-cash transition by controlling Egypt's key revenue sources, and railways was one of, if not the most vital sectors.

One of the contributions of this dissertation is to reveal the resource extraction policies and mechanisms that were used to forge and facilitate the transition from Egyptian debt to European cash. It further uncovers the broader financial circulation that sustained global capitalism and generated imperial domination. The railway's political economy did not dwell in isolation; it also intersected with the engineering, intellectual, and social dimensions that concurrently shaped colonial Egypt.

Technology, Modernity, Locality

Studies of railway history, especially in European and American contexts, have zeroed in on railways' relationship with modernity, viewing railways as "a revolutionary rupture with past forms of experiences."[24] This widespread framework that overshadows Euro-American histories views the railway as an idealized carrier and an ultimate embodiment of modernity. It encapsulates what a modern world looks like, and moreover, it constructs the outlook and meanings of a modern world and celebrates its advances. Stephen Kern, in his study of modern time and space, argues that train schedules have contributed to creating a universal standardization of time zones, increasing predictability, and much more precise calculations of time. The speed of trains substantially shortens the time of travel and makes starting points and destinations much more meaningful compared to the geographical distance covered in the journey.[25] To recapitulate the modernist effects, Wolfgang Schivelbusch concludes the railway's

[24] Wolfgang Schivelbusch, *The Railway Journey: The Industrialization of Time and Space in the Nineteenth Century*, rev. ed. (Berkeley, CA: University of California Press, 2014).
[25] Stephen Kern, *The Culture of Time and Space* (Cambridge, MA: Harvard University Press, 2003).

modern functions as "the annihilation of time and space."[26] In this respect, modernist historians like Kern and Schivelbusch converge with Marxist critiques of capitalist modernity. The latter also pay special attention to the radical restructuring by capitalist forces in the nature and experiences of both time and space. Theorists such as David Harvey contribute to articulating a new capitalist condition of "time-space compression" driven by technological innovations.[27] Although using the conclusion for different purposes, both liberal academic and Marxist scholars reach an agreement that railways and other modern communication technologies have significantly reduced temporal and spatial factors in human movement.

In dealing with unwanted results of railway systems, such as train accidents and environmental destructions, railway historians working on Euro-American contexts accept them as negative consequences yet necessary developmental processes within the modernization framework. To fit into his overall modernization narrative, Schivelbusch describes train accidents as a "negative indicator of technological progress."[28] Accident represents the imperfect side of technology. But the negative indicator would eventually decline as technology progresses towards full modernization. Similarly, Jack Simmons views early trains as "vandals" that cut through the idyllic landscape in Britain, producing noises and smoke pollution that were incompatible with the original quiet and peaceful environment. But with the extension of railway companies into the hotel business, it assisted the growth of tourism in Victorian Britain and fundamentally created new ways of leisure for British residents.[29] In these modernist narratives,

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[26] Schivelbusch, *Railway Journey*, 41. For other scholarship that emphasizes on railway's modernization effects, see Richard White, *Railroaded: The Transcontinental and the Making of Modern America* (New York: W. W. Norton & Co., 2011); T. G. Otte and K. Neilson, *Railways and International Politics: Paths of Empire*, 1848-1945 (London: Routledge, 2006).

[27] David Harvey, *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change* (Cambridge, MA: Blackwell, 1990).

[28] Schivelbusch, *Railway Journey*, 131-32.

[29] Jack Simmons, *The Victorian Railway* (New York: Thames and Hudson, 1991), 155; Jack Simmons, "Railways, Hotel, and Tourism in Great Britain, 1839-1914," *Journal of Contemporary History* 19, no. 2 (1984): 201-22.

the unwanted results of railway systems both reflect and highlight their deficiencies and mark the dark sides of modernity.

While the "speeding-up" effects of railways can be discerned in different societies, scholars have challenged their universal homogeneity and pushed forwards more nuanced narratives about how railways in non-Western contexts interact with diverse societal components. This "rediscovery" of global railway diversity occurred concurrently with the collapse of modernization theory and the pluralization of the concept of modernity. Scholars are now more prone to accept the idea that what appears to be modern is "socially constructed," including technology, trends of thought, forms of social categories, and much more.[30] There is no genesis or paradigm of modernity but only one among many variations. Thus, European experiences cannot be seen as a universal, stable, singular, or transparent modernity that manifests as templates for the rest of the world.

In this line of thought, historians of global railways put much emphasis on the infrastructure's locality—the local political, social, economic, and cultural conditions that give shape to and are shaped by the infrastructure. The proposition of "time-space compression" is challenged, not only in the sense that railways do not always reduce time cost or shorten travel distance, but also that these compressions cannot be regarded as the necessary condition of being "modern." On Barak, for instance, concludes that unpunctuality in the Egyptian railway was an inseparable component of colonial discourses that helped construct ideas and stereotypes of nativeness by colonial officials and engineers. But for Egyptians, their various means of intentional delays functioned as sources of resistance. These undisciplined acts, subverting the imperial construct of time, were attempts to create a new and modern Egypt, an Egypt outside

[30] Timothy Mitchell, *Rule of Experts: Egypt, Techno-Politics, Modernity* (Berkeley, CA: University of California Press, 2002); Ralph Schroeder, *Rethinking Science, Technology and Social Change* (Stanford: Stanford University Press, 2007).

the auspices of British imperial rule.[31] Barak, therefore, challenges the singularity of modern time and pushes the concept towards multiple understandings that address local conditions and circumstances.

Scholars also question the equation of railway's mobility with universal freedom, liberation or emancipation. While the physical tracks of railways served as more convenient transportation of the urban upper-middle class, Mikiya Koyagi notices that the same tracks also segregated land and erected barriers, and became sources of immobility among various Iranian populations.[32] Thus, in the counternarratives of modernity, as Marian Aguiar and Laura Bear uncover in Indian cases, colonial railways produced "stagnation and displacement," or reinforced social hierarchies that prohibited social mobility.[33] Jamie Monson contrasts the colonial Tanzanian railway with the same line rebuilt under socialist development aid, and demonstrates that the railway's emancipation ability embedded in its dynamic engagement with identity formation, community building, and long-term security for the local population. At present, scholars no longer restrict technology to its functionality, but also consider its social embeddedness. In deeper contextual analyses, scholars now redefine the inclusiveness of the infrastructure, and identify people's everyday interactions with the railway as a crucial scope of analysis.

In light of recent scholarship on railways, this dissertation examines the impacts of colonial railways on various strata of Egyptian society, and how Egyptians from all walks of life respectively repurposed the infrastructure and reshaped its utility. My research on these denizens

[31] On Barak, *On Time: Technology and Temporality in Modern Egypt* (Berkeley, CA: University of California Press, 2013).
[32] Mikiya Koyagi, *Iran in Motion*, 7.
[33] Marian Aguiar, *Tracking Modernity*, xvii; Marian Aguiar, Charlotte Mathieson, and Lynne Pearce, eds., *Mobility, Literature, Culture* (New York: Palgrave Macmillan, 2019); and Laura Bear, *Lines of the Nation: Indian Railway Workers, Bureaucracy, and the Indian Historical Self* (New York: Columbia University Press, 2007). For multiple themes in Indian railways, see Srinivasan, Tiwari, and Silas, *Our Indian Railway*.

suggests diverse centers of knowledge production and considers their ways of negotiations, interactions, and contestations as embodiments of the railway's liminality and heterogeneity. By examining intellectual discourses and life experiences of socially marginalized groups, this dissertation attempts to find out how these groups struggled to reterritorialize colonial infrastructural policies and created alternative meanings of technological modernity in Egypt.

Critiques on State-Generated Archives

Historical sources can both reveal the critical reality of the past and create new semiotic barriers. I would not be able to write this this dissertation without the vastness and diversity of sources on the Egyptian railway, its technological components, social surroundings, as well as cultural implications. While the rail network reified colonial prosperity and subsequently national progress, modern interventionist state institutions, colonial and national alike, invented practices to keep track of the infrastructure's updates with as much detail as possible. By investing tremendous amounts of human and material resources in record production and keeping, government institutions have played critical roles in the making of the historical past. For researchers of modern Egyptian history, government archives—British, Egyptian, and to a lesser extent, French archives—have become pivotal sites of visit because they preserve integral collections of useful sources to recover information of the past. The mining of government commissions, institutional reports, and other official documents and publications enables a rather comprehensive overview of the general development of the rail infrastructure, the issues at stake, and the institutional mechanisms of recordkeeping.

The extensive utility of archival sources in history and more generally in humanities disciplines is accompanied with reflexive criticisms of the source's positionality. The

"postcolonial turn" with the rise of postcolonial studies since the 1980s draws attention to the perpetuation and endurance of colonialist and systematic structures in post-independent nation states, especially cultural and economic ones.[34] Inspired by Michel Foucault's methodology of "genealogy," vanguards of postcolonial studies maintain that the primary condition to overthrow the persistent colonial order of things necessitates a meaningful and fundamental critique of the hegemonic production of European colonial knowledge and discourses, which often hide behind meticulously cultivated ideas of modernism and universal rationalism. From this perspective, colonial archives, as Ann Laura Stoler thoroughly and rightly elaborates, cannot be regarded as sources of pure extraction, but as "the supreme technology of the imperial state" that "clustered connections between secrecy, the law, and power."[35] Knowledge contained in the archives, therefore, is viewed as interpretative techniques laden with mundane politics and state power, rather than demonstrative of a sublime historical truth.

To a large extent, postcolonial critiques of centralized archives express scholarly aspiration to challenge the state monopoly of politics from the top down and to recover the voices of multiple historical agents, especially those who are situated at the margins of society and are categorized as subalterns. This endeavor corresponds with the more developed field of new social history, which has thrived since the 1960s and after the 1980s grew particularly influential in the field of modern Middle Eastern history. Pioneering figures of the new social history of the modern Middle East attach great importance to the restructuring experiences of ordinary people under significant social and structural changes, such as modernization, legal

[34] For the "postcolonial turn," see Ania Loomba, Suvir Kaul, Matti Bunzl, Antoinette Burton, and Jed Esty, eds., *Postcolonial Studies and Beyond* (Durham, NC: Duke University Press, 2005); Dorus Bachmann-Medick, ed., *Cultural Turns: New Orientation in the Study of Culture* (Berlin, Germany: De Gruyter, 2016), 131-173.
[35] Ann Laura Stoler, "Colonial Archives and the Arts of Governance," *Archival Science* 2 (2002): 87-109.

reform, social revolution, bureaucratic centralization, and gender disparity.[36] To unveil nonelite life, they excavate new sources from state archives, or make innovative use of existing materials. From their perspectives, Islamic court and various other forms of petitions, for instance, provided Egyptian subjects with the opportunity to participate in formal politics, the sphere that was typically under the dominance of political elites. Although subaltern voices displayed in court records or petitions cannot be ideally viewed as unmediated or purely representing "the will of the people," they counter the homogeneous narrative of the state, a narrative penned by bureaucrats who were primarily concerned with the functioning of the state apparatus.

It is crucial to acknowledge that traceable subaltern voices in government archives were in part desired products of the nineteenth-century modernizing states. The centralization of Egypt's bureaucracy since Muhammad Ali (r. 1805-1848) expanded the architecture of state institutional power that both defined the geographical territory and managed the population within its borders. Professional expertise and practices, such as forensic examination, census registry, land survey, and police training, contributed to increasingly complicated and hierarchical government agencies. These agencies strived to construct institutional presence in less urbanized areas of Egypt, representing the khedive and his government. They rediscovered the Egyptian population and recorded at length their mundane activities, not for the purpose of fabricating events, but to monitor the everyday happenings within their own matrix of knowledge and power.

[36] For a few examples of the new social history with a focus of the Middle East region, see Kenneth M Cuno, *The Pasha's Peasants: Land, Society, and Economy in Lower Egypt, 1740-1858* (Cambridge, UK: Cambridge University Press, 1992); Juan Cole, *Colonialism and Revolution in the Middle East: Social and Cultural Origins of Egypt's ʿUrabi Movement* (Princeton, NJ: Princeton University Press, 1993); Joel Beinin and Zachary Lockman, *Workers on the Nile: Nationalism, Communism, Islam, and the Egyptian Working Class, 1882-1954*, 2nd ed. (Cairo: American University of Cairo Press, 1998); and Judith Tucker, *Women in Nineteenth-Century Egypt*, rev. ed (Cambridge, UK: Cambridge University Press, 2002).

Because of the government's lasting campaigns to make the population legible and regulate its populace, critiques have focused on the phantasmal images of subaltern populations in government archives. Although state-generated records might validate the historical existence of certain groups of people, these critiques contend that their very semiotics were more prone to reflect an illusory and often intentionally distorted reality. Especially for colonial archives, derogative characterization of local populations served as the ultimate exploit and purpose of foreign domination. [37] Accordingly, a subaltern resembled an archival phantom that did have a self-made portrait, yet was determined to reveal its nature, imprinted in its own negative as proof of existence. Furthermore, many historians who approach state archives are confused by their frequent incoherence, fracture, and dissonance. A partial reason of this incoherence can be found in the heterogenous nature of state power. Vying institutions or bureaucrats amplified specific individual voices and presented completely contrasting pictures of the same people.

Structure of the Dissertation

This dissertation principally adopts a thematic approach to chapter organization, inflected by considerations of chronological sequence. Chapter one examines the political economy of infrastructure, especially British policies of fiscal austerity that lie at the center of my intellectual inquiries. I contend that the regular and massive financial transfers of capital for Egypt's debt repayment resulted in two interconnected consequences. On the one hand, British officials delineated a distinct boundary of the railway economy that served to increase profitability, and ultimately to guarantee profits and debt servicing of European creditors. In the name of alleged "science," "rationality," and "civilization," their financial reforms reaped lucrative short-term

[37] Sean Hanretta, *Islam and Social Change in French West Africa: History of an Emancipatory Community* (Cambridge, UK: Cambridge University Press, 2009), 121-158.

benefits and compelled the Egyptian railway towards a more complex system. On the other hand, austerity neglected durable plans of infrastructural development by significantly reducing long-term investments in large-scale construction, technical upgrades, and localization of expertise. Consequently, although the rail sector seemed to achieve a significant revenue surplus during the colonial years, I argue that it suffered from multiple technical and social problems that continued to plague it into the early twentieth century.

Chapter two considers the reactions among the Arabic-speaking intelligentsia towards technological progress and the New Imperialism. Instead of approaching the *Nahda* (Arab Renaissance) either as a global spread of modern ideas or a nativist response to the European model of modernization, I intend to write the material culture of the railway and *Nahdawi* intellectual ideas as a connected and convergent history. Thus, I re-read the *Nahda* literature through Material Engagement Theory to argue that the *Nahdawi* intellectuals' experiences with and memories of the railway shaped their thinking. As the railway intervened in their everyday lives and memory, it constructed their identities and realms of knowledge, especially when they actively engaged with ideas about rationalism, progress, secularism, and nationalism. Conversely, the representations of the railway also shifted from a measure of progress to a threat to the nation, and ultimately pinning their political aspirations on a complete overthrow of British control and established a national railway system.

Chapter three reviews the colonial-spatial construction of a coherent and regulatory Egyptian railway. It attends to the creation and perpetuation of the colonial micro-management of space in the Egyptian major railway stations and in passenger trains. Three places are closely examined. First, modern scientific management of station porters' working places contributed to the dissolution of the traditional guild system in Egypt and endorsed the rising authority of the

Railway Police. Second, the rearrangement of railway station entrances and new ticket inspection policies enforced by the Railway Police enclosed the public space of railway stations and made free accessibility the privilege of a few. Third, distinctions in travel classes and the gendered compartments created differentiated travel experiences based on ethnicity, social class, and gender. All three examples demonstrate that colonial mechanisms of controlling space fabricated social (in)visibility, reinforcing existing hierarchies, and forging new socioeconomic dynamics.

Chapter four examines banditry, embezzlement, and other types of insider crimes along Egyptian railway lines during a period when British officials exerted centralized control over the Egyptian railway and financial austerity negatively impacted the rail sector. By exploring the motives and tactics of railway crimes, I posit that criminals, by making claims on and making use of the technology outside the purview of state regulations, expressed their heterogeneous desires to redistribute social wealth, repurpose technical promises of modern railways and confound intentions of colonial governance. This bottom-up approach strives examine grassroots activism, everyday knowledge, informal networks, and social mores and norms which criminals harnessed to discern infrastructural vulnerabilities and to elude surveillance from the colonial state. Ultimately, I contend that criminal acts uncovered otherwise hidden social crises under the shadow of the exterior prosperity and the stability of late nineteenth-century Egypt.

The last chapter investigates three contentious forms of sociopolitical interactions articulated by grassroots Egyptian activism that addressed issues regarding colonial rule in Egyptian railways before and during the 1919 Revolution. The first and most prevalent interaction of petitioning evolved its format and tone of writing from negotiative to accusive, and eventually towards declarative manifestos that meshed coherently with, and complemented, workers' collective movements. Manual laborers in railway workshops developed the second

sociopolitical interactions of labor strikes. While these strikes confronted counterstrategies from the railway's managerial class and failed to unite all railway workers, I argue that they played a crucial role in transforming railway labor forces as active participants in Egypt's nationalist movements. The third form of interaction involved violent-oriented insurgencies such as railway sabotage, murders, and assassinations at the height of the nationalist revolution. Distinguished from previous crimes motivated by economic incentives, these insurgencies were driven by ultra-nationalist emotions and improvisational practices, and pointed to a fundamental change of the status quo by the use of force, sometimes excessive for. By drawing attention to political activities of nonelites, this chapter diversifies historical narratives of the 1919 Egyptian Revolution.

This dissertation covers the British colonial period of the Egyptian railway from 1876 to 1924. Egypt's debt crisis in 1876 marked a historical watershed for its railways. Before November 18, 1876, the Egyptian monarch possessed the ownership and managerial rights of all railways in his territory, with only a single exception of the Alexandria-Ramleh tramway that at that time barely eked out in its competition of the khedivial railway. After that date, and until almost five decades later, British officials wielded the administrative power to decide every aspect of the Egyptian State Railways, first in the name of the international board of the Egyptian Railway Administration (Administration des chemins de fer, des télégraphes et du port d'Alexandrie, henceforth ERA), and then by monopolizing the administration's top decision-making circle. The dissertation ends in 1924 when the popularly elected government of Saʿd Zaghlul, veteran politician and the first post-British prime minister, appointed Egyptian engineer Abdel Hamid Pasha Sulayman as the general manager of the Egyptian Railway Administration. From that historical moment on, the Egyptian railway underwent a new phase of nationalization.

CHAPTER I
Railway Economy, Political Institutions, and Engineering Deficiency

In April and June 1887, the houses of British parliament and the Egyptian Council of Ministers (Majlis al-Nidhar) respectively received two critical reports on the Egyptian State Railways (ESR). Henry Drummond Wolff, who served as the British high commissioner investigating the "Eastern Question" in Istanbul and Cairo, handed in the first report to the British parliament, entitled "Reports by Sir H. Drummond Wolff on the Administration of Egypt."[38] Commissioned by the British viceroy in Egypt, Lord Cromer, the second finding, "Report on the Egyptian State Railways by Messrs. Marindin and Farrer," was conducted by two English officials who then served as financial advisors in the Egyptian government.[39] Although these two reports approached and assessed the Egyptian State Railways from different perspectives and promoted distinct political ambitions, both reflected the investigators' deep frustration with the railway infrastructure and its deteriorating conditions. Wolff described how the railway had "[fallen] into a deplorable condition of disrepair," and had "greatly deteriorated," as a result that "no expenditure [had] been incurred," which "[postponed] either in the maintenance of the way or works or in the repairs of the rolling stock."[40] Marindin and Farrer especially noted that the railway system, under the management of the international board, was featured by "worn-out rails," engines "in a bad state of repair," "the complete absence of

[38] The full text and correspondents related to Wolff's report are available in BNA, Foreign Office (henceforth FO) 655/57, "Reports by Sir H. Drummond Wolff on the Administration of Egypt," April 1887.
[39] The full text of this report is available in FO 881/5503, "Report on the Egyptian State Railways by Messrs. Marindin and Farrer," September 1887. Lord Cromer also mentioned this report in Evelyn Baring Cromer, *Modern* Egypt (London: MacMillan and Co., 1911), 701-702.
[40] FO 633/57, "Reports by H. Drummond Wolff," 44.

uniformity" in the signal system.[41] In searching for a reason for the railway's deterioration, they unilaterally ascribed these conditions to a severe lack of funding support for the aging infrastructure. Both parties stated toward the end of their respective reports that the ultimate difficulty for the Egyptian railway was "the impossibility of ascertaining the sum which it [had] cost in construction and equipment."[42] With a limited percentage of the railway's gross revenue earmarked for infrastructure improvement, they concluded that the Egyptian railway, without additional funding, could not be rapidly overhauled from its current and depleted condition.

Based on the central concern raised in these two reports, this chapter asks both ontological and epistemological questions revolving around the (under)development of Egypt's railway system between 1876 and 1922. From an ontological perspective, I inquire as to why the Egyptian railway, one of the most profitable assets of late nineteenth-century Egypt, instead "fell into a deplorable condition of disrepair;" why its infrastructure, which played such a pivotal role in the Egyptian economy, was underfunded to the extent that its budget could no longer meet mid- to long-term operational costs; how the underfunded railway system reflected Lord Cromer's comprehensive economic policies in Egypt; and what were the long-term consequences of these economic policies to the Egyptian railway? These ontological questions were inevitably intertwined with the formation of British economic policies—the epistemological incentives that drove the policy-making processes. Therefore, this chapter not only studies the public financing of the railway—from where the revenue generates and how to spend it, but more significantly the political arrangements that provided the foundation for these seemingly unintentional yet practically detrimental financial choices.

[41] FO 881/5503, "Report by Marindin and Farrer," 2, 7, 18.
[42] FO 881/5503, "Report by Marindin and Farrer," 22.

Thus, this chapter adopts a political economy approach to investigating railways in Egypt.[43] My overarching argument points to the inseparability of three sphere—the political, the economic, and the technical—in the dynamic contexts of colonial Egypt. Financial pressure was the ultimate rationale for legitimizing the British "veiled Protectorate" that lasted for over four decades. Prior to the 1882 occupation, the Ottoman viceroy or Egyptian khedive had already surrendered Egypt's financial sovereignty to the commission of the Caisse de la Dette Publique, the international entity that was established on May 2, 1876 to supervise debt repayment of the Egyptian government to European banks and individual creditors. As the British controller of the Caisse, Lord Cromer arrived in Egypt one year later, and began systematically imposing his vision of "light fiscal burthens" that contributed to the Egyptian government's repayment of foreign loans.[44] Cromer also made no secret of using political maneuvering in achieving this economic goal. He viewed his mission of fiscal reform as a sharp departure from the former "oppressive and ruinous system" of the khedivial government.[45] He alleged that the Caisse, as well as the Railway Board, as part of the "machinery of government" needed to be reformed and streamlined in order to achieve a modern and effective Egyptian government, a government that could be measured on a similar scale as its Europe counterparts yet subject to his authoritarian command.[46] Thus, a healthy and balanced budget was an outcome of a series of interrelated policies that Cromer and the Caisse implemented that advanced the British manipulation of the Egyptian government.

[43] For a recently published book with the political economy approach, see Joel Beinin, Bassam Haddad, Sherene Seikaly, *A Critical Political Economy of the Middle East and North Africa* (Stanford, CA: Stanford University Press, 2021).
[44] Evelyn Baring Cromer, *Abbas II* (London: MacMillan and Co., 1915), XXII; Cromer, *Modern Egypt*, 897.
[45] Cromer, *Modern Egypt*, 814.
[46] Cromer, *Modern Egypt*, 662.

This chapter shows that the Egyptian railway, which played a crucial part in Egypt's colossal public debts under Khedive Ismaʿil, was transformed into a reliable source of income for Egypt's debt repayment in the colonial period. The railway administration managed to achieve this critical transformation by delineating a distinct boundary around the railway economy and set up specialized institutions to regulate that economy. In this chapter, I specify two sets of economic and fiscal policies—revenue increases and expenditure cuts—that constituted the core of the British-mandated railway economy. I argue that these policies were directly informed by the austerity measures imposed by the Caisse and Lord Cromer's objective of "light fiscal burthens." I point out the two-dimensional effects of the ERA's management of the railway economy. On the one hand, the ERA's financial reforms benefited from private investors and significantly stimulated the short-term profitability of Egyptian railways. In the name of self-alleged "science," "rationality," and "civilization," the financial reforms served to transfer profits from the rail sector to the Caisse, and ultimately guaranteed the repayment to European creditors. On the other hand, these austerity policies neglected sustainable plans for infrastructural development and produced indelible negative results. They unilaterally reduced long-term investments in large-scale construction, technical improvements, and localization of technical knowledge. Consequently, although the rail sector seemed to achieve ostensible prosperity in private investment and revenue growth during the colonial years, I argue that it was unable to achieve fundamental improvement when the nationalist government resumed control and oversight of its administration in 1923.

From a Money Burner to a Money Tree: A Financial History of Egyptian Railways

In the mid-nineteenth century, the "railway mania," which had swept across the British Isles, contagiously influenced the financial markets in Egypt. Saʿid Pasha and Ismaʿil Pasha, two successors of Khedive Abbas I, spared no effort to set up new iron tracks along the banks of the Nile River.[47] The expansion of railway networks in Egypt seemed to be unstoppable. However, few government officials at that time would expect that the trend would halt suddenly in the 1870s, and that this halt would last for more than three decades.

At first, the Egyptian khedives planned to place the modern infrastructure tightly under their control. They envisioned that English engineers would act merely as contractors who would facilitate the Egyptian government's ability to purchase advanced railway technologies from Europe, technologies that had not been developed yet in Egypt. Egyptian khedives hired numerous British engineers for technical support, provision of construction materials, and initial guidance of railway operation. Yet, the economic contracts also stipulated the khedives be the ultimate property owners (*mālik*) of the new infrastructure.[48] For building railways, Egyptian khedives exploited a huge number of corvée laborers, the underpaid forced labor who would reduce construction costs. However, Egypt was short on most of the fundamental materials for railway construction, and thus had to import them all from British suppliers, including iron tracks, railway spikes, sleepers, various types of locomotives and wagons, and even coal for fuel. Consequently, the khedive permitted these higher construction costs, which were sustained by the substantial increase in government spending of the mid-nineteenth century. To localize the railway technology, the first railway training school was established in 1861 in the Shubra

[47] Ettouney, *Railways Along the Nile*, 16-35.
[48] CO 1069/855, "Colonial Office and Successors," 1851.

district of Cairo, with an Ottoman name *taʿalimhāna* ("House of Education").[49] All these building projects gradually overdrew the accounts of the khedive and his government.

Extensive construction of railway lines and compulsory purchases of equipment almost exclusively from abroad brought unprecedented financial burden to the khedivial government. Egypt experienced a significant economic transformation between 1861 and 1866. Grasping the opportunity offered by the impending scarcity of American cotton in the wake of the American Civil War (1861-1865), Egyptian fellaheen, with the viceregal encouragement, all turned their attention to the production of the bumper crop while curtailing the areas that were used for the cultivation of other crops.[50] However, when cotton demands shrank on the global market in the late 1860s because of increasingly fierce competition, the Egyptian economy, which had transformed to rely disproportionately on cotton harvest, was unable to make an timely adjustment. Consequently, the government treasury depleted along with the approaching nadir of the cotton price.[51]

To continue building the Cairo-Minya line amid dwindling government revenue, Ismaʿil borrowed £3,000,000, termed as the "Egyptian Government Railways Debenture Loan," from European creditors Messrs. Frühling and Göschen in 1866. This was not the first foreign loan for Egyptian khedives, as this risky act of borrowing public debts had started in 1862. Knowing the financial risks, European lenders imposed stricter terms for the 1862 loan. They not only asked for usurious interest rates and unreasonably high bank fees, but more detrimentally, demanded that the desperate khedive mortgage the entirety of the existing rail infrastructure as an essential

[49] Hayʾa al-ʿAmma li-Shuʾun Sikak Hadid Misr (Public Institute for Affairs of the Egyptian Railway), *Egyptian Railways in 125 Years, 1852-1977* (Cairo: Egyptian Railways Press, 1977), 218.
[50] Edward Mead Earle, "Egyptian Cotton and the American Civil War," *Political Science Quarterly* 41, no. 4 (1926): 520-545.
[51] Roger Owen, *Cotton and the Egyptian Economy, 1820-1914: A Study in Trade and Development* (Oxford, UK: Oxford University Press, 1969), 122.

part of the transaction.[52] Still bewildered in his ambitious infrastructural projects, the khedive firmly believed that his railways could generate enough profits that would before long repay all debts. So, he agreed all the unfair terms, and even mortgaged his immense private properties, especially cultivable land, to European creditors, usually at prices half of their market value. When the loan was signed, the khedive promised the debt repayment in six annual installments of £500,000, and the last one on January 1, 1874.[53] However, Ismaʿil's descendants never achieved to deliver the promise.

Unfortunately, cotton prices did not shoot back up in the 1870s as Ismaʿil had confidently anticipated, which directly caused the deteriorating financial situation of the Egyptian government. The desperate khedive made more lethal decisions that led to the financial tragedy. In 1873, Egypt's floating debts—the amount that were payable in short term—had reached £28,000,000 yet the entire annual revenue of the Egyptian government was about £6,000,000.[54] To assure the approaching repayment deadlines, a colossal sum of £32,000,000 was settled between the Egyptian government and European lenders—the Imperial Ottoman Bank, Messrs. Bischoffsheim and Goldschmidt, and a few smaller financial entities.[55] By the terms of this contract, European borrowers secured multiple sources of repayment, among which were the entire railway revenues in Lower Egypt, amounting to £750,000 annually.[56] Even in this precarious situation, Ismaʿil did not abandon previous railway plans in Upper Egypt. A considerable part of the 1873 loan was used in the construction of the Cairo-Minya line, which

[52] Robert Lucas Nash, *Fenn's Compendium of the English and Foreign Funds, Debts, and Revenues of All Nations 13th edition* (London: Effingham Wilson, Royal Exchange, 1883), 420-21; Vladimir Lutsky, *Modern History of the Arab Countries*, trans. Lika Nasser (Moscow: Progress Publishers, 1969), 190.
[53] Nash, *Fenn's Compendium*, 421; and Clinton Dawkins, "The Egyptian Public Debt," *The North American Review* 173, no. 539 (1901): 492.
[54] Dawkins, "The Egyptian Public Debt," 493-4.
[55] Nash, *Fenn's Compendium*, 423.
[56] Nash, *Fenn's Compendium*, 423.

was completed in 1874.[57] Ismaʿil further aspired to extend the railway network from Upper Egypt to Sudan. His chief railway engineer, John Fowler, arrived in Cairo in 1869 and was convinced by the khedive that Sudan was geographically an extension of Egypt.[58] Fowler spent two years conducting the initial geological survey that proved the feasibility to construct new light railway lines in northern Sudan. The plan was estimated to cost £4,000,000 in total, and was immediately approved by the khedive in 1873, further pushing Egypt into a deeper debt.[59] In 1876, the total amount of Egypt's public debts accumulated to £89,208,052, a daunting amount that provided the rationale for European governments to strip Egypt of its financial sovereignty.[60]

Egyptian railways, which had benefited tremendously from Ismaʿil's extravagant loans, now had to play the central role in repaying these skyrocketing debts. In 1876, two representatives of the British and French bondholders—George Goschen, a former Liberal cabinet minister and Edmond Joubert, a director of the Banque de Paris—jointly worked out a scheme of future debt repayment. The Goschen-Joubert scheme divided the Egyptian debts into four categories: Ismaʿil's private debts, debts secured by *muqabala* (taxes resulted from Ismaʿil's 1871 *Muqabala* law), privileged debts, and unified debts.[61] Among the four categories, the privileged debts consisted of bonds issued in 1862, 1868, and 1873, amounting in total £17,000,000. Goschen and Joubert agreed on prioritizing these debts before the outstanding

[57] Lionel Wiener, *L'Égypte et ses chemins de fer* (Brussels: M. Weissenbruch, 1932), 98-99.
[58] Thomas Mackay, *The Life of Sir John Fowler* (London: John Murray, 1900), 234
[59] Abdeen Palace collection (henceforth Abdeen), Dar al-Wathaʾiq al-Qawmiyya (National Archives of Egypt, Cairo, henceforth DWQ) [0069-026573], "Papers Especially with Regards to Constructing New Railway Lines," 1891.
[60] J.C. Aristide Gavillot, *L'Anglettere Ruine l'Égypte* (Paris: J. André & Cie, 1895), 15.
[61] Roger Owen, *The Middle East in the World Economy 1800-1914*, rev. ed. (New York: I.B. Tauris, 1993), 131. Notably, the British representative George Goschen was from the same family as one of the largest debt owners, Harry Goschen. Thomas J. Spinner, *George Joachim Goschen: The Transformation of a Victorian Liberal* (Cambridge, UK: Cambridge University Press, 1973), 1.

unified debts, and thus lowered the interests from the original 7 percent to 5 percent.[62] This amount of the privileged debts was packaged and assigned to future revenues of the Egyptian State Railways. They calculated that with the railway administration's annual revenue at £990,200 in 1875, the total privileged debts would need 65 years to be fully repaid.[63]

In 1876, the Caisse de la Dette Publique (The Public Debt Fund) was founded to enforce the arranged debt repayment. Two years later, a commission of inquiry was formed to scrutinize the income and expenditure of the Egyptian treasury. Facing the dangerous possibility of losing the country's fiscal sovereignty, Ismaʿil resorted to the Assembly of Delegates in 1879 and hoped to annul the impending foreign intervention. Yet, this attempt failed thus causing Ismaʿil's ouster on June 26, 1879 and his subsequent exile in Resina near Naples, Italy.[64] In the new financial order, the Caisse had the authority to review and make change of the ESR revenue before the railway administration made its expense budget.[65] Consequently, the ESR transformed from a destination of khedivial investment to a sheer source of extraction from the Egyptian treasury that guaranteed benefits of European credit holders. According to the khedivial decree of November 18, 1876, an international board was established within the ERA and placed under the direction of the Caisse. The international board was initially consisted of five members: two Egyptians, one Frenchman, and two Englishmen, one of whom would be the ERA's president.[66] In the ensuing khedivial decree of December 23, 1879, the special board reduced its composition to three members: an Egyptian, a Frenchman, and an Englishman, with the Englishman serving

[62] George J. Goschen, *Egyptian Debt: Mission of the Right Hon. G. J. Goschen* (London: Council of Foreign Bondholders, 1876), 3.
[63] Goschen, *Egyptian Debt*, vi-vii, 3.
[64] Nadia R. Farah, *Egypt's Political Economy: Power Relations in Development* (Cairo: American University in Cairo Press, 2009), 61-62.
[65] Goschen, *Egyptian Debt*, 18.
[66] Goschen, *Egyptian Debt*, 23.

as the president.[67] The major responsibility of the international board was to regulate the ERA's revenues and expenditures, so that the Caisse would receive the annually prescribed amount of debt repayment from the rail sector.

Even under the extreme pressure of the Caisse, the state railway proved to be highly profitable after the 1860s construction boom. Egypt's favorable geographical attributes contributed to the railway's high efficiency and decreased the system's operation cost. For instance, the concentration of cities in the Nile River system favored railway line arrangements that connected multiple cities with fewer lines. Egypt's flat terrain near the Nile Basin to a great extent reduced wear and tear from the vibration of the fast-moving trains.[68] In addition to these geographical advantages, the railway administration enjoyed consistently growing sources of income. For passenger transportation, Egypt had launched a strong tourist industry since the country's rapid Europeanization in the mid-nineteenth century. It not only attracted short-term foreign travelers, but also professional adventurers from European countries and other parts of the Arab world to reside in Egypt's metropolitan cities, both of whom tended to rely on train to move among Egyptian cities.[69] The annual pilgrimage to Mecca involved another major movement of people, especially among Muslims. The railway network enabled Egyptian Muslims to get from their Egyptian hometowns to Suez within one day, and from there they embarked on a sea trip to Hijaz's coastal cities. The new route avoided the previous detour through the rugged Sinai Peninsula and created a prosperous pilgrimage economy in Suez that caught the ERA's attention for a special accommodation for the seasonal movement of people.[70] In terms of freight transportation, the railway started to show its advantage over inland water

[67] Diwan al-Dakhiliyya collection (DD henceforth), DWQ [2001-022403], December 1879.
[68] Ettouney, *Railways Along the Nile*, 41.
[69] Ettouney, *Railways Along the Nile*, 31-32.
[70] DD, DWQ [2001-021739], 1889

routes with the advent of the mechanical age. It not only connected cities outside the Nile River system, especially in the developing areas of the Suez Canal, but also provided a much faster, more reliable, yet still affordable means of transport, given that the departure point and final destination were determined in advance.[71] As a result, the ERA's revenue remained relatively steady above £1,000,000 amid the overall roiled and unpredictable late 1870s financial market.

Table 1 Financial situation of the Egyptian State Railways between September 11, 1874 to December 31, 1879.

	11 Sept. 1874- 10 Sept. 1875	1876	1877	1878	1879
Revenue	1,029,102	1,035,483	1,146,421	870,887	1,056,820
Expense	586,195	548,175	550,832	409,061	420,727
Efficiency Ratio (expense/revenue)	57.0%	53%	48%	47%	40%

Source: DD, DWQ [2001-021021], *Rapport du Conseil d'Administration sur l'exercice 1879* (Alexandrie: Imp. du Journal al-Ahram, 1880).

In terms of profitability, the ESR was among the high-quality assets of the khedivial government. As Table 1 shows, the efficiency ratio (the percentage of expense in total revenue) gradually decreased from 57 percent in 1875 to 40 percent in 1879, which meant that the ESR's profits grew 17 percent, while total revenue remained roughly unchanged. In 1879, the ESR even received a much higher percentage of profit compared to railway systems in European countries, whose efficiency ratio generally laid within the range of 50 and 70 percent.[72] With increased

[71] Ali Abd al-Salam al-Maʿazawi and Fathy Abd al-Aziz al-Tunni, *Itisdiyat al-Naql, al-Turuq, al-Sikka al-Hadid, al-Nahri, al-Anabib* (Cairo: Dar al-Salam, 2006), 10-12.

[72] These are the efficiency ratios of major European railways in 1877: Belgium 59.23 %- 61.24%, England 54%, Scotland 52%, Ireland: 54%, France: 44%-64.9%, Sweden 65.7%-70.1%, Norway 66.8%, Denmark 50.7%-75%,

profitability, the Caisse secured the wealth it could extract from the ERA revenue. Table 2 illustrates that the annual transfer from the ERA revenue to the Caisse witnessed a growing trend from 1876 to 1904. The percentage ranged from 47 to 66 percent, with a peak in 1881.

Table 2 Contribution of the ERA's revenue to the Caisse, 1876-1904.

	Total Revenue of the ERA (1876-79 in L.S., 1881-1904 in L.E.)	Amount Transferred from ERA to the Caisse (1876-79 in L.S., 1881-1904 in L.E.)	Percentage in Total Revenue
1876	1,035,483	508,537	49%
1877	1,146,421	602,990 (628,000)[73]	53% (55%)
1878	870,887	456,831	52%
1879	1,056,820	630,000	60%
1881	1,282,760	846,726	66%
1882	1,428,465	875,372	65%
1884	1,404,366	860,346	62%
1885	1,480,660	906,343	61%
1886	1,266,967	699,242	55%
1891	1,621,000	919,000 (est.)[74]	57%
1893	1,619,000	922,830 (est.)	57%
1894	1,774,000	1,024,000	58%
1896	1,822,000	926,000	51%

Germany 50.8%-62.8% (in 1876). DD, DWQ [2001-021021], *Rapport du Conseil d'Administration de Chemins de Fer sur l'exercice 1879*. Other sources also confirmed this phenomenon that the Egyptian railway was more profitable compared to other railways globally. See J Stephen Jeans, *Railway Problems: An Inquiry into the Economic Conditions of Railway Working in Different Countries* (London: Longmans, Green, and Co., 1887), 100.

[73] Two numbers are derived from different sources. £602,990 is from *Rapport du Conseil d'administration sur l'exercice 1879* and £628,000 is from Commission de la Dette Publique, *Compte rendu des travaux de la commission de la dette publique d'Égypte pendant l'année* 1876-77 (Le Caire: Imprimerie Nationale, 1877), 18. The numbers of percentage vary accordingly.

[74] The estimations are based on the ERA revenue and working expenses.

1899	2,112,065	1,161,636	55%
1902	2,193,399	1,056,223	48%
1904	2,603,216	1,218,280	47%

Source: Commission de la Dette Publique, *Compte rendu des travaux de la commission de la dette publique d'Égypte pendant l'année 1876-77, 1899, 1902, 1904* (Le Caire: Imprimerie Nationale, 1877, 1899, 1893, 1905).
DD, DWQ [2001-021021], *Rapport du Conseil d'administration sur l'exercice 1879-80*.
Wizarat al-Ashghal al-ʿUmumiyya (Ministry of Public Works), *Report on the Egyptian State Railways & Telegraphs and Light Railways of Egypt for 1882*.
Egyptian Railway Museum (henceforth ERM) 22/1/4, *Further Correspondence Respecting the Finances and Condition of Egypt in 1888*.
ERM 23/1/4, *Further Correspondence Respecting the Finances and Condition of Egypt in 1890*.

The law of 45 percent issued by the Convention of London in 1885 prescribed future working expenses of the ESR would account for 45 percent of the ERA's total revenue. Althuogh the Convention actually ended in 1905, at that time both British and Egyptian officials in the Egyptian government agreed to wait to enforce the prescription until 1914, the year the ERA was expected to pay off all its debts.[75] The law of 45 percent was a double-edged sword for the ERA. In the short term, the percentage released the ERA from the Caisse's extreme financial extraction of the early 1880s, which merely left 35 percent of its budget as free expediture. In December 1888, Egyptian Minister of Finance Riaz Pasha hoped to charge railways an additional L.E. 90,000 for filling the expected 1889 government tax loss due to the previous year's insufficient Nile flood. The Caisse immediately rejected Riaz's proposal, on the basis of protecting the ERA's 45 percent working expense.[76] Thus, the Convention set a new standard within the Egyptian government to leave a certain amount of resources to the railway system. However, the law of 45 percent, in the mid to long term, became the cap that limited the ERA's ability to expand its expenditures. Since the 1876 Khedivial Decree stipulated the Caisse'e privilege of charging the railway revenue before the ERA planned its annual budget, the Caisse

[75] Majlis al-Nidhar collection (Council of Ministers, henceforth MN), DWQ 0075/017693, 1913.
[76] Gavillot, *L'Angletterre*, 93-94.

actually wielded de facto power to decide the amount of the ERA's expenditure, and additionally, how and why to spend the fund.

Cromer's antipathy towards administrative internationalism gradually created a situation such that a cohort of British advisors in the Egyptian government manipulated the ERA's finance.[77] Within the three-party international board of the ERA, the British representative, who was also the ERA's president, managed the railway's financial administration. He was responsible for negotiating with the Caisse and drafting the ERA's annual budget. This bureaucratic system rendered the Egyptian and French representatives as secondary to the railway administration's financial decisions, which became increasingly monopolized by their British counterparts. In 1893, the French representative, M. Prompt, refused to sign the ERA's annual report, which was to be presented to Caisse and the Ministry of Finance. In Prompt's perspective, he believed the railway administration should follow "the dual control system of Britain and France," which he, as French representative, should have the same right as his British colleague. However, Prompt complained that the railway administration had been entirely compromised under the British authority, since the Egyptian representative always followed the British directive.[78] The French representative's protest, however, proved a fruitless effort since the British-Egyptian alliance within the ERA managed to pass the 1893 budget without the consent of their French colleague.

The severe lack of funding caused negligence of some of the most basic maintainance and upgrade in the railway system. Since the mid-1880s. many problems ensued due to the lack of mechanical engineering. In the annual report of 1886, the ERA informed Cromer that the

[77] Cromer, *Modern Egypt*, 696.
[78] Gavillot, *L'Angletterre*, 306-15.

railway "had reached a condition which threatened to become dangerous for the traffic."[79] The two reports of Wolff and Marindin and Farrer, which I refer at the beginning of this chapter, also respectively presented various urgent mechanical problems to the British Parliament and the Egyptian Council of Ministers. Although both reports were unable to directly call for the cancellation of the 45 percent cap in the ERA's expenditure, they commonly urged that immediate remedies be taken to improve the railway's deteriorating conditions. In order to have enough funding, the ERA also urgently sought means of revenue generation, so that its 45 percent would accordingly increase in amount. The number of passengers and volumes of freights grew steadily since 1876 and especially after the 1880s when a series of boosting measures were implemented.[80] The entire mechanism of regulating the railway economy exemplified what interwar economists promoted as austerity—the combination of revenue increases and expenditure cuts that ultimately created a net surplus.

In 1904, both international and domestic factors contributed to the dissolution of the Caisse-enforced austerity in Egyptian state-owned railways. First, the international accord of the Entente Cordiale (1904) recognized that Britain would take full control of Egypt without French influence. Thus the previous political arrrangment that included a French representative within the ERA was null and void after this new agreement. Second, the ERA had paid off its original £17,000,000 privileged debts and all its interest by 1904. The rest of the privileged debts, which were added to this category in 1880, 1890, and 1900, had been assigned to other repaying institutions.[81] Third, the deteriorating technical conditions of the state-owned railway system required an immediate change in the administration's finance. Two British engineers, Baron

[79] ERM 23/1/4, *Further Correspondence Respecting the Finances and Condition of Egypt, 1888*, 10.
[80] ERM 26/3/4, *Statistical Return 1880-1904* (Cairo: National Printing Office, 1906), 17.
[81] Commission de la Dette Publique, *Compte redue des travaux de la Commission de la dette publique d'Égypte pendant l'exercice 1916-17* (Cairo: Imprimerie Nationale, 1917), 4-5.

Farrer (Thomas Cecil Farrer) and Oliver Bury, were commissioned to conduct a field trip in 1904. Compared to the two previous findings in 1887, Farrer and Bury's report delineated a more direct connection between fiscal austerity and technical deficiency. They stated, "it is heartbreaking for [railway] officers to know that they cannot get useful suggestions carried through or real economies effected because of the iron chain of the percentage arrangement."[82] The Farrer and Bury report also recommended a series of new construction projects and much-needed facility upgrades.

Accordingly, the Khedivial Degree of November 28, 1904 merged the remaining privileged debts with the unified debts, and thus transferred the debt obligation of the ERA to the property tax of thirteen Egyptian provinces.[83] The three-party international board of the ERA was also dissolved, and the ERA was repositioned under the Ministry of Public Works. Financially, the ERA shook off the Caisse's restrictions, and like other government units, submitted its annual receipts to the Egyptian treasury.[84] In terms of legal status, the ERA normalized from a special international entity into a department responsible for domestic transportation issues. Previously, the ERA applied the extraterritorial legal system for foreign institutions in Egypt, known as the Capitulations. An action by a native against the ERA was tried at the Mixed Court. But with the change of the ERA's legal status, the trial judgement was issued from the Native Court after 1904.[85]

[82] Egyptian State Railways, *Report of Lord Farrer's Commission* (Cairo: National Printing Department, 1905), 4.
[83] Commission de la Dette Publique, *Compte redue des travaux de la Commission de la dette publique d'Égypte pendant l'année 1905* (Cairo: Imprimerie Nationale, 1906), 5.
[84] Ali Coşkun Tunçer, *Sovereign Debt and International Financial Control: The Middle East and the Balkans, 1870-1914* (New York: Palgrave Macmillan, 2015), 49.
[85] James H. Scott, *The Law Affecting Foreigners in Egypt: As a Result of the Capitulations, With an Account of their Origin and Development* (Edinburgh, UK: W. Green & Sons, 1908), 226

Increasing Transportation and the Limit of Carrying Capacity

One of the guiding policy questions for the ERA was how much should the railway management charge for passenger fares and freight rates? This is not only an economic question but also a political and technical one. Economically speaking, charges on passengers and cargos were strongly correlated with the overall revenue of the railway. An ideal arrangement of charges should be high enough to cover all transportation costs while attracting as many passengers and as much freight as possible. In this respect, late nineteenth-century British railway economist W. M. Acworth stated that the railway rates, like other goods on the free market, also followed the most basic economic principle of supply and demand.[86] The economic plan of pricing a railway system also carried political ambitions of welfare provision, infrastructural expansion, as well as resource extraction. Late nineteenth-century British officials prioritized the income generated by the Egyptian railway for debt repayment over its future development. Consequently, the ERA's imperative was to increase short-term revenues by setting the most appropriate prices with little consideration of the system's mechanical burden. Yet in practice, the railway was composed of various interrelated engineering systems with their autonomous laws of operations. Until the next technical breakthrough, railway managers could only manage to operate a fixed amount of passenger cars or freight wagons within a certain period on one track. The technical bottlenecks, in the context of colonial Egypt, set a cap on the endless pursuit of financial surplus that might engender long-term development of the railway infrastructure.

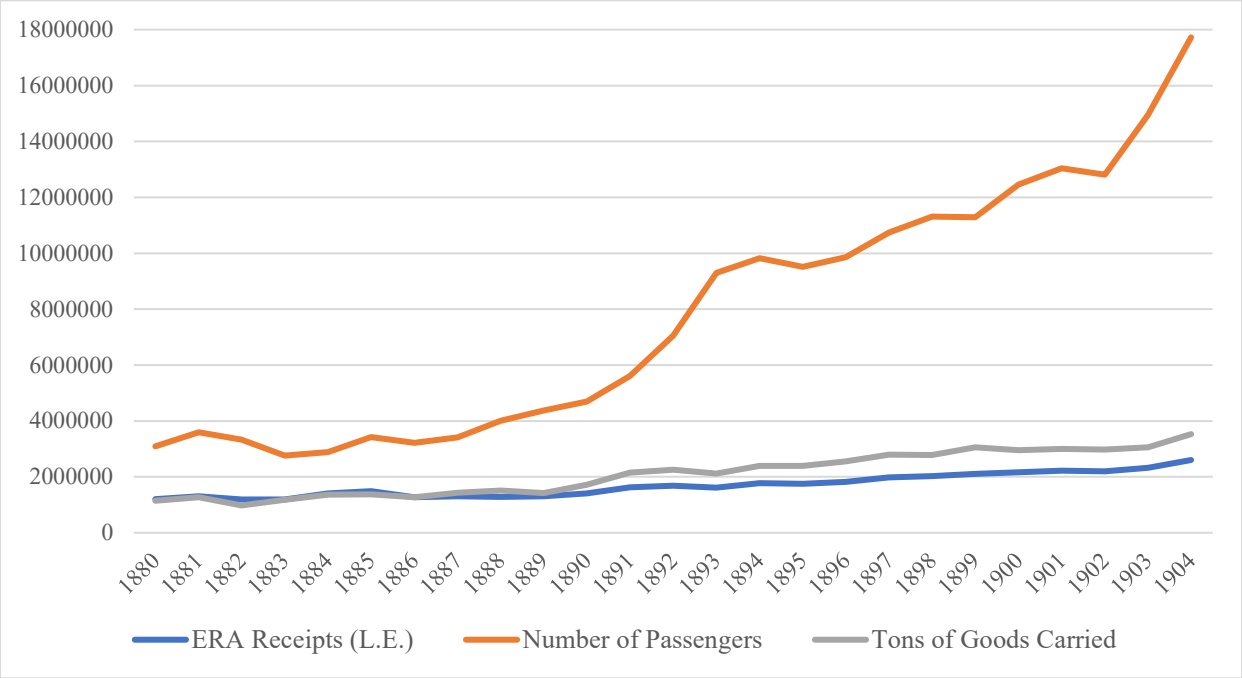
Although the general economic situation had declined since the late 1870s, consecutive domestic and regional tensions of the early 1880s unexpectedly provided new opportunities to increase the railway revenue under precarious political environments. In 1882, ethnic tensions

[86] W. M. Acworth, "The Theory of Railway Rates," *The Economic Journey* 7, no. 27 (1897): 317-331.

erupted between Egyptian nationalists and European emigrants, with many of the latter deciding to leave the country, temporarily or for good. Juan Cole numbers that they were approximately 90,000 Europeans residing in Alexandria before the crisis and by July there were hardly any Europeans left.[87] They took trains from various Egyptian cities to Alexandria for Europe or to Asyut for sub-Sahara Africa.[88] The intense situation culminated in the Alexandria riot of June 11, leading to 50 Europeans and 125 Egyptians being killed. The tragic event provided the excuse, albeit unjustified, for the British navy, which had cruised off the coast of Alexandria, to bombard the city on July 11. The savage military act paved the way for the ensuing British territorial conquest of Egypt. The British military operation caused a temporary closure of the commercial port of Alexandria and interruption of most of Egypt's foreign trade. For the next few months, the blockade negatively impacted the railway's annual freight volume since a considerable portion of goods were transported trains to and from Alexandria. However, the possible sharp revenue decrease due to economic blockade was alleviated by the Egyptian military use of the railway. The ʿUrabi government extensively transported soldiers and logical goods via railways before it lost control of the railway in the Battle of Tel-el-Kebir on September 13, 1882. Consequently, as Table 3 illustrates, the total freight volume accounted for 77 percent of the previous year's railway use, and that passenger ridership slightly decreased from the previous year as well.

[87] Cole, *Colonialism*, 278-79.
[88] Administration des Chemins de Fer, des Télégraphes et du Port d'Alexandrie, *Résumé du rapport du Conseil d'Administration sue l'exercice 1881* (Alexandria: Imp. Du Journal al-Ahram, 1883), 12.

Table 3 Railway revenues, number of passengers, and goods carried 1880-1904.



Source: *Statistic Returns 1880-1904* (Cairo: National Printing Office, 1906), 17, Table XI.

The intensified Mahdist War between 1883 and 1885 stimulated the recovery of the ERA's ebbing revenue. The military frontline in Sudan demanded extensive soldier transportation. On the first occasion, the Hicks Expedition between January and November 1883 sent roughly 8,600 Egyptian soldiers to Khartoum, as well as hundreds of British officers and more labor corps.[89] Consequently, the failure of the Hicks Expedition, in addition to Egypt's fiscal burdens, pressured Britain to send major-general Charles Gordon to organize evacuation of earlier-stationed Egyptian troops from Sudan. Gordon recounted that there more than 34,000 Egyptians and Europeans, including 7,000 soldiers, who were still trapped in Khartoum in early

[89] Mike Snook, *Go Strong into the Desert: the Mahdist Uprising in Sudan, 1881-85* (Nottingham, UK: Perry Miniatures, 2010), 25.

1884.[90] Then, the 313-day-long Siege of Khartoum forced Britain to organize the Gordon Relief Expedition, an expedition that eventually failed to save the British commander.[91] Lastly, the British Major-General Gerald Graham led two expeditions in February 1884 and March 1885 to the Suakin region for the purpose of protecting the construction of the Suakin-Berber railway. These four military operations all heavily relied on the Alexandria-Cairo-Asyut railway line for the transportation of soldiers, military supplies, and other materials, and objectively, increased railway revenue during the early-1880s economic downturn.[92] In its review of the railway revenues during 1884 and 1885, the ERA warned that the revenue was too much reliant on, and boosted by military actions so that they "cannot be taken as a fair basis of calculation of the probably revenue for the future."[93] It even further predicted that the revenue would drop to the level of 1881 if no further acts of revenue stimulation were taken. Their prediction was validated when declining revenues occurred in 1886.

Marindin and Farrer's 1887 report on the Egyptian State Railways pointed toward a new direction of increasing the ERA's gross revenue—reducing traffic rates. The trend of economic liberalism, which advocated minimal interference of government in a market economy, started to shape and influence the vision of British economists on the railway. This school of railway economists believed that railway fares should not be regulated by government institutions, but instead should adhere to the principles of the market—supply and demand. Thus, they opposed calculating pre-determined and fixed costs of railway services based on what the traffic would bear. Instead, they proposed to marketize railway rates to the extent that reflected what

[90] Charles Gordon, *General Gordon's Khartoum Journal*, rev. ed. (London: W. Kimber, 1961), 33. The 7,000 soldiers were Egyptians according to Winston Churchill, *The River War: An Historical Account of the Reconquest of the Soudan* (London: Longmans, Green, and Co., 1990), 81.
[91] William Francis Butler, *The Campaign of the Cataracts: Being a Personal Narrative of the Great Nile Expedition of 1884-1885* (London: Sampson Low, Marston, Searle & Rivington, 1887), 12.
[92] DD, DWQ [2001-021093], 1882.
[93] ERM 23/1/4, *Further Correspondence, 1888*, 8.

passengers could afford to pay for the transportation service.[94] The liberal school of railway economists deeply influenced how Marindin and Farrer proposed to reform the Egyptian railway's finance system. This report stipulated that the reason why the ERA had encountered a financial bottleneck was because passenger fares were too much influenced by the will of government officials and did not adequately reflect what passengers or traders could afford to pay for railway services. In passenger fares, they recommended to lower the third-class fare and to widen the price gap among different travel classes. Emphasizing the essential distinction between European and Egyptian railway systems, they thought relatively low third-class fares would attract more plebian Egyptian travelers, who would be ultra-sensitive to price floats. According to Marindin and Farrer's theory, once Egyptian travelers became accustomed to, and reliant on train travel like Europeans, the ERA would be able to raise passage rates without much complaint.[95]

In May 1891, the ERA accepted Marindin and Farrer's suggestion to carry out a major reduction in passenger fares, which would begin operation by February 1, 1892. The fare reduction policy particularly targeted third-class passengers and retained the original ticket prices of first and second class. Specifically for third-class passengers, long-distance traveling over 300 miles was cut to half of the original fare and short-distance traveling were reduced by more than 30 percent.[96] The Ministry of Public Works forecast that the fare reduction might result in a slight drop of L.E. 24750 in the 1892 railway revenue, yet the calculated amount would soon

[94] Charles Lee Raper, *Railway Transport: A History of its Economics and of its Relation to the State* (New York: G. P. Putnam's Sons, 1912), 12; Acworth, "The Theory of Railway Rates," 317; and W. M. Acworth, *The Railway and the Traders: A Sketch of the Railway Rates Question in Theory and Practice* (London: J. Murray, 1891).
[95] FO 881/5503, "Report by Marindin and Farrer,"13-14.
[96] ERM 13/1/4, *Reports by Her Majesty's Agent and Consul-General on the Finances, Administration, and Conditions of Egypt and the Soudan in 1892* (London: Harrison and Sons, 1893), 20. The reduction on average was 40 percent of the original third-class ticket prices. See MN, DWQ [0075-017674], January 1892.

bounce back with net increase.[97] The result was much better than anticipated, as the ESR's total number of passengers in 1892 witnessed an immediate year-on-year growth of 26 percent. Moreover, more passengers brought more economic returns. The receipts of the passenger traffic increased by L.E. 53,000 in 1893, giving a boost to the overall ERA revenue when the freight receipts suffered from a slight decrease.[98] Table 3 shows that both the number of passengers and the ERA revenue grew rapidly after the 1892 fare reduction, with an exception during the 1895 cholera pandemic.

In terms of cargo freight, railways faced lasting competition from Egypt's developed water navigation system. The convenient Nile River system allowed sizable cargo ships to travel among Egypt's populous cities. Cargo ships could carry higher volumes of goods with much affordable price. So, traders preferred to transport large quantities of non-perishable goods, such as cotton, by water. In comparison, trains showed advantages in speed and reliability, and due to such, they carried goods of higher value or those with time-sensitive schedules. Before reducing the passenger fares, the ERA had tried to lower freight rates to attract more customers.[99] In the early 1880s, the ERA started to levy tolls on ships that crossed key railway bridges. The bridge toll, however, was strongly opposed by Marindin and Farrer. They believed that the bridge toll on the Nile produced undue frequent water navigation in the Mahmudiyya Canal, the alternative free-of-charge waterway. The ERA, therefore, could not significantly increase its revenue by imposing undue charges on the Nile.[100] Consequently, the ERA gradually abolished the navigation charge by 1904, and instead focused on the reduction of freight rates to attract more

[97] MN, DWQ [0075-017675], December 1891.
[98] ERM 12/1/4, *Reports by Her Majesty's Agent and Consul-General on the Finances, Administration, and Conditions of Egypt and the Soudan in 1894* (London: Harrison and Sons, 1895), 9.
[99] DD, DWQ [2001-021011], 1878; ERM 23/1/4, *Further Correspondence, 1888*, 7.
[100] FO 881/5503, "Report by Marindin and Farrer,"15-17.

clients.[101] Especially in 1891, the ERA experimented with major freight rates reduction. As with the reduction of passenger fares, the ERA received an immediate positive financial return in this year's receipts.[102]

Despite the financial benefits, mounting traffic load due to fare reduction and the late nineteenth-century economic growth began to burden Egypt's aging railway system. To accommodate the explosively growing traffic, the ERA adopted two major arrangements. The first arrangement was to increase the number of wagons pulled by each locomotive. Given that all wagons were full loads, the more wagons a locomotive pulled synchronously, the more passengers or goods a train could carry, and the more profitable it was. Yet, the total amount carried by each type of locomotive was limited by relatively fixed tractive force—the pulling or pushing capacity determined by the horsepower of individual steam engines. In a moving train, the tractive force of locomotives transformed into frictions between the wheels and the rails. Thus, locomotives of higher horsepower engines must be equipped with more wheels to support their running on track. That is to say, the number of wheels manifested the carrying capacity of this type of locomotive. The Egyptian State Railways by the late nineteenth century predominantly deployed six-wheeled locomotives purchased between the 1850s and the 1860s. Common passenger trains consisted of the 2-4-0 and 0-4-2 types built by British locomotive companies. As for freight trains, British and French manufacturers competed in different versions of the 0-6-0 type locomotives (Figure 6). Although the more powerful eight-wheeled locomotives had become increasingly popular in the global market, only a very small quantity of the 4-4-0 type was introduced from American manufacturers in the late 1860s.[103] The last of the

[101] *Reports by His Majesty's Agent and Consul-General on the Finances, Administration, and Condition of Egypt, and the Soudan in 1904* (London: Harris and Sons, 1905), 35.
[102] ERM 13/1/4, *Report on the Finances in 1892*, 20.
[103] Wiener, *L'Égypte*, 225-255.

khedivial locomotive purchases ended in 1868, and until 1890 no new locomotives were officially introduced to Egypt.

By the late 1880s, most Egyptian locomotives had been in service for more than twenty years and the ESR technicians acutely felt the need for more powerful engines. Modest technical advances were adopted to improve the carrying capacity of six-wheeled locomotives to a maximum of 30 tons. Yet, to achieve a significant breakthrough, massive replacement was urgently needed. Therefore, the ESR's traffic department in 1899 proposed a great leap forward to replace the majority of six-wheeled locomotives with eight-wheelers.[104] This was a timely proposal, since eight-wheelers had proved to be successful in various natural environments in Europe, North America, as well as in South Africa.[105] However, the ERA's financial constraints had stalled the replacement until the century's end, when the financial amelioration allowed the ERA to take the eight-wheeler proposal under more serious consideration. From 1898 to 1900, the ESR merely experimented on a limited scale two most classic types of locomotive—the 4-4-0 "American" and the 2-6-0 "Mogul," built by the Baldwin Locomotive Works.[106] At the turn of the twentieth century, European locomotive market had already entered the age of more advanced ten-wheelers. This meant that the ESR was already more than a full generation behind its European counterparts in locomotive technology.

[104] Abdeen, DWQ [0069-006170], 1899.
[105] D.F. Holland, *Steam Locomotives of the South African Railways, 1859-1910* (Newton Abbot, UK: David & Charles, 1971), 80-83.
[106] Wiener, *L'Égypte*, 262-63.



Figure 6 The photo shows one of the 45 "0-6-0 type" freight locomotives that were imported to Egypt between 1898 and 1899. Under the Whyte notation for the classification of steam locomotives, "0-6-0" represents the wheel arrangement of no leading wheels, six powered and coupled driving wheels, and no trailing wheels. Despite the relative inadequate engine power compared to more advanced eight-wheeled and ten-wheeled locomotives, the 0-6-0 type was still the most widely used freight locomotive for the ESR at the turn of the 20th century.
Source: British Railway Museum at York, Peter Bawcutt photos collection on the Egyptian State Railways, no. 0114.

The second arrangement for improving traffic load was to increase the volume of simultaneous traffic. When more trains simultaneously ran on the same track, the overall transportation volume within a given period would increase accordingly. Taking the Cairo-Alexandria line as an example, the line daily transported 5 passenger trains and 41 freight trains in 1878.[107] In comparison, the train number running on this line raised to 16 passenger trains and

[107] DD, DWQ [2001-021082], 1878.

109 freight trains daily in 1926.[108] In other words, the Cairo-Alexandria line tripped the transportation volume under the British management. Technically, the growth in transportation efficiency usually had much to do with the signaling system. Segmenting a long railway line into shorter sections, railway signaling ensured that each section had only a single train to avoid collision while enabling multiple trains to run on the same track. More efficient signal system enabled the increase of simultaneous traffic.

The increasing traffic load of late nineteenth-century Egypt, surprisingly, was not based on the improvement of its signal system. In this period, the manual signaling system was the predominant technology adopted by the ESR. This signaling system depended heavily on individual signalmen who operated switches and semaphores in person.[109] One defect of the system was that it required time for signalmen to receive telegraph instructions for operating their signals. When the number of trains increased on a track, signal instructions accumulated in certain signal stations, which could easily cause delays for the entire railway. The ERA's 1899 report explained the causality between the increase of traffic and unpunctuality, given the limited resources that were able to invest in upgrading signaling facilities.[110] On Barak has highlighted that late nineteenth century British engineers began to stereotype "a colonial, lax punctuality, contrasted with a stricter metropolitan one."[111] My study from the technical perspective underlines that the "lax punctuality" was more than a discursive depreciation, but a practical engineering deficiency caused by increasing traffic load and limited technological breakthrough in the signaling system. Since the colonial management prioritized immediate returns over

[108] BNA, Railway Company Records (henceforth RAIL) 928/63, "Egyptian State Railways Pocket Edition of Summer Time-Table," 1926.
[109] Hayʾa al-ʿAmma, *Egyptian Railways*, 156.
[110] Abdeen, DWQ [0069-006170], 1899.
[111] Barak, *On Time*, 9-10.

facility upgrades, the outdated signal system could hardly meet the growing traffic volume, and eventually led to the increasing unpunctuality in Egyptian railway lines.

The double arrangement that intended to improve traffic load eventually caused a significant mechanical burden to the outdated railway system in Egypt. Repeated utilization gradually wore out locomotives and wagons. Captain Johnstone, the ERA's acting president, blamed the heavy traffic for the increasing number of serious break downs in 1899.[112] Facing a deteriorating situation, the ERA technocrats also started to find engineering remedies. They advocated building workshops in Egypt to meet basic demands in repairs and maintenance. In 1894, the first workshop for washing and cleaning trains started construction in Abu Ghatis. Six years later, two workshops in Bulaq and one in Gabal al-Zaytun were established for repair and maintenance of steam locomotives and freight wagons.[113] To meet the needs from the growing number of third-class passengers, the workshops remodeled worn-out first or second-class wagons to fit third-class requirements. Additionally, they began to manufacture the body work of passenger cars compatible for the third class.[114] However, these investments in railway factories never exceeded the most basic demands. They did not change the fact that the ESR still needed to purchase all locomotives and the majority of wagons from foreign companies. Inside these factories, senior technicians were directly hired from Europe, leaving little room to localize manufacturing expertise to native engineers.

The lack of engineering investment from 1876 to 1904 caused Egypt's state-owned railways to fall behind the global trends of technological innovation. The situation was gradually ameliorated after 1904, when the 45 percent expenditure cap was lifted that eventually allowed

[112] ERM 8/1/4, *Reports by Her Majesty's Agent and Consul-General on the Finances, Administration, and Conditions of Egypt and the Sudan in 1899* (London: Harrison and Sons, 1900), 8.
[113] Hayʾa al-ʿAmma, *Egyptian Railways*, 70-72.
[114] Hayʾa al-ʿAmma, *Egyptian Railways*, 125.

the railway administration to substantially invest its profits into technology upgrades with fewer financial interventions. The impacts of financial austerity were much enduring. The reduction on ticket prices massively popularized train traveling, making the vehicle not only a privilege of the burgeoning urban middle class, but also a form of public services for a good portion of the rural population. Yet, during the time, the notorious reputation of the state railway—as being stymied, unpunctual, and accident-prone—was inevitably derived from the shortage of repairs, maintenance, and upgrades.

The Cessation of Public Investment and Partial Privatization

The 45 percent limit of the ERA's expenditure not only affected the technological upgrade of railway equipment, it further prevented government investments in expanding the railway network. From 1870 to 1883, no new rails, locomotives, carriages, or waggons were purchased, marking a complete halt after the 1860s railway boom.[115] With the ostensible growth in the ERA receipts since the late 1880s, the mixed board started to reconsider possible railway expansion. Thus, the ERA proposed to the Ministry of Public Works a set of line improvements that woud in total cost 258,500 L.E in April 1891. The proposal included constructions of new double-tracked bridges in Disuq and Benha, as well as doubling existing single-tracked bridges in Lower Egypt. The ERA categorized these projects as "emergency" and stated that "it would be dangerous to leave them in the current state."[116] The proposal led to divergent viewpoints among various government institutions. M. Scott-Montcrieff, the president of the Commission of the Caisse, insisted on strictly following the law of the 45 percent and rejected any expenses that exceeded the prescripted spending limit. Contrary to the Caisse's position, the Council of

[115] FO 633/98, Sir E. Baring, "Machinery of Government in Egypt," 7 April 1891, 8-9,
[116] Gavillot, *L'Anglettere*, 218-19.

Ministries tended to agree on the proposal and saw it as a timely improvement. Yet still, the Council worried that the total cost could have been compressed to fit the overall austerity guideline. To mitigate its difference with the Caisse, the Council reduced the plan's cost and proposed a new 105,500 L.E. investment. Unable to break the spending cap, the Council further bypassed the Caisse and resorted to using the General Reserve Funds for this project.[117]

The 1891 construction showed one of the few times that the ERA acquired additional funding for new railway lines while circumventing rigid financial supervision from the Caisse. Yet, such exceptions were unable to regularly break the 45 percent spending limit, because the repayments to the Reserve Funds still relied on the ERA's future expenditures and eventually all expenditures were subject to the Caisse's prescribed spending cap. In other words, the additional funding would not be sustainably acquired if the Caisse's spending cap remained in effect. The only major construction for the ESR under the Caisse's supervision was the extension of the Upper Egypt line, which reached to Girga in 1892, Nag Hammadi in 1896, Qina in 1897, and eventually to Luxor and Aswan in 1898.[118] The extension of the southern line supported British imperial ambition to wage multiple consecutive military campaigns in Sudan that would last till 1899. Yet, from a cost-benefit analysis, the southern line was the most uneconomical. Upper Egypt was scarcely populated and economically underdeveloped compared to the Delta region that railways would reap much fewer profits. In fact, the government financial report also reflected that the majority of inbound trains from the south consisted of empty trucks, which meant that the railway's utilization ratio was particularly low.[119] The same report concluded that "whilst the country (Egypt) has been rapidly progressing, the railways, being deprived of all

[117] Gavillot, *L'Anglettere*, 219.
[118] Hugh Hughes, *Middle East Railways* (UK: Continental Railway Circle, 1981), 15.
[119] ERM 9/1/4, *Reports by Her Majesty's Agent and Consul-General on the Finances, Administration, and Condition of Egypt and the Soudan in 1898* (London: Harrison and Sons, 1899), 19.

power of expansion by the defective administrative system to which they are condemned, have relatively speaking, stood still."[120]

While government treasury was unable to sustain future investments in the state-owned railway system, private capital, encouraged by the liberal economic policies of the British Empire, flooded into the new Egyptian railway market, hoping to carve up their own interests from the recently conqueured African colony. A British business syndicate, which consisted of influential businessmen, proposed to purchase the entirety of the state-owned railway in Egypt. The proposal had already gained a wide support from a circle of British financial advisors in Egypt before being submitted to the Egyptian government. But Egyptian ministers almost unilaterally objected to the purchase in the Council of Ministers. In his autobiography, Cromer claimed his neutral position on this purchase dispute, confessing he "had no wish to press [the Egyptian ministers] to accept [the purchase]."[121] In fact, Cromer revealed his opposition attitude towards privatization in the report to the British Parliament. In this report, he stated his ultimate objective to place Egyptian railways in direct competition with the Nile navigation, so that both could pay duties to the State Treasury. If the railway system was privatized, the government would lose control over decisions made by the rail sector. Futhermore, if the privatized railway would decide to encroach on the existing market share of the Nile navigation, the Egyptian government would have no countermeasures, and thus would lose incomes from both railways and the waterway.[122] To balance the railway and Nile transportations, Cromer eventually agreed to join the Council of Ministers to reject the privatization of the state-owned railway.

[120] ERM 9/1/4, *Report on the Finances in 1898*, 19.
[121] Cromer, *Modern Egypt*, 134.
[122] ERM 5/1/4, *Reports by His Majesty's Agent and Consul-General on the Finances, Administration, and Conditions of Egypt and the Soudan in 1902* (London: Harrison and Sons, 1903), 19.

Although private capital failed to purchase the colossal entity of the ESR, they managed to circumvent objections from the ministers and established new regional networks of urban tramways and argricultural railways via various concessions during the colonial years. Even though the state stopped investing in new lines, the need and demand for the new transportation method continued to increase. Egypt's urban population had grown exponentially since the Ismaʿil period, which stimulated rapid expansion of urban areas.[123] As the wealthy began to look for more spacious and healthy living conditions that kept them at a distant from poor immigrants, various spa towns emerged, such as Ramleh in Alexandria, Maʿadi and Heliopolis in Cairo. Especially after the 1882 occupation, prostitution, alcohol consumption, and gambling emerged in Egypt's metropolitan cities.[124] These controversial forms of urban vice caused by the country's Westernization triggered vehement objections from native elites, who gradually viewed city centers as botbeds of moral corruption (*fasad*). Because of these emerging conditions, they tended to flee from city centers, at least occasionally for holidays, while still maintaining metropolitan business contacts. Before the age of small motor vehicles, trains provided the fastest and most convenient urban mobility for upper-middle-class Egyptians who migrated to suburbs.

On August 6, 1860, the first urban railway concession was awarded to Edward St. John Fairman, an English businessman in Alexandria, for constructing a railway line that would connected Alexandria to its eastern suburb Ramleh. Fairman's company was formed under the title "Strade Ferrata tra Alessandria e Ramle" with a capital of £12,000 in £10 shares. The completion of the railway on January 8, 1863 significantly contributed to developing Ramleh

[123] Mohammad A. Chaichian, "The Effects of World Capitalist Economy on Urbanization in Egypt, 1800-1970," *International Journal of Middle East Studies* 20, no. 1 (1988), 26, table 1.
[124] Joseph Ben Prestel, "Hierarchies of Happiness: Railway Infrastructure and Suburban Subject Formation in Berlin and Cairo around 1900," in *City: Analysis of Urban Trends, Culture, Theory, Policy, Action, ed. Bob Catterall* (New York: Routledge, 1996), 323

into an expansive settlement for wealthy Alexandrine families. The resident population of Ramleh reached 5,500 in 1867, and the company's value peaked at £200,000 in October 1886.[125] Although Ramleh continued to grow in size, the business of the private railway halted in growth. As a result, the ESR decided to extend its standard-gauge network from Sidi Gabir to Rosetta, thus entering into direct competition with the British company.[126] In the 1882 ʿUrabi Revolt, the Ramleh Railway was threatened by possible demolition at the hands of pro-ʿUrabi Egyptian armies since the company had helped British troops and stores.[127] Perceiving the private company as an accomplice of the British invasion, ʿUrabi armed forces seized control over several stations of the Alexandria-Ramleh line, causing the British Consulate-General in Alexandria to intervene on behalf of the company. After prolonged negotiations with the Egyptian government, the ʿUrabi troops eventually withdrew from these stations.[128]

The Alexandria-Ramleh railway was revitalized after the British occupation in 1882 as it was given unpredecented liberty to underwrite new construction projects in the Egypt's opening market. The board renamed the company after the Alexandria and Ramleh Railway Company, and registered as a private limited company with its main offices headquaartered in London. In 1883, the company's total capital valued at £64,000, divided into £10 shares.[129] With this restructuring and subsequent financing operations in 1887, 1889, 1890 and 1902, the company managed to obtain adequate funding to expand rapidly at the end of the nineteenth century.[130] It not only prioritized the circular line from Schutz via San Stefano and Zizinia, but also invested in Alexandria's burgeoning entertainment industry such as casinos, horse gambling, and European

[125] FO 141/491, "A Recapitulation of the History of the Alexandria-Ramleh Railway, and the Events Which Have Led up to the Present Situation," 12 January 1931, 1.
[126] FO 141/491, "A Recapitulation," 2.
[127] T 1/14313, "Claim of the Ramleh Railway," 6 April 1883.
[128] FO 141/491, "A Recapitulation," 2.
[129] FO 847/112, "Memorandum of Association of The Alexandria and Ramleh Railway Company, Limited," 27 June 1883, 1.
[130] FO 847/112, "Memorandum of Association," 3.

music.[131] The inner-city network became regularly used by Alexandrine elites who had holiday homes in Ramleh and wanted to remain in touch with the city and its social events. European tourists and wealthy dilettantes could also access to coastal resorts in Ramleh by the railway.



Figure 7 A postcard with a portrait of the Ramleh Casino in Alexandria, owned by the Alexandria and Ramleh Railway Company, Limited.
Source: Private postcard collection.

After several financing rounds in the late nineteenth century, the Alexandria and Ramleh Railway Company successfully attracted the attention of the Belgian investor Edouard Otlet, who built, owned and operated the Alexandria burgeoning tramways under the Société Anonyme des Tramways d'Alexandrie.[132] The expanding British railway company shared many business interests with its Belgian counterpart. Because of these shared interests, both sides decided to sit down and negotiate. The negotiations resulted in the founding of a European cartel that

[131] FO 141/491, "A Recapitulation," 2.
[132] Ronny Van Pellecom, "Alexandria & Ramleh Railway Co. Ltd.," *Amicale Alexandrie Hier et Aujourd'hui*, no. 61 (2010): 11.

monopolized rail transit in Alexandria. From January 1, 1903, both companies undertook the joint venture of network development by sharing a part from each other's receipts and expenditures, and thus sharing common risks and benefits. One year later, with sufficient funding sources, the Alexandria and Ramleh Railway company completed the electrification of its entire system, a technological breakthrough that the state-owned railway only began to embark on after three decades.[133] While state-owned railways temporarily halted expansion and technological advances during the austerity years, private railway companies like the Alexandria and Ramleh Railway Company capitalized on the country's opening financial markets to expand their independent networks, and even surpassed the former as the country's leading organization of modernization projects at the turn of the twentieth century.

While the wealthy increasingly felt the pressure of living in old town centers, trains enabled them to take refuge from the crowds and to cultivate completely modern lifestyles with novel infrastructures in the new territories. With a more amiable investment environment after the British occupation, European businessmen started to capitalize on—and exploit—the potentialities of Cairene suburbs and eagerly connected them with new railway lines. Cairo's connection with another new suburb Heliopolis was established by the Cairo Electric Railway and Heliopolis Oases, a co-venture of Belgian businessman Édouard Empain and Boghos Nubar Pasha, son of the former Armenian Egyptian Prime Minister Nubar Nubarian. Before building Heliopolis from scratch amid the Eastern Desert, Empain had already engaged in the business of the Cairo tramway since 1894 via the Belgian financial empire Société Générale de Chemins de Fer Économiques, which ran railway business in numerous European countries.[134] In 1904, the Belgian-Egyptian consortium would still prioritize the more mature Helwan line instead of the

[133] FO 847/112, "Memorandum of Association," 3.
[134] Anonymous, "Cairo Car 75, Place Ancienne, Saptieh," *Tramway Information*.

then underdeveloped eastern suburb of Cairo. However, Empain's acquisition of the Helwan line received a straightforward refusal from his business competitor Felix Suares, which unintentionally helped his Belgian-Egyptian counterpart initiate the alternative Heliopolis project.[135] The flourishing suburban city later helped to accomplish Empain's business empire in Egypt.[136]

Modern railways not only expanded boundaries of metropolitan cities by connecting with spa towns, but also industrial areas in the case of Cairo's southern suburb Helwan. The khedivial government started to establish a freight rail that connected a munition factory near Tura to Basatin via Maadi in 1873. It was extended southwards to Helwan and northwards to Cairo's Muhammad Ali Square (*Midan Muhammad Ali Pasha*) in 1875 to facilitate the exploitation of sulfur water in Helwan and the transportation of people. Noticeably, the Helwan line marked the ESR's last railway line built before the international financial intervention froze its account.[137] Although the Helwan industrial zone merely started to develop, the railway line kept running eight trains daily for the industrial community there.[138] Even with this considerable investment, the ERA was pessimistic about the Helwan line's profitability. It estimated that the Helwan line would not bring any profits to the administration until the industries in Helwan and the community there were more fully developed.[139] At this critical moment, an international consortium headed by the Suares family seized the opportunity to privatize the Helwan line from the Egyptian government. They established a private enterprise named the Cairo Metropolitan and Helwan Railway Company and took advantage of the line's unprofitable fiscal situation to

[135] Samir Raafat, "When Maadi Very Nearly Replaced Heliopolis," *Egyptian Mail*, November 16, 1996.
[136] Robert Tignor, "The Economic Activities of Foreigners in Egypt, 1820-1950: From Millet to Haute Bourgeoisie," *Comparative Studies in Society and History* 22, no. 3 (1980): 428
[137] Hayʾa al-ʿAmma, *Egyptian Railways*, 96. Hughes, *Middle East Railways*, 12; ʿAbd al-Munsif Salim Nijm, *Hilwan Madina al-Qusur wa al-Sarayat: Dirasa Athriyya wa-Thaʾiqiyya li-ʿUmran al-Madina wa-Atharuha al-Baqiyya wa-l-Mundithra* (Cairo: Zahraʿ al-Sharq, 2006), 13.
[138] Abdeen, DWQ [0069-026567], 1880.
[139] DD, DWQ [2001-021047], "Taqrir Majlis al-Irada ʿan Sana 1880," chapter 7 "Helwan Railway."

persuade the ERA to sell the line, which was finally granted by the Khedivial Decree of April 30, 1888. Within a few years, the company carried out improvement plans of adding more stations and renovating technical systems. Although the line was repurchased by the Egyptian government in 1914, the Helwan line gained a reputation of "khuta al-Suares" (the line of the Suares family) among many Cairenes.[140]

Like suburban tramways, private capital hinged on Egyptian government concessions and brought Egypt's developing agricultural railways to the fore. Agricultural lines primarily served the needs to transport agricultural products from Egyptian villages to stations on the trunk lines of state-owned railways.[141] With their development, the agricultural lines also facilitated the transportation of the local populace to Egypt's major cities, which Aaron Jakes features as the colonial's government's "public utility" projects.[142] At the turn of the 20th century, three prominent companies stood out after fierce bidding and investment competition: the Chemins de fer de la Basse-Égypte, the Egyptian Delta Light Railways, and the Fayoum Light Railways. Their success was closely related to their surplus of capital that helped to underwrite these public utility projects.

The Chemins de fer de la Basse-Égypte revealed the intertwined commercial relationships between Egyptian politicians and European businessmen. The company was founded on January 26, 1896 when the Egyptian government granted the concession of railway construction near Mansura. The board was composed of Prince Hussein Pasha Kamil and Prime Minister Riyad Pasha from the side of the Egyptian government, and A. Sinadina, Édouard

[140] Raafat, "When Maadi."
[141] A. J. Cotterill, "Report on Agricultural Lines," in *Report Upon the Administration of the Public Works Department for 1899* (Cairo: Public Works Ministry, 1900), 322
[142] Aaron Jakes, "Agricultural Roads and State Space," in *The Long 1890s in Egypt, Colonial Quiescence, Subterranean Resistance*, ed. Marilyn Booth and Anthony Gorman (Edinburgh, UK: Edinburgh University Press, 2014), 75.

Empain, Frédéric de la Hault, Gustave Kumps, and Ernest Urban, who represented the Belgian investors group.[143] The total capital of the company initiated from 308,600 L.E. and was augmented by an additional 250,737 L.E. in 1909.[144] The first line from Mansura to Mataria was inaugurated on August 15, 1897, and by 1921 the company owned four major lines, totaling 245 kilometers.[145]

The Egyptian Delta Light Railway (EDLR) followed on two separate railway concessions in the Nile delta granted by the Egyptian government. The first was the monopoly of narrow-gauged agricultural railways in the provinces of al-Buhaira and al-Gharbiya granted to the John Birch Company, and transferred its property rights to the EDLR in March 1897. [146] The second was the Compagnie des chemins de fer économiques de l'est Egyptien owned by Felix Suares and was annexed to the Delta Company in December 1900. Thus, the company further developed its networks east- and southwards to the provinces of Sharqiya, Dakhalia, and Qalyubiya. In return, Felix Suares became one of the largest shareholders of the EDLR.[147] With the successful acquisition of the EDLR and the Helwan company, the Suares family stepped towards building a railway empire in Egypt by merging the two companies in 1904.[148] By 1927, the company totally owned 999 kilometers of railway lines, ranking as the largest private network in the country.[149]

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[143] Samir Saul, *La France et l'Égypte de 1882 à 1914: Intérêts économiques et implications politiques* (Paris: Comité pour l'Histoire Économique et Financière de la France, 1997), 189-217.
[144] Wiener, *L'Égypte*, 503.
[145] Wiener, *L'Égypte*, 497.
[146] BT 31/47176, "The Egyptian Delta Light Railways, Limited. And John Birch & Co., Limited. Agreement," March 1897, 5.
[147] BT 31/47176, "The Egyptian Delta Light Railways Limited and La Compagnie des Chemins de Fer Économiques de l'Est Egyptien, Final Agreement as to Allotment of Shares," December 29, 1900.
[148] BT 31/47176, "Contrat de Fusion entre The Egyptian Delta Light Railway Ld., et The Metropolitan and Cairo Helouan Railway," June 10, 1904.
[149] Wiener, *L'Égypte, 514*.

Besides European capital that flooded into Egypt, a group of Egyptian Coptic investors also made concerted effort, albeit short-lived, to invest in the booming railway business. In 1897, Khaled Bey Lufti and Gindi Effendi Shanuda were granted a concession agreement from the Fayoum government to build railway lines totaling 146.5 kilometers in the Fayoum oasis to facilitate local growing agricultural transportation demand.[150] The Fayoum Light Railways was established one year later with a capital of L.E. 180,000. However, the Coptic enterprise soon found itself in a funding shortage for follow-up improvement costs, and thus sold 85 percent of the company's shares to the Anglo-Belgian Company of Egypt.[151] Interestingly, the Belgian financing company Lambert et Ralli, which held significant shares in the Société Anonyme des Tramways d'Alexandrie, was also the largest shareholder of the Anglo-Belgian Company.[152] The transaction extinguished Egyptian businessmen's enthusiasm for railways, as the field was increasingly monopolized by Anglo-Belgian capital. It was not until 1939 that Joseph Kfoury, a local motorbus entrepreneur, purchased the company and was appointed its director.[153]

During the early colonial years, the cessation of government investment in railway construction opened a new door for private investors, who sought the opportunity to seize concessions from the Egyptian government. While European capital failed to privatize trunk lines owned by the ESR, they managed to participate in the booming infrastructure by adding new branch lines, and thus attempted to share the railway's high profitability. In the game that various sources of capital joined, the major winners were the Anglo-Belgian consortia, who managed to monopolize the emerging fields of urban tramways and agricultural railways.

[150] Wiener, *L'Égypte, 542*.
[151] Wiener, *L'Égypte*, 544-45.
[152] Youssef Rahimlou, "Aspects de l'expansion Belge en Egypt sous le regime d'occupation Britannique (1882-1914)," *Civilisations* 38, no. 1 (1988): 154
[153] Ola Seif, "The Stock Certificates of Egypt's Bourse: An Archive in the Cloud?" *Radius of Arab American Writers* 5 (2013), accessible at https://rawi-magazine.com/articles/stockcertificates/.

Egyptian native capital, however, was still relatively uninvested in the emerging railway system due to the brutal competition with European investors who held monopolistic capacity of providing long-term and sustainable investments.

Conclusion

Railways as a developing infrastructure in Egypt necessitated operations of sufficient capital to meet the high costs of initial construction and equipment purchases, especially because Egypt had no history of relevant railway industries in the second half of the nineteenth century. From a macro-economic perspective, external capital investment drove the rail network towards rapid expansion; and conversely, when capital depleted, the railway system fell into a series of structural difficulties and sought new sources of investments. Railways in Egypt, from the very beginning, relied almost exclusively on khedivial government's expenditures. Therefore, on the eve of the government bankruptcy, the colonial institutions of the Caisse de la Debt Publique and the railway administration transformed the state-owned railway into a venture that generated a steady return of profits for the fundamental purpose of repaying Egypt's public debts. This chapter reviews how Cromer's "machinery of government," ironically by using government institutions and regulations, enforced a self-alleged liberal template of the railway economy, including a balanced budget and privatization, yet ultimately centralized administrative control over the railway's finances for the benefit of European creditors.

The chapter also reveals the double-dimensional impacts that resulted from the foreign intervention of the railway economy. On the one hand, the state-owned railway was restricted by a rigorous expenditure cap that forestalled the system's development, including new line construction, equipment upgrade, and localization of technical knowledge. Although the state

railway pushed towards more frequent traffic at full capacity, providing fare reduction for passengers and freight, and appeared on the surface to be prosperous in total revenue under the colonial administration, it was unable to keep up with the newest global trends of railway technology and to meet the growing demands from its local population. On the other hand, the stagnancy in the railway's public sector provided full opportunities for European business magnates, who invested in the emerging transportation systems of urban tramways and agricultural railways. Their assets and influence, as will be discussed in the following chapters, raised competing visions and concerns within diverse groups in the Egyptian populace, who grew increasingly aware of their country's colonial status.

CHAPTER II
Progress in Technology and *Nahda* in Thought

Most scholars who have studied Arabic literature continue to be fascinated by the cultural phenomenon of the late-nineteenth- and early-twentieth-century *Nahda*, an era can partially be translated as "awakening", "renaissance", or as "enlightenment," a term that denotes its comparability with seventeenth- and eighteenth-century Europe. Now it is more widely accepted that the English translation does not quite fully convey *Nahda*'s meaning in Arabic and in the political and social circumstances at the turn of the nineteenth century.[154] Yet, the claim that the *Nahda* is comparable in both its scope and significance with the Enlightenment as an intellectual movement remains unchallenged. This is in no doubt since the *Nahda* encompassed vibrant intellectual exchanges of ideas in the Arabic-speaking world, particularly in Egypt and the Levant, its cultural renaissance was ushered in by a series of Arabic language reforms, literary translation, a rich print culture, and the adherence to and adaptation of European ideas.[155] In that sense, the *Nahda* carried central intellectual beliefs that resembled the European Enlightenment—rationalism, progress, and secularism. As a nineteenth-century movement, it also became a vehicle for forms of proto-nationalism.

[154] Tarek el-Aris, "Let There Be Nahdah!" *Cambridge Journal of Postcolonial Literary Inquiry* 2, no. 2 (2015): 260-66; Spencer Scoville, "The Agency of the Translator: Khalil Baydas' Literary Translations." Ph.D. Diss., University of Michigan, Ann Arbor, 2013, 26-9.

[155] For the *Nahda* literature, see Albert Hourani, *Arabic thought in the liberal age, 1798-1939, 2nd ed* (Cambridge, UK: Cambridge University Press, 1982); Jens Hanssen and Max Weiss, eds., *Arabic Thought beyond the Liberal Age: Towards an Intellectual History of the Nahda* (Cambridge, UK: Cambridge University Press, 2016).

However, it is overly simplistic to depict new ideas merely as products of human intellectual enterprise, and furthermore, and the *Nahda* as solely a paradigm shift of ideas among Arab intellectuals. Notably, the intellectual output of the *Nahda* was not isolated from the rapid political, social, and technological changes of the second half of the nineteenth century and the early twentieth century. Here, the debate whether the *Nahda* was Europe-inspired or Arab self-generated is less a concern, as material-based and capitalist-driven civilization was already an established norm for many nineteenth-century Egyptians, especially among the upper-middle class.[156] It took the *Nahdawi* intellectuals few efforts to realize that their way of life was fundamentally distinct from their ancestors and from all that they read in historical books. In school, they studied one of the new sciences, biology and read Charles Darwin, whose theory of evolution stimulated them to reconsider traditions of belief and to find new path of reenchanting them.[157] This kind of new scientific knowledge became widely circulated in salons, cafes, and various associations or clubs that flourished everywhere in Cairo. For its part, Cairo was undoubtedly a regional center of the Nahda culture. As Cairenes looked at maps, they realized that Cairo was the organ, the heart of the Khedivate, and railway lines, like complicated blood vessels, connected the heart to unfamiliar and remote places.

The upper-class *Nahdawi* intellectuals undoubtedly reaped benefits early on from the new railway system—some of them even directly participated in railway management. Earlier and probably more regularly than for other middle- and lower-class Egyptians, trains became an indelible part of the intelligentsia's life experiences and memories. As a result, images of the railway frequently appeared in *Nahdawi* literature—poems, travelogues, autobiographies, and

[156] I refer to Fernand Braudel's idea of "the material civilization" created by global capitalist expansion. See Fernand Braudel, *Afterthoughts on Material Civilization and Capitalism*, trans. Patricia Ranum (Baltimore, MD: Johns Hopkins University Press, 1977).
[157] Marwa Elshakry, *Reading Darwin in Arabic, 1860-1950* (Chicago, IL: University of Chicago Press, 2013), 7.

periodicals. Yet the railway's role and significance were fluctuating—it represented a measure of civilizational progress, an embodiment of European imperialism, as well as a source of national identity. This chapter aims to dissect the relationship between the railway as material phenomena and as a representation of core *Nahdawi* tenets, including rationalism, progress, anti-imperialism, and nationalism. The central questions of this chapter are: How did experiences of the *Nahdawi* intellectuals with the railway shape its representations in the *Nahdawi* literature? How did various political and social elemets engage with different intellectual interpretations of the railway? How did the railway become a crucial factor helped to configure the communal and national identities of *Nahdawi* intellectuals?

This chapter intends to write the material culture of the railway and *Nahdawi* intellectual ideas as a connected and convergent history. To do so, I deploy Material Engagement Theory (MET), a theory that foregrounds "the causal efficacy of things in the enactment and constitution of human cognition."[158] I argue that the railway is more than merely an object comprehended by *Nahdawi* intellectuals, let alone an external representation of *Nahda* tenets. As the railway intervened in their everyday lives and memory, it also became a cognitive extension of the human body. Intellectuals started to conceptualize abstract theory and emphasize certain ideas over others through the lived experiences. From this perspective, the intellectual history of the Egyptian railway is more than a history of ideas—ideas arguably either disseminated from Europe or rejuvenated from the Arabic or Islamic traditions. An integral part of its intellectual history is about material, things, and technology, as they inspire, carry, and enact intellectual ways of being in the world and of making sense of the world. I do not intend to argue for material agency, as such an overexpansion of agency's conceptualization might inevitably limit

[158] Bjørnar Olsen, *In Defense of Things: Archaeology and the Ontology of Objects* (Lanham, MD: AltaMira Press, 2010); Lambros Malafouris, *How Things Shape the Mind: A Theory of Material Engagement* (Cambridge, MA: MIT Press, 2013), 8.

its exploratory power. But what I do question is the reduction of human agency to only novel ideas from great minds. As I will discuss in this chapter, the railway enveloped the minds of *Nahda*wi intellectuals, and it shaped their identities.

The Railway as a Measure of Progress

It is now more widely acknowledged that modern technological development in Western Europe did not inherently carry universal meaning. It required an official acknowledgement from non-European intellectuals in order for this technological development to have universal appeal and acceptance. As Pierre Bourdieu observes, people develop a set of behavior, lifestyle, and habitus that often preserve their status quo.[159] To gain such recognition from non-European intelligentsia was a challenging proposition due to their belated acceptance of European developed technology, even though these intellectuals were by no means reactionary or conservative in their own societies. As early as 1798, Napoleon's invasion of Egypt shocked Arab intellectuals like ʿAbdu al-Rahman al-Jabarti, as he witnessed, heard, and recorded the enormous advantages of modern French firearms against the once-powerful Mamluk cavalry.[160] Meanwhile, as a Muslim intellectual, he was utterly confident in Islamic knowledge. In the eyes of al-Jabarti, and of many other Arabic-speaking Muslim intellectuals at the beginning of the nineteenth century, the French campaign only succeeded militarily with their superior rifles and longer-ranged cannons. For al-Jabarti, it became apparent that Arab Muslims, if they acquired the same advanced technology, would unquestionably overcome the European threats with their

[159] For Pierre Bourdieu's idea of inertia, see See Pierre Bourdieu, "The Social Space and the Genesis of Groups," in *Theory and Society* 14, no. 6 (1985): 723-44.
[160] Shmuel Moreh, *The Egyptian Historian ʿAbd al-Raḥmān al-Jabartī: His Life, Works, Autographs, Manuscripts and the Historical Sources of ʿAjaʾib al-Āthār* (Oxford, UK: Oxford University Press, 2014), 176; ʿAbd al-Rahman al-Jabarti, *ʿAjaʾib al-Athar fi al-Tarajim wa-l-Akhbar* (Cairo: 1904).

piety and beliefs.[161] Arabs' confidence in their religion and their culture, and their way of life seemed supported by the immediate demise of the French occupation. With his campaign muddled, Napoleon Bonaparte toiled in Egypt for three more years and permanently abandoned his one-time ambition of ruling the Muslim territory.

For the first half of the nineteenth century, military threats from Europe were relatively remote and inconceivable. It was during this period of political stability and economic prosperity that technological imports from Europe began to show strong appeal to the Arabic-speaking intelligentsia. They travelled and studied in Europe, expressing their full admiration for the emerging modernity outside the Muslim world. Meanwhile, they eagerly learned advanced technology from Europeans with the increasingly clear goal of self-development.[162] While Muhammad Ali Pasha undertook his ambitious plan of modernizing Egypt, he sent numerous young students to Europe, including Rifaʿa al-Tahtawi and Ali Mubarak, who I discuss intensively in this chapter.[163] Globalization, at least on an intellectual level, was in motion. As al-Tahtawi observed, there was no way to hold back against globalization, as the invention of steam engines, the telegraph, the excavation of the Suez Canal, and the layout of railway tracks

[161] Napoleon proclaimed himself as a Muslim and that he expelled the Knights of Malta in order to win the support of Egyptian Muslims. But obviously al-Jabarti and other Muslim intellectuals at that time had no motif to believe what Napoleon proclaimed. See Shmuel Moreh, *The Egyptian Historian*, 207; Juan Cole, *Napoleon's Egypt: Invading the Middle East* (New York: Palgrave Macmillan, 2007), 30. For al-Jabarti's attitudes towards French occupiers, see ʿAbd al-Rahman Al-Jabarti, *Al-Jabarti's Chronicle of the First Seven Months of the French Occupation of Egypt [Tarikh Muddat al-Faransis bi-Misr]*, ed. & trans. S. Moreh (Leiden, Netherlands: E. J. Brill, 1975), 23-25; ʿAbd al-Rahman al-Jabarti, *Mazhar al-taqdis bi-zawal dawlat al-Faransis* (Cairo: Matbaʿat Dar al-Kutub al-Misriyya, 1998), 303-304.

[162] For instance, Egyptian nationalist intellectual Ahmad Lutfi al-Sayyid viewed it was necessary to assimilate European technology so as to achieve national independence. See Jamal Mohammed Ahmed, *The Intellectual Origins of Egyptian Nationalism* (Oxford, UK: Oxford University Press, 1960), 97, 109.

[163] For Muhammad Ali's educational missions and their influence on Egyptian intellectuals, see Alain Silvera, "The First Egyptian Student Mission to France under Muhammad Ali," *Middle Eastern Studies* 16, no. 2 (1980): 1-22; Donald M. Reid, *Cairo University and the Making of Modern Egypt* (Cambridge, UK: Cambridge University Press, 1990), 5; and P.J. Vatikiotis, *The History of Modern Egypt: From Muhammad Ali to Mubarak* (Baltimore, MD: The Johns Hopkins University Press, 1991), 93-101.

had already created a more connected world that he himself was a part of.[164] The perceived inevitability of globalization driven by technology, or Westernization to a larger extent, inspired the generation of the *Nahda*, who opened their eyes wide and embraced new changes.

The train, for the first Arab generation who witnessed the machine, was an unimaginable colossal and powerful creation, one that evoked unprecedented sensationalism. In the first chapter of *Manahij al-Albab al-Misriyya*, he acclaimed the US transcontinental railroad as an exciting means of uniting the world. Combining his witness of the khedivial railway, al-Tahtawi composed a eulogy to articulate such exhilaration and bewilderedness about the steam engine:

> "[The train's engine] is like the arising of volcano's fire, roaring all of a sudden.
> Or like a traveler aspiring for his upcoming trip, witnessing the beauty of the whole world.
> Or like a lover who was denied of his proposal, even his envy towards his rival.
> Love creates restraint, as well as tears that converge into a pond."[165]

The encomium was much more than an expression of al-Tahtawi's personal feelings. As a cultural observer, he was fully aware of the railway's significant political and social power. In the same poem, he penned an analogy where the train was a fixed star in the sky, which situated between the sun—the political center—and human beings. In other words, the railway bestowed political power to the people while exemplifying its grandeur. This worldview maintained and consolidated existing social hierarchy, while necessarily devaluing other railway-less societies. Using poetic analogies and metaphors, al-Tahtawi conveyed to his readers the sense of competition and progress propelled by modern technologies. He consciously highlighted the urgency for political rulers as well as his readers to appreciate the railway's potential, so that his country and fellow citizens would not fall behind from competing civilizations.

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[164] Rifaʿa Rafiʿi al-Tahtawi, *Al-ʿAmal al-Kamila li-Rifaʿa Rafiʿi al-Tahtawi*, vol.1, ed. Muhammad ʿImara (Beirut: 1973), 338-39.
[165] Rifaʿa Rafiʿi al-Tahtawi, *Manahij al-Albab al-Misriyya* (Cairo: 1912), 126-8.

> "[The train] is Mercury without comparison, as if it is a star.
> The sun obtains from [the train] its yellowness, upon the whistle's sound it rises.
> It is like the moon that bestows authority upon a knowledgeable man, and Arcturus which has its night discourser.
> In its palm, Gemini resembles a bracelet, making Pleiades beautiful and others to fall down."[166]

Besides praising the power of trains, al-Tahtawi also wrote the poem as a panegyric for the Egyptian Khedive Ismaʿil Pasha, who during his reign, had supported and invested in an enormous number of railway projects throughout the Nile Valley.[167] Notably, al-Tahtawi probably never traveled by a European train himself. When he studied in France, the country had not yet experienced a rapid railway development. Yet, al-Tahtawi was attracted by Saint Simonian thoughts, which ultimately promoted a technology-oriented industrial society. When al-Tahtawi returned to Egypt, his experiences coincided with the railway boom there beginning from 1853. He personally witnessed the transition of the railway from a purely exotic and upper-class experiment to a common means of mass transportation that benefited thousands of travelers.[168] Such a widespread and all-encompassing tradition greatly fascinated al-Tahtawi, not only due to the sheer mechanical marvel of the railway projects but also what a comprehensive railway system could potentially mean for Egypt politically, economically, socially, and culturally. The latter manifested what al-Tahtawi meant by the social benefits (*al-manāfiʿi al-ʿumūmīya*), which he discussed at length in the second chapter of *Manāhij*, immediately following the poem.[169] Specifically, the railway "removed the beasts, and made people informed of what they had not imagined, and reached places they had never reached before. There is no

[166] Ibid.
[167] Ettouney, *Railways Along the Nile*, 28-35.
[168] Al-Tahtawi, *Manahij*, 126.
[169] Al-Tahtawi, *Manahij*, 129.

barrier in reaching any land, so this era is aptly called the era of civilization (*ʿaṣr al-madanīya*)."[170]

In al-Tahtawi's knowledge system, he classified two categories of distinct yet interconnected realms of knowledge: religious sciences (*al-ʿulum al-sharʿīyya*) and practical sciences (*al-ʿulum al-hikmīyya*).[171] Religious sciences—the systematic studies of the Quran and other religious texts—were responsible for providing spiritual and moral guidance to the Muslim population. Practical sciences were associated with crafts and empirical works, enabling al-Tahtawi to incorporate contemporary European scientific discoveries into this corpus of knowledge. Although Tahtawi acknowledged the superiority of the former, it did not lead him to look down on practical sciences. Quite to the contrary, among the most crucial goals of *Manahij*, as well as of al-Tahtawi's whole intellectual life, he was determined to revive and promote the forgotten practical sciences and weighed them equally with, if not the central part of, knowledge of the Islamic tradition. Massive government spending on the railway and other infrastructure projects under the rule of Khedive Ismaʿil seemed to meet al-Tahtawi's expectations to push Egypt toward a new direction of civilization, one that was equally balanced between the practical and religious sciences. Such infrastructure developments made up for Egypt's deficiencies in the practical sciences for the past few centuries, and helped to qualify a civilized nation (*ʾahl al-ʾadab wa-l-ẓarāfa wa-l-taḥaḍḍur wa-l-tamaddun wa-l-tamaṣṣur*), one that matched European industrial nations and distinguished from the savage nations (*mutawaḥḥishīn*) and the barbaric nations (*barābira*).[172] In al-Tahtawi's typology of civilizations, global hierarchical structure was a presumption, before placing each nation into its occupied place. However, al-Tahtawi's

[170] Al-Tahtawi, *Manahij*, 126. For discussions of al-Tahtawi's *al-Manahij*, see Juan Cole, "Rifāʿa al-Ṭahṭāwī and the Revival of Practical Philosophy," *The Muslim World* 70, no. 1 (1980): 29-46.
[171] Rifaʿa Rafiʿi al-Tahtawi, *Kitab al-Murshid al-Amin li-l-Banat wa-l-Banin* (Cairo: 1872), 806-07.
[172] Rifaʿa Rafiʿi Al-Tahtawi, *An Imam in Paris: Account of a Stay in France by an Egyptian Cleric (1826-1832) [Takhlis al-Ibriz fi Wasf Bariz]*, trans. Daniel L. Newman (London: Saqi, 2004), 6-7.

typology did not necessarily mimic his contemporary European civilization mission in his judging criteria and ranking of progress. As one among the wider circle of Muslim intellectuals, al-Tahtawi insisted on the centrality of Islamic knowledge while feeling the pressure to rationalize the declining exterior that his contemporary Islamic world had endured. The eulogy articulated, in a reserved yet unswerving manner, al-Tahtawi's concerns and anxieties to the ongoing situations of the Islamic civilization. Meanwhile, the literary work also attempts to elucidate a means of future elevation, a means that conceivably enabled Egypt to join the team of "civilized nations."

Born twenty years after al-Tahtawi, Ali Mubarak continued al-Tahtawi's commentaries and thoughts on civilizational progress. Embarking on a journey to France in 1844, at a time when rail travel was prevalent, the young Mubarak could not conceal both his horror and delight at his first glimpse of the iron horse, the sublime object of the emerging Europe modernity. In Mubarak's travel literature *ʿAlam al-Din*, speaking through his protagonist, he told his audience about his own experiences with first-time train travel.

> "[ʿAlam al-Din and his son] sat in one of the first-class cabins. They watched the train's motion. When its movement intensified and its speed increased, the shaykh's (ʿAlam al-Din) heart started beating (*ʾiḍṭarāb*) many times. A feeling of fear (*khawf*) arose. He had never been so afraid in his life. When the train proceeded, he heard something behind him, which were not from any travelers who stayed calm in the noises."[173]

Parallel to what al-Tahtawi described in the poem, passers-by showed their amazement in front of the iron machine, the embodiment of a new progressive force as of yet unknown to the Islamic civilization. The literature genre of Mubarak allowed him to convey his own sentiments in more detail. ʿAlam al-Din's intensive heartbeat, sudden fear, and auditory hallucination derived not only from the motion of train, but also his inexperience in railway travel—it was his

[173] Ali Mubarak, *ʿAlam al-Din*, vol. 1 (Alexandria: Tabaʿat fi Matbaʿat Jarida al-Mahrusa, 1882), 88.

first time seeing and traveling by a train. These feelings, irrational as they were, physiologically responded to the colossal machine and to its attendant European modernity. Besides describing all his emotions, Mubarak also suggested ways of eradicating them. By doing so, he encouraged his audience to adjust to the incoming modernity embodied in trains. After al-Din was assured that reactions were natural, he "still felt awestruck, but his heart stilled, and he sat calmly, depending on the creator of humankind (*khāliq al-warā*)."[174] He called what he had just experienced a "sign of faith" (*ʿalāmat al-ʾimān*). So, al-Din's first face-to-face experience with the train demonstrated his transition from human irrationality to religious belief. In other words, this life-altering experience reaffirmed his belief in God's rationality against human insanity.

Mubarak did not cease at the first phase that illustrated the train as the sign of faith, or the God's embodiment on earth. He continued to discuss the second phase of transition, the transition from religion to society. During al-Din's train travel, his companion, an English lord often functioned as the mouthpiece of industrial progress and explained various aspects of the railway to the shaykh. In their dialogue, al-Din realized that the train was much more than a sophisticated machine, that it was also a harbinger of inexhaustible benefits and advancement. Towards the end of his train trip, al-Din shared his fresh experience and knowledge to his fellow countrymen:

"The shaykh (ʿAlam al-Din) said it was true that the railway's benefits were plenty, not only limited to trade, but also to other societal aspects, including industry, agriculture, science, arts, people's customs, morality, politics, and even prosperity and civilization…If he shared [the railway's benefits] with his countrymen, they would benefit greatly…People in rural areas could

[174] Ali Mubarak, *ʿAlam al-Din*, vol. 1, 88.

use the railway for transporting agricultural products, and urban dwellers could collect their garbage and dispose of it elsewhere."[175]

ʿAlam al-Din's travel experience told audiences a much larger story than an individual encounter with modern technology. Its narrative arc exposed the personal growth of a character from being preoccupied by irrational emotions to one embracing a rational existence. Additionally, it was also about his transformation from a religious self to a social being. Much more than Mubarak's alter ego, ʿAlam al-Din was a role model for his audiences, even acting like a microcosm of Egypt as a whole, which could rationally analyze the railway's social benefits and adopt to its progress.

With the political clout he accrued during the reign of Khedive Ismail, Ali Mubarak eventually managed to enact what he envisioned as the railway's benefits. After completing his engineering studies in France, Mubarak's talent and technological expertise soon impressed the ever-ambitious ruler. He eventually became the chief engineer of Ismail's magnificent modernization projects and became the Minister of Public Works in 1867, responsible for Cairo's reconstruction. A year later, Mubarak incorporated the railway system under his ministry by serving as the director of the Egyptian State Railways. In his six-year service at the ESR, he made far-reaching contributions to Egypt's railway development.[176] As Michael Reimer argues "the progress [Mubarak] had in mind is essentially technocratic, uncomplicated by an awareness of the unforeseen and disparate effects of state-sponsored reforms."[177] In Mubarak's mind, the railway was the ultimate engine for such progress. Being the chief engineer of the modern engine, Mubarak aspired to direct Egypt's march toward a revitalized civilization.

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[175] Ali Mubarak, *ʿAlam al-Din*, vol. 1, 128-9.
[176] Barak, *On Time*, 60-61.
[177] Michael J. Reimer, "Contradiction and Consciousness in Ali Mubarak's Description of al-Azhar," *International Journal of Middle East Studies* 29, no. 1 (1997): 57.

Not only did individual Arab travelers to the West bring to Egypt new knowledge on the latest technological developments. The Ottoman Empire's cultural coherence and influence outlasted its political dominance in Egypt. The ever-developing urban centers in Egypt attracted scholars of various religious and social backgrounds in other Ottoman provinces to settle, and thus created new cultural prosperity during this period of community formation and national-building. Among the intellectuals who migrated to Egypt, the Syrian Christian intelligentsia established themselves as the curators of European development. Instead of pro-British media outlets, magazines and newspapers written, edited, and published by the Syrian Christian community spoke in a language more amenable and approachable to the bourgeoning Egyptian middle-class's sensibility and aspirations. Since their faith differed from the Egyptian Muslim majority, they also carefully chose and calibrated their tenor, marking themselves as avant-garde in secular thought while at the same time distancing themselves from any potential religious strife.

Science and technology became the most popular topics in the magazines published by the Syrian circle. On the one hand, many of the Syrian editors themselves were amateur scientists or technology enthusiasts. Faris Nimr and Yaʿqub Sarruf, two editors of *al-Muqtataf*, the first and most well-known Arabic magazine of popular science, majored in astronomy and mathematics at Syrian Protestant College, which was later renamed the American University of Beirut. Prior to emigrating to Egypt, they were embroiled in a fierce controversy over Darwinism at university before they extended a similar debate to Egypt.[178] The Syrian immigrants, by any means, were by far more exposed to and experienced in Western science and technology. Their position as translators and interlocutors of the West remained unchanged for almost a half century.

[178] Marwa Elshakry, *Reading Darwin*, 27.

On the other hand, the Syrian editors were fully aware of how to best position and adjust scientific knowledge to political and social conditions in Egypt. In the wake of Colonel Ahmad ʿUrabi's fiasco, Syrian migrants, similar to their Muslim counterparts, felt deeply anxious about their country's future. Among them there was Jurgi Zaydan, an ardent believer of social Darwinism, a freemason maverick, and an Orthodox Christian who unconventionally held a professorship in Islamic history.[179] Adding to this already idiosyncratic belief system, Zaydan was an early theorist and supporter of Arab nationalism while openly criticizing the anti-British activisms of Ahmad ʿUrabi and Mustafa Kamal. Instead, he believed in a self-help society and was a staunch supporter of education that taught individuals about universal ideas and self-improvement. For Zaydan, Arab nations would not gain true independence unless its people were well-informed and were thus fully capable of defending themselves against imperial encroachment.[180] Therefore, he devoted himself to writing and publishing, as a means of enlightening the public and instilling a sense of activism. Zaydan began his career as the assistant editor at *al-Muqtataf*, responsible for writing scholarly articles on various historical topics. In 1892, he founded his most influential project, the monthly magazine *al-Hilal*. Besides its publication of serialized historical novels and literary reviews, *al-Hilal* paid special attention to Western technological innovations and their potential consequences for Arab audiences.

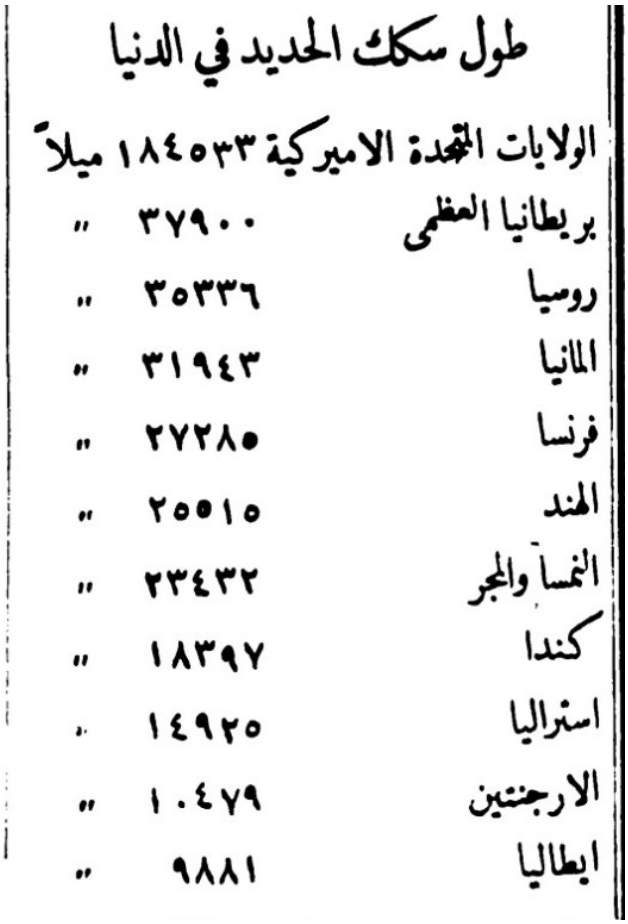
Like many of their contemporaries, the Syrian immigrants envisioned a world rife with competing civilizational progress. Scientific and technological achievements, conjoined with religion and culture, worked as qualitative indicator to assess human worth, and at times, as proof of human inequality. American historian Michael Adas has demonstrated from a Western

[179] Thomas Philipp, *Gurgi Zaidan His Life and Thought* (Beirut, 1979); Dorothe Sommer, *Freemasonry in the Ottoman Empire: A History of the Fraternity and its Influence in Syria and the Levant* (London: I.B. Tauris, 2015).
[180] Thomas Philipp, "Language, History, and Arab National Consciousness in the Thought of Jurji Zaidan (1861-1914)," *International Journal of Middle East Studies* 4, no. 1 (1973): 3-22.

genealogy of knowledge production that various forms of technology have played a critical role in shaping Europeans' perceptions of material superiority of their own cultures, and their attitudes toward and interaction with peoples they encountered overseas.[181] In retrospect, nineteenth-century Arab intellectuals, particularly with their emerging secular outlook, readily accepted the modern premises of technology's measuring power. They positioned themselves as cultural translators of esoteric terms and fashionable theories. By doing so, they hoped to educate the public how paramount science and technology were to individual improvement and national development.

The railway, in this blueprint, was not only imagined as the engine of economic prosperity and efficient governance, but also as the measure of national or civilizational progress. In *al-Hilal*'s comments on the belatedness of railway construction in China, the editor noted, "many Chinese refuse to emulate modern civilization (*al-tamaddun al-ḥadīth*), as people elsewhere do. However, they seemed to restore their senses (*rajaʾu ilā al-ṣawāb*) and have decided to build a 1,400-mile-long railway [so far]."[182] *Al-Muqtataf* expressed a similar viewpoint. The "progress of Egypt" (*taqaddum al-bilād*) was best crystallized in its technological progress, in the railway and other departments.[183]

[181] Michael Adas, *Machines as the Measure of Men: Science, Technology, and Ideologies of Western Dominance* (Ithaca, NY: Cornell University Press, 2015), 4.
[182] "Railway in China," *al-Hilal* 5 (1896): 38.
[183] "Railway in Egypt," *al-Muqtataf* 19 (1895): 473.



طول سكك الحديد في الدنيا

الولايات المتحدة الاميركية	١٨٤٥٣٣	ميلاً
بريطانيا العظمى	٣٧٩٠٠	"
روسيا	٣٥٣٣٦	"
المانيا	٣١٩٤٣	"
فرنسا	٢٧٢٨٥	"
الهند	٢٥٥١٥	"
النمسا والمجر	٢٣٤٣٢	"
كندا	١٨٣٩٧	"
استراليا	١٤٩٢٥	"
الارجنتين	١٠٤٧٩	"
ايطاليا	٩٨٨١	"

Figure 8 A table of railway length rankings by nation in *al-Muqtataf*.
Source: "Railway in the World," *al-Muqtataf* 31 (1906): 267.

To equate the railway with civilizational progress, these two magazines transformed railway's importance into concrete parameters that were easily quantified, compared, and ranked. Among various categories, the length of rail lines reflected its geographical coverage and connectivity within a designated sphere (Figure 8). The speed of the railway indicated its efficiency in covering territory. So, of note, length and speed became two of the most common measuring parameters. *Al-Muqtataf*, for instance, periodically published ranking lists of the longest railway networks, ranked from the longest to the shortest, and based on each continent or country. The European continent, in the late nineteenth century, was undoubtedly the most railed

continent, followed by the Americas, Asia, and Africa.[184] When ranked by country, the US possessed by far the longest tracks world-wide at this time.[185] Typically, a rail line's speed was not included on this kind of list. But it is still an important comparison. A new locomotive that broke speed record would appear in the magazines, compared to the fastest train speed in each country.[186]

Besides length of rail lines and train speed, journalists also attached great importance to the railway's economic value. As Muslim counterparts, they believed that the railway represented and symbolized in itself high value (*qīma*), the value that could be quantified in currency and encapsulated economic prosperity. *Al-Muqtataf* noted in 1895, "The total value (*qīma*) of the world's railways is between five and six billion pounds. That equals ten times of the revenues of European countries and America. The total value of gold and silver in the world does not exceed to several million pounds."[187] Following the logic of capitalist accumulation, financial investment in the railway yielded profits and increased its value. As such, journalists not only viewed the railway as an object that was in itself valuable, but also as an industry that increased total national wealth, which was also quantifiable for statistics and rankings. According to statistics published in *al-Muqtataf*, England in 1897 made a profit of one hundred million pounds each year from the railway, amounting to nearly twenty percent of its total assets.[188] Whereas America witnessed the highest increase of profits, which by 1890 reached eighteen million pounds, four times higher than compared to twenty years earlier.[189] While the Egyptian State Railways was climbing out of its previous colossal debts, the profitability of

[184] "Railways in the World," *al-Muqtataf* 8(1883): 125.
[185] "Railways in America," *al-Muqtataf* 13 (1889): 351; "Railways in the World," *al-Muqtataf* 31 (1906): 267.
[186] "The Fastest Train in the World," *al-Hilal* 3(1895): 747.
[187] "The Value of Railways," *al-Muqtataf* 13 (1888): 348.
[188] "Railways in England," *al-Muqtataf* 25 (1900): 285.
[189] "Railways in America," *al-Muqtataf* 38 (1911): 516.

Western railway systems, in the eyes of these journalists, seemed to mark the consequential gap between the Western imperial powers and Middle Eastern governments.

Travel safety was the third component of the railway that the journalists analyzed and emphasized. *Al-Muqtataf* did not believe that the railway was by nature "dangerous" to travelers. It was only presented as "dangerous" because deaths caused by train accidents were both unnatural and brutal.[190] The editors astutely observed that technological flaws were not the main cause of rail accidents. More accidents happened because of excessive speed, ill-preparation of railway signals, and carelessness or tiredness of train conductors.[191] Similarly to previous parameters, the journalists also assessed the risk by calculating the number of rail accidents in Egypt and provided comparisons among countries. In this aspect, railways in Western Europe generally had a smaller number of accidents than its American counterpart, even though the latter demonstrated faster speeds and higher profitability.[192] By identifying risk and putting it into a national-comparative framework, *Al-Muqtataf* journalists warned their readership about the importance of proper railway management and the necessity to define the railway's progress from multipole perspectives in addition to its length, speed, and profitability.

Although *Al-Muqtataf* extolled the objective and quantitative virtues, human perceptions of the railway were never entirely objective. It was more likely for common travelers to hear or tell anecdotal stories about the railway; yet the real difficulty located at how to evaluate the entire national railway, let along the transnational system, and furthermore, to convey the evaluation in a convincing manner to the journal's readership. The inability to perceive of and understand the overall railway system was what journalists were concerned about. Instead of storytelling or merely providing philosophical reasoning, the Christian journalists chose to use

[190] "Danger of Railway," *al-Muqtataf* 26 (1901): 567.
[191] "Railway Accidents and Solution," *al-Muqtataf* 39 (1911): 166-168.
[192] "Railways in America," *al-Muqtataf* 25 (1900): 278.

concrete numbers to provide a more comprehensive overview of the global scope of railway development. This was a novel invention, utterly beyond the Islamic literary tradition, which contemporary Muslim intellectuals like al-Tahtawi and Mubarak were cultivating. As American historian of science Theodore Porter argues, the pursuit for objectivity drives the impetus of quantification in a situation where trust is in short supply.[193] By favoring tables over narratives, rankings over rhetoric, numbers over literature, these Syrian Christian journalists also created a sense of objectivity and formality among their readership. Instead of Islamic piety as a source of credibility, a belief by which Muslim intellectuals held, numerical reasoning seemed to provide an impersonal and equally convincing alternative for Egyptian religious minorities in the burgeoning public intellectual space of Arabic journals.

Although Muslim and Christian intellectuals of the late nineteenth century approached the railway in various literary genres—poetry, philosophy, autobiographical travelogue, and popular science magazines, all their work contributed to the creation of a civilizational order and progress in which technology also played as an inseparable and parallel role. Muslim intellectuals like Rifaʿa al-Tahtawi and Ali Mubarak, comprehended the transformative power of the railway for nation-building. In their writings, they celebrated the advances made by railway, informing their readers of its significance and urged Egyptian rulers to gain the upper hand in an increasingly fierce civilization competition. Additionally, the Syrian Christian journalists, in tandem, developed and published numerical representations to delineate a more objective, yet equally hierarchical structure of civilizational progress. From these writings of individual passengers experiencing railway travel, to the social benefits of the railway, to the quantitative accounting of the railway's contributions to the nation, the material world constantly shaped the

[193] For numbers as a source of credibility, see Theodore Porter, *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life* (Princeton: Princeton University Press, 1996).

mind of Arabic-speaking intellectuals, and furthermore, the minds and sensibilities of their faithful audiences.

The Railway in Danger

Fantasies of European technological advances were soon replaced by imminent threats of New Imperialism. As unprecedented pursuit of overseas territorial acquisition occurred in Africa, Asia, and Latin America, the Muslim world soon became cognizant of its own precariousness. Even though Colonel Ahmad ʿUrabi was much more prepared for any impending foreign invasion than his Mamluk predecessors, he was likewise no match for the European aggressors. Eighty years of technology advances had made Egypt resemble Europe in many ways. But with the political changes of the late 1870s, modern technological spectacles—the railways, the telegraph, and the Suez Canal in particular—all suddenly fell into the hands of Europeans. In such an acute crisis, the social meanings of technological modernity needed an urgent redefinition among the *Nahdawi* intellectuals.

European territorial acquisition in Africa was accompanied by pronounced and clarion-sounding colonial discourses that marginalized, depreciated, and even humiliated non-European cultures. Reflective of this discourse, French philologist Ernest Renan in 1883 delivered a famous lecture at the Sorbonne, entitled "Islam and Science," in which Renan asserted that for centuries Islam had inhibited the development of modern science and technology.[194] According to Renan, the preponderance of medieval science and technology in the Muslim world was Greek in origin, origins which he alleged owed nothing to Islam. He blamed Abu Hamid al-Ghazali,

[194] Jamal al-Din al-Afghani, "Answer to Renan," in Nikki R. Keddie, *An Islamic Response to Imperialism: Political and Religious Writing of Sayyid Jamāl ad-Dīn "al-Afghānī"* (Berkeley, CA: University of California Press, 1968), 183. Afghani published the French original on May 18, 1883 in the *Journal des Débats*. See Jamal al-Din al-Afghani, "Résponse de Jamal al-Din al-Afghani à Renan," trans. A. M, Coichon, *Réfutation des materialists* (Paris, 1942), 176-77.

one of the most prominent Muslim theologians for his preference to a mystical life instead of one grounded in philosophical rationalism. After Ibn Rushd (d. 1198), often Latinized as Averroes, the last Muslim philosopher discussed in Renan's lecture, he argued that Islam and science officially fell apart.[195] Since then, Muslims, shackled by their religion, he wrote, were unable to think rationally nor produce any meaningful scientific discoveries. Renan's theory, despite its deep-seated controversies, established the core of Western beliefs about, and representations of Islam for nearly a century, and its remnants still find attentive audience today.[196]

Renan's speech agitated many Muslim intellectuals of that time and forced them to reconsider their own situation and place under the emerging claws of New Imperialism.[197] The Muslim world was stuck in a mire of weakness and helplessness. Among the former Ottoman *eyalets* (provinces, replaced by *vilayets* in 1867), Algeria was the first to fall in 1830. The French occupation of Tunisia in 1881 initiated a new round of colonization. Great Britain immediately followed suit, severely bombarding the Port of Alexandria and sending troops to occupy the city. Cairo, the city that at one time had challenged Istanbul to be the political and cultural centers of the Muslim world, succumbed to its new foreign rulers and their formidable army. Renan's speech, delivered within the historical context of the scramble for Africa, provided a strong case and endorsement of European racial superiority, and thus warning Muslim intellectuals of its dangerous proposition and their ever precarious situation.

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[195] Ernest Renan, "Islam and Science: A Lecture Presented at la Sorbonne 29 March 1883," trans. Sally P. Ragep, 2011.

[196] For instance, Bernard Lewis is still one of the most influential scholars of the Middle Eastern and Islamic studies, whose works continued to disparage Islam as unmodern in nature and against modern science and technology. See Bernard Lewis, *Islam and the West*, rev. ed. (Oxford, UK: Oxford University Press, 1994). For Lewis's intellectual offspring, see Dan Diner, *Lost in the Sacred: Why the Muslim World Stood Still* (Princeton, NJ: Princeton University Press, 2009); and Timur Kuran, *The Long Divergence: How Islamic Law Held Back the Middle East* (Princeton, NJ: Princeton University Press, 2011).

[197] For the development of New Imperialism in the African continent, see Muriel Evelyn Chamberlain. *The Scramble for Africa*, 3rd edition (London: Routledge, 2010).

Jamal al-Din al-Afghani (1838-1897), the torchbearer of the *Nahda* movement, responded to Renan's assertion of an essentially unscientific Islam and European exceptionalism.[198] He argued that religion played distinct roles at different stages of historical development. For al-Afghani, religion could either enhance scientific progress or stifle it. In its heyday, the Islamic world had been the center of science and philosophy and Muslim intellectuals had fully excavated and embraced the rational dimension of Islam to support their scientific thinking. However, he conceded that during recent decades, Islam declined in its commitment to reason, whereas Christianity had persistently reformed itself and rightfully promoted scientific progress. "If it is true that the Muslim religion is an obstacle to the development of sciences, can one affirm that this obstacle will not disappear someday?...The Christian religion has emerged from the first period to which I have just alluded; henceforth free and independent, it seems to advance rapidly on the road of progress and science, whereas Muslim has not yet freed itself from the tutelage of religion."[199] Instead of Renan's static denouncement of Islam, al-Afghani tended to view all religions in the perpetual process of self-improvement and self-justification. Accordingly, he urged peer Muslim intellectuals to distinguish between the harmful and the beneficial elements of Islam and in doing so, to use these elements strategically as theological guides that endorsed the longevity of national progress.[200]

The road of Islamic reform was long; but the menace of European imperialism was approaching day by day. The Arabic word *ʾistiʿamār* is a calque of Europeam colonialism. The word itself has a longer history than its most popular contemporary meaning. The first appearance of *ʾistiʿamār* in Arabic formal writing can be traced back to the Holy Qur'an (11:61)

[198] Al-Afghani, "Answer to Renan."
[199] Al-Afghani, "Answer to Renan."
[200] Al-Afghani, "Answer to Renan."

in its verb form *ʾistiʿamār*, which means "to settle someone." Since then, *ʾistiʿamār* had not been a popular vocabulary in Arabic literature until late nineteenth-century *Nahdawi* intellectuals rediscovered the word and reinvented its semantics. Besides referring to European settlement, Aaron Jake argues that the same group of *Nahdawi* intellectuals developed the second meaning of *ʾistiʿamār* that was derived from the verb format *ʿamar* ("to build" or "to prosper") to denote the acts of building or construction. In this way, the Arabic "colonialism" established its semantic closeness to infrastructure. And infrastructure became a crucial facet through which Arab intellectuals conceived the new global order of colonialism.

In the late nineteenth century, an increasing number of Arabic intellectuals shifted from applauding infrastructure's universal progressiveness to reflecting it as signs of imperialist global expansion and as punishment for the rapid loss of sovereignty by non-Western countries. Nascent sentiments of patriotism were growing, although the fluidity of national identities still comprised an imminent problem in the formation of a full-fledged and obtainable nationalist agenda. Yet this was the first step in defining a perceived danger and its origin. Imperial control over and management of non-European railway lines, in this context, drew the acute attention from pro-nationalist thinkers, as they increasingly viewed competition over national interests as a zero-sum game. In this logic, the railway, if financed, built, and owned by foreign entities, would exclusively serve imperial interests at the cost of local government and people. As such, the railway was no longer understood as a neutral promoter of global trade and economy, nor a measure of progress. The railway's enterprise was now suspect and compromised, tagged with ownership, with property rights, and with non-shareable privileges, which justified the emergence of global imperialism and the poverty of colonized populations. As al-Afghani precisely pointed out in his observation of British infrastructure projects in India:

> "The victorious British Government speaks to the Indian people: I will build the cities (Mumbai, Kolkata, Karachi) for you, and their models…… I will also pave telegraph lines and establish railways, dig canals and build bridges…… You, however, only showed disagreement and hypocrisy, abandoned obedience and broke the tranquility. The Indians answered the British with grievances: you only establish those cities after you destroyed our countries which was originally embellished and flourished……you pave the telegraph lines, establish railways, dig canals and build bridges only for bleeding our wealth while facilitating trades of British inhabitants and expand their wealth. We become impoverished and our wealth has depleted, and thus many of us die of starvation!"[201]

The way in which al-Afghani analyzed the Indian situation resonated with Immanuel Wallerstein's Marxist theory on the World Systems, even though al-Afghani wrote his analytical framework half a century before Wallerstein.[202] Both scholars perceived the widening structural gap between the economic core and the economic periphery and their deepening interconnectedness, arguing that the nature of this interconnectedness was the pivotal reason for the gap. Al-Afghani, in particular, voiced grave concern about the role of European infrastructure projects in exploiting resources from colonies.[203] He questioned the supposed benevolence of these infrastructural projects and sharply pointed out that these projects, under the strict control of European colonizers, had structurally reinforced the poverty of colonies. As such, Al-Afghani completely negated the emancipatory capacity of colonial infrastructure, viewing it as pure illusion and whitewashing, a disingenuous and dangerous discourse that perpetuated European domination throughout the world.

Al-Afghani represented a new trend of reevaluating the railway not as a universal measure of progress, but quite to the contrary, as its inhibitor. At the turn of the twentieth century,

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[201] Jamal Din al-Afghani, "Al-ʿIllat al-Haqiqiyya li-Saʿadat al-Insan," *al-Manar* 23 (Jan. 1922).
[202] Wallerstein, *World-Systems Analysis*.
[203] In terms of Wallerstein's views on transportation infrastructure in the world systems, he sees it as "the basic underpinnings of a system of production and trade." But he also notes that the high cost of infrastructures requires intervention of the state. So, Wallerstein mostly views infrastructure as the cost for the center to maintain its hegemony. In this respect, al-Afghani's critique of global capitalism was even harsher than Wallerstein's. See Wallerstein, *World-Systems Analysis*, 48-49, 82-83, 95.

these emergent and justified concerns about foreign intervention in railways began to prevail among Arab intellectuals and established the discursive foundation of the railway's nationalization in post-World War I. Not only did Muslim intellectuals express such concern, but also Christians whose status within Egyptian nationalism was more intricate, and in some regards, precarious. Yaʿqub Sarruf and Faris Nimr, two core journalists from the Syrian circle mentioned earlier in this chapter, expressed their deep worry about foreign control of the railway. They regarded this control as a colonial trap that disguised itself as universal progress.

> "This is 960,000 pounds that the Ottoman government needs to pay to foreign companies every year [for railway], and all this money is extracted from the blood of its subjects. This amount is only the interest of the Ottoman debt, a debt that is twenty million pounds and will take one hundred years [for the Ottoman government] to pay off this debt to the debt-holding foreign companies. The Ottoman government would have become rich if it had invested the money in its subjects or improving its politics. Some relatively poor countries, like Switzerland, can build the railway by its own finances. Japan is also able to establish 3635 meters of railways with its own finances and does not need to borrow a penny from foreigners. The old country (Ottoman Empire) should have built [railways] to further develop itself, thus avoiding being trapped and controlled [by foreign companies]. It should also forbid any trick, bribery, or prerequisite to acquire the privilege [of lending money to the Ottoman government]."[204]

The Ottoman railway system operated quite differently than the Egyptian State Railways. Yet there was one commonality that drew the editors' attention—public debt. Public debts of both Egypt and Ottoman accumulated from large infrastructural projects, especially the railway. The Ottoman Sublime Port was forced to eventually concede a part of its financial sovereignty to establish a European-dominated Ottoman Public Debt Administration (*Düyun-u Umumiye-i Osmaniye Varidat-ı Muhassasa İdaresi*) in 1881.[205] Although the *Al-Muqtataf* authors did not mention Egypt directly—they most likely felt politically insecure to do at the time of British

[204] "Railways in Turkey," *al-Muqtataf* 27 (1902): 996-1000.
[205] Yaqub Nasif Karkar, "Railway Development in the Ottoman Empire: 1856-1914, An Economic Interpretation," Ph.D. Diss., Indiana University, 86-91.

colonization, the Ottoman example implied a comparable financial crisis as the one in Egypt, a crisis that made the Abdeen Palace lose almost half of the country's finance to the *Caisse de la Dette Publique* in 1876, and even more detrimentally endangered the Egypt's political sovereignty only six years later.

Additionally, by the late nineteenth century, a forming nationalist consensus was forming on a citizen-oriented infrastructure, infrastructure that served more than the privilege of political rulers or the benefits of the country, but the well-being of all the country's citizens. This trend in the Egyptian railway was initiated by Ali Mubarak's reforms that curbed Egyptian Khedive's unlimited usage rights of the railway.[206] Although British occupiers interrupted Mubarak's projects, the growing consciousness viewing the railway not as a private asset but rather one of public interests had already taken root in the minds of many Egyptians. The point of view was prior to the birth of the modern welfare state. Yet, an increasing number of Egyptian nationalists—despite their own elite backgrounds—started to adopt the concept of social infrastructure that would serve as public welfare. This new consciousness grew with the popularization of the ʿUrabi's revolutionary slogan of "Egypt for the Egyptians" (*Miṣr li-l-Miṣriyyīn*). ʿUrabists invented the idea of "the people," and this idea became even more widely circulated when the British controlled the government superstructure after ʿUrabi's failure. With the slogan, Egyptian nationalism expressly tilted in a populist direction.[207] Within this growing populist framework, the railway became a center of contention. As both al-Afghani and *al-Muqtataf* noted in the Indian and Ottoman contexts, the failure of colonial infrastructures manifested not only in the dramatic decrease of national revenue, but also in their incapability of providing basic social welfare for colonial subjects.

[206] On Barak, *On Time*, 74-75.
[207] Ziad Fahmy has emphasized the popular front created by the ʿUrabi Revolt. See Ziad Fahmy, *Ordinary Egyptians: Creating the Modern Nation Through Popular Culture* (Stanford, CA: Stanford University Press, 2011), 53-57.

Perhaps nobody other than ʿAbdullah Al-Nadim could better represent the voices of anticolonial nationalism in the wake of the ʿUrabi Revolution. Al-Nadim was a provocative journalist, a fervent Egyptian nationalist, and best known among Egyptian intellectuals as "the orator of the ʿUrabi Revolution" (*Khāṭib al-Thawra*). In comparison, his early career in the railway department was much less known. In 1863, the twenty-two-year-old young men who just graduated from college found his first job as a telegraph operator. At that time, he was far from a public intellectual. Quite to the contrary, as a well-educated and confident young man with good prospects, al-Nadim detested the populace, the working class, and their substandard living conditions visible near railway stations, including his work colleagues. He considered such conditions unfavorable to his long-term intellectual development. In a letter to one of his friends, he wrote: "I have written [this letter] after my hours of duty, amid the warning signals of the engines and the rumbling of the trains, surrounded by ruffians, drunkards, and hashish addicts, groups playing dominoes and others reading *Kalila wa-Dimna*. Some others play cards, and one jumps like a monkey."[208] The young al-Nadim, an educated and self-centered juvenile of rather privileged social position, showed little sympathy towards the poor living conditions of his railway colleagues.

Yet, a mere fifteen years later, al-Nadim might feel ashamed of his once-condescending attitude in the letter. Al-Nadim later joined a local *futuwwa* (youth) society "Misr al-Fatat" (The Youth of Egypt) to disseminate his ideas of political and social reforms.[209] From there, he grew

[208] ʿAbdallah al-Nadim, *Sulafat al-Nadim fi Muntakhabat al-Sayyid ʿAbdallah al-Nadim*, vol.1, rev. ed (Cairo: Matbaʿat Hindaya, 1914), 49. *Kalila wa-Dimna* is a widely circulated collection of Oriental fables of Indian origins composed in Sanskrit possibly as early as the third century BCE. The fables were translated into Arabic in the eighth century. In the course of time, this well-known collection of fables developed into a kind of popular literature. See Marianne Marroum, "*Kalila wa Dimna*: Inception, Appropriation, and Transmimesis," *Comparative Literature Studies* 48, no. 4 (2011): 512-40.

[209] ʿAli Hadidi, *ʿAbdallah al-Nadim: Khatib al-Wataniyya bi-Qalam* (Cairo: Muʾassassa al-Misriyya al-ʿAmma, 1960), 81-82; Najib Tawfiq, *ʿAbdallah al-Nadim: Khatib al-Thawra al-ʿUrabiyya* (Cairo: Maktabat al-Kulliyat al-Azhariyya, 1970), 48. The revival of *futuwwa* societies in the late 19th century primarily functioned to nurture male

intellectually mature and began to play a leading role in the emerging Egyptian nationalism, he displayed an amiable understanding and empathy for the Egyptian masses, considering them to be the true victims of British colonialism.[210] He also started to view his earlier experiences in the railway system more benevolently in comparison to what the railway could now offered Egyptians. He complained that the colonial railway provided fewer jobs and far worse services for his fellow citizens. In the article "Al-Gharib fi Watanihi" (A Foreigner in His Own Country), al-Nadim hypothesized a young Egyptian who had returned to his home country after studying in Europe and the difficult conditions he encountered when looking for gainful employment. He wrote:

> "Imagine yourself coming back to your country after a seven-years absence. You arrive in Alexandria and find the great port managed by a harbormaster who is an English sailor. You put down your bags and find yourself in a Custom House controlled by an English post office official. You go to Cairo by the main railway which you find administrated by an Anglo-Indian and a French railway employee. You send a telegram to your family to meet you by lines of text typed and transmitted by an English telegraphist or your send a letter from a postal service managed by another ex-official of the English post office…"[211]

The growing symbolic association of the railway with the common and everyday Egyptian people characterized many of al-Nadim's writings. The confrontation was often carefully scripted to maximize the persuasive power of his literary work among his Egyptian readership. In another article entitled "Hadhihi Hiya Madaniyatuhum!" (This is Their Civilization!), he further elaborated on the encroaching danger of foreign infrastructure and its untoward influence on the lives of common Egyptians:

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youth national identity and communal solidarity in Egyptian urban areas. See Wilson Chacko Jacob, "Eventful Transformations: *Al-Futuwwa* between History and the Everyday," *Comparative Studies in Society and History* 49, no. 3 (2007), 689-712; Wilson Chacko Jacob, *Working Out Egypt: Effendi Masculinity and Subject Formation in Colonial Modernity, 1870-1940* (Durham, NC: Duke University Press, 2011), 229-230.

[210] Hadidi, *ʿAbdallah al-Nadim*, 15.

[211] *Al-Mahrusa*, March 20, 1882.

> "What has Western Europe done for us? It has given us what they call civilization—gas, railways, paved streets, machinery—yes, but do the peasants have better clothing, more comfortable houses, or are they better educated? No, they live in shacks that your horses and pigs would not deign to enter, and they have only the clothes on their backs; they work from sunrise to sunset, and everything they earn goes to the tax-collector."[212]

In the burgeoning discourse of popular nationalism, the foreign control of the Egyptian railway was not only in direct contradiction to Egypt's national sovereignty, but more significantly, it was in direct opposition to the Egyptian people—the ultimate audiences whom Egyptian nationalism intended to mobilize. The loss of administrative control over the railway greatly affected Egyptian intellectuals' assessment of its role in Egypt's nation-building. For them, the railway was no longer a means of modernization that they could promote and support, but rather was seen as a symbol of an imminent threat and a potential danger, a view shared by the imagined national community.

Reframing the Railway, Rebuilding the Nation

This chapter so far has presented two currents of *Nahdawi* thoughts about the railway. The first current indicated that the railway was viewed as measure of progress, a measure that Arab intellectuals promoted in extolling the railway as a vehicle of technological and civilizational advancement. In light of growing anticolonial sentiment, the second current was critical of the railway, claiming that it was a promotor of New Imperialism. This part further develops the second current, arguing that antagonism against the increasing European monopoly of railways constituted key tenets of the emerging Egyptian nationalism. Nationalism was seen as a viable means to recover and redefine the state, and to shape Egyptians' national identity and their national outlook. The advent of the British military railway into the Sudan and the

[212] *Al-Mahrusa*, January 20, 1882.

subsequent conceptualization of the transcontinental Cape to Cairo railway project forged and solidified a robust African identity among the Arab intellectuals. This new vision of the nation re-established Egypt as the harbinger of the African revival, a revival that imagined the overthrow of the British imperial world order.

Although the present-day geographers identify the majority of Egyptian land within the African continent, few people living along the Nile before the nineteenth century conceived themselves as Africans. For centuries, the spatial construction of Egypt was an integral part within the abode of Islam (*dār al-ʾislām*), and Cairo was undoubtedly one of its centers, from both a political and a cultural perspective.[213] The Muslim majority believed that Islam brought them peace and prosperity, as well as security and protection against invasions from non-believers. No Islamic history would be complete without Salah al-Din (1137-1193), the Muslim hero who emerged victorious against European crusaders, and who founded the Ayyubid dynasty in Egypt. The same historical regard was bestowed on the Battle of ʿAin Jalut (1260), in which Egyptian Mamluks decisively prevented Mongolian westward expansion. Egypt played a crucial role in Islamic history as Egyptians believed they lived in the realm of Islam. But with the acceleration of nineteenth-century modernization, some Egyptians, particularly those from the upper classes, espoused a new spatial connection. Egypt, in many aspects, became more comparable to Europe. Cairo's new urban planning, making it to become known as the new "Paris along the Nile," was designed and built distinctively from the old Cairo. The new Cairo spoke in a French architectural language as Cairenes were enthusiastic about learning French. Even the Khedive himself sometimes produced an illusory correlation that his country was a part

[213] Jakob Skovgaard-Petersen, *Defining Islam for the Egyptian State: Muftis and Fatwas of the Dar al-Ifta* (Leiden, Netherlands: Brill Publishers, 1997).

of Europe.[214] This illusion revealed the forging of a new regime of sensory values in mid-nineteenth century Egypt, values that told their consistent longings for Western European high culture.

The late nineteenth century marked a new turn in Egyptian geographical identity. Resulting from Egypt's chasm with the Ottoman Empire and its increasing belief that Europeans were foreign invaders, Egyptian intellectuals now needed to construct a new cultural identity, one with great connection southwards. Many of them turned to the Sudan for inspiration. Historically speaking, Egypt was never disconnected from sub-Saharan Africa. Known as the land of the blacks (*bilād as-sūdān*), the territory of today's Sudan had constantly been an important source of slaves for Egyptian households. Notably the situation remained prevalent even after Khedive Ismaʿil's attempt to abolish slavery and some Egyptian/Ottoman intellectuals still attempt to defend Ottoman/Islamic types of slavery vis-à-vis Western slavery.[215] For Arab intellectuals, the land south of Egypt also produced indefinite imaginations to compare, to analyze, and often to demonstrate the superiority of the Islamic civilization against the non-believers and the "uncivilized."[216] As historian Eve M. Troutt Powell posits, "the hierarchy of political and economic relations from one end of the Nile Valley to the other" perpetuated thinking of the Arab intellectuals and usually functioned as a differentiating criteria that demarcated the Arab from the black.[217] Building on Powell's argument, I contend that the Sudan was more than an "inferior other," and that Arab intellectuals did more than merely mimicking

[214] The original expression was "my country [Egypt] is no longer in Africa; we are now part of Europe. It is therefore natural for us to abandon our former ways and to adopt a new system adapted to our social conditions." Robert T. Harrison, *Gladstone's Imperialism in Egypt: Techniques of Domination* (Westport, CT: Greenwood Press, 1995), 53.
[215] Ehud R. Toledano, *Slavery and Abolition in the Ottoman Middle East* (Seattle, WA: University of Washington Press, 1998), 122-134.
[216] For instance, the above-mentioned classification of Rifaʿa al-Tahtawi about savage nations, barbaric nations, and civilized nations were to a large extent based on his observation of the Sudan, Nubia, and Egypt or the Arab world.
[217] Eve Trout Powell, *A Different Shade of Colonialism: Egypt, Great Britain, and the Mastery of the Sudan* (Berkeley, CA: University of California Press, 2003), 17.

the European civilizing model towards the Sudanese. The Sudan, starting from the late nineteenth century, gained its own cultural cache and significance in Egyptian nationalist narratives. To be exact, it became an increasingly important part of the Egyptian self, as key nationalist figures Mustafa Kamil and Ahmad Lutfi al-Saʾid constantly referred to and promoted a pan-regionalism that underscored the "the unity of the Nile Valley."[218] It was risky to make such an intellectual pivot from exclusion to inclusion, as previous Islamic scholarship had never really viewed, let alone conceptualized, the land of the blacks within its own territory. Additionally, the Westernized Egyptian upper classes had always held deep-rooted prejudice and bias against the Sudanese, who they often times disparaged as "barbarians."

Consequently, the railway was vital for the new spatial construction that included sub-Saharan Africa in Egypt's national imagination, one that required equal citizenship. Built alongside the Nile River, the railway confirmed the geographical continuity between Egypt and the Sudan. It further promised an integrated regional economy that, from the Egyptian perspective, could lead to Sudan's modernization. The idea of connecting to the Sudan with a railway line became crystallized in the thoughts of Ali Mubarak. In point of fact, he had already successfully persuaded Khedive Ismaʿil to build a commercial line from Wadi Halfa to Sarras in 1874. Most survey work for this line had already been completed. But lack of financial support from Ismaʿil's depleted treasury postponed its construction. This delay eventually turned into a permanent demise when *the Caisse de la Dette Publique* decided to intervene in 1876.[219] As Ismaʿil was dethroned, Mubarak's window of opportunity to build the Egyptian-Sudanese railway was lost. He recorded his complete vision of this railway in his encyclopedic work *al-Khitat al-Tawfiqiyya al-Jadida li-l-Misr al-Qahira* (*Tawfiq's New Plans for the Cairo of Egypt*):

[218] Rami Ginat, *Egypt and the Struggle for Power in Sudan: From World War II to Nasserism* (Cambridge, UK: Cambridge University Press, 2017), 61-86.
[219] R. Hill and R. H. Hill, "The Suakin-Berber Railway, 1885," *Sudan Notes and Records* 20, no. 1 (1937), 107-124.

> "As a few [railways] connect the Sudanese countries, the Sudanese who have not previously freed themselves from barbarism and savagery, once they enter the Egyptian hearth, they will soon taste the fruits of civilization and prosperity. Their residents will no longer feel isolated or experience poverty. Its vast land will be prosperous with plantations. The number of cities and towns will increase. Foreigners will live with security and wander freely. They will hold property and excavate Sudanese mines. [If] Egypt is connected to the Sudan, both sides will mutually benefit in this partnership." [220]

Mubarak did not limit the railway's importance solely to economic benefits. He further imagined that the railway could fully integrate the two cultures, as daily contact and interaction instigated by railway transportation served as a means to develop a sense of shared purpose and community. Indeed, cultural hierarchy was still predominant in Mubarak's worldview and to a large extent, the Sudan's lack of railway transportation seemed to confirm its inferior, less civilized status vis-à-vis Egypt. Yet, Mubarak pointed to a concrete channel through which the Sudanese also acquired the *Nahdawi* spirits of reason and progress, a way for Sudan to become like Egypt, and even further, a part of Egypt:

> "When the Sudan reaches the level of prosperity and security, trade [with the Sudan] will expand and Egypt will also receive countless benefits. This is because once the Sudanese of that institution [railway administration] gain cultural awareness, they will divest themselves from their crude and savage clothing, and experience the fruits of culture and knowledge. Among themselves, they will establish a sense of obligation that promotes commerce and handicraft. They will all learn the advantages of civic participation, community building, cooperation in workplaces, and eventually will receive either visible or invisible benefits. They will gain friendship, intimacy, and a good temper, and learn principles of reciprocity. They will seek to organize their conditions and improve their status. By then, they will be devoted to serving their land, and will receive a variety of benefits."

Mubarak's idea of a spatial connection between Egypt and the Sudan symbolized their temporal inequality. The railway was the carrier of the Sudan from the past to the present, a present where Egypt and civilization were located. The future oriented towards the union of

[220] Ali Mubarak, *al-Khitat al-Tawfiqiyya al-Jadida li-l-Misr al-Qahira*, vol. 7, rev. ed. (Cairo: Markaz Tahqiq al-Turath, 1987), 243.

these two countries, the one-time barrier eliminated by the railway. Scholarship on Egyptian nationalism has focused much the reinvention of the pharaonic past.[221] Yet, this complicated ideology also denoted the continuity of the recent past to the future, a temporal continuum sustained by new technologies—the train as the vehicle that brought human beings forward. The railway granted an Egyptian vision of becoming the leader of Africa, a leader that gained its power vis-à-vis its European colonizers.

Mubarak, in fact, never had the chance during his career life to demonstrate whether he was a dedicated reformer of the Sudan or whether he was what Eve Powell controversially maintains a "colonized colonizer."[222] But the more visible British colonialism eventually replaced Mubarak's initiative, in a much more radical fashion, one that Mubarak himself would probably have criticized. In urgent need of a reliable logistical line against the Sudanese Mahdist Revolt (1881-1899), the British prioritized the railway project as an indispensable part of its military conquest. Egypt, as a British subordinate, was also involved in the project, even during a time of dire financial difficulty. The Egyptian Army Railway Battalion was formed in support of the Corps of Royal Engineers of the British Army. In 1898, the Egyptian battalion consisted of 33 staff officers, 2 quartermasters, and 2,882 noncommissioned officers and labor force.[223] The British project was purely driven by its military needs. Whereas Ali Mubarak's plans called for comprehensive development, the British neither pursued economic growth or cultural integration. For all intents and purposes, Mubarak's vision was never realized.

As a result of New Imperialism's monopoly over railway rights in Africa, Mubarak's and other native modernization plans remained only in writings and as unrealized ideas. But these

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[221] Donald M. Reid, *Whose Pharaohs?: Archaeology, Museums, and Egyptian National Identity from Napoleon to World War I* (Berkeley, CA: University of California Press, 2002).
[222] Powell, *A Different Shade*, 6.
[223] Ahmad Alawad Sikainga, *"City of Steel and Fire": A Social History of Atbara, Sudan's Railway Town, 1906-1984* (Westport, CT: Greenwood Press, 2002), 29.

thwarted ideas were equally as powerful as fully executed plans. As Arab intellectuals reinterpreted the imperial railway, they also projected distinctive meanings and extended new conceptualization that gave rise to the Egyptian nation. In this respect, some imperial projects could also be appropriated for constructing the Egyptian national identity. The Cape to Cairo Railway (Figure 9) served as a typical example. Originally an idea espoused in 1874 by Edwin Arnold, a British journalist for the *Daily Telegraph*, the trans-African route initially proposed a mixture of railway and inland water transport that traversed the African continent.[224] When British business tycoon Cecil Rhodes further developed the proposal, he proposed that the route should be a contiguous and uninterrupted railway line crossing the entire African continent. The Cape to Cairo Railway was by no means limited to a figment of Rhodes's imagination. Within the grand theme of the "scramble for Africa," the British empire also sought to link all its dominions in Africa into a continuous "red line," to which the railway corresponded.[225] Therefore, the conventional narrative views the Cape to Cairo Railway as a combination of Rhodes's business interests and British imperial expansion in Africa.

[224] Leo Weinthal, *The Story of the Cape to Cairo Railway & River Route from 1887 to 1922* (London: Pioneer Pub. Co., 1923). 4-5.
[225] Robert Williams, *The Cape to Cairo Railway: Address to the African Society, 21st April, 1921* (London: Macmillan and Co. Limited, 1922); Vindex, *Cecil Rhodes: His Political Life and Speeches, 1881-1990, with Portrait in Photogravure and a Map* (London: Chapman and Hall, 1990).



Figure 9 Cecil Rhodes's vision of the Cape to Cairo Railway and British dominions in Africa. Source: Vindex, *Cecil Rhodes*, appendix. The picture is colored in the electronic copy.

Many Arab intellectuals would disagree that the Cape to Cairo Railway was purely an imperial enterprise. They valued the railway's emancipatory power more than its colonizing effect. The chief editor of *al-Hilal* Jurgi Zaydan, for instance, wrote at the beginning of the twentieth century poverty and its attendant on the African continent lay in its ill-planned transportation systems. The record-breaking long rail line would completely solve this problem, as the two ports in Egypt and South Africa would help integrate Africa into the global economy. Meanwhile, Zaydan was completely aware of European colonialism and its ambitious enterprise. He noted, "European countries after the Renaissance used colonialism to hover around [Africa] as if [Africa] was prey that Europeans could catch for clothing or grab whatever they can with their claws." However, Zaydan viewed European colonialism as a reversible phenomenon, which

was a byproduct of nineteenth-century discoveries and innovations (*ʾiktishāfāt wa-ʾikhtirāʿāt*) that targeted non-European residents. The new twentieth century, as Zaydan optimistically pointed out, would be a century of "African revival" (*ʾihyāʾ qāra ʾifrīqiyya*).[226] Zaydan reemphasized technology's emancipatory power, reckoning that Africans would take advantage of their masters' tools for their own ends, and as a means to eventually surpass their colonizers.

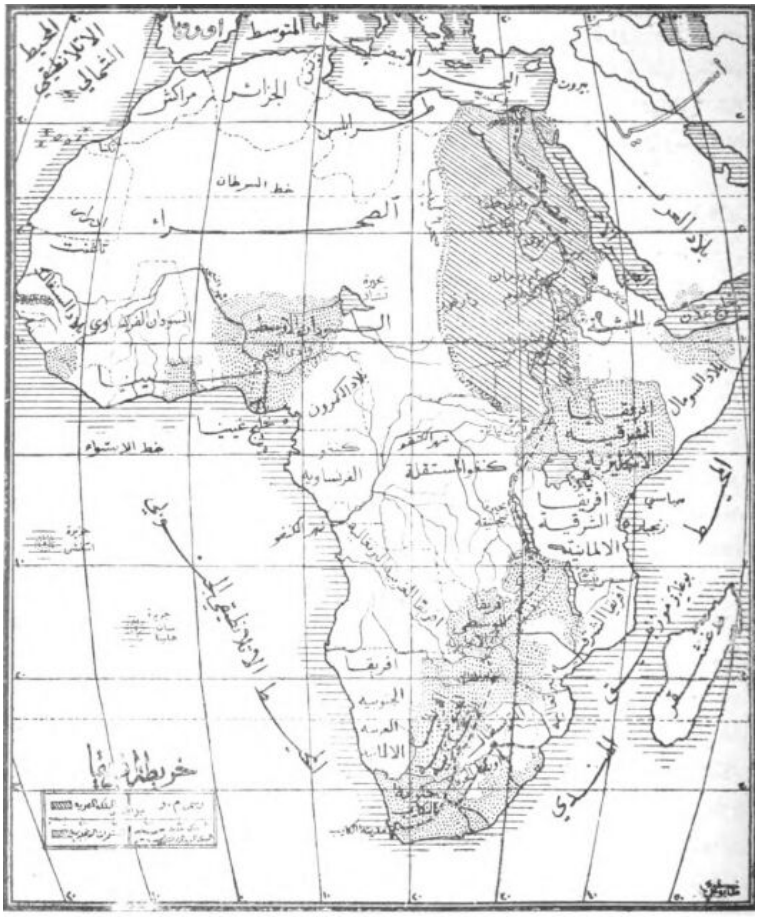


Figure 10 "An African Map with African Ruling Powers and the Cape to Cairo Railway." In this map, the territory marked with slashes was controlled by Egypt (including today's Egypt and the Sudan) and the dotted areas were British (including today's Kenya, Zambia, Zimbabwe, and South Africa). It represented the unity of an Egyptian-Sudanese railway under Egyptian sovereignty.
Source: "African Railway between Cairo and Cape Town," *al-Hilal* 14 (1905): 155.

[226] "African Railway between Cairo and Cape Town," *al-Hilal* 14(1905): 154-56.

Moreover, the magazine *al-Hilal* did not recognize the project's ownership as British, nor as belonging solely to Cecil Rhodes. In their estimate, it was instead a joint venture of Britain and Egypt, as each party possessed one end of the railway line. In another article published in 1918, Zaydan further divided the line into three sections: the northern section from Cairo to Khartoum, the southern section from Cape Town to Bukama, and the middle section in Uganda and Congo. The northern section belonged to the Egyptian government. The southern section was controlled and administered by the Rhodes company. The middle section was under dispute because of the ongoing colonial rivalry between Germany and Belgium.[227] By making such mapping this cartography, Zaydan deliberately denied the British occupation of Egypt, which reached its apex during World War I. Indeed, the Egyptian government was nominally in charge of the Egyptian State Railways, yet still under the mandate of British officials. Particularly during the war, the requisition of train cargo and railway tracks for military use became so rampant that it incurred massive resentment in the Egyptian populace. By recognizing the African railway as a joint venture of Britain and Egypt, Zaydan refused to acknowledge Egypt's political inferiority vis-à-vis its colonizing power and created a metaphorically equal status between the two countries.

In nationalist discourse, Egypt was Africa's estuary, the northern gate of discovering its future potentials, and the way to lift itself from its colonized, subordinate status. An uninterrupted railway that careened through Egypt and Sudan provided both a physical and imaginative justification for the nationalist claim of the "unity of the Nile Valley" (Figure 10). However, many practical issues prevented the unity of Egyptian and Sudanese railways. First, railways in the two countries were never physically linked together. A ferry was used to connect

[227] "Railway from Cairo to Cape Town," *al-Hilal* 22 (1918): 759-60.

Shellal, the southernmost town of Egypt, with the Sudan railhead at Wadi Halfa.[228] Because of this physical disconnection, many experts of the Sudanese railway have long claimed that Sudanese railways were independent from any systems in other countries.[229] Second, all railway built in the Sudan applied the narrow-gauge standard of 1,067 mm, which differed from the standard 1,425 mm gauge used in the tracks of the Egyptian State Railways. This difference was a historical issue, as all British military railways built for the Mahdist War, including not only all tracks in the Sudan but also the Egyptian line from Luxor to Shellal, adopted the narrow gauge. The Rhodes lobbyists exerted pressure on Herbert Kitchener to persuade the governor-general to adopt the track standard of the Rhodes business empire. By doing so, they could gain enormous advantages in selling track materials and rolling stocks to the military railway, while easily thwarting other competitors, as the 1,067 mm was quite a globally unique standard.[230] For reducing construction materials, Lord Cromer proposed unsuccessfully an alternative of a narrower gauge measuring between 610 to 762 mm.[231] Separate gauge systems caused many practical issues in transportation between Egypt and the Sudan. Trains and rolling stocks had to run through some form of conversion between gauges in Luxor, which caused delays, additional costs, and inconvenience.[232]

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[228] H. A. Morrice, "The Development of Sudan Communications—Part I," *Sudan Notes and Records* 30, no. 1 (1949): 1–38.

[229] John F. Due, "Rail and Road Transport in the Sudan," University of Illinois at Urbana-Campaign Faculty Working Papers, 1977; and G. N. Sanderson, "The Modern Sudan, 1820-1956: The Present Position of Historical Studies," *The Journal of African History* 4, no. 3 (1963): 435-61.

[230] A contemporary British engineer recorded that locomotives used by the Sudanese railways were "from Ismail's abortive railway, old engines from Natal, from the Cape, broken and derelict." See George Warrington Steevens, *With Kitchener to Khartum* (New York: Dodd, Meed, 1898), 26.

[231] For the construction of the Sudanese railway, see H. Wilson Fox, "The Cape-to-Cairo Railway and Train Ferries," *The Geographical Journal* 55, no. 2 (1920): 72-101; David Sunderland, ed., *Communications in Africa, 1880-1939*, vol. 4 (London: Pickering & Chatto, 2012); 212-16; and Mohamed Hassan Fadlalla, *Short History of Sudan* (New York: iUniverse, Inc.: 2004), 136.

[232] In 1926, the ESR transformed the Luxor-Shellal line into the standard gauge, which guaranteed more convenient transport within the Egyptian railways. See Sunderland, ed., *Communications in Africa*, vol.4, 283.

The third, and potentially the most lethal challenge for a unified Egyptian-Sudanese railway was administrative division. By the end of the Mahdist War, the originally self-contained military railway was separated into two separate parts. The ESR managed the line from Luxor-to Shellal. The rest of the lines south to Wadi Halfa were organized under the management of the Sudanese Railways (SR), which in 1908 was renamed the Sudan Government Railway (SGR). Headquartered in Atbara, the SGR was an independent agency under the Anglo-Egyptian Condominium (1899-1956). Until 1925, all directors, assistants, and senior officials were British military and naval officials. No Egyptians were eligible to achieve a high rank in this system.[233] The ESR and the SGR, from then on, did not communicate as they received orders from and submitted reports to different governments.

Until today, Egypt and the Sudan are still disconnected by rail. Multiple proposals have been presented to solve the disconnection but without final implementation. The rail divide is a politically constructed reality based on the colonial scheme of divide and rule, and is profoundly rooted in the initial construction of the British military railways. In opposition to the colonial scheme, many Arab intellectuals at the turn of the twentieth century envisioned a continuous Egyptian-Sudanese line that paralleled the natural flow of the Nile. Unfortunately, none of them were able to carry out their visions. The British tactic of divide and conquer posed an insurmountable obstacle. When tracks were laid, standards were set, and institutions were established, little room remained for the actualization of their nationalist ambitions. Even though Fuad I (r. 1922-1936) could call himself "the King of Egypt and Sovereign of Nubia, the Sudan, Kurdufan and Darfur," it was impossible to overthrow all these social consequences and start anew. As the nationalist dream of uniting the Nile Valley by means of an uninterrupted railway faded, it only remnants remain buried in the dust of the Arabi literary writings.

[233] Sikainga, *"City of Steel and Fire,"* 26-7.

Conclusion

This chapter overviews the shifting representations of the railway manifested in the writings of the Arabic-speaking intelligentsia from the 1870s until the 1910s. I cover three major phases in which the *Nahdawi* intellectuals assigned different meanings to the railway. I argue that these meanings did not fluctuate randomly; they were unavoidably intertwined with writers' personal experiences and the social conditions of their time. Initially, the *Nahdawi* intellectuals accepted and approved of the new transportation technology as both a legitimate and tangible measure of progress, the measurement that eventually motivated the Egyptian rulers to carry out a series of technological reforms in order to replicate the success of their European precursors. But their dream of a Europeanized Egypt was soon impeded by British colonization in 1882. The railway, under British sway, turned from a symbol of universal progress into the embodiment of imminent and ever encroaching New Imperialism, and was stigmatized as engines that both manifested and enhanced colonial powers. Under these circumstances, nationalist-inclined intellectuals felt the urgent need to redirect discourses on the railway towards another possibility. By pinning their political aspirations on a complete and Egyptian-controlled railway system, they also solidified their ideas of an African-oriented Egyptian identity.

With the ever-changing meanings of the railway, the *Nahdawi* intellectuals vacillated between the materiality of the railway that people were in touch with on a daily basis and the body of knowledge they prioritized for the public. This vacillation during the colonial occupation was precarious. On the one hand, they were committed to rebutting the growing colonial discourse that denied Egypt's compatibility with modernity. In this aspect, the *Nahda* movement represented a cultural reaffirmation and rediscovery inspired by European science and

technology. On the other hand, the *Nahdawi* intellectuals could not turn a blind eye to the imperial domination in railway's physical spaces. The increasing marginalization of Egyptians within railway institutions, as we will see in the next chapters, gradually garnered discontent among various groups of Egyptian society. The precarity nestled exactly in the gap between the cultural imagination produced by the *Nahda* knowledge and the reality of railway infrastructure. This fissure demanded a solution.

CHAPTER III
Managing Space, Organizing People

In November 1907, British author Douglas Sladen set up for an exploring journey from Naples to Alexandria. Before the trip, Sladen was a fanatical fan of the "oriental" Egypt—magnificent pyramids and monuments, mild winter, and the mysterious Nile.[234] As expected, the "oriental" aspects fulfilled Sladen's sensorium during his travel in every historical site of Egypt. Meanwhile, Sladen also discovered numerous "queer things" about Egypt—the findings that challenged his original cognition, and perhaps the stereotypes of many of his contemporary Britons. Among these "queer things," Sladen was astonished by the complete railway system that uninterruptedly connected almost every major Egyptian city, as well as the comfortable and pleasant experiences he had inside the train. What he was more curious was the venerated attitude that his Egyptian servant Hassan disclosed when referring to railway staff. Beyond the simple fascination to the advanced technology, Hassan particularly aspired to become a railway guard. As Sladen described, the position of railway guard meant more than a stable job with decent payment for Hassan. The seemingly unremarkable position in the railway department, however, embodied the most fundamental level of state power. With this embodiment, an ordinary person could "wear a uniform without danger" and in the "position of authority." The exercise of his authority could even extend "over foreigners to some extent."[235] Such enjoyment

[234] Douglas Sladen, *Twenty Years of My Life* (New York: E. P. Dutton & Company, 1913), 223.
[235] Douglas Sladen, *Queer Things About Egypt* (London: Hurst & Blackeet, Ltd., 1910), 153.

of power was exactly what Hassan desired.

The Egyptian railway, like railways in other regions, convened diverse social figures who benefited from the new transportation system. The rich and the poor, men and women, individuals or those with families would gather at train stations, people who would otherwise have no chance to meet elsewhere. The railway revolutionized people's ability to socialize so much as giving birth to a new concept of "mass transportation," since no previous transportation system could on such a large scale simultaneously attract and convene people of all social backgrounds. As sociologist AbdouMaliq Simone comments, "[infrastructure] also attracts people, draws them in, coalesces and expends their capacities……People work on things to work on each other, as these things work on them."[236]

Why did basic-level railway guards become a crucial nexus of power in colonial Egyptian railways? The diversified population that gathered into the Egyptian rail system also became the focal point of managers from various government institutions such as the Egyptian Railway Administration, who strove for the leadership to establish and preserve an idealized public order. This chapter traces the institutional and tactic reforms manipulated by the colonial government in Egypt to carve out an enclosed and differential space of the rail transport, both in the station and on the train. This chapter pays attention to hegemonic and quotidian forces that arranged the railway spaces, regulated people's lives, and generated economic and political opportunities in the context of late nineteenth-century and early twentieth-century Egypt.

Specifically, I focus on the ideas and practices of modern scientific management introduced or emphasized by colonial government institutions. Regulations of service workers, exemplified in this chapter by station porters, contributed to the dissolution of the traditional

[236] AbdouMaliq Simone, "Infrastructure: Introductory commentary," curated collections in *Cultural Anthropology*, November 26, 2012.

guild system in Egypt and endorsed the rising authority of a new colonial institution—the Railway Police. The ticket inspection policy aimed to forestall fare evaders, while enclosing the public space of railway stations and making free accessibility the privilege of a few. Distinctions in travel classes and the "ladies only" compartment reinforced and established social hierarchies that were based on political status, economic class, as well as race and gender. These colonial managerial practices thrusted the Egyptian railway towards a modern space, modern in terms that the space facilitated the centralization of supervision. Nevertheless, they also sowed the seeds of a series of deeply rooted social problems that finally inflicted and severely undermined colonial governance, including the police's abuse of power, rampant bribery, and ostensible class privilege.

Porters, Guild, and Civil Servants

When a train halted at a nineteenth-century Egyptian station, the first group of railway staff that passengers gleaned were station porters (*shayyal al-maḥaṭṭa*).[237] Station porters helped handle the loading, unloading, and distribution of luggage. Meanwhile, their work extended beyond these official duties. They acted as moving receptionists who guided newcomers from unfamiliar and unexpected situations. They assisted passengers with disabilities, often with a special charge, and served as temporary bodyguards in the hubbub of the crowded station. A station manager at times also hired porters to help maintain the cleanliness of a platform or to keep public order in a booking office. During a time when occupations within a railway station were not yet specialized, porters were the embodiment of low-end service (*khidma*), the type of

[237] *Sikak Hadid al-Hukuma al-Misriyya* (Egyptian Government Railways), *Winter in Egypt: Illustration Guide of Egyptian State Railways* (Cairo, 1910), 13.

service that usually required both physical strength, stamina, and everyday knowledge of the station.

Before the 1890s, station porters did not have to wear a special badge that signaled to passengers their specific job. Only frequent travelers could distinguish them from other station laborers. Porters were young- to middle-aged men, walking barefoot for the convenience of moving quickly (Figure 11 and Figure 12). Wearing white or grey *galabiyya*s, the majority of porters had been peasants from Upper Egyptian or Nubian villages, and had recently migrated to large cities.[238] As first-generation immigrants, they were more prone to accept low-skilled manual labor like heavy goods handling, and less likely to expect equal payment as other kinds of laborers. When waiting for customers, porters gathered in crowds at some inconspicuous yet open corners in and outside every station, gossiping and smoking *hashish*.[239] Endowed with a sharp sense of potential employers, they were always ready to stub out their cigarettes, approach a traveler with luggage, and sell their seemingly inexhaustible energy at a negotiable price. Besides daily odd jobs, porters reached their busiest time when a passenger train arrived at the platform. They immediately crowded near the train and were more than enthusiastic to find someone who would pay for their labor. They exerted themselves to shout aloud for attention, and proactively demonstrated their strength, dexterity, and ultra-willingness to complete the tasks at hand. Their voices made the entire platform lively all of a sudden; yet from the perspective of railway managers, crowds of porters epitomized chaotic situations in every Egyptian station—one of the ultimate motives that eventually pushed multiple policies to regulate their labor practices.

[238] Chalcraft notes that most Cairene cab drivers were from Upper Egypt and the Sudan. John Chalcraft, *The Striking Cabbies of Cairo and Other Stories* (Albany: State University of New York Press, 2005), 61.
[239] Drug addiction was a wide-spread phenomenon among various sorts of Egyptian service laborers in railway stations. Details are recorded in DD, DWQ [2001-012204], January 1894.



Figure 11 “A Native Shayyal.”
Source: C. F. Moberly Bell, *From Pharaoh to Fellah* (London: Wells Gardner, Darton, & Co., 1888), 16.



Figure 12 Photo of an Egyptian porter.
Source: Library of Congress, LC-USZ62-104879, between 1860 and 1890.

In the late nineteenth century, porters of each station shared a unique grassroots organization that regulated their economic activities—the guild (*ta'ifa*). The earliest station porters came from service workers in other urban sectors, such as water carriers, horsemen, or porters from elsewhere, and lost their jobs in the mid-nineteenth century transitions of economic structures. [240] Meanwhile, they found working opportunities, alongside with other urban poor or new immigrants, in railway stations when Khedive Ismaʿil (r. 1863-1879) massively invested in the infrastructure's expansion.[241] Being a station porter implied that he was willing sell his labor at an extreme low rate and to accept arduous working conditions. When the number of porters grew, it became necessary to create a grassroots organization that negotiated their common interests with railway bureaucracy. Being first-generation immigrants to Egyptian large cities, porters met multiple livelihood issues that they alone could hardly solve, including housing, bargains with the railway administration, and disputes with customers. Their advancement was limited, stymied due to their humble socioeconomic capacity, immigrant status, and restricted social network. In complicated and trying urban environments, their leader—an Arab shaykh of metropolitan origin—was able to provide common services for guild members. Although some craftsmen had democratically elected guild masters in the same period, the porter guild did not have rotating leadership.[242] The shaykh's capacity to provide common services required a stable candidate and almost no first-generation immigrants were able to achieve. He kept connections with the porter community, while knowing station bureaucracy and other social surroundings. Because of their capacity to preserve porters' basic rights, a shaykh was almost irreplaceable for

[240] Chalcraft, *Striking Cabbies*, 59-63.
[241] It was recorded that railway stations were used as a resting place or a temporary shelter for the urban homeless, see DD, DWQ [2001-012237], 1984.
[242] Cole, *Colonialism*, 168-174.

bottom-tier members. Simultaneously, the shaykh became the absolute authority of his guild members.

The porter guild was as much a social organization as an economic one, which reinforced the shaykh's status. When a station needed to handle large quantities of goods, the stationmaster would assign a shaykh to deploy his guild members. Because of the guild shaykh's economic function within railway stations, the ERA officials also occasionally called them "contractors" (*muta'ahid*). As for payment, both stationmasters and guild shaykh s received a certain amount of commissions from the ERA or private employers, while leaving a relatively small portion to porters.[243] Although harshly exploited by their guild leaders, station porters were still prone to maintain the status quo rather than to risk their valuable working opportunities by questioning the guild's authority. So long as all porters accepted the pre-negotiated price, the porter guild remained a relatively stable economic organization in which guild shaykh s wielded significant power by distributing job opportunities to every member.

Until 1887, the ERA had neither the willingness nor the capacity to exercise *de facto* control over station porters, although these porters were omnipresent in every Egyptian station (Figure 13) and provided necessary support for all sorts of the stations' business activities. Gabriel Baer and André Raymond, two pioneering scholars of Egyptian labor history, view the Egyptian guild as a repressive tool of the khedivial government that provided taxation and administrative control for the regime.[244] This was less likely for the porter guild before the 1880s. Quite to the contrary, the porter guild had enjoyed relative autonomy from the ERA. The ERA was only indirectly connected to porters through stationmasters and guild shaykhs, and this connection seemed to be more mutually beneficial than repressive. Instead of levying tax on

[243] DD, DWQ [2001-021047], "Taqrir Majlis al-Idara" (Report of the Administrative Council), 1880.
[244] Gabriel Baer, *Egyptian Guilds in Modern Times* (Jerusalem: Israel Oriental Society, 1964); André Raymond, *Artisans et commerçants au Caire au XVIIIe siècle*, vol. 1 (Damas: Institut Français de Damas, 1973).

individual porters, the ERA unofficially hired porters via guild shaykhs and distributed a portion of its income to guild members, although this portion had already been heavily commissioned by stationmasters and guild shaykhs. Before 1887, the ERA had little rationale to interfere with porters' affairs and left the management work to guild shaykhs.[245] Stationmasters did not even know the exact number of porters in the stations of their administration. When disputes occurred between passengers and porters, stationmasters would immediately hand over the case to guild shaykhs, leaving the arbitrary power almost entirely to the guild.

During the reign of Khedive Ismaʿil, a circle of Egyptian civil servants developed within the ERA, most preeminently among them Ali Pasha Mubarak. They embarked on strenuous efforts to modernize Egyptian railways both in terms of its technology and its administrative management.[246] Iskandar Bey Fahmy was among scores of technocrats meticulously trained by Mubarak to implement this modernization. Appointed as the director of the ERA before the ʿUrabi Revolt, Fahmy endorsed Colonel ʿUrabi by disobeying the Khedive's order and discontinuing railway shipments for the British army in 1880.[247] Fahmy's rebellious tendency caused his demotion to the less critical position of traffic manager (*maʾmūr ʾidāra al-sikka al-hadīdiyya*) after the British brutally repressed the Revolt. In this new position, the British authorities estranged Fahmy from the power center of the ERA board. Because of this demotion, he started to look at the Egyptian railway from a new perspective. He now reached out to every stationmaster and familiarized himself with the railway's daily operation. He became increasingly aware that the iron machine would not bring Egypt full modernity unless all railway employees were subject to modern regulations. It was at this time that the "problems" of station porters came into his purview and affected how he implemented policies.

[245] DD, DWQ [2001-012179], June 1893.
[246] On Barak, *On Time*, 74-75.
[247] Cole, *Colonialism*, 317.

Fahmy identified three main "problems" related to station porters and other low-end service providers. First, as this chapter has previously demonstrated, porters crowded under arriving trains and suddenly created an extremely chaotic platform. This sudden chaos further gave rise to certain unpleasant experiences of passengers, including obstruction of platform traffic, loss or damage of items, and porters' evasion from disputes. Second, the special hobby of porters to smoke *hashish* inside stations ruined public cleanliness when they tended to throw *hashish*'s remnants randomly.[248] Thirdly, *hashish* and other drug addictions, as Omnia El Shakry has observed, were often associated with peasant criminality in the discourse of upper-middle-class Egyptians.[249] Fahmy believed that station porters used their unchecked accessibility to cargo trains to secretly transport goods for their illegal employers, who in this case neglected to pay transportation fees to the ERA, and due to these actions, reduced the administration's income.[250] Considering that the international board had prioritized the repayment Egypt's debt with the railway's income, Fahmy found the last reason the most compelling to justify his regulatory proposals and reforms

[248] DD, DWQ [2001-012226], April 1894-April 1895.
[249] Omnia El Shakry, *The Great Social Laboratory: Subjects of Knowledge in Colonial and Postcolonial Egypt* (Stanford, CA: Stanford University Press, 2007), 119.
[250] DD, DWQ [2001-012179], June 1893.



Figure 13 The Cairo Station in the early twentieth century
Source: H. C. Wortham, "The Egyptian State Railways", in the (British) National Archives, ZSPC 11/440.

Fahmy's station reform, which was issued on December 10, 1887, accordingly, looked for new measures of regulating porters' illegal actions. Specifically, in his reform, the guild shaykhs must charge every porter a security deposit (*ḍamān, pl. ḍamānāt*). In return for the deposit, porters must be registered on an employee roster and assigned their unique number, which they were supposed to wear on their arms during their assigned work hours. Numbering further facilitated law enforcers and passengers to identify porters who were involved in disputes or had committed crimes. To make sure that each number was designated only to a single porter and was not shared among several, guild shaykhs were required to submit an identification photo of every authorized porter to stationmasters. This measure signified the initial step of using biological identification for public security purposes in Egypt. Stationmasters should examine whether it was the person on the photo, not someone else, who worked in the station with the dispatched number. In addition, if a porter was found guilty and could not afford to compensate

his loss, his guild shaykh would use his security deposit to recoup the fee. The policy also provided stationmasters the authority to expel porters with crime records from the station.[251]

The Fahmy reform intended to strengthen the porter guild as a unit of new state interventionism. John Chalcraft, in his observation of the guild's restructuring during the reign of Khedive Ismaʿil, argues that Ismaʿil's state-building incentivized the central government to co-opt local guilds as "an extension of its urban network of control."[252] While pushing back on Gabriel Baer's essentializing of the repressive Egyptian guild, Chalcraft contends that guilds as state regulative tools of taxation and administration only became predominant in Egypt since the 1860s as a result of the Khedive's financial quagmire caused by his excessive modernization ambitions. However, the porter guild was exempted from the waves of Ismaʿil's centralization and only began to receive attention after he was dethroned. The most likely reason was that the shaykhs of the porter guild, as discussed above, functioned as contractors for railway operations rather than as tax collectors. The Egyptian state preferred not to intervene in the contractors' spheres of dominance too much, as long as they kept functioning as loyal service providers in each station. Yet, Fahmy—the once Khedivial but now colonial administrator—adopted similar measures to deal with new colonial problems. His reform further reinforced the authority of guild shaykhs and reclassified them as semi-railway officials who participated in the infrastructure's everyday management.

Spatial Management of the New Railway Police

In the 1880s and early 1890s, the ERA remained a relatively decentralized power structure, leaving much autonomy to stationmasters (*shaykh al-maḥaṭṭa*), who acted as regional

[251] DD, DWQ [2001-012179], June 1893.
[252] Chalcraft, *Striking Cabbies*, 69.

managers. A stationmaster received his appointment from the Cairo-based general director of the ERA and took on responsibility for personnel affairs and traffic operations of his specific region.[253] In this bureaucratic system, stationmasters appeared to be the local authority that represented the central authority in handling most mundane issues. Specifically, individual stationmasters consolidated their authority via their personal networks within local society, and only with their authority could they carry out orders from the center. The first part of this chapter has demonstrated that stationmasters helped restructure the local guild as an intermediary to regulate laborers and to maintain the station's everyday order. Besides local organizations, stationmasters also relied on ghaffirs, local security forces who pledged allegiance to stationmasters. The ghaffirs' major tasks were to maintain public security, including apprehending pickpockets, checking rail tickets, and guarding station warehouses. Although the ERA provided customized funding for each stationmaster to hire ghaffirs, ghaffirs were not official railway employees. They were recruited by stationmasters, and therefore, directly followed their orders. As such, stationmasters managed a typical Egyptian station by working with local social organizations and deploying ghaffirs for security purposes. For minor cases such as quarrels or brawls, stationmasters navigated among various interest groups and played an arbitration role. It was only when an emergency with significant consequences occurred, such as substantial goods loss, personal injury or death, that stationmasters would request the provincial police's assistance in a special investigation.[254] This informal and localized power structure provided stationmasters with substantial leeway and interpretive means to the prescribed ERA bylaws. They could even bypass intervention from the administration and individually judge most local cases.

[253] Hayʾa al-ʿAmma, *Egyptian Railways*, 156-157.
[254] DD, DWQ [2001-021606], June 1884; DD, DWQ [2001-013029], December 1891.

The colonial administration soon voiced concern about the relatively decentered structure of Egypt's railway management. Of keen interest were measures of maintaining public order and fighting against organized crimes, measures that the British-controlled ERA always found deficient and subpar. For instance, the Inspector General of the Cairo police in 1885 complained that the railway bureaucracy was chaotic and inefficient in providing any meaningful assistance during police investigations. It either took too long (*long retard*) for the ERA to reply or could not even provide useful information (*correspondance parfaitement inutile*).[255] To deal with this perceived problem, the ERA board as early as 1883 initiated an extensive discussion with the Ministry of Interior on integrating fragmented supervision resources into a centralized force specially coping with the railway's daily security. However, two government institutions could not reach an agreement about the special force's expenditure and responsibility. Incensed, the Ministry of Interior insisted that the ERA should pay for the entire cost while keeping it under its own command.[256] The ERA immediately refused this proposal because it estimated the cost far beyond the ERA's budget. By 1879, the entire length of the Egyptian railway had reached 1,881 kilometers.[257] The ERA calculated that it would become extremely costly to arrange a large scale of police force garrisoned in dozens of railway stations, let alone to fully weaponize it. Sir Timmerman, the president of the ERA in 1892, admitted that "the proposal [of organizing a special police force] does not present any advantage because in practice it would involve an expenditure which would go far beyond the price of the losses we have suffered in several years as a result of theft."[258] Consequently, before 1892, neither the ERA nor the Ministry of Interior

[255] DD, DWQ [2001-010866], November- December 1885.
[256] DD, DWQ [2001-021563], September 1883. In 1885, there was a second negotiation between the ERA and the Ministry.
[257] Ettouney, *Railways Along the Nile*, 81-82.
[258] DD, DWQ [2001-023917], December 1892.

was capable of bringing structural changes to the management system that relied on stationmasters and ghaffirs.

With Egypt's financial amelioration, the Ministry of Finance in early 1893 granted the Ministry of Interior enough funding to establish a special police force for the railway, which solved its disagreement with the ERA. With this financial assistance, the Railway Police was founded under the Ministry of Interior. Institutionally speaking, the new force was neither subordinated to any provincial police, nor affiliated with the ERA or stationmasters. Rather, it was placed directly under the authority of the Minister of Interior and held equal status to each provincial police force. Railway policemen were classified as non-commissioned officers (often referred to as NCO) and followed the Ottoman military ranks of *bimbashi* (*binbaşı*, major), *mulazim* (*mülazım*, lieutenant), *shawish* (*çavuş*, sergeant), *ombashi* (*onbaşı*, corporal), *and nafar* (*nefer*, private). The Minister of Interior promoted *Bimbashi* Marten from the British occupation army as the commandant of the Railway Police.[259] Except for the highest rank of *bimbashi*, mid- to low-level police officers were recruited from Egyptian battalions. The Railway Police obviously placed much emphasis on policemen's communication capacity and language skills. Each policeman's proficiency in Arabic and English was strictly evaluated and was written down in the police roster as a key criteria of promotion.[260] Generally, an officer with *ombashi* rank and above was required to write fairly good Arabic. English proficiency was a necessary skill for the rank of *shawish* and above. In the first year of its establishment, the Railway Police recruited 110 officers, who were dispatched to each of Egypt's 16 stations. Cairo, Alexandria, and Tanta, the three largest stations, had the most policemen and better equipment. Smaller stations were only

[259] DD, DWQ [2001-024969], October 1892- November 1893; DD, DWQ [2001-021162], 1893.
[260] DD, DWQ [2001-011909], 1892.

provided with two or three policemen.[261] The military ranks of the Railway Police ensured an effective communication system that facilitated railway management. Table 4 shows the four levels of railway stations according to the highest rank of NCOs in the station. Since lower-ranked officers had the responsibility of reporting to their higher-ranked officers, the Cairene *bimbashi* kept informed of all cases occurring in the Sidi Gabir Station via the *bash-shawish* in Tanta and *shawish* in Alexandria. In this way, Cairo managed to achieve its effective control over other minor stations all over Egypt.

Table 4 Number and ranks of railway policemen in the stations of Tanta, Alexandria, and Sidi Gabir in 1894.

	Cairo	Tanta	Alexandria	Sidi Gabir
Bimbashi	2	0	0	0
Bash-Shawish	1	1	0	0
Shawishi	1	1	1	0
Ombashi	2	1	1	1
Nafar	12	7	6	2
Total	16	10	8	3

Source: DD, DWQ [2001-012209], 1892.

[261] DD, DWQ [2001-021162], 1893.

Table 5 Average annual income of the railway policemen of each rank in 1893.

Rank	Number of policemen in the rank	Average salary per person (L.E.)
Bimbashi	2	150
Molazim	1	72
Bash-Shawish	2	30
Shawish	3	24
Ombash	21	21
Nafar	81	18
Total	110	2403

Source: DD, DWQ [2001-021162], 1893.

Compared to the underpaid and ill-armed ghaffirs, the railway policemen were sufficiently compensated to carry out their law enforcement duties. Their salaries matched that of other employees in the Ministry of Interior and were higher than the provincial police who held equivalent positions.[262] Compared to the ERA's hierarchy, railway policemen's salaries were comparable to the salaries of technical engineers and higher than any civil servants in railway stations. In the Sidi Gabir Station, for instance, the monthly salary of *nafar*s was 3.75 L.E. in 1894. This number was even higher than the stationmasters' (3 L.E.), and significantly higher than station ghaffirs (1.5 L.E.).[263] Among railway policemen of various ranks, distinct gap of income was salient. As Table 5 shows, the *nafar*s on average earned less than one eighth of *bimbashi*s. Positions in metropolitan cities like Cairo and Alexandria general offered higher wages than in rural areas.

[262] DD, DWQ [2001-002453], 1893. DD, DWQ [2001-002456], 1897.
[263] DD, DWQ [2001-012204], Janurary 1894.

With the arrival of the railway policemen in every station, stationmasters soon realized that the presence of this new police force severely curtailed their authority. In fact, railway policemen wielded both the authority to new regulations and the power to enforce them. In terms of administrative affiliation, the Railway Police was independent from the ERA bureaucratic system; even a governorate *mudīr* had to negotiate with the Ministry of Interior if he found a policeman's behavior improper. As a result, railway policemen only needed to obey their superior NCO, and ultimately to the Minister of Interior. Whether they followed the order of their stationmasters was not mandatory, particularly since they did not report directly to the stationmasters. However, from the perspective of the stationmasters, the presence of railway policemen seemed to decrease the absolute power that they once enjoyed. Disgruntled, some stationmasters adopted radical measures to express their dissatisfaction and disobedience towards the new presence and intervention of railway policemen. For instance, in February 1895, the Alexandria stationmaster mobilized his ghaffirs and incited them to stop cooperating with the newly arrived railway police force. After receiving support from some city policemen, he refused to file crime cases with the railway policemen and claimed that the city policemen were more than capable to handle the situation.[264] These local frictions and complaints attracted the attention of some ERA high-level officials, who also felt uneasy with the Railway Police's authority and intervention in local station management in the name of public security. In his letters to *Bimbashi* Marten, Iskandar Fahmy frequently emphasized that railway policemen could only "subordinate" stationmasters or "supplement" their duties of stationmasters, rather than replace the latter.[265] In Fahmy's vision, stationmasters should coordinate every aspect of the

[264] DD, DWQ [2001-024771], January- June 1895. There is another case of dissatisfaction and disobedience, see DD, DWQ [2001-012203], December 1893.
[265] DD, DWQ [2001-012203], December 1893; DD, DWQ [2001-012194], October 1893.

railway's smooth operation, and the Railway Police, acting to assist stationmasters, should be limited to security matters rather than superseding the stationmasters' authority.

Moreover, railway policemen brought militarized management tactics and habits that the stationmasters did not always agree. Previously, stationmasters maintained a publicly open sphere where their influence derived from arbitrating mundane interests and honoring different social groups. With a notably different tactic, the railway policemen enclosed the station where they enforced law and order through deterrence and punishment. Their actions were backed up by policemen's excessive use of force. Since railway policemen had either served in British or Egyptian army—many of them had frontline experience in battling with the Mahdist Sudanese, they easily accepted militarized management and used these measures on civilians. Railway policemen were regularly reported with incidents of beating service workers, small vendors, and even travelers with batons. The Ministry of Interior seldom took complaints about violent law enforcement seriously—perhaps because the cases were so rampant. Only if the beaten travelers were foreign nationals, their consulates would intervene and force the Ministry to hold the litigants accountable.[266] To prevent civil disputes turning into diplomatic issues, the Ministry issued a special order to railway policemen regarding proper practices in dealing with foreigners. The order mandated that all railway policemen make reports and hand in cases which involved foreigners to their respective consulates.[267] Nevertheless, for Egyptians traveling or working in stations, they were subject to an had to endure arbitrary police violence on a daily basis.

The ERA and the Railway Police negotiated intensively to resolve the strife between stationmasters and railway policemen. *Bimbashi* Marten proposed putting the ghaffir force under the jurisdiction of the Railway Police. In return, the Railway Police would pay all of the force's

[266] DD, DWQ [2001-012209], 1892.
[267] DD, DWQ [2001-021162], 1893.

expenditures, which were previously paid by the ERA.[268] The proposal indicated Marten's will to integrate all human resources to ensure railway security, while meeting the ERA's wish for cutting expenses and controlling its budget at a time when the railway's profitability was prioritized. After the two sides reached an agreement, the Railway Police not only included over one hundred veteran policemen, but also hundreds of experienced grassroots officers who were now under the railway policemen's command.

While expanding the size of the Railway Police, *Bimbashi* Marten also faced the immediate problem of regulating such a newly integrated force. Ghaffirs and other rank-and-file policemen were frequently associated with embezzlement and other types of insider crimes. *Bimbashi* Marten once observed dourly that "a dishonorable ghaffir can, almost with impunity, steal goods to the value of, say 100 L.E., knowing that the amount will be made good by [an] officer, as well as by himself, and that his pay will perhaps be 1 L.E., whereas the gains possession of the balance 99 L.E."[269] It became a critical new problem for Marten to regulate efficiently the ever growing police force. To solve the problem, Marten started to enforce a set of semi-military policies of personnel management. According to Marten's policies, ghaffirs must accept rotational shift work regularly from railway policemen. For instance, a ghaffir might work at the weighing machine in the morning, at the ticket office in the afternoon, on the platform at night, and he did not know his duty until he was dispatched.[270] Rotational shift work was implemented in order to reduce the predictability of ghaffirs' daily missions, thus lessening their ability to plan insider crimes. Moreover, for each ghaffir's shift work, a railway policeman was assigned to check his attendance in person twice in the daytime and twice at night, keeping his

[268] DD, DWQ [2001-012204], January 1894.
[269] DD, DWQ [2001-012204], January 1894.
[270] DD, DWQ [2001-024969], October 1892- November 1893.

performance in a work log. The policemen later presented the log to their superiors.[271] The systems of rotational shift work and internal inspection created a unified discipline that on one hand prevented insider crimes, and on the other reinforced the militarized management of the Egyptian police force.

The establishment of the specialized Railway Police replaced the Fahmy reform of the early British colonial period. The Fahmy reform followed the weak state interventionism of previous Ismaʿili governance and harnessed traditional guilds to manage labor within railway stations. From the mid-1890s, however, with the birth of the Railway Police, the colonial government began to implement a new set of policies that replaced the decentered system of civil servants with a much more centralized organization of military officers in law enforcement agencies. Under the new policies, traditional guilds gradually faded from the historical scene.

The most well-known argument regarding the demise of the traditional Egyptian guild comes from the discourse of French scholars in the early twentieth century. They commonly believed that creation of the Native Courts (*les Tribunaux indigènes*) in 1883 paved the way by disqualifying the shaykhs' jurisdiction. Albert Métin, professor of *l'École Coloniale*, argues in his 1903 book that "the Napoleon Code (the National Courts) recognized individual contracts between worker and the patron, but not collective contracts of a group on behalf of its representative—the shaykh. The judges applied the principle of code and never call any shaykh to testify in trials. As a result, workers began less tied to the guild which had for them no material utility."[272] Métin's argument receives widespread recognition from his contemporary French scholars, such as Jean Vallet and Pierre Arminjon, who express similar opinions that the

[271] DD, DWQ [2001-012209], January- April 1894.
[272] Albert Métin*, La Transformation de l'Egypte* (Paris: Felix Alcan, 1903), 291.

authority of guild shaykhs diminished after the reorganization of the National Courts.[273] This argument presumes that guild shaykhs derived their authority solely or largely from their jurisdiction role. However, guild shaykhs also held expansive administrative roles, which were not affected by the new legislation. Guilds could have transformed into a different form—yet not completely disappeared—if the state still depended on its regulatory function.

The guild also lost its administrative ability of mediating between the state and laborers because grassroots administrative institutions witnessed a fundamental change during the mid-1890s. Iskandar Fahmy and other Egyptian civil servants within the ERA attempted to create a hybrid law enforcement apparatus inside Egyptian railway stations, consisting of both stationmasters and guild shaykhs. This plan was consistently opposed by political hard-liners in the Egyptian government. These hard-liners, who were predominantly British military officers in the Ministry of Interior, sought to bypass stationmasters and guild shaykhs by enlarging the definition of public security and transferring law enforcement power directly to the police. The establishment of the Railway Police was one of their victories, because after that the Ministry of Interior had an impeccable excuse to impose centralized and militarized control over railway security.

Taking the porter guild as an example, *Bimbashi* Marten had little confidence in this local organization. Instead, he believed that only the police force under the command of British military officers had the capacity to ensure effective law enforcement in every railway station. To replace native guilds, Marten introduced a series of new management methods, and the license system was one of the most influential. Marten stipulated porters in each station to obtain

[273] Jean Vallet, *Contribution a l'étude de la condition des ouvriers de la grande industrie au Caire* (Valence, France: Impr. Valentinoise, 1911), 139-140; Pierre Armiinjon, *La situation économique et financière de l'Égypte, le Soudan égyptien* (Paris: L F. Pichon et Durand-Auzias, 1911), 177.

a license (*rukhṣa*) from the Railway Police at the expense of five piasters.[274] Different from the previous roster in the hands of guild shaykhs, licenses acted as a new regulatory technique that placed porters directly under the supervision of the Railway Police. When a porter applied for his license, the Railway Police would examine both the police and court records of the past years to determine whether the applicant was "of integrity and good behavior" (*ʾistiqāma wa ḥusnu sulūk*). If he was found to have committed or was suspected of a crime, he would immediately be removed not only from the station he worked in, but also be prevented from being employed by other Egyptian stations.[275]

The license system marked guild shaykhs' decisive loss of control over their membership and the eventual dissolution of the porter guild as a functioning social and local governmental organization. The porter guild involved a management of membership—to number them, to identify them, and to make their duties and behaviors legible under top-down state surveillance. The license of porters, in comparison, targeted the space of the railway station more than its membership. The license, in its essence, was a right to access issued solely by the Railway Police. It aimed to create an orderly space of the station by enclosing its public accessibility. Under the new regulations, the Railway Police required all porters with licenses to line up along the platform wall, where they were supervised by policemen or railway employees.[276] Similar to porters, other low-end service providers in the Cairo station, such as peddlers, hotel pickups, omnibus and carriage drivers, also needed to obtain licenses of entry and were provided entry at their designated waiting zones, where they followed the orders of their respective law enforcement officers.[277] Although present-day travelers are quite familiar with where to find

[274] DD, DWQ [2001-012179], June 1893.
[275] DD, DWQ [2001-012179], June 1893.
[276] DD, DWQ [2001-024969], October 1892- November 1893.
[277] DD, DWQ [2001-012204], January 1894.

pickups or taxi zones in a modern railway station, these new tactics of spatial management were novel to late nineteenth-century travelers in Egypt. To embark on the modern promise of efficient management, spaces in Egyptian stations were allotted to specialized groups of people to conduct different economic activities.

Critical to spatial management was the prohibition of transgression, which embodied the core mission of the police. The new policy marked out two differential spaces occupied by two groups of porters. State-sponsored porters, after obtaining their licenses, were able to legally enter the station and wait for customers within their designated zones. Meanwhile, policemen detained porters at the station gate entry who still pledged allegiance to guild leadership. Already at a disadvantage, these excluded porters were forced to offer cheaper prices compared to authorized porters, while still facing fierce competition from their peers. When the new policy pushed them into dire economic circumstances, many porters chose to leave their guilds and joined the police-regulated system to ensure their livelihood. But it took little time for them to discover that the police-issued license was not an amulet forever. By having the privilege of entering the station gate, they became exposed to a new and possibly greater risk. Unlike the porter guild where the shaykh was accountable for judging disputes between porters and their temporary employers, the Railway Police or any of the ERA staff had no such liability once similar disputes occurred. Moreover, if a passenger's luggage was lost or damaged during a porter's transport, the police would always indiscriminately side with the passenger, demanding that the porter compensate for the loss entirely out of his pocket without consideration of the porter's solvency.[278] If he could not provide compensation, he lost his license, and consequently all his past costs in license applications and future sources of income.

[278] DD, DWQ [2001-012164], March 1893.

Besides the enclosure of previously open space in railway stations, licenses also required the creation of a new professional etiquette. To demonstrate what the station reform had achieved, railway officials often compared the orderliness of porters within stations with those outside, referring to the latter as "an unsavory crowd," "did not behave properly," or "of the worst possible character." [279] Taking the regulations of the Cairo station as an example, authorized porters were forbidden to chase an arriving train, to shout for attention, or to gather in a crowd, which all sharply contrasted to the unregulated behaviors of their unprofessional counterparts outside the station. Some officials believed the distinction should be more sharply embodied in the porters' exterior costumes rather than their behaviors. The Cairo stationmaster, in his annual 1892 report to the ERA, complained that "the porters were not distinguishable easily enough and a very conspicuous dress should be used."[280] The newly established Railway Police soon responded to his concern. By the next year, the police issued an order to provide all authorized porters with a set of work clothes, a belt, and a tinplate of the porter's number, which they must wear to gain entry to stations. [281] As such, authorized porters became more recognizable for both passengers who looked for goods handling service and police officials who oversaw their work.

The management of station porters embodied the modern promise of spatial order, yet it also created new power structures and incurred a new set of problems. The once absolute authority of guild shaykhs faded away, replaced by the rising power of the Railway Police. The Railway Police now controlled almost every activity of porters conducted in the sphere of the station. A barefoot station porter was utterly defenseless in front of a well-equipped policemen. The police officer became the new "shaykh," in the name of public order yet in practice, he

[279] DD, DWQ [2001-024969], October 1892- November 1893; DD, DWQ [2001-012204], January 1894.
[280] DD, DWQ [2001-024969], October 1892- November 1893.
[281] DD, DWQ [2001-012179], June 1893.

could be even more corrupt. In the Alexandria Station, the railway policemen used their absolute power to charge extra money from porters. If a porter wanted to get closer access to arriving trains, he could pay a certain amount of *baksheesh* (tip or bribe) for this privilege. He then became an irregular dot outside the line of order. Such bribery was common in the Alexandria Station, and a case of this nature came to Iskandar Fahmy's attention via a daily report from the Alexandria stationmaster. In early November 1893, the stationmaster filed a case of disturbance, which was said to be caused by one of the station porters named Ibrahim Mansour. After interrogating the porter, the stationmaster soon learned that the alleged "disturbance" was actually a man-made trap against Mansour because the porter failed to satisfy the bribery demand of *bash-shawish* Yousuf Yousuf. Consequently, Yousuf maliciously instigated one of his men to quarrel with the porter when Yousuf was on duty in that day. Yousuf caught Mansour right away and accused the porter of causing this "disturbance."[282]

The culture of *baksheesh* was all too familiar to contemporary residents in Egypt, both locals and foreigners. It was often attributed as a manifestation of more deeply rooted social injustices. *Baksheesh* in the Egyptian context meant more than an expression of gratitude after receiving a service, but often a customary material exchange for a personal favor from government officials. In the Egyptian railway station, *baksheesh* emerged with the rise of the Railway Police and reified the hierarchical power relations that replaced the previous guild system. It not only helped some porters to gain privileges over other porters, but also exempted some guilty porters from being ousted from the station.[283] It constituted one of the unspoken rules of complicity and corruption that both policemen and some porters recognized and acknowledged. However, when Mansour, the disobedient porter, refused to follow the insider

[282] DD, DWQ [2001-012196], November 1893.
[283] DD, DWQ [2001-024969], October 1892- November 1893.

rules, the policeman almost managed to oust him by maneuvering his own personal network and law enforcing authority. In the end, Fahmy Bey, according to the procedure of policemen's dereliction of duty, handed over Yousuf's case to *Bimbashi* Marten, who oversaw all railway policemen. Marten declined to recognize Yousuf's fault, possibly because Yousuf was one of the rare high-ranking police officers who spoke native Arabic. To find an excuse for Yousuf, Marten understated the case as a personal feud and equivocated that both sides were equally at fault. Two months after the incident, he ordered the transfer Yousuf from Alexandria to Tanta. In instigating such a personnel shuffle, Marten not only avoided future dispute within the Alexandra Station, but also managed to protect Yousuf, who surprisingly did not receive any penalty and still retained his military rank as *bash-shawish* in his new position at the Tanta Station.[284]

The British reform triggered two processes of power transformation that occurred during the British colonial period. The first transformation occurred within the system of colonial administration, where the repressive state apparatus, including the army and the police, gradually replaced the native civil bureaucracy as core instruments of central control. For senior British officers, Egypt was a laboratory whereby they experimented with building a modern state based on disciplinary power. Instituting European models of governance, they established military sectors as the central force that promoted Egypt's modernization. The second transformation resided in the dissolution of traditional grassroots organizations, especially the local guild. In the previous environment of weak state intervention, these social organizations acted as intermediaries between the state and society in reconciling different interest groups and assuming administrative roles assigned by the state bureaucracy. However, when military sectors replaced civil bureaucracy and exerted more direct management, grassroots organizations lost their original administrative positions and social functions.

[284] DD, DWQ [2001-012226], April 1894.

To conclude this section, the British reform initially promised the orderliness of Egyptian railway stations. The license system selected only authorized service workers to enter the station and prevented these workers from theft and other illegal activities. To ensure law enforcement, state institutional power expanded accordingly, especially the Railway Police. Policemen superseded native labor organizations and stationmasters, and acquired direct management economic activities within the enclosing space of Egyptian railway stations. It marked a step further to centralize the state apparatus with direct and formal control over the entire railway lines, which if unchecked, bred corruption from within.

Fare Evasion and the Enclosure of Egyptian Stations

Besides supervising porters and other service workers in train stations, another focus point of the Railway Police was fare evasion. In the 1870s, passengers checked their tickets (Figure 14) at the platform before boarding the train. As a result, platforms in Egyptian stations were created as open spaces for all travelers. Travelers crowded before every cabin, waited for their tickets to be checked, and hugged farewell to their families. Fare evaders muddled through the situation in the excuse of looking for their families, or in the disguise of chaos in huge crowds.[285] Some of them bribed ticket inspectors, or at times even directly climbed the train cabin without the train staff's permission.[286] From a railway manager's perspective, regulating expansive crowds of people was extremely strenuous work. Some ticket inspectors, facing relatively chaotic situations and being regularly understaffed, turned a blind eye to these deviant behaviors. However, with the emergence of a British-controlled administration and their prioritized goal of railway profitability, the administration recognized the social phenomena as a

[285] DD, DWQ [2001-021066], December 1882.
[286] Sladen, *Queer Things*, 184.

factor that severely reduced the railway's income and hindered its future development. In his 1880 report to Ali Mubarak—the then-Minister of Public Works, the ERA president complained that simply transferring fare evaders to provincial police had caused a substantial economic loss to his agency's revenue stream and profit since the wrongdoers handed over to police custody, and because of this, the ERA could no longer force them to purchase their overdue tickets. Accordingly, the president proposed a new policy, granting stationmasters, or other responsible ERA staff, the right to collect money from fare evaders, as well as an additional 50 percent fine before handing them over to the police.[287] Persuaded, Ali Mubarak approved the proposed changes and this policy set a precedent in Egypt for railway officials to recoup their revenue by charging these kinds of fines. Yet on the local level, this policy was loosely executed in its first few years. In a random spot check of second- and third-class carriages at the Tanta Station, the ERA staff found nearly half of all passengers had no ticket.[288] In another check targeting the Greek population in the Sidi Gabir Station, it was discovered that an "astonishingly high percentage" of Greek travelers did not purchase tickets during their train trips. The ERA president was infuriated by this omnipresent issue, reemphasizing that Europeans should not enjoy any special privileges, since fines for fare evasion applied equally to every traveler.[289] In the early 1880s, the ERA's attitude towards fare evasion was overwhelmingly economical. So long as the fines brought enough revenue to the administration, it had little incentive to resolve the deeper reasons for this criminal act, or to handle the more complicated problem of economic disparity.

[287] DD, DWQ [2001-021240], 1880.
[288] DD, DWQ [2001-021066], December 1882.
[289] DD, DWQ [2001-021622], 1884-1885.



Figure 14 Three tickets from the Egyptian State Railways, representing three different travel classes. Source: Overseas transport ticket collection, the National Railway Museum, York, Britain.

Fines increased the economic risk of fare evaders and potentially raised the ERA's revenue, yet it was far from a sufficient measure to prevent all challengers of the rules. Compared to the ERA, the Railway Police, when it started to address the issue in 1893,

conceived its solution as one beyond a simple economic penalty. From the Railway Police's perspective, the ultimate source of rampant fare evasion was promoted by the open access conditions of Egyptian stations. So long as everyone could approach near the transport, gathering in crowds, it made efficient ticket checking an impossible task. In his letter, Commandant Harvey, the head of the Alexandria City Police, advised Marten on possible enhancements for future station management. He stated that "the stations in Egypt, it is well known, are used as lounges by the general public, and are frequently by loafers and [the unemployed]—thieves, pickpockets, they as well convene at arrival and departure of the trains, and they naturally endeavor to find their way on to the platforms, or inside station, and if they cannot succeed in this, they hang about the outside."[290] Fare evasion was one among several problems caused by unlimited public access to railway stations. To fundamentally deter the maleficent behavior, Harvey proposed that the police had to play the role of filtering people with and without tickets before they were allowed entry inside station lobbies.[291]

Bimbashi Marten agreed wholeheartedly with Commandant Harvey's proposal. Yet when the proposal implemented, Marten found it impractical given the situation in Egyptian stations. At first, the Railway Police was restricted by its relatively small size. To effectively implement the policy, it required a minimum number of policemen being always on duty, both during the day and at night, in addition to a force of reserves who could quickly mobilize at a time of crowd gathering. If only railway policemen with military ranks were eligible to patrol, it was impossible to carry out such a complicated arrangement.[292] The shortage of policemen was to some extent mitigated after the Railway Police incorporated station ghaffirs into its team. Yet, ghaffirs were far from uniformly well-trained and were often reported for failure to perform their duties.

[290] DD, DWQ [2001-024969], October 1892- November 1893.
[291] Ibid.
[292] Ibid.

According to several railway policemen, their ghaffir colleagues paid little attention to check passengers, and at times even slept during work.[293] To strengthen its management of irresponsible ghaffirs, railway policemen visited ghaffirs every hour and recorded their performance in a register book. *Bimbashi* Marten also intermittently sent his subordinate from Cairo to inspect problems at local stations.[294] In this way, Marten hoped that these enforcement measures would help ensure that his policy was strictly implemented in every Egyptian station.

Besides the shortage of manpower, a more serious threat to the new ticket inspection policy derived from constant travelers' complaints. In fact, these complaints were used by Iskandar Bey Fahmy to undermine his political rival. At the executive level, the policy indeed ignored multiple complicated circumstances found in Egyptian stations. For instance, the telegraph service and some magazine shops were located inside railway stations. Businessmen and consumers of these services were also forbidden to enter if the policy was strictly enforced. In practice, some station ghaffirs allowed some degree of freedom for relevant people to enter stations without informing their superiors. However, ghaffirs' more lax measures and attitude that benefited station users were precarious and unable to last for long. When railway policemen inspected ghaffirs every hour, the ghaffirs had to temporarily forbid entry of all people, which caused customers' dissatisfactions towards the rigid policies.[295] Moreover, many travelers were not accustomed to the loss of socializing in train stations. In stations, family and friends shared sentiments of parting and joys of reunion. When train schedules were relatively erratic and delay was common, these intimate moments required a waiting area where emotions could be comfortably expressed. But the new ticket inspection policy separated travelers from their

[293] Ibid.
[294] DD, DWQ [2001-012236], July- August 1894. The document details that Awal Salamos, a railway policeman of the Cairo Station, performed his task to examine the Port Said Station. He directly reported the problems he saw in Port Said to *Bimbashi* Marten.
[295] DD, DWQ [2001-012176], March 1893.

ticketless loved ones. Consequently, travelers complained to stationmasters that the policy was inconsiderate and inhuman.[296] Iskandar Fahmy collected these complaints from every stationmaster and hoped to use them to raise concerns among the ERA board. To be clear, Fahmy did this more for his own political ambition rather than serving the needs of the people. For Fahmy and his subordinate stationmasters, Marten's ticket inspection policy expanded the jurisdiction of the Railway Police and severely weakened their authority. If Fahmy could successfully demonstrate the policy's shortcomings and disadvantages, the ERA board might stand with them, providing a fighting chance to abolish Marten's scheme and the Railway Police's encroachment on the stationmasters' power within individual train stations.

The third obstacle of Marten's policy was Egyptian stations' highly penetrable architectural features, which precluded spatial enclosure and strict regulation. Taking the Alexandria Sation as an example, a common person could easily evade police inspection by using either the goods gate or the port gate rather than the main passenger entrance and exit. Moreover, some rooms of the station, including the engine house, the telegraph office, buffets and some other shops had both front and back doors that connected the station's interior space with the outside.[297] Station architects designed these multiple passages for avoiding congestion without considering the police's law enforcement and security measures. However, fare evaders also managed to use these multiple passages conceal their whereabouts. They took a roundabout course, and successfully bypassed police inspection at the station's main gates. As a result of these inconspicuous but critical forms of subversion, high-ranking police officers found it difficult to fully implement Marten's ticket inspection policy.

[296] Ibid.
[297] DD, DWQ [2001-011909], 1892.

Cognizant that enforcing inspection only at the main gates was far from enough, railway policemen in ten major Egyptian stations submitted detailed plans to improve station regulation.[298] Since these plans shared many similarities, I take one of the most detailed ones—the plan of the Cairo station—to illustrate these measures. The Cairo station was typical because it was undergoing reconstruction by the time the policy was issued. Some suggestions from railway policemen, after being sent to the Ministry of Interior, were taken into account by architects, and thus influenced future designs of other Egyptian stations. The main idea was to distinguish passengers of different travel classes and treat them differently to satisfy the needs of elite travelers and reduce their complaints. In practice, the Railway Police proposed to open the Khedivial passage for first-class travelers at the time when a passage was not reserved by the crown. With first-class tickets, elite travelers and their relatives accompanying them were not restricted by rules that applied to other travelers. Passengers of second- and third-class status all used the station's main entrance but were separated by iron barriers. The policemen applied strict ticket inspection—only those with tickets were permitted to enter—to third-class travelers. To make their policies more obvious to travelers, they planned to put on placards to direct the public so that they would consciously place themselves into different categories. In this way, the Cairene Railway Police reduced the overall workload because first- and second-class travelers only needed very light inspection and the police could spare more manpower to check third-class travelers. As for the hidden entrances that fare evaders often used, the Cairene policemen either permanently closed them or sent a few policemen to guard on site.[299]

[298] Ibid. These stations were Alexandria, Tanta, Cairo, Asyut, Minya, Beni-Suef, Fayoum, Wasta, Benha, and Damietta. Among these stations, Alexandria, Tanta, and Cairo had the most detailed improvement plans.
[299] Ibid. Similar proposals were made in a different document, see DD, DWQ [2001-024969], October 1892-November 1893.

By providing different levels of inspection to travelers of various classes, the Railway Police adjusted to challenges from its own manpower shortage and addressed the complaints from elite travelers. More significantly, it also produced a new capitalist reality in which travel experiences were predetermined by the amount of capital paid for the railway journey. This new mode of classification connected traditional social distinctions that relied on familial and personal status with modern capitalist distinctions that underscored monetary wealth. First-class travelers could share some privileges that only the Khedive had monopolized. The first-class ticket provided them with freedom of access to stations, and an exemption from strict inspections by the police. In contrast, almost every movement of third-class travelers in the station began to endure long waiting time and police monitoring, which gradually grew commonsensical in the increasingly capitalized society. The experience of train travel became embodied with the capitalist forms of wealth that also reflected the structure of enforcement regimes.

To conclude, this part focuses on the transformation of an open station into an enclosed sphere, where the Railway Police monopolized administrative rights over ERA-appointed local representatives. The enclosure of space had long-term effects on the architectural design of Egyptian stations, behaviors of ordinary people, and the formation, stratification, and stabilization of socioeconomic classes within Egyptian society.

The Iron Cage of Capitalism: Travel Classes and Gendered Spaces

The initial introduction of the railway to Egypt produced different travel experiences for the ruling class of Egypt. In the late 1850s, the train was at first an exclusive form of travel for the Khedives and only privileged aristocrats could board the new transport. Early orders for carriages from the Egyptian State Railways were monopolized by a few British and American

rolling stock companies. An exemplary model of such was "H. H. State Saloon" (Figure 15) custom-made for the Egyptian Viceroy Said Pasha (r. 1854-1863) by Messrs. T. W. Wason Car Co., an U.S. carriage company located in Springfield Massachusetts. To build such a high-standard carriage at that time marked the industrial capacity of the United States that could potentially compete with the British monopoly in carriage production. The *New York Times* boasted that this luxurious wagon as "a source of encouragement and satisfaction."[300] To serve the extravagant desires of Egyptian aristocrats, train designers intentionally imitated a style of European horse carriage decorated with Arabic patterns. Although in the shape of a horse carriage, trains soon proved more capable to provide a smoother and reliable journey than its transport predecessor. Even with the later Egyptianization of carriage production, the design of saloon cars remained untouched.[301] Rooms at two ends of the car served for private activities, such as dining, rest, and family gathering. The middle part held public events for meeting or sightseeing.

[300] *The New York Times*, January11, 1860, 51; Ettouney, *Railways Along the Nile*, 119.
[301] ERM 20/1/4, *Report on Rolling Stock, 1885*, "Detail Report on Viceregal Carriages."

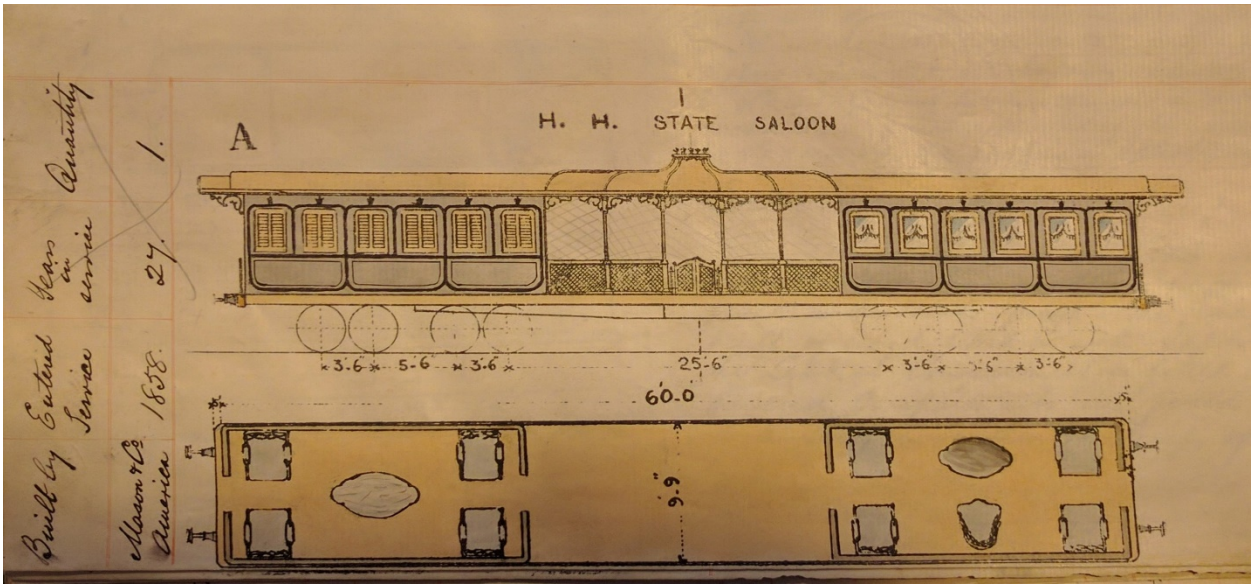


Figure 15 Internal structure of the "H. H. State Saloon" for the Viceroy of Egypt.
Source: ERM 20/1/4, *Report on Rolling Stock, 1885*, "Detail Report on Viceregal Carriages."

With the rapid popularization of railway travel, the train became more than an exotic novelty for the Egyptian notables, but also a useful and meaningful vehicle for a diverse range of Egyptian social classes. The ESR, as a result, started to provide more customized services for travelers who paid different prices for their journeys. Three more categories of traveling were added to the salon carriages—first-class, second-class, and third-class. Each category was marked by its distinguishable interior design and arrangement. One of the most notable features for the first-class carriage was its attention to private space, especially reflected in the design of compartment partitions. Typically, compartments were separate from each other and first-class travelers could access their compartment from outside the carriage. By making such a design, first-class travelers avoided unnecessary contact with travelers from other compartments, and thus could stay in a totally private space. This compartment design was ideal for family or group travelers of long- and medium-distance travels. Yet, this compartment achieved much lower capacity use than passenger coaches, especially on short trips where individual travelers

outnumbered group travelers. To improve the effective space utilization of passenger coaches and thus to increase fare revenue, the ESR started to introduce armrests, providing separated seats in couch for short trips, while keeping the design elements of compartments for mid- to long-distance travels. Seats with armrests accommodated strangers in the same compartment without ceding traveler's private space. Although passengers might feel their activities restricted by the armrests, this new design marked the distinction of first-class carriages from second-class carriages, which kept the use of couches for multiple travelers.

Lavatory accommodation was the second new design only available for first-class travelers in late nineteenth-century Egypt. In the nineteenth century, Egyptian passenger coaches were not equipped with a lavatory, and passengers usually used station lavatories.[302] This might create a rare occasion for travelers of all different classes to disembark at once and to mingle in one place. Yet some train staff intentionally delayed opening the doors for third-class passengers when arriving at a station so that first-class guests would be prioritized in answering their nature's call.[303] In 1901, the ESR started to introduce bogie carriages to replace old-fashioned two or three axle cars (Figure 16). One of the advantages of bogie carriages was that they were much longer than their predecessors, and thus spacious enough to install lavatory accommodations. This invention was immediately adopted as a standard of mid- to long-distance first-class carriages. By 1929, 87.7 percent of first-class carriages were bogie ones, and this number was merely 45.6 percent for third class. The majority of third-class carriages between 1900 to 1920 were refurnished from previous higher-class two-axle or three-axle ones. Even

[302] ERM (serial number unknown), *Stock Constructed in Egypt*, illustrations for model 22; Hayʾa al-ʿAmma, *Egyptian Railways*, 125. It was also a common behavior in Britain to step down for toilet during train's halt, see Schivelbusch, *Railway Journey*, 85.
[303] Similar practices could be found in colonial India. See Prasad, *Tracks of Change*, 38-42.

those bogie third-class carriages were usually remolded without a toilet, fitting them to carry more passengers instead of improving their travel quality and passengers' accommodations.[304]

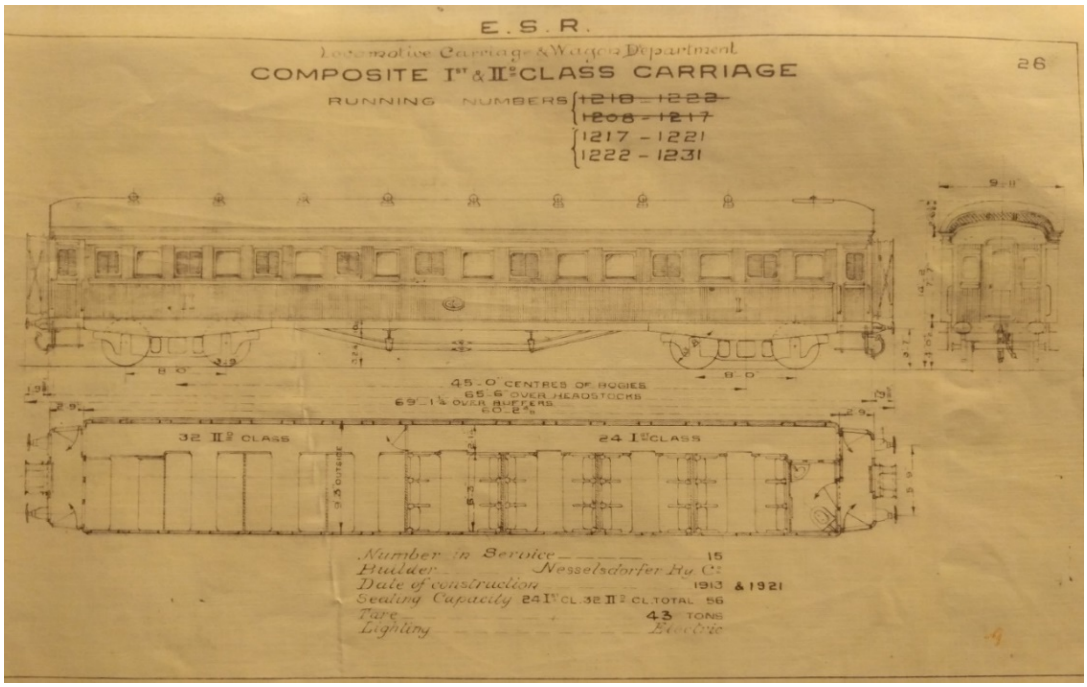


Figure 16 "E.S.R. Composite First- and Second-Class Carriage." This type of bogie carriage was imported twice in 1913 and 1921 from the Nesselsdorfer Railway Company (predecessor of today's Tatra Trucks in the Czech Republic). The right side of the blueprint was for first class, which included both lavatory accommodation and seats with armchairs, while the left side for second class did not have these features.
Source: ERM (serial number unknown), *Stock Constructed in Egypt*, model 26.

[304] Hayʾa al-ʿAmma, *Egyptian Railways*, 132-134.

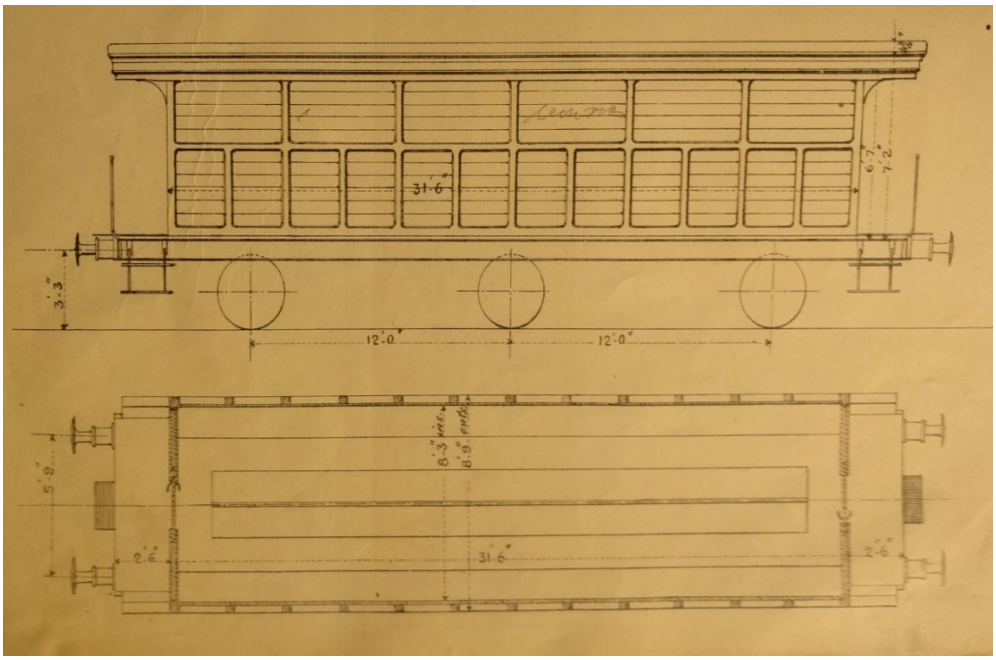


Figure 17 "Third Class Old Type." This type of carriage was built in 1868 by an anonymous German company. Having more than 100 in the warehouse, it was one of the most widely used carriages for third-class passengers by 1900 in the ESR. The exterior design had no windows and the interior had only four long benches.
Source: ERM (serial number unknown), *Stock Constructed in Egypt*, model 43.

The third distinguishable feature of first-class carriages was that they usually set at the end of the train, far away from the locomotives and cargo carriages. While a coal-burning locomotive pulled a train with all its might, blasting smoke gushed out of the stack and unpleasant smell drifted towards wagons immediately in the back. Some coal of bad quality, after it combusted in the engine, released heavy smoke that even blackened passengers' faces.[305] Consequently, the position of passenger carriages in relation to the locomotives became an important source of distinguishing different travel classes. In a train, cargo carriages were immediately connected to the locomotives, followed by third-class carriages. The most widely used model of third-class carriage in the ESR adopted a no-window design to prevent smoke from adjacent locomotives from floating into its interior (Figure 17). Large and bright sunshade windows were a privilege for first-class travelers, who did not have to bother with smokes but

[305] *Al-Wataniyya*, March 29, 1912.

also could enjoy wonderful scenery outside.[306] As such, the location of first-class passenger coaches at the end of trains to the largest extent ensured the best traveling experiences of people who paid the most for their journey.

The segregation of travel classes practiced by railways visualized and perpetuated the social-class stratification that already existed in Egyptian society. European notables were predominant in first-class carriages, along with occasional Arabic-speaking aristocrats. Accommodations and services in the first-class, according to American Egyptologist Charles Wilbour who frequented Egypt in the 1880s, were even better than the equivalent in his own country.[307] Train attendants were "civil and attentive," fluent in both Arabic and French, and occasionally in English.[308] The second-class consisted of Egyptian *tarboosh*-wearing *effendi*s and plebeian foreign travelers more commonly of Mediterranean origins. The second-class ticket price was roughly half of the first-class fare. Sometimes, servants or dragomen of first-class travelers might also be seated in the second-class carriages by their masters.[309] Contemporary European travel guides to Egypt constantly warned their citizens not to take the third-class passage because the conditions were "quite unsuited for Europeans."[310] European and American travel agencies, in their tourist programs to Egypt, also had only options for the first- and second-class rail to guarantee an optimal travel experiences for their customers.[311] The racial hierarchy aboard the train was also maintained by Egyptian ticket sellers, who sold tickets based on a

[306] Many European Travelogues have accounted for their experiences of viewing Egyptian landscape from the first-class passenger cars. For instance, see F.W. Fairholt, *Up the Nile, and Home Again: A Handbook for Travelers, and a Travel-book for the Library* (London: Chapman and Hall, 1862), 34.
[307] Charles E. Wilbour, *Travels in Egypt: Letters of Charles Edwin Wilbour*, ed. Jean Capart (Brooklyn, NY: Brooklyn Museum, 1936), 29.
[308] William Perry Fogg, *Arabistan: Or the Land of "the Arabian Nights"* (Hartford, CT: Dustin, Gilman & Co., 1875), 73.
[309] Egyptian Government Railways, *Winter in Egypt*, 37.
[310] Karl Baedeker, *Egypt and the Sudan: Handbook for Travellers* (New York: C. Scribner's Sons, 1914), xvii.
[311] Thomas Cook Ltd., *Cook's Excursionist and Home and Foreign Tourist Advertiser* (London: Thomas Cook Ltd., January 1892), 19.

person's racial appearance. They would provide a European looking traveler a higher-class ticket even if the person requested to sit in the third-class carriage.[312]

Native Egyptians occupied third-class spaces, those who needed to travel to other Egyptian cities yet were unable to pay higher ticket prices. First-class passengers often mocked the repugnant features of the third-class carriages, such as their crowdedness, unruliness, and unpleasant smells, in contrast to the privileged conditions of their own compartments.[313] This portrait was more of a caricature, since the majority of third-class passengers were far from destitute and their social status was only dwarfed in comparison to the more prominent figures in the higher socioeconomic classes. An example was the singer Umm Kulthum, who came from a rural shaykh family at al-Sinballawin and was later honored "the voice of Egypt." She was once invited to perform at a celebration of the *Laylat Miʿraj* (Prophet's Night Journey) in ʿIzz Din Yakan Bey's palace at Helwan, and to reach there, she and her father needed to take a third-class train. Her father, because of his dissatisfaction with the bey's meager payment to his daughter, lodged a complaint that the train ticket would cost almost half of her performance fee.[314] Although Umm Kulthum's father might have exaggerated the travel cost in the hope that the bey would raise the payment for his daughter's performance, the train was still a relatively expensive means of transportation even for some well-off rural families.

Since travel class made social status more demarcated, lower-class Egyptians attempted to project their upward mobility through transgressing into higher-class carriages, even though such mobility in social status was both ephemeral and untrue. Umm Kulthum recalled her

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[312] Harry Alverson Franck, *A Vagabond Journey Around the World: A Narrative of Personal Experience* (New York: The Century Co., 1910), 229.
[313] For instance, an Egyptian military officer described third-class passenger as "climbing out of windows, riding on top of carriages, carrying animals and poultry in cage." See Ihab Habib Hassam, *Out of Egypt: Scenes and Arguments of an Autobiography* (Carbondale, IL: Southern Illinois University Press, 1986), 104.
[314] Virginia Danielson, *The Voice of Egypt* (Chicago, IL: University of Chicago Press, 1997), 32.

youthful experiences "as we approached to the destination, my father would walk all the way to the head of the train to descend from the first-class carriage so that the people who had hired us would think we are somebody."[315] Antipathy arose from first-class travelers when they found their privacy disturbed and privileges usurped by these transgressors. An American tourist wrote in his accounts of first-class train travel in Egypt that he was "disturbed every few minutes by some turbaned *fellah* poking his nose in to see what is going on."[316] He also witnessed that a German traveler in the same first-class carriage, provoked by the constant disturbance, turned to violence as he heavily crushed the finger of an inquisitive Egyptian by aggressively slamming the compartment door. In the end, the German offender only paid a few piasters to the wounded man.[317] The ERA and the police department had long noticed the rampant nature of travel class transgression. They classified it as an act of defraud and imposed a heavy penalty if transgressors were caught on site. Its fine—at a fixed cost of 1,000 paras—was valued at as much as one single-way third-class ticket price from Cairo to Alexandria.[318] However, the temptation to sneak into the life of the nobility could not be fully controlled. Trains, with distinguishable travel classes, undoubtedly made the forging social hierarchy more ostensible to every passenger, which combined the traditional political order in Egypt with its new hierarchies of race and capital.

Besides designating the poor populace in third-class carriages, women also became the target of space regulation for Egyptian railway managers. The norm of women-secluded spaces on train emerged in Britain with the spread of Victorian ideals of womanhood that kept British women isolated and far away from the public sphere. Particularly, public narratives of sexual

[315] Michal Goldman, *Umm Kulthum: A Voice Like Egypt*, Arab Film Distribution, 1996.
[316] Sigmund Krausz, "On Oriental Railways," in *New England Magazine: An Illustrated Monthly* 31 (1905), 557.
[317] Ibid.
[318] G. Bradshaw, *Bradshaw's Overland Guide to India, Egypt, and China* (London: W.J. Adams, 1857), 89-90.

assaults on train carriages during women's travels excited the Victorian imagination of women's vulnerability.[319] The *British Railway Rule Book* issued in 1876 requested all British railway companies to provide separate compartments to ladies, although the practice never became a legal requirement in Britain.[320] The practice soon spread from Victorian Britain to its colonies.[321] In Egypt, newly constructed private railways, according to their concession agreements, should strictly follow the British vogue to provide at least one special ladies' compartment for each train.[322]

Unlike private trains, the state-own railway system in late nineteenth-century Egypt adopted the "ladies only" compartment as a social norm rather than a written code. There were no public signs for such a compartment on ESR trains, nor first-class tickets assigned to the exact compartment or a seat for the traveler. Instead, train staff and station policemen held the power to place passengers into each compartment, including arranging a "ladies only" compartment if necessary. And this norm was only applicable for first- and second-class passengers. Because of the flexibility of assigning any compartments as "ladies only", some Western travelers applauded that it was even more common to find an empty room exclusive for women on Egyptian trains than in their home countries.[323] But occasionally, some Egyptian train attendants did not hold themselves responsible for keeping foreign ladies secluded from native men. Moreover, they utilized their duty of compartment arrangement as an opportunity to ask for *baksheesh*. They would ignore the request from foreign ladies if they did not receive enough money.[324]

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[319] Anna Despotopoulou, *Women and the Railway, 1850-1915* (Edinburgh, UK: Edinburgh University Press, 2015), 23

[320] Tanya Jackson, *British Rail: The Nation's Railway* (Gloucestershire, UK: The History Press, 2013), 52-53; Simon Bradley, *The Railways: Nation, Network and People* (London: Profile Books, 2017), 109.

[321] For the adoption of females-only carriages in India, see Ritika Prasad, "Smoke and Mirrors: Railway Travel and Women in Colonial India," *South Asian History and Culture* 3 no.1 (2012): 26-46.

[322] James A. W. Peacock, "Light Railways in Egypt," *Cassier's Magazine* 21 (1901): 381.

[323] Sladen, *Queer Things*, 189.

[324] Krausz, "On Oriental Railways," 557.

Under the influence of Islamic law (*shariʿa*), most Muslim women travelled with their male guardians. First- and second-class carriages on the ESR provided compartments exclusive for passengers of the same family. Early Egyptian feminists like Qasim Amin viewed this practice as a sign of women's dependence on Islamic patriarchy.[325] However, such accommodation in reality encouraged a growing number of upper-class Egyptian women who gained access to higher mobility by traveling to remote destinations.[326] Because train carriages physically constituted an enclosed space of Muslim families, many Egyptians regarded it as a temporal domestic space that preserved Muslim women's *harem* within a larger public sphere. In this way, upper-class Muslim women enjoyed the convenience of railway travel while still adhering to the Islamic ideal of seclusion. Upper-class Egyptian women had relative freedom to wander in their carriages, or between their compartments and dining car without veiling. According to the observations of contemporary European travelers, the differences between Muslim women and their European counterparts in the first-class carriage was almost negligible. Yet, once Muslim women left the train, such differences immediately became salient. They became completely silent and always followed their male guardians.[327] Consequently, the popularization of train travel among Muslim elite women redefined what *harem* meant for them.

Not only did Egyptian families try to maintain Islamic *harem* during train travel, rank-and-file railway staff—Egyptian Muslim males who shared the same cultural codes—also helped to keep Muslim women from mingling with foreigners, especially European males. In June 1880, British financial inspector Mr. Amic, who was under an urgent mission, wanted to take the earliest train to travel from Talkha to Damietta. Because the train was about to depart, first-class

[325] Qasim Amin, *The Liberation of Women and The New Women: Two Documents in the History of Egyptian Feminism* (Oxford, UK: Oxford University Press, 2000), 144
[326] Margot Badran, "Dual Liberation: Feminism and Nationalism in Egypt, 1870s-1925," *Feminist Issues* 8 (1988), 20.
[327] Edith Louisa Butcher, *Things Seen in Egypt* (New York: E. P. Dutton, 1911), 63.

tickets were sold out and only the second and third classes were available. Mr. Amic immediately purchased a second-class ticket and rushed to the platform, where he hoped to immediately board the train. Much to his disappointment, both the train attendant and the Talkha stationmaster, probably unaware of Mr. Amic's crucial official position, refused his request because all compartments were said to be reserved. The impatient Amic checked himself into the carriage, and much to his surprise, he found two out of three compartments in the carriage were completely empty and all compartments were separate from each other. The only occupied compartment had two Egyptian ladies and the stationmaster explained that because two native ladies occupied a compartment, the entire carriage were now reserved only for ladies. He demanded that Mr. Amic travel in the available third-class carriage, which infuriated the British official. Obviously, the train staff expanded the norm of "ladies only" compartment into the entire carriage and intentionally created a secluded space for the native women. Mr. Amic eventually raised the issue to the Minister of Finance, who lodged a complaint to the ERA. Nevertheless, the ERA chose to support the Talkha stationmaster and the social norm of secluding native women from foreign males.[328]

While Egyptian women in first- and second-class carriages transformed the train's public space into a semi-domestic one to fit the Islamic ideal of *harem*, the gender equality of third-class carriages, however, stigmatized women's low social status. In their wide open space, third-class carriages consisted of cross benches that intended to hold as many people as possible. In the early 1880s, third-class passenger coaches that occupied roughly 40 percent of the total carriages owned by the ESR carried more than 85 percent of the total travelers.[329] Unlike a first-

[328] DD, DWQ [2001-021030], June- July 1880.
[329] The number of passenger cars in 1884 is calculated via ERM (serial number unknown), *Report on Rolling Stock, Carriage Stock no. 3*. The number of travelers is calculated via the form "Mouvement des voyageurs et des colis de

or second-class carriage, a third-class had no limit for the number of passengers per trip. Women passengers, like their male counterparts, had to stand or sit on the floor during their travel and endured all sorts of noises and smells. Some third-class carriages remodeled from original higher classes removed side doors, exposing women to the public gaze of strangers.[330] The lack of private space of women made male guardianship during travel more necessary for lower-class Egyptian women.

As I have shown, the spatial designs within Egyptian train carriages instigated differentiated travel experiences based on ethnicity, social class, and gender. In many ways, a moving train encapsulated the emergence of many social problems, including foreign domination, class stratification, and gender inequality, which was exasperated during the period of British occupation.

Conclusion

This chapter highlights the creation and perpetuation of the colonial management of space in major Egyptian railway stations and in passenger trains. Attempts to reform Egyptian stations, characterized previously as a public lounge for both travelers and service workers, prioritized and calcified the positions of different social groups. Among them, station porters had to obtain working licenses to enter the station and waited in line within designated working zones. Travelers of different train classes, after passing their customized inspections, were allowed entry to passages and spaces assigned especially for their own classes. These colonial modernization policies, as I have considered in this chapter, transformed the Egyptian station from a publicly accessible domain into multiple layers of spaces where (in)visibility was

grande vitesse" in Wizarat al-Ashghal al-ʿUmumiyya, *Report on the Egyptian State Railways & Telegraphs and Light Railways of Egyp*t for 1882, 16.
[330] Peacock, "Light Railways in Egypt," 381.

fabricated through modern management tactics. To enforce this transformation, the Egyptian colonial government underwent major institutional reforms, establishing a specialized force of the Railway Police independent from the ERA. With direct intervention of the Railway Police into everyday management of Egyptian stations, it fundamentally reshaped local power dynamics that eroded the jurisdiction rights of stationmasters and local guilds. It even further influenced the architectural designs of Egyptian stations and the social behaviors of train passengers.

Inside a moving train, increasing distinction of travel classes and "ladies only" compartments reinforced social hierarchies based on political and economic capital, race and ethnicity, as well as gender. While new designs of first-class carriages assured that elite passengers would experience European-standard private journeys, plebian third-class travelers, both men and women, were forced to suffer unsatisfactory and often times subpar travel experiences, while exposing themselves to the gaze of strangers. Train travel was more than a journey to a different city. It provided opportunities for transgression, of peeking into another person's life that resembled little of one's own. Train carriages, as well as railway stations, nurtured people's consciousness and markers of social class, and furthermore, class struggle over a more equitable space, over pleasure and play, and over freedom and justice.

CHAPTER IV
Usurpers of Technology: Train Robbery and Theft

In April 1893, immediately after the establishment of the Railway Police (Bulis al-Sikka al-Hadidiyya) under the Ministry of Interior (Diwan al-Dakhiliyya), the new department conducted a survey of local station ghaffirs (guards) for inspecting the rampant crime along Egyptian railway lines.[331] On May 18, *Bimbashi* (equivalent to Lieutenant Colonel) E. Marten, the first commandant of the Railway Police, presented a summary of this inspection to the Egyptian Railway Administration. Marten described in-transit cargo theft as the "chief class of crime on the railway."[332] In search of a reason, he blamed the Egyptian police for being a parochial, short-handed, under-skilled, and badly organized force, and more often than not, an institution that cooperated in criminal activities rather than preventing them.[333] Marten's assertion that the rampant crime was a result of an inadequate police force resonated with the accounts of Lord Cromer (Evelyn Baring), the British consul-general in Egypt from 1883 to 1907. With his stated goal of "a well-established reign of law," the viceroy expressed his

[331] This Arabic word *ghafīr* is rooted in the verb *ghafar* "to watch, to guard." In the Egyptian context, it denotes a wide range of security personnel outside the government police system. In my dissertation, ghaffirs vary from railway staff responsible for public safety to privately hired security guards, or young male sentries at the service of village shaykhs. As I use the term, ghaffirs were decentralized forces who protected the train's safety in stations and villages as a supplement to the modern centralized police force (*shurṭā* or *ḍābiṭ*) that was becoming widespread during the late nineteenth century. For the British reform of the ghaffir system in Egypt, see Harold H. Tollefson, *Policing Islam: The British Occupation of Egypt and the Anglo-Egyptian Struggle over Control of the Police, 1882-1914* (Westport, CT: Greenwood Press, 1999), 29-32; ʿAbd al-Wahab Bakr, *al-Bulis al-Misri: Madkhal li-Tarikh al-Idara al-Misriyya*, vol. 1 (Cairo: Dar al-Kutub wa-l-Wathaʾiq al-Qawmiyya, 2016), 311-12.
[332] DD, DWQ [2001-024969], Oct. 1892- Nov. 1893.
[333] Ibid.

disappointment towards the ineptitude of law enforcement in Egypt, noting that the "law [did] not inspire sufficient terror to evildoers."[334]

Both *Bimbashi* Marten and Lord Cromer typified how British colonial officials viewed the rampant crime along the rail networks and how they planned to tackle the problem. From their perspective, the arbitrariness of Egypt's law enforcement had led to criminals' frequent escape from punishment. While we may be tempted to take this colonial viewpoint with a grain of salt, I did find that among the eighty-eight cases from the Diwan al-Dakhiliyya collection of Dar al-Watha'iq al-Qawmiyya (National Archives of Egypt), on which this chapter is based, the police succeeded in identifying and apprehending culprits in only fifteen cases, showing a 17 percent clearance rate. Indeed, colonial officials, perhaps out of fear of bringing their own competence into question, underplayed the efficiency of the police they oversaw. The 17 percent clearance rate was significantly lower than the average rate of 43.5 percent that Cromer claimed in 1906.[335] Where my analysis differs is in considering the reasons for this low clearance rate. Colonial officials presumed that the main causes of rampant railway crimes lay in the decentralized character of the Egyptian police system, the ambiguous nature of its authority and responsibility, and the insufficient training of its executive officers. They believed that in order to fundamentally change the status quo, an "arbitrary system" had to be replaced with more "modern" and "scientific" supervision, so that criminals would stand in awe of the police, and of the power of the British Empire.[336] To their minds, railway crimes underlined the necessity and the urgency of strengthening social supervision as a preventive measure against crime and its attendant unrest.

[334] Evelyn Baring, Earl of Cromer, *Modern Egypt* (London: Macmillan and Co., 1911), 870-71.
[335] Ibid., 870.
[336] Ibid., 870.

Departing from the colonial narrative that inadequate surveillance led to rampant railway crime, this chapter focuses on sophisticated networks of the marginalized who sometimes engaged in such crimes, their interactions with the new technology, and their relationship to the lower levels of the state bureaucracy, in order to understand railway crimes as everyday acts of accommodation to or resistance against the colonial distribution of wealth and centralization of power. The density of railway crimes between 1876 and 1904 coincided in time with what the historiography of modern Egypt has tended to characterize as a "imperial high noon, nationalist dawn" or "colonial quiescence and subterranean resistance" in Egypt.[337] At the beginning of this period, the passionate tide of patriotic ʿUrabism erupted suddenly but soon ebbed away. On the surface, colonial centralization of the government and contractionary fiscal policies were pushing the colony towards new prosperity and stability. In 1876, the Caisse de la Dette Publique had been mandated to establish an international administrative council within the railway administration, marking the transition of the power over the Egyptian railway from the khedive to colonial officials even before the 1882 British conquest.[338] After 1876, headed by British officials who received orders directly from the Caisse and Lord Cromer, the international council constituted the supreme authority over the affairs of the Egyptian State Railways until its formal annexation to the Ministry of Public Works (Wizara al-Ashghal al-ʿAmma) in 1904 and the subsequent indirect intervention of British advisors in the Egyptian railway.[339] Between 1876 and 1904, the Caisse closely dictated the ERA's decision-making, implementing a set of contractionary financial policies that became well known during the interwar period as

[337] Donald M. Reid, *Whose Pharaohs? Archaeology, Museum, and Egyptian Identity from Napoleon to World War I* (Berkeley, CA: University of California Press, 1997), 137; Marilyn Booth and Anthony Gorman, eds., *The Long 1890s in Egypt: Colonial Quiescence, Subterranean Resistance* (Edinburgh UK: Edinburgh University Press, 2014), 1.
[338] Hayʾa al-ʿAmma, *Egyptian Railways*, 9. The Egyptian archives record the full text of Khedive Ismaiʿl's decree in DD, DWQ [2001-022403], December 1879.
[339] Hayʾa al-ʿAmma, *Egyptian Railways*, 10.

austerity.[340] Specifically, the Caisse stipulated that the ERA would contribute a prescribed portion of the railway revenue for the debt repayment, driving the administrative council to maximize immediate profits while drastically decreasing long-term investments in infrastructure construction and technological innovation, as well as wages and subsidies of lower-level employees. In short, the period between 1876 and 1904 featured the centralized control of British officials over the Egyptian railway and the enforcement of austerity in government finance and particularly in the rail sector, making it a coherent period for analysis.

My chapter draws attention to social crises experienced by Egyptians on the periphery yet hidden beneath the exterior prosperity and stability of late nineteenth-century Egypt. Austerity, despite contributing enormously to Egypt's debt repayment, had an adverse impact on the poorest segments of the Egyptian population, some of whom resorted to robbery and theft.[341] Despite this context, however, I argue that we should avoid depicting train robbers in overly romantic terms as defiant challengers of the existing colonial order. This chapter instead explores their complex relationship with the material prosperity brought by the new technology and colonial governance. They lived in symbiosis with the railway infrastructure, stealthily grabbing resources and diminishing the infrastructure's efficiency, yet expecting the system to maintain its status quo.[342] In this respect, Eric Hobsbawm's pre-organizational and pre-ideological conception of social banditry applies to most Egyptian train robbers of this period, since they

[340] Owen, *The Middle East*, 223; Tunçer, *Sovereign Debt*, 48-49.
[341] For the literature on crime in Middle Eastern contexts, see Lanver Mak, *The British in Egypt: Community, Crime and Crises, 1882-1922* (New York: I.B. Tauris, 2012), 145-176; Mark Galeotti, "Turkish Organised Crime: From Tradition to Business," in *Traditional Organized Crime in the Modern World: Responses to Socioeconomic Change*, ed. Dina Siegel and Henk van de Bunt (New York: Springer, 2012), 49-64; Ryan Gingeras, *Heroin, Organized Crime, and the Making of Modern Turkey* (Oxford, UK: Oxford University Press, 2014); Stephanie Cronin, "Noble Robbers, Avengers and Entrepreneurs: Eric Hobsbawm and Banditry in Iran, the Middle East and North Africa," in *Middle Eastern Studies* 52, no. 5 (2016): 845-70; and Matthew Kelly, *The Crime of Nationalism: Britain, Palestine, and Nation-Building on the Fringe of Empire* (Oakland, CA: University of California Press, 2017).
[342] For symbiosis or parasite as a relational description of social structure, see Michel Serres, *The Parasite*, trans. Lawrence R. Schehr (Minneapolis, MN: University of Minnesota Press, 2007).

unanimously favored tangible material interests and improvisational practices rather than idealistic ambitions.[343] Their rationales for committing these crimes lacked any obvious nationalist dimension, so they shared few if any similarities with the much later revolutionary railway saboteurs of 1919.[344] Train robbers and thieves of late nineteenth-century Egypt, systemically restricted by poverty, lack of education, and the growing inequality that characterized the class structure, resorted to illegal acts as a means of sharing what the booming economy was generating without thoughts of toppling the system.

While the railway facilitated a capitalist and colonial form of wealth distribution, this chapter focuses on how impoverished Egyptians reacted against this distribution by illegally extracting resources from the transport. As Robert Tignor has observed, the primary goal for Britain to maintain and develop the railway infrastructure in Egypt during the occupation period was "to enable Egypt to move goods easily within the country and ultimately to export some of the products overseas."[345] The railway arteries served the movement of commercial goods through the length and breadth of the British Empire, vitalizing liberal capitalism as a global and homogenizing thrust that conquered hitherto self-sufficient economies and interlocked cotton fields along the Nile with fashion stores of the imperial center.[346] Impoverished Egyptians, under the shadow of capitalist and colonial expansion, declined to accept the marginal role assigned to them, and some among them found ways of struggling against these epochal changes. When they found themselves incapable of making a profit lawfully from the new form of transportation,

[343] Eric Hobsbawm, *Primitive Rebels: Studies in Archaic Forms of Social Movement in the 19th and 20th Centuries* (New York: Praeger, 1963), 2; Eric Hobsbawm, *Bandits* (New York: Delacorte Press, 1969), 19.
[344] For revolutionary railway saboteurs, see Ellis Goldberg, "Peasants in Revolt," *International Journal of Middle East Studies* 24, no. 2 (1992): 272.
[345] Robert Tignor, *Modernization and British Colonial Rule in Egypt, 1882-1914* (Princeton, NJ: Princeton University Press, 1966), 381.
[346] For railways, capitalism, and imperialism, see Hobsbawm, *Industry and Empire*, 87-112.

they engaged in pilfering, looting, and embezzlement in an attempt to alleviate individual or communal pauperization.

This chapter engages with recent scholarship on technology and society to contend that acts of usurpation highlight the "socially assembling" nature of large-scale infrastructure projects, and points to differentiated experiences of everyday life.[347] By social assemblage, I specify that the reticulated system of infrastructure convenes all sorts of people and becomes a locus of various forms of social activities, some of which are identified as deviant or illegal by the infrastructure management.[348] For instance, On Barak, Nikhil Anand, and Fredrik Meiton, respectively, have written about transport delays, water leakages, and electricity theft as manifestations of the new infrastructure's multivalent trajectories, trajectories where local users of marginalized status crystalized memories of the past, articulated capacities of the present, and set expectations for the future.[349] In line with the emerging scholarship on technology and society, this chapter attends to both the way the configuration of the technology shaped forms of criminal activity and to the impact of crime on the outlook and practical implementation of technology on the part of railway management. Even though the state itself punished these acts when it could, train robbers and thieves consciously and systematically adapted their extractive

[347] Mitchell, *Rule of Experts*, 19-52; and Nikhil Anand, Akhil Gupta, and Hannah Appel, eds., *The Promise of Infrastructure* (Durham, NC: Duke University Press, 2018), 1-38. For historiographical reviews of Science, Technology, and Society (STS) in the Middle East, see Katayoun Shafiee, "Science and Technology Studies (STS), Modern Middle East History, and the Infrastructural Turn," *History Compass* 17, no. 12 (2019): 1-10.

[348] Simone, "People as Infrastructure," 407-29; Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory* (Oxford, UK: Oxford University Press, 2005).

[349] Barak, *On Time*, 59-60; Nikhil Anand, *Hydraulic City: Water and the Infrastructures of Citizenship in Mumbai* (Durham, NC: Duke University Press, 2017), 161-91; Fredrik Meiton, *Electrical Palestine: Capital and Technology from Empire to Nation* (Oakland, CA: University of California Press, 2019), 195-96. For other scholarship on technology and plural modernities, see Nile Green, "Spacetime and the Muslim Journey West: Industrial Communication in the Making of the 'Muslim World,'" *American Historical Review* 118, no. 2 (2013): 401-29; Mikiya Koyagi, "The Vernacular Journey: Railway Travelers in Early Pahlavi Iran, 1925-50," *International Journal of Middle East Studies* 47, no. 4 (2015): 745-63; Daniel Stolz, "Positioning the Watch Hand: ʿUlamaʾ and the Practice of Mechanical Timekeeping in Cairo, 1737-1874," *International Journal of Middle East Studies* 47, no. 3 (2015): 489-510; and Daniel Williford, "Seismic Politics: Rick and Reconstruction after the 1960 Earthquake in Agadir, Morocco," *Technology and Culture* 58, no. 4 (2017): 982-1016.

tactics to fit both their technological and social conditions. This chapter, by recognizing the heterogeneous desires and practices of marginalized Egyptians, examines railway crimes—including their occasional violence—within their social settings, to evaluate their roots within domains of the infrastructure, and to understand why and how people turned to it.

The first and second parts of this chapter examine specific cases in rural areas and in railway stations, respectively. Because of perpetrators' distinctive strategies and tactics, I discuss two categories of crime separately. When trains ran on the track in rural areas, railway crime featured predominantly gang-related banditry. Comparatively, embezzlement and other types of insider crimes occurred much frequently in railway stations of more urban environment. By analyzing individual crime cases, I call attention to perpetrators' deployment of everyday knowledge, communal norms, and local networks against police inspection, their adjustments of illegal tactics to technological innovation, as well as various colonial countermeasures that intended to install centralized supervision in the forming sphere of the railway. The third part aims to provide macro-analyses of the rampant railway crime in late nineteenth-century Egypt. Bedouins, land-deprived peasants, and railway employees, the three groups of Egyptians whose activities are most recorded, turned to railway crimes due to their specific living conditions. At the same time, all of them were affected by the same historical trends—government austerity, grassroots political turmoil, and the centralization of state supervision. It was these personal and structural impulses that propelled their illegal acts.

Rural Egypt: Everyday Knowledge, Centralized Supervision, Technological Innovation

Omnia El Shakry, writing about interwar Egyptian criminologists, criticized their elitist prejudice in associating rural crimes with a unique peasant mentality and their ubiquitous

ignorance.[350] This part of the chapter attempts a bottom-up narrative of rural crimes by centering robbers' tactics and strategies. Train robberies, because of their close connection with railway technologies, usually required more skills than run-of-the-mill thefts. Perpetrators needed effective coordination, accurate information, and, most crucially, extensive familiarity with the railway's daily operations. The knowledge they acquired from mundane interactions with the railway's specificities revolutionized ways of using the technology and even prompted new innovations in response, such as in the Egyptian railways' signaling system.

The relatively fast speed of trains posed the greatest challenge for Egyptian bandits in the late nineteenth century. A typical cargo train ran at an average velocity of eighteen kilometers per hour, with the maximum of around forty.[351] When a train operated at full speed, boarding a carriage and disembarking were practically impossible. Moreover, even if robbers successfully boarded a train, they needed to drop goods to their fellow thieves on the ground. Only low train speeds allowed bags to land on the ground intact. Hence, the railway administration had long boasted that the railway, compared to steamship, was the "preferred choice" for merchants to ship goods from Upper Egypt to Alexandria.[352] Notably, traditional river transport was a much easier target for pirates because they could easily carry out inside jobs after bribing the ship captains. The ERA observed, "in Cairo and elsewhere there are well-known boats that empty the

[350] El Shakry, *Great Social Laboratory*, 119-121. Nathan Brown, in his earlier work, also addresses his concern over the portrait of "ignorance and inscrutability of the Egyptian peasantry." See *Peasant Politics in Modern Egypt: The Struggle Against the State* (New Haven, CT: Yale University Press, 1990), 59-82.

[351] Specific about locomotives, the dominant types of freight locomotives in late nineteenth-century Egypt were 0-4-0, 0-6-0, and 2-4-0, with maximum speeds that ranged from 35 to 45 kilometers per hour. At the turn of the twentieth century, the ERA started to introduce 2-6-0 "Mogul" and 4-4-0 "American" types of locomotives. These more advanced and powerful engines could reach to a maximum speed of above sixty kilometers per hour. DD, DWQ [2001-021082], 1876 Wiener, *L'Égypte*, 251-84.

[352] DD, DWQ [2001-021584], 1884. Zeinab Abul-Magd also records a handful of banditry cases that targeted European steamships prior to the 1882 British conquest. See *Imagined Empire: A History of Revolt in Egypt* (Berkeley, CA: University of California Press, 2013), 107-11.

sacks of grain on the riverbank and then re-inflate them with a certain amount of land."[353] A train's speed, in comparison to a cargo ship, provided it with an inherent protection against assault. Although bandits might bribe train staff, a robbery was still technically difficult without reducing its speed. Train robbers, therefore, had to deploy more detailed and complicated tactics when planning an attack. In order to succeed, they had to determine locations where the speed of passing trains was low and, ideally, on-board train staff were absent.

A successful train robbery depended heavily on slowing down a train to an acceptable speed. The robbers thus needed to find locations where trains proceeded at less than 5 kilometers per hour. The most obvious place would be near train stations. Within several kilometers of stations, trains either slowed down, preparing to stop, or began to accelerate as they departed. These were the opportune conditions for a successful attempt. One such case occurred near the Abu Qirqas station that a bedouin gang preyed on with some regularity between 1886 and 1889.[354] A month before the gang attempted their first robbery, their members kept watch near the rail to find the optimal time when cargo-laden trains arrived at or departed from the station. After careful examination, they filtered out passenger trains and empty freight trains, and drafted their own "schedule" that included information of the trains that would guarantee a plentiful bounty. Outsiders had no access to that "schedule"—the inner circle of thieves most likely memorized and shared it among themselves. Yet, this shadowy train "schedule" accurately directed the plotters to their expected targets. Besides scheduling their operations, the bedouins of Abu Qirqas also developed a specialized division of labor. In carrying out their plans, the bedouins divided into groups with different tasks of watching security guards, dropping goods

[353] DD, DWQ [2001-021584], 1884.
[354] DD, DWQ [2001-021135], September 1889.

from trains, gathering loots, and transporting loots to their camp.[355] Their actions were well coordinated and stealthy, inasmuch as few train staff ever had time to notice, let alone react to these robberies. Even if railway employees noticed the assault, they were unable to apprehend the mobile and long-vanished outlaws.[356] Since the bandits' coordinated efforts were usually accurately timed and well executed, they seldom risked being apprehended.

The Abu Qirgas gang managed to survive for more than three years in the region by selling the booty from train heists. Their lucrative "business" enabled them to feed more of their cattle and even to build a new granary in their stronghold near the village. Moreover, they sold surplus to nearby villagers and became a key player in the local economy. We do not have a clear sense from the records how this black market operated. It is very likely that some stolen goods were used in exchange for political protection from local shaykhs. Village ghaffirs had noticed the gang from the beginning and informed the shaykhs of the gang's "business." Yet, there was an evident distinction between the perceptions of crime by the law enforcement officials and the local shaykhs.[357] The shaykhs chose to turn a blind eye. Even under the last-minute pressure from the central government, they refused to act against the gang.[358] Thus, the gang stayed untouched and lived in symbiotic peace with other communities in Abu Qirqas for more than two years. In this period, village shaykhs to some extent tolerated their acts of looting and reselling, partially because these bedouins managed to integrate with economic activities of the nearby villages, and partially because they targeted only trains rather than villagers' properties.

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[355] Ibid.
[356] Ibid.
[357] Hobsbawm clearly states that bandits "are not regarded as simple criminals by public opinions." See Hobsbawm, *Bandits*, 1.
[358] The local police said they "were unable to take measures" to the gang. But they did not specify their difficulties. DD, DWQ [2001-021135], September 1889.

The Cairo government eventually learned about the bedouin gang not through villagers, but through railway staff. As the gang's appetite for theft increased, railway employees of the Minya-Asyut line appeared to fear the consequences of not speaking up. Sending various petitions to the ERA, they revealed the gang's criminal activities and even admitted their own involvement and complicity with the loss of goods. To solve the problem, the ERA negotiated with the governor (*mudīr*) of Minya Province in September 1889, requesting strong intervention. The governor agreed to the request and dispatched scores of provincial policemen (Bulis al-Mudiriyya), resulting in the relocation of the bedouins away from the Abu Qirqas station.[359] Direct state intervention eventually resulted in the gang's demise.

Since state control in rural areas was relatively lax, communal politics oftentimes operated outside the purview of state laws and official regulations. Especially in Upper Egypt, the Cairo government relied on co-opted local elites, giving rise to its incompetence of curbing grassroots resistance.[360] Instead of police officers (*ḍābiṭ*, pl. *ḍubbāṭ*) directly dispatched by the central government, village ghaffirs, heavily influenced by rural notables, acted as *de facto* judges of guilt or innocence.[361] In 1884, the Council of Ministries, unable to meet the ERA's request for expanding the size of security force, ordered provincial authorities to assign supervision duties to local shaykhs and village ghaffirs, and asked ERA-hired station ghaffirs to assist them. Despite this appointment, the president of the Council frankly stated that "village ghaffirs had little to no responsibility with law enforcement, and the responsibility totally fell onto the ERA-hired ghaffirs."[362] In the case of Abu Qirqas, local shaykhs and ghaffirs who

[359] Ibid.
[360] Abul-Magd, *Imagined Empires*, 149-54.
[361] According to ʿAbd al-Wahab Bakr, Muhammad Ali Pasha intended to build a system of "collective responsibility" (*al-masʾūl al-jamāʿiyya*) such that centralized police officers and local ghaffirs jointly maintained local security in rural Egypt. However, the system declined into a "system of local guards" (*nizām al-khafr al-ʾahālī*) out of the control of the central government. See *al-Bulis al-Misri*, 79-83.
[362] DD, DWQ [2001-021570], December 1883-March 1885.

sympathized with the gang had obstructed the state-directed police from fulfilling their law enforcement duties. Such local support ensured the survival of the criminal gangs and even aided in the expansion of their enterprises under the shelter of local community.

Although the Abu Qirqas gang stole a massive quantity of goods during their train heists, their deeds were by no means destructive to the railway system. A more significant threat came from robbers who intentionally halted a moving locomotive. Railway linesmen often found stones or other hard objects being intentionally placed on the rail. For instance, the linesmen between Damanhur and Abu Hummus, after discovering some scattered materials on the rail on August 19, 1893, suspected that some vagrants were responsible for this malicious act. The linesmen also warned that had they not taken emergency measures to remove obstacles, the impact could have derailed the approaching train no. 175 and caused significant damage.[363] Not all train attackers were unaware of their potential destructiveness. On the Helwan line in November 1881, several bedouin placed obstacles on the rail and stood kilometers ahead, warning the train conductor of the danger. When they discovered that the conductor did not heed their warning, they removed the obstacles at the last minute and abandoned their original plan.[364] These bedouins exemplified many train robbers at this period who did not want to cause severe injuries or even the death of the innocent by their looting.

Since robbers had little or no intention of endangering public safety yet still wanted their plans to be effective, some figured out a more effective tactic—to manipulate railway signaling. To do this, those plotting such acts had to acquire basic knowledge of operating signals, which they learned through daily observation. In the late nineteenth century, the Egyptian railways adopted the block signaling system that required signalmen's manual operation (Figure 18). The

[363] DD, DWQ [2001-012195], October 1893. For similar cases of placing obstacles on the rail, see DD, DWQ [2001-021089], June 1883; DD, DWQ [2001-021092], date unknown; DD, DWQ [2001-021112], June 1884.
[364] DD, DWQ [2001-021265], November 1881.

system segmented an entire railway line into numerous sections controlled by successive signals. Before a train steamed into a new section, this section had to be cleared of other trains. For this signaling system to run smoothly, a signalman would stay at intersections of railway tracks and keep records of each passing train in a register book. If any train had occupied the section, a warning signal of yellow or red would notify the coming train conductor to slow down or stop. Once the section was clear, the signal light turned green and the train could pass safely.[365] Signalmen, in this system, were critical to traffic performance. They were well trained in how to apply the right rules and regulations to each corresponding condition in order to guarantee railway safety. Meanwhile, some signal polls were located far from the police's jurisdiction, which inadvertently created an opportunity for plotters, who could easily attack these places and manipulate signals. Thus, the standardization of the block signaling system unexpectedly produced an unforeseen vulnerability.

[365] More complicated designs were introduced to increase traffic efficiency. For instance, a loop at some point of the rail could be formed to allow two trains to cross simultaneously. For the details the block signaling system, see R.J. Insell, "Signalling and its Connection with the Construction and Management of Railways," in Institute of Railway Signal Engineers (IRSE), *The Institution of Railway Signal Engineers for the Advancement of the Science of Railway Signalling, Proceedings: Inaugural Session, 1913* (Manchester, UK: H. Rawson and Co., 1914), 14-22.



Figure 18 A level-crossing in Egypt, with an example of mechanical signaling, ca. 1930.
Source: "In the Nile Valley: Train Operation in Modern Egypt," *Railway Wonders of the World* 2, part 41 (1935): 1314.

Some technically savvy bandits, accordingly, utilized the system's vulnerability to plan their attacks. They sent purposefully wrong signals that might cause an unexpected train stop. One way to manipulate signals was by creating a fabricated red light that interrupted routine communications between signalmen and train conductors. Concealing the original signal with a cover, the robbers would display a red lantern or lamp to the fast-approaching train. This tactic was used frequently by bandits on the line between Abu Hummus and Kafr al-Dawwar in the Delta. Since none of the perpetrators were ever captured, it was unclear to the police whether they belonged to a single or multiple groups.[366] Ideally for robbers, train conductors would decrease the train's speed upon seeing the red light. Yet, at times, an experienced conductor or other train staff could distinguish a fake light from a real one at a closer distance. Or they might notice suspicious crowds nearby, who were the bandits waiting to board the train. But even with this, it might have already been enough time for the on-board bandits to drop several bags of

[366] DD, DWQ [2001-021626], January 1885-Feburary 1889; DD, DWQ [2001-021628], January 1885; DD, DWQ [2001-021649], October 1885.

confiscated goods.[367] This entire robbery process was fast, usually no longer than fifteen minutes. In this way, the bandits achieved their goals while minimizing potential danger to the public.

Stealth bandits would quietly replace signals without detection. However, there were some rare occasions when on-duty signalmen discovered their signals being replaced and directly confronted bandits. In such scenarios, violence was unavoidable. One such case occurred near Tanta in 1892 when a gang of robbers approached a signal pole carrying stones, bricks, and a gun. This gang probably did not know the exact workings of railway signaling. Instead of changing the light themselves, they forced the signalman to do it. Initially, the signalman resisted their demands. The bandits beat him with stones and bricks, and even fired a gunshot to scare him. As the final act of their crime, they locked the signalman in the signal box where he was later discovered and released by his shift workers.[368]

Although violent attacks remained a distinct minority among all railway crime cases, one such incident was enough to cause enormous anxieties for British officials about railway security. Before 1893, railway crime cases were prosecuted by the ERA and local police forces—the Provincial Police (Bulis al-Mudiriyya) or village ghaffirs. A loss of items, once discovered by railway staff, would in theory be immediately reported to the nearest stationmasters, and then to the police station of the relevant borough (*ḍābiṭiyya*).[369] Depending on the severity of crime, different levels of police would investigate the case. The former supervision system caused a dilemma in practice: the ERA had no capacity to solve a case—its staff were neither trained in criminal investigation nor equipped with weapons to apprehend suspects; local police forces, for their part, had few incentives with law enforcement—they relied heavily on village ghaffirs who

[367]DD, DWQ [2001-021626], January 1885-Feburary 1889.
[368] DD, DWQ [2001-021041], April 1892.
[369] Khaled Fahmy has extensively discussed *ḍābiṭiyya* as regional centers through which the Egyptian state expanded its power. Khaled Fahmy, "The Police and the People in Nineteenth-Century Egypt," *Die Welt des Islams* 39, no. 3 (1999): 340-77.

often had ambiguous relations with criminals.[370] Realizing the inefficiency and potential harmfulness of this supervision system, Henry Settle, who was promoted to the Inspector General of Egyptian Police in 1892, immediately pressed for the establishment of a weaponized police force taking full charge of every railway zone.[371] Settle's proposal, endorsed by Lord Cromer and put into operation one year later, sought a complete overhaul of the decentralized supervision, in which local police forces were in charge only of the rail sections within their own precincts. The new Railway Police overrode the jurisdiction of local police forces and supervised all security issues relating to the railway. They were placed directly under the Minister of Interior and the Inspector General, independent from the Provincial Police, which meant that even a provincial governor had no right to give an order to a railway policeman of even the lowest rank.[372] According to Settle's scheme, the majority of railway policemen were selected from veterans of the Mahdist War (1881-99) and were transferred to their new positions as non-commissioned officers.[373] Over the following years, the Railway Police became the key agency for the British-controlled Ministry of Interior to enforce centralized supervision over the entirety of the rail networks.

Another impact of the Tanta incident was to pressure the ERA to improve the signaling system to a level that would technically prevent similar assaults. The ERA estimated that signalmen working in remote areas were at high risk and they must be protected at all cost.[374] In 1903, the ERA launched a signaling department, which started to introduce the Westinghouse

[370] DD, DWQ [2001-010866], November-December 1885.
[371] DD, DWQ [2001-012157], February 1893.
[372] Two cases show that provincial governors had to inform the Minister of Interior when railway policemen broke the regulations, and the Minister made the final decision on how to handle issues. See DWQ [2001-012203], December 1893; DD, DWQ [2001-024771], January- June 1895.
[373] State-employed railway policemen followed the Ottoman military ranks, i.e., *bimbashi* (*binbaşı*), *shawish* (*çavuş*), *ombashi* (*onbaşı*), *and nafar* (*nefer*). DD, DWQ [2001-021162], 1893.
[374] Ibid.

electro-pneumatic system to replace the previous manual equipment.[375] Technically, the new system provided automatic connections between the signaling apparatus and railway tracks so that signalmen who used to manually switch signals on site now could work in stations kilometers away from signal poles and still exert comprehensive control over signals.[376] The automatic device greatly reduced the risk of signalmen being attacked in remote signal boxes. Train robbers here forced the administration to make advancements in technological innovation. Originally, the automatic interlocking system invented by American engineers was aimed primarily at reducing labor cost and human error.[377] Even though few technical designers would give credit to Egyptian robbers, these unusual "users" of the railway accurately detected otherwise unrevealed technological vulnerabilities and assisted in improving its efficiency. Therefore, they played a critical role in adapting the railway technology to the very social circumstances in late nineteenth-century Egypt.

Railway Station: Insider Crimes, Network, Accountability

Unlike rural areas, Egyptian railway stations in cities and town centers had enacted stricter security measures that significantly reduced crime. After the British occupation in 1882, the British deployed the City Police (Bulis al-Mudun) who were quartered in metropolitan centers and usually near railway stations.[378] The City Police handled all crime cases within their precincts, including those related to the railway. With the establishment of the Railway Police in

[375] "In the Nile Valley: Train Operation in Modern Egypt," *Railway Wonders of the World* 2, part 41 (1935): 1314; Wiener, *L'Égypte*, 170-71; Hayʾa al-ʿAmma, *Egyptian Railways*, 156-57.
[376] The first application of the automatic signaling system was in the New York—New Haven—Hartford Railroad in 1866. For technical details and history, see IRSE, *The Institution of Railway Signal Engineers for the Advancement of the Science of Railway Signalling, Proceedings: Session, 1917* (Manchester, UK: H. Rawson and Co., 1918), 9-35.
[377] Anonymous, *Railway Signaling and Communications*, vol. 13 (New York: Simmons-Boardman, 1920), 269.
[378] During the colonial period, the City Police existed in Cairo, Alexandria, Ismailia, Suez, and Port Said. Other Egyptian cities and towns were under the jurisdiction of their respective provincial police. See Bakr, *al-Bulis al-Misri*, 255.

1893, cases relating to the railway were transferred from the City Police to their authority. Both the City Police and the Railway Police were headed by British officers who had served in the occupation army. Besides police officers dispatched by the colonial government, each stationmaster hired station ghaffirs for daily duties, such as guarding warehouses, managing crowds, and checking tickets. The Ministry of Interior, after being seized by British officials in 1894, persuaded the ERA to relinquish control of station ghaffirs, and placed them under the administration of the Railway Police. In doing so, the Railway Police managed to annex the local supervision force into a unified domain of colonial supervision agency.[379] Besides police officers and station ghaffirs, each number of train also had security personnel on board who at times were dispatched by the ERA or hired by goods owners.[380] These three sources of security—the colonial supervision agency, local station ghaffirs, and train security guards—all monitored the transported goods during loading and unloading, making robbery inside stations for even the most sophisticated bandits difficult to commit.

Since state laws did not necessarily conform to, or take into account, local mores and norms, rank-and-file policemen at times found themselves caught in a dilemma. On August 2, 1883, three bags of cereal were reported missing at the Abu Hummus station and a policeman named ʿAbduh al-Diyab was dispatched to investigate.[381] After a day of fruitless investigation, the policeman bribed a coachman, who identified the thief as one Hammad Abu Qaʾid, a security guard for a nearby British company. Abu Qaʾid, was rumored to be a "dangerous malefactor" who at one time had been exiled to the White Nile. After hearing the news, the policeman rushed to the suspect's house. Abu Qaʾid was there; so were the three bags of cereal. Much to the policeman's surprise, however, the suspect was a white-haired, old man with shaky hands. It was

[379] DD, DWQ [2001-012204], January 1894.
[380] DD, DWQ [2001-024969], October 1892-November 1893.
[381] DD, DWQ [2001-021099], August 1883.

apparent that the suspect had lost his physical capacity to work and lived in dire poverty. He made no attempt to hide the cereal and confessed to the crime. He also provided the policeman with the name of his partner in crime. Sympathetic to the old man's circumstances, the policeman turned a blind eye. He left the cereal with the suspect and reported the case as one of the in-transit cargo losses. Nowhere was Abu Qaʾid's name mentioned.[382]

The policeman's attempt to disguise the crime was soon discovered by Boghos Nubar Pasha, who at that time served as the Egyptian member of the railway administrative council.[383] Although the loss of three bags of cereal was not a serious incident, the case was viewed as symptomatic of the police's dereliction of duty. Boghos Pasha initiated a more in-depth investigation, and during the course of the interrogation the policeman, al-Diyab, confessed to bribing the coachman for information, concealing the perpetrator's identity, and releasing the suspect without authorization.[384] As punishment, al-Diyab was fired. As for the suspect, he was retroactively charged with the theft. In the police record, he was depicted as "a dangerous malefactor who was exiled in perpetuity and escaped from the place of his exile."[385] The coachman's damning statement became the lynchpin in securing Abu Qaʾid's conviction while the culprit's real and dire socioeconomic situation was not even mentioned.

Two conditions allowed Abu Qaʾid to nearly escape legal sanction. First, his seniority and disability compelled empathy and support. His co-conspirator had, in fact, carried out the crime and delivered the stolen goods to him. Other workers in the British company were

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[382] Ibid.
[383] Boghos Nubar was the son of the Armenian-Egyptian politician Nubar Nubarian Pasha who was in control of the Egyptian railway system in the 1850s and early 1860s and served as the prime minister twice from 1884 to 1888 and from 1894 to 1895. His son Boghos was appointed to the Egyptian director of the ERA during the 1880s, alongside with a British and a French director. Arthur Goldschmidt, *Biographical Dictionary of Modern Egypt* (Boulder, CO: Lynne Rienner Publishers, 1999), 157-58; Rouben P. Adalian, *Historical Dictionary of Armenia*, 2nd ed. (Lanham, MD: Scarecrow Press, 2010), 226.
[384] DD, DWQ [2001-021099], August 1883.
[385] Ibid.

unwilling to cooperate with the police. Since communal members shared societal mores of helping the weak and infirm, they did not perceive it problematic or guilty to reject modern laws and to connive and partner with "criminals."[386] In contrast, the bribed coachman only dared to contact the policemen secretly, fearing that his community would see his action as a betrayal and retaliate accordingly. Second, the policeman made the conscious choice to adhere to locally transcribed principles in how he reported the case to his superiors. At this moment, he relinquished his role as a law enforcement official to join forces with the suspect and the wider community.

Because of the mediating role played by rank-and-file railway staff and policemen to connect state institutions with local communities, their corruption would trigger embezzlement and other insider crimes that harmed the railway system. Typically, they did not earn a living wage, nor did they have job security.[387] While in 1893 a British *bimbashi* sitting in a comfortable office earned 150 L.E. annually, the wage of an Egyptian *nafar* (equivalent to private) who worked and lived in a station twenty-four hours a day was only one-eighth of a *bimbashi*'s.[388] *Nafar* was not even the bottom rank of the colonial supervision system. *Bimbashi*s and stationmasters recruited private guards and agents, whose names were never identified in the police rosters. Yet, it was these anonymous Egyptians on the periphery of state institutions who supervised the daily operations of each railway line at their respective positions. They enforced the law and maintained public order. They could also readily subvert the law for personal interests, and some managed to do so with the help of local gangs. One such occurrence

[386] For E. P. Thompson's concept of "the moral economy of the crowd," see "The Moral Economy of the English Crowd in the Eighteenth Century," *Past & Present*, no. 50 (1971): 76-136. For James Scott's concept of "subsistence ethics," see *The Moral Economy of the Peasant: Rebellion and Subsistence in Southeast Asia* (New Haven, CT: Yale University Press, 1976), 2-3.
[387] For inadequate payment with Egyptian policemen in general, see Tollefson, *Policing Islam*, 13, 31-33, 56, 92, 118.
[388] DD, DWQ [2001-021162], 1893.

happened near Bani Suwayf in 1880. A railway security guard, whose key responsibility was to protect trains from potential attacks, stole twelve bags of cereal at night. Due to his local connections, he promptly found help from several nearby villagers who transferred the stolen goods to their homes. In order to conceal his misconduct, the guard reported to the ERA that some unidentifiable "robbers" had planned the attack after the train departed from the Bani Suwayf station.[389] The closeness of rank-and-file employees to both the railway system and the local society made such crime and corruption possible.

In order to reduce potential corruption by their employees, the ERA tried to improve its accountability system. Previously, multiple people, including train staff, ghaffirs, *nafar*s, and stationmasters, were simultaneously responsible for the cargo loss or damage. In the 1878 new accountability system issued by the colonial government, only on-site guards, who usually ranked as ghaffirs or *nafar*s, were held directly accountable. A stationmaster's primary responsibility was to oversee his guards. He visited them several times a day and reviewed their records. He would only be held accountable if his subordinates were found complicit in robberies. [390] In other words, the new accountability system limited each employee's responsibility to his specific task and assigned job role. In the ERA's annual report of 1880, the administration attributed the reduction in the total amount of cargo losses and damages, particularly in Egypt's urban centers of Cairo, Alexandria, and Tanta, to the new accountability system.[391]

This accountability system, however, unexpectedly produced a new set of problems. In this increasingly stratified system that distinguished duties and accountabilities, rank-and-file employees had to be ever vigilant and follow the letter of the law. A moment of carelessness

[389] DD, DWQ [2001-021024], April 1880. For a similar case, see DD, DWQ [2001-021099], August 1883.
[390] DD, DWQ [2001-024969], October 1892-November 1893.
[391] DD, DWQ [2001-021047], 1881.

could lead to unemployment, leaving their families destitute. Consequently, they tried as much as possible to cover up their mistakes, sometimes even by making new ones. A case in point occurred at the Abu Hummus station where the conductor of train no. 37 accidentally broke several bags of cereal while loading the cargo. For fear of being held accountable, he scattered the cereal on the train floor to create the appearance of a crime. He further inflicted a self-made wound to prove that he had tried to impede the robbery. Once the train left the station, the conductor immediately contacted the police, claiming that eighteen robbers attempted to board the freight train while eight others used a red lantern to signal a stop. The fabricated robbery was so believable that it deceived almost everyone, including the local newspaper editor who lauded the conductor as a morally upright and courageous hero. After reading the newspaper, the governor of Buhayra decided to conduct an investigation. However, the police found no evidence that the robbery had ever happened except the conductor's own testimony. The police officers also affirmed that they had already handled several other cases invented by railway staff as pretexts to avoid refunding the amount of goods lost through their negligence.[392]

Frequent cargo losses in late-nineteenth-century Egyptian railways made such a fabrication to evade accountability believable. In 1879, cargo losses amounted to a record high of 4,890 kantars, which posed a grave concern for ERA management.[393] Moreover, some of the more violent robberies posed an imminent threat to British-maintained public security.[394] The police, however, were restricted by their limited resources from monitoring every swiftly moving train. Even if they got a whiff of a planned heist, they could usually only investigate after goods

[392] DD, DWQ [2001-021626], January 1885-Feburary 1889.
[393] Kantar is an Egyptian weight unit for measuring cotton. One kantar is equal to 99.05 pounds, or 45.02 kilogram. The statistics of lost goods are derived from DD, DWQ [2001-021047], 1881.
[394] DD, DWQ [2001-021020], April 1880.

had been lost and the perpetrators escaped.[395] Complaints about police ineffectiveness were frequently filed.[396] Because of the police's low capture rate, some compromised employees calculated it low risk to cooperate with robbers and to invent a robbery case.

Filing a false robbery report became a customary tactic among railway employees to divert public attention, to cover up their mistakes, and even to shift blame to others. In doing so, they weakened the colonial government's ability to exert full control over the railway. Another example of this kind took place on February 4, 1885. Some station ghaffirs reported that 206 piasters of merchandised goods were missing. In addition to the loss of goods, a guard named Nasir ʿAbd al-Bari was severely injured. The case was initially classified as a robbery and assault. As in many such cases, the culprits were reported to have disappeared without a trace.[397] However, the stationmaster of al-Wasta suspected that al-Bari, as one of the replacements for some recently dismissed guards, was targeted by his predecessors. Because of the reported cargo loss, the stationmaster was also punished for mismanagement, one of the consequences that the dismissed guards foresaw. A secret police agent eventually confirmed the stationmaster's suspicion. He identified several ex-guards and testified that they planned the attack for the expressed purpose of avenging their recent dismissal.[398]

Inside jobs made up a considerable percentage of overall crime cases. The vast and growing class inequalities of late nineteenth-century Egypt contributed to this type of crime. Rank-and-file employees received low income and had little to no job security. Meanwhile, they kept close ties with the local society, including outlaws, and were increasingly pressured by the ERA's accountability system. Additionally, due to poor organization, police rarely solved cases

[395] DD, DWQ [2001-021079], February 1883.
[396] DD, DWQ [2001-021123], October 1886.
[397] DD, DWQ [2001-021626], January 1885-Feburary 1889.
[398] Ibid.

of railway crime. These conditions fermented fertile ground for embezzlement and other insider crimes. For rank-and-file employees, crime was definitely not a long-term solution. But it was understood as a pragmatic means to financially support themselves and their families.

Macro-Criminology: Macroscopic Analyses of Egypt's Railway Crime

After close examinations of individual cases and criminal tactics, let us now step back to review the question proposed by colonial officials at the start of this chapter: why did railway crimes loom large as a social problem in Egypt by the late nineteenth century? In this part, I propose to reassess the question from macroscopic perspectives of macro-economic policies, political climate, and government supervision.

The geographical distribution of railway crimes (Table 6) reveal the overall materialistic intentions behind this type of crime. The Alexandria-Cairo-Minya line accounted for 84.1 percent of the cases studied in this chapter, and on this line, crimes more frequently occurred in line sections near Egypt's major cities—especially in Cairo's suburbs and south to Alexandria between Abu Hummus and Kafr al-Dawwar (in Buhayra province). The Alexandria-Cairo-Minya line transported the most agricultural materials—cotton, sugar, and cereal, which were also means of "subsistence" for criminals. The world-famous long-staple cotton grew mainly in Buhayra, Gharbiyya, Dakhiliyya, and Sharqiyya provinces. Every year between September and December, trains transported a voluminous amount of cottons from these provinces to Alexandria for export.[399] Stationmasters in the major stations along the cotton lines—Minya, Cairo, Tanta, Alexandria—hired seasonal workers and additional security guards in order to

[399] Owen, *Cotton*, 186, 207-211; Administration des chemins de fer, des télégraphes et du port d'Alexandrie, *Résumé du rapport du conseil d'administration sur l'exercice 1881* (Alexandria: Imp. Du Journal al-Ahram, 1883), 1-2.

ensure the smooth and safe transportation of cotton.[400] Sugar cane was almost exclusively grown in Upper Egypt, in the fertile Nile basin between Cairo and Aswan (Figure 19). After being processed, refined sugar embarked on its journey to Cairo and Alexandria.[401] A substantial portion of sugar was exported to the United States, England, India, and the Ottoman Empire via the Port of Alexandria.[402] Whereas Egypt exported cotton and sugar, by 1865 it became a net importer of cereal.[403] Wheat and barley from France and Russia were initially gathered in Marseille and Novorossiysk, and then shipped to Alexandria. From Alexandria, imported cereal was dispatched to Cairo and other Egyptian cities via railways.[404] While transporting cotton and sugar to Alexandria, trains carried cereal and other imported industrial products back to inland cities, making freight wagons completely full during the roundtrip transport.

[400] DD, DWQ [2001-012204], January 1894.
[401] J. W. Hall, *The Outbreak of Pseudococcus Sacchari, Ckll., on the Sugar Cane of Egypt* (Cairo: Government Press, 1922), 1-5.
[402] George P. Foaden, *Notes on Egyptian Agriculture* (Washington D.C.: Government Printing Office, 1904), 45.
[403] Owen, *Cotton*, 102.
[404] At the turn of the twentieth century, the main crops of Egypt were rice, corn, and sorghum. Wheat and barley were massively imported. Archives nationales d'outer-mer, Aix-en-Provence, France [4101COL889], 1914; Foaden, *Notes*, 51-53; Galal A. Amin, *Food Supply and Economic Development, With Special Reference to Egypt* (London: Frank Cass & Co. Ltd., 1966), 107-11.

Table 6 Distribution of railway crimes by railway line and province, 1876-1904

Locations	Alexandria-Cairo Line (except Cairo/Giza)						Cairo-Minya Line (except Cairo/Giza)			Other Lines			
	Alexandria	Buhayra	Gharbiyya	Munufiyya	Qalyubiyya	Cairo/Giza	Fayum	Bani Suwayf	Minya	Minya-Asyut Line	Tanta-Damietta Line	Cairo-Ismailia & Suez Lines	Unidentified
Number of cases in each province	3	21	10	1	6	18	4	5	6	--	--	--	3
Number of cases in each line	41					18	15			2	5	4	3
										11			
Percentage in total	46.6%					20.5 %	17.0%			12.5%			3.4 %
	84.1%									15.9%			
Total number of cases	88												

Source: 88 cases from the Diwan al-Dakhiliyya collection of Dar al-Watha'iq al-Qawmiyya, Cairo, Egypt.



Figure 19 "Cane being transported by railroad to the factory," ca. 1900.
Source: Walter Tiemann, *The Sugar Cane in Egypt* (Altrincham, UK: Office of International Sugar Journal, 1903), plate V.

Since material benefit was the primary motivation for late-nineteenth-century crimes, criminal activities pointed towards redressing, albeit unconsciously, the social inequality partially derived from the dispositions of infrastructure. From a long-term structural perspective, when poverty hobbled the poor, looting became a practical means of redistributing resources and redressing wealth inequality.[405] Yet, why did railway crimes break out in late 1870s rather than a decade earlier when poverty was equally rampant in Egypt? I argue that a sharp rise in crime was in part a direct social response to the strict austerity policies in the wake of European assumption of Egypt's debt repayment.[406] Austerity denotes a series of contractionary fiscal policies, including both spending cuts and revenue increases, taken by the Caisse de la Dette Publiquefor

[405] Frederick Engels exemplifies a classical Marxist approach of crime studies. In his observation of nineteenth-century British working class, he concludes that poverty and capitalist exploitation were accountable for moral decline and increasing theft. See Frederick Engels, *The Condition of the Working Class in England: From Personal Observation and Authentic Source*, rev. ed (London: Panther Books, 1969), 159-62.

[406] Austerity is often related with post-WWI European economic policies that led to the Great Depression (1929-1939). However, Mark Blyth shows that the intellectual origins of austerity can be observed as far back as the 17th century. See Mark Blyth, *Austerity: The History of a Dangerous Idea* (Oxford: UK: Oxford University Press, 2013), 104-31. I suggest in this chapter that colonies like Egypt from 1976 to 1904 served as laboratories of experimenting various austerity ideas into policies before they were systematically adopted in Europe after the First World War.

repaying Egypt's enormous foreign debts accumulated before 1876.[407] Specifically, the Caisse terminated all state-sponsored infrastructure projects in the 1880s and controlled on average 45 percent of total state revenues between 1876 and 1904.[408] By its measures of stimulating short-term revenue and reducing long-term investments, the Caisse administered to recover Egypt's fiscal balance, and ultimately guaranteed the benefits of European creditors. However, austerity brought about indelible negative impacts onto the Egyptian society. Prior to 1876, reactions from the lower-class population towards social inequality were lessened by the massive public expenditures made by Khedive Ismaʿil's (r. 1863-79). I am not arguing that the Egyptian society was more socioeconomically equitable during the reign of Khedive Ismaʿil. But Ismaʿil's extravagant investment in infrastructure, functioning as an embryonic form of modern social welfare, provided job opportunities and basic salaries, albeit in an unequal manner, to the Egyptian lower classes who would have starved without these government-sponsored expenditures and subsidies.[409] With the advent of austerity, however, the poor could no longer benefit or receive subsidies from previous expansionary policies. Concurrently, they found themselves impaired by rapid land consolidation and increasing capitalist exploitation, enterprises that were often stimulated by a frenzied speculation in Egypt's bubbling financial

[407] Khedive Ismaʿil borrowed from Messrs. Frühling and Göschen £3,000,000 for building the Cairo-Minya line. For the Minya-Asyut line, Ismaʿil borrowed from the Imperial Ottoman Bank and other European banks £32,000,000. Within the actual £20,000,000 that Egypt received, the majority was used to pay off previous interests. In comparison, the public investment on railways between 1876 to 1904 was minimal. The largest public project during the British colonial years was the extension of Upper Egypt line from Asyut to Qina from 1892 to 1897, which cost 942,050 L.E in total. The exchange rate of British pound sterling to Egyptian pound between 1885 to 1914 was pegged to 1: 0.975. See Clinton Dawkins, "The Egyptian Public Debt," *The North American Review* 173, no. 539 (1901): 487-507; and Wiener*, L'Égypte*, 98-99.

[408] Tunçer, *Sovereign Debt*, 48-49.

[409] For a list of expenditures of Ismaʿil's infrastructure projects, see Pierre Crabitès, *Ismail: The Maligned Khedive*, rev. ed. (London: George Routledge, 1933; New York: Routledge, 2018), 130.

market.[410] Under these circumstances, banditry, embezzlement, and other types of insider crimes helped ease the tensions caused by the appropriation of wealth that the railway itself facilitated.

The political turmoil created by the ʿUrabi Revolt (1879-82) had mobilized grassroots Egyptians. Juan Cole demonstrates how numerous indigenous groups mobilized against the European invasion during this period when they engaged in crimes and protests.[411] During the revolt, the railway provided the British army with both personnel and logistical transportation, and was vitally important for the success of the British army.[412] Of note, there is no evidence that the railway crimes committed after the ʿUrabi Revolt were a continuation of anti-British protest. The revolt, however, stimulated grassroots mobilization and forged an environment where crimes and other small-scale disturbances converged. Criminals were deeply intertwined with local networks and communities, sharing community-based beliefs and values that underscored their identity and participation in what Partha Chatterjee identifies as "political society."[413] Although local communities during this austerity period did not directly confront the state as occurred later in the Dinshawai incident (1906) or the Egyptian Revolution of 1919, they alternatively extended moral support, protection of personal security, and even political shelter to criminals.[414] With the help of their communities, many criminals managed to evade state

[410] Aaron Jakes has provided detailed accounts for the rise of agricultural financialization in late nineteenth-century Egypt. See Jakes, *Egypt's Occupation*, 84-112.
[411] Cole, *Colonialism*, 190-212.
[412] The Battle of Tel-el-Kebir was an armed conflict between the ʿUrabists and the British military at a strategic point on the railway between Ismailia and Cairo, which ended with British victory. See BNA, War Office (henceforth WO), 33/40 no. 209, "Report on the Battle of Tel-el-Kebir," September 10, 1882.
[413] Partha Chatterjee argues that "political society" differentiates from Western model of "civil society" in its emphasis on family and neighborhood as primary attachments of individuals within the local community and creates a form of community-based participatory politics. See "Community in the East," *Economic and Political Weekly* 33, no. 6 (1998): 277-282; Partha Chatterjee, *The Politics of the Governed: Reflections on Popular Politics in Most of the World* (New York: Columbia University Press, 2004).
[414] Mohammad Ramadan Salama, "Reading the Modernist Event from the Margins of History: The Denshawai Incident, the Trial of Djamila Bouhired and the Question of Egyptian Modernity," Ph.D. Diss., University of Wisconsin, Madison, 2005; and Kimberly Luke, "Order or Justice: The Denshawai Incident and British Imperialism," *History Compass* 5, no. 2 (2007): 278-287.

supervision and sanction, which partially explains the poor success rate of the Egyptian police in solving railway crimes.

Besides social and structural incentives that spurred crime in late nineteenth-century Egypt, reforms undertaken by the colonial government managed to centralize the supervision system, thus rendering various types of railway crimes as a unified category for the state to record. As Nathan Brown shows, nineteenth-century banditry in Egypt was both discovered and invented by the government, not in the sense of fabricating events, but via constructing new institutions that re-interpreted events and recognized them as criminal activities.[415] The founding of the Railway Police marked the separation of railway crimes from other crime cases in government records. The specialized Railway Police, garrisoning twenty-four hours per day and seven days per week in stations, maintained full responsibility to investigate criminal cases and were rarely interfered by the ERA or local provinces. It further coordinated public resources, which were previously decentered amongst stationmasters, provincial police, and village shaykhs, to conduct criminal investigations, to write examination report, and to correspond with the Ministry of Interior, ensuring the colonial government to take precautions against potential social unrest.

Although the colonial government began to categorize all crimes related to the railway under a single rubric, it is still crucial to acknowledge the diverse causes that set various bands of individuals onto the road toward crime. In rural Egypt, bedouins and peasants were perpetrators of most of the recorded crime cases. Bedouins were engaged primarily in animal husbandry, and also in dry farming, commerce, and caravan transportation. Existing scholarship has revealed the extent to which bedouins were connected to wider economy via reciprocal exchanges of

[415] Nathan Brown, "Brigands and State Building: The Invention of Banditry in Modern Egypt," *Comparative Studies in Society and History* 32, no. 2 (1990): 267-68.

productive and living materials with settled populations.[416] With these economic ties, bedouins could easily barter booties from train heists for needed supplies. For instance, some tribesmen of the Awlad ʿAli, one among the most influential bedouins in the Western Desert were associated with salt theft and smuggling near Abu Hummus between 1887 and 1888. Equipped with horses and modern weaponry, the bedouins were accused of killing multiple coastal guards and train staff during extensive looting. They began to monopolize the salt supply of many villages in the greater Abu Hummus region.[417] The high mobility of these nomads made them difficult targets for the police to apprehend on site. Garrisoning at railway stations, policemen were unable to detect in-process robbery and could only conduct subsequent investigations, when bedouins were nowhere to be found. Moreover, the bedouin had enjoyed certain degree of legal and political autonomy whereby the government acknowledged the tribal judicial system (*ʿurf*) as the means of settling disputes. Because of such autonomy, the police were unable to search bedouin suspects within the tribal territory.[418] As a countermeasure against bedouin raids, the colonial government tried to co-opt tribal leaders to constrain their tribesmen away from looting. In the most successful scenario, the government appointed tribal shaykhs as state officials to protect the security of railway and telegraph lines within their territories.[419] Yet, such cooptation of tribal leaders was rare and bedouins still posed a consistent threat to state's management of the railway.

Egyptian fellahin, sometimes described in government reports as "villagers" (*qarawiyyīn*), also were frequently associated with rural banditry. For peasants, arable land, or at least the right to cultivate on it, represented their most valuable assets. Bearing little resemblance to nomadic

[416] Reuven Aharoni, *The Pasha's Bedouin: Tribes and State in the Egypt of Mehemet Ali, 1805-1848* (New York: Routledge, 2007), 89-91.
[417] DD, DWQ [2001-025579], April-June 1888.
[418] Safia K. Mohsen, "Quest for Order among Awlad Ali of the Western Desert of Egypt," Ph.D. Diss., Michigan State University, 1971, 26; Bakr, *al-Bulis al-Misri*, vol.1, 78-79; and Matthew Ellis, *Desert Borderland: The Making of Modern Egypt and Libya* (Stanford, CA: Stanford University Press, 2018), 28.
[419] DD, DWQ [2001-021128], 1887.

bedouins, peasants were more or less incapable of moving freely because of their attachment to land. According to the Khedive's order of 1864, the state could expropriate land on either side of the railway embankments within five *kassabahs* (17.75 meters) "for the passage of the public," and this type of expropriated land was forbidden to be sold.[420] In practice, peasants still cultivated their land besides the rail without tax relief. The change of state policy occurred in the 1890s, when the colonial government permitted landowners to sell cultivable land to private companies, many of them European.[421] Meanwhile, the central government disinvested in new railway projects and granted permission to private railway companies to build narrow-gauge railways separate from state-owned standard-gauge ones.[422] During this process of rapid privatization, private railway companies began to negotiate land transactions directly with landowners. The rise of the speculative real-estate market in the 1890s further encouraged Egyptian large landowners to convert their land assets to shares of the new railway companies.[423] Notably, these landowners managed to transform themselves into the companies' shareholders and received dividends.[424] Deals between private investors and landowners, however, took little consideration of the interests of landless peasants. With the rise of large landed estates and the *ʿizba* system in nineteenth-century Egypt, many peasants turned into *ʿizba* sharecroppers (*zurrāʿ*) who themselves did not legally possess land properties yet made their living by farming lands

[420] Yacoub Artin, *The Right of Landed Property in Egypt*, trans. Edward Abbott van Dyck (London: Wyman, 1885), 202. The boundary of land expropriation of the government-owned Egyptian State Railways increased to 40 meters by 1891. See DD, DWQ [2001-011875], 1891.
[421] Tignor, *Modernization*, 244.
[422] These new private-owned railway companies included but not limited to Cairo & Helwan Railway (established in 1880), Alexandria & Ramleh Railway (1883), Société Anonyme des Chemins de Fer de la Basse Égypte (1896), Egyptian Delta Light Railway (1897), Fayoum Light Railway (1898). Except the Cairo-Helwan line, other lines of these companies were newly constructed. See Wiener, *L'Égypte*, 409-631.
[423] Ghislaine Alleaume, "An Industrial Revolution in Agriculture? Some Observations on the Evolution of Rural Egypt in the Nineteenth Century," in *Agriculture in Egypt from Pharaonic to Modern Times*, ed. Alan K. Bowman and Eugene Rogan (Oxford, UK: Oxford University Press, 1999), 335.
[424] MN, DWQ [0075-008643], June 1907.

owned and operated by large landowners.[425] They lost their houses and already-harvested lands in the land transactions to private railway companies but received little or no compensation for their crops.[426] Consequently, the land transactions that benefited private companies and large landowners stripped sharecroppers of their means of production and engendered grievous resentment from below. Besides robbing transported goods, land-deprived peasants released their pent-up anger on the railway by intentionally blocking train traffic and attacking train stations.[427] Notably, women and children also displayed their dissatisfaction by throwing dirt clods and rocks at first-class carriages. Despite the extent to which women and children participated in such grassroots resistance, the colonial government regarded their acts less threatening compared to robberies organized predominantly by able-bodied men.[428] Since peasant' forays against the railway were not limited to a specific town or village, their acts demonstrated a nationwide resentment against railway-induced land transactions.

In urban environments, rank-and-file railway staff and the urban poor comprised the majority of crime suspects. With the General Board at the top of the ERA power structure, the administration had tiers of managers supervising various levels of workers, who constituted the majority of the workforce and who were in charge of the railway's daily operations.[429] The austerity policies impacted various layers of the ERA employees differently, the bottom tier suffering more profound economic losses. The Council of Ministers recorded frequent petitions from rank-and-file railway employees who received a wage cut or who were unable to receive

[425] Haim Gerber, *The Social Origins of the Modern Middle East* (Boulder, CO: Lynne Rienner Publishers, 1987), 103; Brown, *Peasant Politics*, 25-31; Mitchell, *Rule of Experts*, 69-70; Henry Habib Ayrout, *The Egyptian Peasant*, trans. John A. Williams (Paris, 1938; Cairo: The American University in Cairo Press, 2005), 18.
[426] For instance, a case of forced eviction occurred in Sharqia province that peasant houses were removed and replaced by houses of road menders. See DD, DWQ [2001-021555], March 1883.
[427] For instance, some 50 land-deprived peasants looted the Abu Hammad Station. See DD, DWQ [2001-021105], September 1883.
[428] DD, DWQ [2001-021594], March 1884; DD, DWQ [2001-021576], January 1884.
[429] For the administrative structure of the ERA, see Hayʾa al-ʿAmma, *Egyptian Railways*, 9-24.

compensation for work-related injuries.[430] As a result of their disadvantaged situations, some railway employees collaborated with acquaintances outside the railway system to illegally transfer public resources into their own pockets. With their rich frontline experience of the system's daily operation, these employees easily detected and made use of supervision loopholes, even managed to fabricate evidence for self-protection. By doing so, they desired to hide their criminal actions, shift blame and suspicion onto others, and benefit financially from their criminal activities.

Conclusion

This chapter, by focusing on railway crime, reveals the heterogeneous desires and practices at the margins of Egypt's modern infrastructure. It demonstrates the ways marginal populations strove to redistribute social wealth, repurpose the technical promises of modern railways, and confound the intentions of colonial governance. Among train robbers, few had professional training in railway-related knowledge, but many comprehended the new technology via daily observation and understood it through daily experiences. They also deployed personal networks and relied on locally sanctioned and accepted mores and norms to create both protection and a respite from state intervention. Robbers and thieves, in their unique fashion, embedded their quotidian experiences and complex social environments into the railway infrastructure. Their everyday knowledge, far from irrelevant to the railway, helps to conceptualize the railway infrastructure as a decentering and socially assembling system that invites diversity, contestation, and politics. Michel Foucault characterizes the possibility of "an

[430] As a few examples of such cases, see MN, DWQ [0075-017640], date unknown; MN, DWQ [0075-015920], 1905; MN, DWQ [0075-011341], 1908; MN, DWQ [0075-017639], 1910.

insurrection of subjugated knowledges" to reveal itself at some particular historical moments.[431] The prevalence of railway crimes in late nineteenth-century Egypt proved the capability of marginalized Egyptian to reterritorialize the terrain of the railway infrastructure with their everyday knowledge and contesting practices.

To respond to the initial question of the recorded rise in such crime, I suggest that criminal acts were reactions to a series of socio-economic trends and administrative measures, which challenge the prevailing images of exterior prosperity and stability in late nineteenth-century Egypt. Economic polarization under fiscal austerity, rapid population growth and rising unemployment, as well as intensified political participation after the ʿUrabi Revolt contributed to structural impulses toward crime. Additionally, the centralization of railway supervision under British authority facilitated the compilation of surveillance files on various sorts of railway crime cases as a distinct category, which rendered these cases legible to high officials of the colonial government and preserved their visibility for 21st-century observers. While bedouins, land-deprived peasants, and railway employees harbored heterogeneous desires and expectations in their usurpation of the railway system, they commonly challenged the authorized ways of interpreting and operating the infrastructure from their sociotechnical positions at the peripheries.

While acknowledging the rebellious nature of railway crimes, in this chapter I also address their limitations. Central to the types of crimes in late nineteenth-century Egypt were their pre-revolutionary features, even though in a broad sense criminals resorted to political means to bring about individual liberation. Eric Hobsbawm notes that social bandits driven by moral emotions and economic interests often overlooked structural injustice and therefore were

[431] Michel Foucault, *Society Must Be Defended: Lectures at the Collège de France, 1975-76* (New York: Picador, 2003), 7-8.

unable to redress deep social issues.[432] Train robbers and thieves lived in symbiosis with the material prosperity brought by the technological progress and colonial governance. Most of them were unwilling to destruct the rail transport, from which they seized the benefits. Their material aspirations alone were incapable of bringing a revolutionary change to the country's political system.

By 1904, the urgency of Egypt's debt repayment lessened. In this year, the Egyptian government's expenditure exceeded its revenue for the first time after twenty-eight years of austerity.[433] After bearing the material hardship of squeezing railway profits for the Caisse's mission, the ERA was placed under the auspices of the Ministry of Public Works and was released from previous financial constraints. Although still tightly supervised by British advisors, the ERA gradually began to invest in a series of technological advances that, intentionally or otherwise, forestalled previous styles of crimes. These advances included updating locomotives that speeded up freight trains and remodeling the signal system that reduced the number of on-site workers. By the early 20th century, the Railway Police managed to centralize nationwide resources, which had been dispersed to various local agencies, to identify and subdue criminal activities along the rail. Fewer crime cases, at least recorded in the archives, emerged during the decade before World War I. However, the nature of the colonial railway to distribute wealth for imperial interests did not change. The marginalized did speak, not so much purposively articulating a collective ambition or a revolutionary outlook as uncovering social ills, which they continued to feel most deeply.

[432] Hobsbawm, *Primitive Rebels*, 2.
[433] Commission de la dette publique, *Compte rendu des travaux de la Commission de la dette publique d'Égypte pendant l'année 1904* (Cairo: 1905), 91.

CHAPTER V
Petitions, Strikes, and Insurrections in Revolutionary Railways

With the influx of British officials, businessmen, tourists, and soldiers in Egypt during the first quarter of the twentieth century, Egypt-based British residents not only validated their presence but also constituted a crucial part of the global interests of the British Empire. Within a few decades, the British Empire transformed from being solely an external force to becoming Egypt's conqueror, and during World War I, replaced the Ottoman Empire's position and officially declared Egypt as one of its protectorates. The British population in Egypt peaked before World War I with more than 20,000 British citizens living in Egypt in 1907.[434] The majority of them resided in Egypt's metropolitan cities such as Cairo, Alexandria, and Ismailia. Their presence, together with other European communities and those of other Ottoman subjects, contributed to what nostalgic historians would describe as Egypt's cosmopolitan past, the society which preserved heterogeneous identities and acknowledged cultural differences.[435] But these differences were as much social constructions as they were historical reality. Critical observers reveal that colonial cosmopolitanism was based on a form of cultural diversity and prosperity that presumed and projected Western supremacy. Frantz Fanon, for instance, points to a

[434] The 1907 census shows the number of British citizens in Egypt is 20,653, see Ministry of Finance, Egypt, *The Census in 1907*, 129

[435] For cosmopolitanism in colonial Egypt, see Deborah Starr, *Remembering Cosmopolitan Egypt: Literature, Culture, and Empire* (New York: Routledge, 2009); Will Hanley, *Identifying with Nationality: Europeans, Ottomans, and Egyptians in Alexandria* (New York: Columbia University Press, 2017); and Keren Zdafee, *Cartooning for a Modern Egypt* (Leiden, Netherlands: Brill Publishers, 2019), chapter 2 "Cairo's Colonial Cosmopolitanism."

compartmentalized structure of colonial societies that created, reproduced, and stabilized metropolitan racism. For Fanon, a colonial society was intentionally divided into a rational, universal, and dominating Western sector and a native one that was constrained in the position of emulation.[436]

In reality, the British in Egypt similar to other European settlers in different historical contexts, set themselves apart from the native population, especially from nonelites, in terms of their housing, working conditions, and legal status. The social apartheid, both physical and imaginative, culminated during World War I. The establishment of martial law and the proclamation of Egypt's protectorate status on November 2, 1914 confirmed British superiority and restricted the freedom of information in wartime Egypt. Deliberately devised, British agencies in Egypt disseminated what the British Central Propaganda Bureau in Cairo called "the democratic propaganda" via various clubs, media press, cinemas, and boy scout organizations, highlighting the empire's constitution, prosperity, and military victory in order to both manipulate and secure the colonial subjects' unwavering loyalty to the empire.[437] This propaganda became the mediator through which the British sector in Egypt manifested the legitimacy of British imperial rule during a period when internal and external crises challenged Egyptian society.

Although British officials invested considerably in justifying their own colonial rule in Egypt, the hollow and often misleading propagandistic language and images were not the main sources of how colonial subjects understood their rulers. Colonial societies like Egypt, with a growing number of immigrants, produced limited possibilities of structurally significant contact zones that bridged everyday communications between the colonizing and colonized

[436] Frantz Fanon, *The Wretched of the Earth*, trans. Richard Philcox (New York: Gross Press, 1963), 3.
[437] FO 141/582/9117, "Nationalist Agitation: Pro-British Propaganda in Egypt," March 15, 1919; Marguerite Skilling, "Egypt and World War I," *The Historian* 11, no. 2 (1949): 215.

populations.[438] Egypt's rail sector was the most representative among these contact zones. If British officials still feigned to control the Egyptian railway with the excuse of debt repayment before 1904, they obtained absolute domination after the Entente Cordiale (April 8, 1904), which dismissed previous tripartite representatives on the international board of the Egyptian Railway Administration. Royal Engineers officers, after achieving military merits on the war front, began to take over the administration's decision-making circle. Their policies, carried out by mid-level Egyptian civil servants or British managers, affected the life and work of lower-level railway employees, most of whom were Egyptians. Besides the structure of the railway administration, the public sphere of the Egyptian railway included British and Egyptians alike. Although chapter 3 has shown that the ERA's spatial management tried as much as possible to segregate travelers based on their social class, race and ethnicity, and gender, railway stations were among the very few possible social spaces that an ordinary Egyptian from a less urbanized area encountered foreigners.

This chapter investigates three forms of sociopolitical interaction articulated by grassroots Egyptians that addressed issues regarding colonial rule in Egyptian railways before and during the 1919 Revolution. Labor petitions reflected a formal, written, widely circulated pattern among lower-level railway employees to voice their individual or collective grievances. Labor strikes, which often incorporated the declarative form of petitions as a public announcement of workers' collective demands, gradually became accepted by railway workshop laborers who were also heavily influenced by Egyptian nationalist elites. Insurrections such as railway sabotage and murder broke out, representing a least refined and inevitably violent means by which suburban and rural Egyptians extended their support to the nationwide nationalist movement. All three forms of sociopolitical interactions—petition, strike, and insurrection—in

[438] For the concept of contact zone, see Mary Louise Pratt, "Arts of the Contact Zone," *Profession* (1991): 33-40.

their own ways disrupted and blurred the boundary between the colonizers and their colonized counterparts.

Labor Petitions: Negotiation, Accusation, and Declaration

By the late nineteenth and early twentieth century in Egypt, the state-owned railway system was one of the largest government employment sectors. The 1907 census showed that the total employment of the ESR was 10,662, including two female employees.[439] French labor specialist Jean Vallet in his 1911 work regarded the census as inaccurate and estimated that the actual employment number was approximately 12,000.[440] Both numbers only calculated official employees who had direct and full-time employment contracts with the ESR. In reality, the ESR also hired seasonal or informal workers as laborers via intermediaries. Station ghaffirs and porters, as I have discussed in previous chapters, did not belong to the official employment. There was no data that reliablely indicated the ESR's indirect and temporary employment rolls. My own estimate suggests that their presence in railway stations was several times higher than their officially employed counterparts, but other railway departments, such as the departments for engineering and traffic, tended to hire more official, on-the-books workers because departmental workers in these departments usually had high skills and were less replaceable compared to those serving in stations. Herein this chapter, I will focus on workers who were directly employed by the ESR. Because of their signed contracts with the railway administration, they were more capable of disputing labor conditions their labor rights were violated. This was a viable option even though these workers never held equal status with their administrators. Their

[439] Ministry of Finance, Egypt, *The Census of Egypt Taken in 1907* (Cairo: National Printing Department, 1909), 281.
[440] Vallet, *Contributions*, 31.

complaints and activities were also more likely to be recorded by government institutions, and therefore, left indelible traces in oft-neglected and rarely read historical archives.

The State Railway's workforce was particularly heterogenous in their various types of work due to the complexity of the railway infrastructure. Comprised of various departments, the ESR promoted hiring practices that reflected individual employee roles and internal divisions. The traffic department ensured rolling stocks to run safely on the track, thus was the home for drivers and train attendants. The way and works department employeed roadmenders, signalmen, and construction workers to construct and maintain intersecting railway lines, including bridges and signals. The mechanical engineering department was composed of skilled laborers for repairing and maintaining rolling stocks. The finance and transportation department was responsible for financial issues, purchases and stores, and transportation of goods. The personnel and public affair control department was in charge of security and other public affairs. The ESR also had a medical section that provided first-aid treatment for passengers and controlled epidemic transmission in train transportation.[441] Because of the heterogenous types of work and roles in various departments, each employee faced distinct working conditions. Accordingly, workers formed their respective cadres in which information and activities circulated the most fully within their own communities.

While it might be premature to hypothesize a unified working class movement across various deparments of the ESR in the initial two decades of the nineteenth-century, Egyptian railway workers, individually or collectively, were making great strides into the stage of historical progress. Austerity policies before 1905 had tightened the ESR's budget in terms of employee expenditures, resulting in extremely limited increases in workers' wages during the first half of the British occupation. The year 1905 opened a new epoch of world-wide industrial

[441] Hayʾa al-ʿAmma, *Egyptian Railways*, 16-24.

inflation.[442] The end of austerity meant that Egyptian government also started to inject more cash into the market, making global commodity inflation even more detrimental for Egypt.[443] Under the auspices of severe inflation, workers' actual wages significantly declined, which was most acutely felt by rank-and-file ESR employees. Even though all employees signed official contracts with the ESR, only management enjoyed the priviledge of permanent contracts, leaving most workers with little to no job security. The distinction and desparaity between the management class and the working class was further evident in minimum wage earning and pension plans. While the Abbas Law effective since April 15, 1909 guaranteed these rights for the former, its Annex III specified that this law excluded switchmen, roadmenders, chainmen, draughtsmen, ghaffirs, mechanics, mechanic students, drivers, and watchmen, who constituted the majority of the State Railway's workforce.[444] Their various roles separated working experiences, and to a great extent, prevented railway workers from being a unified group. However, since the beginning of the twentieth century, increasing number of workers faced more or less similar economic pressures and witnessed the widening gap between their working conditions and compensation with those in management positions.

Historically, petition was the most common means by which workers made their voices heard. Conducting extensive research regarding petition, social historicans have conluded that it was a prevalent and effective paradigm of lodging individual or collective grievances to political authorities in Ottoman Egypt. Petition functioned as a means of vertical communication between the grassroots and political powers, expressing the former's views of justice and banking on the latter to intervene and advocate on their behalf. As John Chalcraft points out, petition offers a set

[442] Alexander D. Noyes, "A Year After the Panic of 1907," *The Quarterly Journal of Economics* 23, no. 2 (1909): 208-09.
[443] *The Economist* 64, no. 1 (1906): 321.
[444] Vallet, *Contributions*, 42-43; Amin ʿIzz al-Din, *Tarikh al-Tabaqa al-ʿAmila al-Misriyya Mundhu Nashʾatiha Hatta Thawra 1919* (Cairo: Dar al-Katib al-ʻArabi lil-Ṭibʻa wal-Nashr, 1967), 115.

of exemplary texts to examine the "positive historical agency" from below. Focusing on Egyptian peasantry, Chalcraft argues that peasants collaborated with professioanl petition writers to create a new writing paradigm, in which they made full use of the figure of the just ruler to urge a social remedy, or at times, an ambitious yet possibly dangerous change of present circumstances.[445] Egyptian communities used petition in different political and social settings. Kenneth Cuno points out that in nineteenth-century sharia courts, petitions functioned as ligitants' written claims of legal rights to judges.[446] Juan Cole identifies both formal and functional transitions during the ʿUrabi regime from a supplicating petition to a manifesto-style one. He observes that the new form of petition began to address specific political issues, even directly naming individuals in power or criticizing certain government policies.[447] Joel Beinin and Zachary Lockman uncover that the emerging Egyptian working class also resorted to petitions directly to voice their grievances to the authorities as early as 1896 among Port Said coalheavers. Their complaints, similar to the petition of ESR conductors and brakesmen, focused on low wages, long working hours, abusive treatment, and unjust dismissals.[448] Beinin and Lockman view petition as a discursive strategy only when workers were unable to organize collectively, whether such incapacity was due to British military suppression or the inherent nascency of the Egyptian labor movement under the influence of Egyptian nationalist elites.[449]

My observation of railway workers' petitions between the 1880s and the 1920s uncovers the general trend that labor petitions in this period developed from addressing individual appeals against unjust treatment to collective grievances shared by larger working communities. Petitions

[445] John Chalcraft, "Engaging the State: Peasants and Petitions in Egypt on the Eve of Colonial Rule," *International Journal of Middle East Studies* 37, no. 3 (2005), 303-25.
[446] Kenneth Cuno, "Reorganization of the Sharia Courts of Egypt: How Legal Modernization Set Back Women's Rights in the Nineteenth Century," *Journal of the Ottoman and Turkish Studies Association*, no. 1 (2015): 85-99.
[447] Cole, *Colonialism*, 159.
[448] Beinin and Lockman, *Workers*, 30-31.
[449] Beinin and Lockman, *Workers*, 85.

did not necessary suggest an immature working class; but the changing formats of petitions indicate the growing trend of Egyptian workers as increasingly active agents in Egypt's political arena.

I categorize three types of labor petitions: negotiative, accusive, and declarative, whose occurance and prevalence were not entirely consecutive in time. Negotiative petition was the most common type among railway workers. Notably, the Ministry of Public Works regularly received individual complaints from employees of the ESR. The following text is a petition letter with a signature of Ibrahim Abd al-Rahim, a dismissed ESR employee. Written on March 19, 1883, the Arabic letter typically characterizes how workers strategized a sympathzing discourse to address individual appeals.

> "Your highness omniscient guardian, the most powerful khedive before God, who bestrows on us your piety and rightousness:
>
> This [petition] is submitted by your servant, Ibrahim Abd al-Rahim, one of the employees of the railway [department]. My father served the deparment for almost thirty years, where he was fractured, injured, and beaten down hard. He left me and my six-year-old sister as orphans. I assumed my father's position in the railway department for about fifteen years. This year, I was dismissed for no [justifiable] reason. The department accused me of negligence of duty. I do not feel this conforms to my steadfastness (*ʾistiqāma*) and I do not believe I have committed any wrong (*dhanb fiʿliyya*) except that no one extended his help to me. I have lost my whole arm to the debris of the world, but the [railway]department does not recognize my poor living conditions [because of my disability]. My daughters have fallen into desperate need. They do not have any assistance except from almighty God. So, I present you with this petition, hoping your mercy and decision on my appeal will allow me to return to my previous job or any position that would provide me with a timely income. The job will also support my two children and keep them away from adversaries that may cause them harm.
>
> Your most loyal servant,
> Ibrahim Abd al-Rahim"[450]

[450] Abdeen, DWQ [0069-013827], March 1883-June 1899. This piece of archive is a compilation of three separate cases of petition and the al-Rahim's case is one among them.

Al-Rahim's letter is one among numerous negotiative petitions that served as a popular and often used means for railway workers to lodge individual grievances. Its prevalence even lasted after the First World War. Typically in a negotiative petition, the petitioner depicted the khedive or minister—to whom the letter addressed—as the embodiment of justice, using grandiose language to describe an upright and merciful model for rulers. Instead of passively waiting for the powerful to bestow mercy on them, petitioners constructed their own pleading discourses and actively engaged with the higher echelons of the state. The language of petition showed the ultimate modesty and humility, and at times even self-effacement to appeal to the ruler's absolutisim and benevolence. But I argue that petitions of this type represented attempts at negotiation rather than simple begging or mere supplication. Petitions written by railway workers especially highlighted their prolonged and dutiful service to the department, hoping judges would weigh their long-term contributions when considering their requests for help once their livelihoods were disrupted by accidents that resulted in dire consequences, including long-term unemployment. In such petitions, the sense of reciprocity matters more than what actually happened, as petitioners commonly blurred their operational errors or actual losses, yet focused on highlighting their well-deserved merits or performing their unswerving loyalty in the hope for a benevolent judgement and decision.

Negotiative petitions reflected individual grievances, in which petitioners beseeched the politically powerful for mercy while expressing little interest in associating their personal setbacks with broader social issues. The second type of the accusive petition, in contrast to the humble and negotiative tone of the first type of petition, directly addressed the profound social problems that workers encountered, especially highlighting the ever-present corruption among government officials. Railway workers accused their immediate superiors, usually those in

middle management who mediated the growing tension between high-level British officials and rank-and-file employees of corruptive acts. Signatories of accusive petitions were typically individuals or small groups of workers who shared similar experiences. Instead of appealing to the khedive or the ministers, accussative petitioners presented their letters to relevant supervision departments or the judiciary system, at times directly to the public if necesssary, reflecting workers' expectations for the rule of law to be administrered and followed in their country.

Case in point is the bribery case brought against Naguib Bey Fahmy. Naguib Bey was the son of Iskandar Bey Fahmy, the Egyptian administrative reformer discussed in chapter three. When the bribery cases happened between 1904 to 1910, Naguib Bey served as the deputy head of the merchandise service in the railway administration. In 1910, an anonymous letter written in Arabic was presented to the Public Prosecution Office, accusing Naguib Bey of bribing multiple subordinates and trying to extort considerable sums of money from them. However, when the prosecutors subpoenaed the ligitants and requested that they testify about Naguib Bey's alleged corruption in court, all of them unexpectedly denied the allegations filed in the complaint letter. Since their retractions that seemed to prove Naguib Bey's innocence, the Public Prosecution Office almost withdrew this case.[451]

Yet a petition signed by one Nassim Fahmy shed light on new evidence. Published in the Cairene newspaper *al-Jarida* on July 17, 1910, this petition suddnenly exposed the judicial case to public scrutiny. In the letter, the petitioner claimed that Naguib Bey had tried to extort his brother Aziz Barsum, a railway inspector serving in the Cairo station, but that his brother had refused to pay the shakedown fee. As a result, Naguib Bey retaliated by transfering Barsum to a small station in Qena, where his monthly salary was reduced from his original salary of 10 piasters to 6 piasters, a 40 percent loss of income. Unlike many petitions whose requests were

[451] MN, DWQ [0075-017639], July – August 1910.

limited to restoring the status quo and dismissing corrupt officials, this petition pointed the finger directly at the ERA, impugnining its reputation by stating that the government institution had "acted in an arbitrary and despotic manner," and had "launched false accusations" against its own employees. According to the petition, Barsum typified "tens of [similar] victims" harmed by Naguib Bey's corruption. The petition further claimed that the ERA had conspired with Naguib Bey by putting pressure on these victims to retract their original claims and deny any wrongdoings on Naguib Bey's behalf, thus preventing renowned newspapers such as *al-Ahram* and *al-Watan* from reporting on this very matter.[452] By publishing the petition in the newspaper, the petitioner not only voiced his individual grievences against the oppressor, but also expressed concerns about the machinations of the ERA and brought these concerns to the arena of public opinion.

Inspired by the courageous act of the *al-Jarida* petition, railway employees who had denyed Naguib Bey's corruption now began to retract their courtroom testimonies. At least three ERA employees, Bulus Ibrahim, Girgis Matta, and Girgis Sulayman, wrote petitions to the Public Prosecution Office, either withdrawing their previous testimonies in favor of Naguib Bey or providing new evidence of his corruption. They candidly pointed out that this case had been heavily influenced by the ERA's disciplinary council, a subordinate body to the ERA's international board in which Naguib Bey himself served as one of its executive committee members. They accused the disciplinary council, by using its administrative power to dismiss employees, of retaliatory measures and threats that compelled employees to make false testimonites in favor of Naguib Bey. They further disclosed various unethical and even illegal methods by which Naguib Bey had accumulated wealth. For instance, Girgis Sulayman accused Naguib Bey of helping bribees evade conscription. Since full-time employees of the ERA could

[452] MN, DWQ [0075-017639], July – August 1910.

be exempted from military service, Naguib Bey used hiring as an opportunity to soliciting bribes from potential draft dodgers.[453] Once these draft dodgers were recruited into the rail sector, they joined forces with Naguib Bey's subordinates to supervise other employees and they themselves even helped conceal Naguib Bey's crimes.[454] The petitioner also stated that Naguib Bey had, in fact, accumulated extensive executive power that he could actually prevent the ERA from acting against him:

> "[Naguib Bey] becomes everything, powerful in the merchandise service to the point that his British superiors can only see things through his eyes. He makes them believe what he wants…The majority of the employees he directed at the [merchandise] service do not know any English. Naguib Bey was therefore the essential intermediary."[455]

Of significant, ordinary Egyptian employees had no access to the circle of high-level British officials, the decision-making layer of the railway administration. Neither did British officials want to be acquainted with rank-and-file workers. For the British, the sharp reversal of testimonies in the Naguib Fahmy case reinforced their beliefs and long-standing prejudices related to the Egyptian populace that they were capricious, erratic, and untrustworthy subjects. In his letter to the Council of Ministers, Brigadier General George Macauley, the British member of the ERA board, strongly urged that the Council members completely ignore the substantive reversal of deposition testimonies. He raised his deep concerns over the credibility of these new testimonies, asserting they were of "[dubious] degree of honesty among the very low-level employees."[456] Since ordinary workers were extremely restricted to establish contact with high-level officials, they felt utterly powerless to make claims to these officials. So, it was unlikely for them to reveal misconduct from the top level of the ERA management. Instead, their

[453] DD, DWQ [2001-021677], 1886.
[454] MN, DWQ [0075-017639], July – August 1910.
[455] The original text is French. See MN, DWQ [0075-017639], July – August 1910.
[456] MN, DWQ [0075-017639], July – August 1910.

accusations concentrated on middle management, usually native executive managers appointed by the Railway Administration's upper echelon. Their corruption harmed workers' interests, and often workers found themselves not alone in confronting various sorts of abusive treatment. Unlike in negotiative petitions, workers did not beg for benevolence and mercy from political rulers, but rather spared no effort in listing criminal evidence, analyzing connections among events, and making evidence-based allegations. By resorting to legal means to seek justice, workers contributed to the rising grassroots aspiration for an Egyptian society that was not solely governed by man, but rather by law.

Although accusasive petitions could foment common feelings of unfair treatment among co-workers, petitioners still had to withstand alone the pressure from the railway's administrative authority, such as demotion, temporary leave, or dismissal. Frome the early twentieth century, a collective form of petition started to gain popularity among railway workers. The 1905 petition signed by hundreds of conductors and brakesmen was one of the pioneer petitions. The petition, presented to the Consultive Council of Egypt (Majlis ash-Shura), addressed workers' deteriorating conditions in the midst of the railway board's stringent financial policies. Using collective terms such as "we the conductors and brakesmen" (*nahnu al-kumsāriyīn wal-farmaljiyīn)*, workers (ʿ*ummāl*), and "our complaints" (*shakāwīnā*), the petitioners organized and addressed their shared experiences of suffering in the workplace as a collective.

This petition, by its format and its tone, was reminiscent of a declaration and differed from previous petitions. In the letter, the conductors and brakesmen raised five clear-cut requests. First, they claimed that only 150 among a total of 900 conductors and brakesmen were permanently employed by the state railway administration. Although the remaining 750 were classified as temporary employees, they undertook the same jobs and roles as their permanent

colleagues. The petitioners demanded that at least 300 more conductors and brakesmen were to be classified as permanent civil servants. Second, they alleged in their petition that the medical examination that the ERA required for their promotion was often used as a means to expel workers. Workers often suffered by being exposed to heat and dust. They avoided any demand for regular medical care, however, because they feared that such examination would cost them to lose their jobs. Third, they demanded that the minimum wage be raised from 400 piasters to 550 piasters to comport with the commodities inflation in the Egyptian economy. Fourth, they asked for an end to the strict supervision during their work. They pointed out that the current administration "constantly fined [workers] for the slightest cause," resulting in rank-and-file workers having to takie primary responsibility in almost every case without any right to defend themselves.[457] Fifth, the conductors and brakemen lamented that their duties were the most onerous and that they did not have regular working hours. Compared to ticket inspectors whose work was usually less arduous, conductors and brakemen at times would receive even less salary.[458]

The declarative forms of petitions were rooted in the gradual change in grassroots organization of workers at the beginning of the twentieth century. Clandestine organizations emerged and were activated from different railway departments by volunteer workers, at times with the help of external nationalist activists.[459] These organizations, although still in their embryonic stage, united around the grievances of small cohorts of workers into collective and declarative voices. The most remarkable and successful among these organizations was named

[457] Beinin and Lockman also mention similar situations that inspectors arbitrarily abused railway workers in the Cairo tramway system. They partially ascribe workers' grievances to ethnic divide because most workers were Egyptians and inspectors were Greek or Italians. See Beinin and Lockman, *Workers*, 57-58.
[458] MN, DWQ [0075-015920], 1905.
[459] Jean Vallet believes the first "truly indigenous" union of railway workers was established in 1909. This year witnessed the establishment of the Manual Trade Workers Union by the National Party. See *Contributions*, viii-xi.

the Railway Workers' Association. Influenced by Muhammad Naguib, a labor activist from the Nationalist Party, the association published the first issue of the journal *Majalla ʿUmmal al-Sikka al-Hadid* on March 15, 1909. The journal addressed the problems of nepotism, favoritism, and discrimination within the management of the State Railway by means of the collective identity of "railway workers."[460] These collective voices, quite distinct from negotiative or accusive petitions from individual workers, contributed tremendously to the emergence and making of Egypt's working class.

Most writers of these letters, taking a panoromic view of workers' petitions in the late nineteenth- and early twentieth-century Egypt, tended to adopt a negotiative tone toward political authorities. The predominance of negotiative petitions persisted during the First World War, when the colonial government perpetuated repressive measures to prevent railway workers from resorting to radical and collective actions.[461] Meanwhile, driven by the growing spirit of the rule of law, some petitioners drew attention to their everyday encounter with corruption of the managerial class, publicly accusing railway management of causing the direct and inhumane suffering of rank-and-file employees. Since 1909, individual voices of railway workers began to find camaraderie with the ideas and notions of fledgling labor organizations. These organizations initially led by railway workers, were gradually assimilated into the labor wing of Mustafa Kamil's National Party (*al-Hizb al-Watani*), whereby the National Party integrated traditional petitions into their activist strategies, and utilized petitions as a mean of promoting workers' rights. Furthermore, the National Party began to make political claims on behalf of railway workers.

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[460] *Majalla ʿUmmal al-Sikka al-Hadid*, March 15, 1909; Filip Di Tarazi, *Tarikh al-Sahafa al-ʿArabia, al-Juzʾu al-Rabiʿa* (Cairo: Wikala al-Sahafa al-ʿArabia, 2020), 496.

[461] Beinin and Lockman, *Workers*, 85. An example of the negotiative petition can be found as late as 1920, in Abdeen, DWQ [0069-009628], November 1920. The petition was about unfair treatment and request for compensation from a signalman.

Railway Workers During the Revolution

With the creation of the Manual Trade Workers Union (MTWU, *Niqabat ʿUmmal al-Sanaʾiʿ al-Yadawiyya*) under the umbrella of the National Party of Egypt in 1909, some railway workers started to embrace nationalism as the central tenet of struggle and collaborated with the MTWU in their activism. Of note, the separation of different types of work and these respective roles still comprised the major obstacle to uniting all railway workers in their activist efforts. The MTWU's attraction, to a great extent, was confined to Egyptian skilled workers in Cairene or Alexandrian factories. The ʿAnabir workshop exemplified the close connection between the MTWU activists and shop-floor workers. The MTWU branch played a central role in ʿAnabir workers' unrest in October 1910. During the 1910 ʿAnabir strike, the MTWU had 300 members in the ESR, while its total membership amounted to 2,268.[462] On October 17, the MTWU called some 2,400 workers to strike and organize union meetings that drafted workers' collective demands to ESR management. With the success of the, the management was forced to concede on issues related to low wages and work-related abuses including retaliation. The ʿAnabir workforce became a strong and reliable support base for the nationalist movement throughout the 1920s and 1930s.[463]

Increasing labor grievances typically ushered in social crises, but for railway administrators in the 1900s and 1910s, railway development in Egypt peaked at a time when few would pay due attention to "noises" from the shop floor. Immediately after the ESR ended its former financial austerity, a short-lived yet innovative technological progress swept railway engineering in Egypt. Frederick Harvey Trevithick, the grandson of the steam locomotive

[462] Vallet, *Contributions*, 144.
[463] Beinin and Lockman, *Workers*, 72-76.

inventor Richard Trevithick, held the position of the ESR chief engineer. To decide what types of new rolling stocks, especially locomotives, would be introduced to Egypt, Trevithick conducted exhausive research in Britain, United States, and Belgium, and discussed in detail their degree of comparability with existing Egyptian railway system and natural environments in Egypt.[464] After importing machines directly from abroad, Trevithick also carried out a series of experiments to improve their local utilities and performance. He investigated to resue waste heat ti maximize the utilization of locomotives, and for his efforts, won the best paper award from the Institution of Mechanical Engineers in 1918.[465] Embracing his findings in actual locomotive modification, Trevithick made considerable technological progress to achieve his proposed engineering reforms. Egyptian workshops, at least to some degree, became capable of adjusting European engineering products and maximizing its utility for the Egyptian context. The results were immediate and undeniable. Trevithick's research achievements ushered in a steady increase in the ESR revenues from L.E. 1,327,000 in 1905 to L.E. 3,819,000 in 1913. Before the Great War, the capital value of railways in Egypt reached a historical high of L.E. 27,291,943.[466]

Ironically, Egyptian railway workers swung into action most energetically, calling attention to equity and parity issues not during the late nineteenth century when the entire railway system suffered from financial shortage, but when the railway sustained significant financial windfall and technological progress. As Table 7 shows, the railways and telegraphs administration reported a 92 percent growth in the number of its full-time employees in 1906 compared to a decade earlier. Although the growing industry created more job opportunities,

[464] F. H. Trevithick, *Report on English, American and Egyptian Railways* (Cairo: Egyptian Railway Print Office, 1899); "Report by Mr. F. Trevithick," 1900, 59-61.
[465] Anonymous, "Obituary," *Journal of the Institute of Locomotive Engineers* (1931): 157-58. BNA, British Transport Historical Records Office Library (henceforth ZSPC) 11/440, "The Utilization of Waste Heat in Locomotives— Trevithick's System," July 15, 1913.
[466] *Reports by His Majesty's Agent and Consul-General on the Finances, Administration, and Condition of Egypt and the Soudan in 1905*, 51; *Reports by His Majesty's Agent and Consul-General on the Finances, Administration, and Condition of Egypt and the Soudan in 1913*, 26.

explicit or implicit racialism in the ESR's hiring and promotion procedures restricted the majority of Egyptian workers from advancing into roles of greater responsibility and increased salaries. Between 1896 and 1906, the number of European superintendents and inspectors grew by more than three times whereas their Egyptian counterparts, decreased by 28 percent. The majority of Egyptian employees remained at the bottom level of the employment ladder and they were less likely to foresee a promotion in the near future.

Table 7 The number of Egyptian and European employees in the railways and telegraphs administration in 1896 and 1906 respectively.

	1896			1906		
	Egyptians	Europeans	Total	Egyptians	Europeans	Total
Superintendence	3	8	11	4	32	36
Inspectorate	29	26	55	19	74	94
Sub-Inspectorate	59	56	115	129	147	276
Operative Class	2,848	53	2,910	5,238	198	5,428
Total	2,939	143	3,082	5,382	451	5,833

Source: *Reports by His Majesty's Agent and Consul-General on the Finances, Administration, and Condition of Egypt and the Soudan in 1906*, 40.

The inequitable growth of Egyptians in the operative class and Europeans as inspectors adhered to the ESR British administrators' personnel management plan. At the beginning of the twentieth century, a new British management team were deployed to lead the railway administration. Three senior managers, Major George Macauley (General Manager), Major R. B. D. Blakeney (deputy manager), and Captain C. M. Hall (traffic manager) represented the typical example by which British military expertise dominated civil engineering in Egypt particularly in

the public works sectors.[467] As Royal Engineers officers, they had participated in the expeditions to Sudan between 1896 and 1898 under Sir Herbert Kitchener. After the conquest of Omdurman, they were transferred to the railway department as high-level officers and soon were promoted to the decision-making center. They brought new military engineering expertise to the Egyptian railway. Consequently, they also adhered to and promoted the ever-prevalent racial hierarchy in the British domination of the Egyptian army. From their standpoint, it was necessary to bring in more European managers to replace Egyptians, given the rapid technological Westernization in progress. Colonel Macauley, for instance, argued that "modern methods had to be adopted at short notice…the older [Egyptian] staff could not adapt themselves to the new methods quickly enough. The traffic was there to be handled, and the only thing possible was to import trained men from Europe."[468] Similarly, Macauley showed little interest in training local mechanical engineers from scratch. Such training, for someone who eagerly wanted to achieve rapid growth under his administration, was "a long business and a rather expensive one."[469] Although the number of Egyptian workers in the ESR almost doubled, they did not receive adequate technical, let alone managerial training that would enable them to climb the ladder within the railway system. Their road to promotion had already been blocked upon their entry to the lower-level and operative job.

Besides the majority of Egyptian workers, the ʿAnabir workshops also had a few British workers who enjoyed relative refined working conditions. By the end of the occupation, there were 232 British railway workers, who also lived in Cairo's working-class district of Bulaq. In 1907, a donation was given to the All Saints' Church in Cairo for the "construction of a church at

[467] Christopher Phillips, *Civilian Specialists at War: Britain's Transport Experts and the First World War* (London: University of London Press, 2020), 129.
[468] *Reports by His Majesty's Agent and Consul-General on the Finances, Administration, and Condition of Egypt and the Soudan in 1906*, 40.
[469] Ibid.

Boulak, with a view more especially of providing for the spiritual wants of the Englishmen employed in [the] Railways Administration."[470] The Dean's Building School was established in 1915 to meet the education needs of the children of these British railway workers.[471] Besides the fairly decent living environemt, the Egyptian State Railways also provided tennis facilities in the Railway Institute Club, especially for lower-class British workers.[472] The club not only offered a place of leisure, but also social occasions for British workers who lived in the foreign land.

During World War I, the workload of shop floor workers dramatically increased due to extensive military deployment to support frontline wars. British military operations, first the defense of Egypt and later the advance into Palestine (Figure 20) and Syria, created unusually heavy demands on the Egyptian State Railways throughout the war. Especially between 1914 and 1915, rigid transport restrictions forbade any purchase of new locomotives, rolling stocks, spare parts, and tracks from all foreign countries. So, the ESR had to depend solely on the machinery that it had already procured and had in stock before the war. In such circumstance, Egyptian workshops faced increasing pressure in mechanical repairs, maintainence, remodeling, and remaking.[473] With the battlefield pushing further north, the Corps of Royal Engineers began constructing a new railway line in January 1916 from al-Qantara on the Suez Canal through the Sinai to al-Arish and Rafa on the border of the Ottoman Empire. The 115th and 116th railway construction companies arrived in Egypt between December 1915 and March 1916, where they were deployed carry out the new project.[474] The al-Qantara-Rafa line significantly assisted British transportation from its military bases in Egypt to the Rafa frontline, and played a crucial

[470] Mak, *British in Egypt*, 36.
[471] Ibid.
[472] FO 841/102, "Guy Osborn Lion vs. James Francis Waterlow, Civil Jurisdiction," June 23, 1908.
[473] *Reports by His Majesty's Agent and Consul-General on the Finances, Administration, and Condition of Egypt and the Soudan for the Period 1914-1919*, 85.
[474] For the mission of the 115th and 116th railway companies against the Ottoman Empire, see WO 95/4410.

role in the British victory in the Battle of Rafa in 1917. Even with this stunning victory, little is known about the contributions of ordinary Egyptian workers. Since difficult wartime international trade prevented the acquisition of locomotives and rolling stocks from Britain and America, British Royal Engineers requisitioned all equipments and supplies from the ESR and requested the Egyptian departments to provide full technical support to the military line.[475] While the al-Qantara-Rafa railway offered the greatest logistical advantage for British soldiers on the frontline, workers in Cairene and Alexandrian workshops worked longer hours to guarantee the safety and efficiency of this military movement.

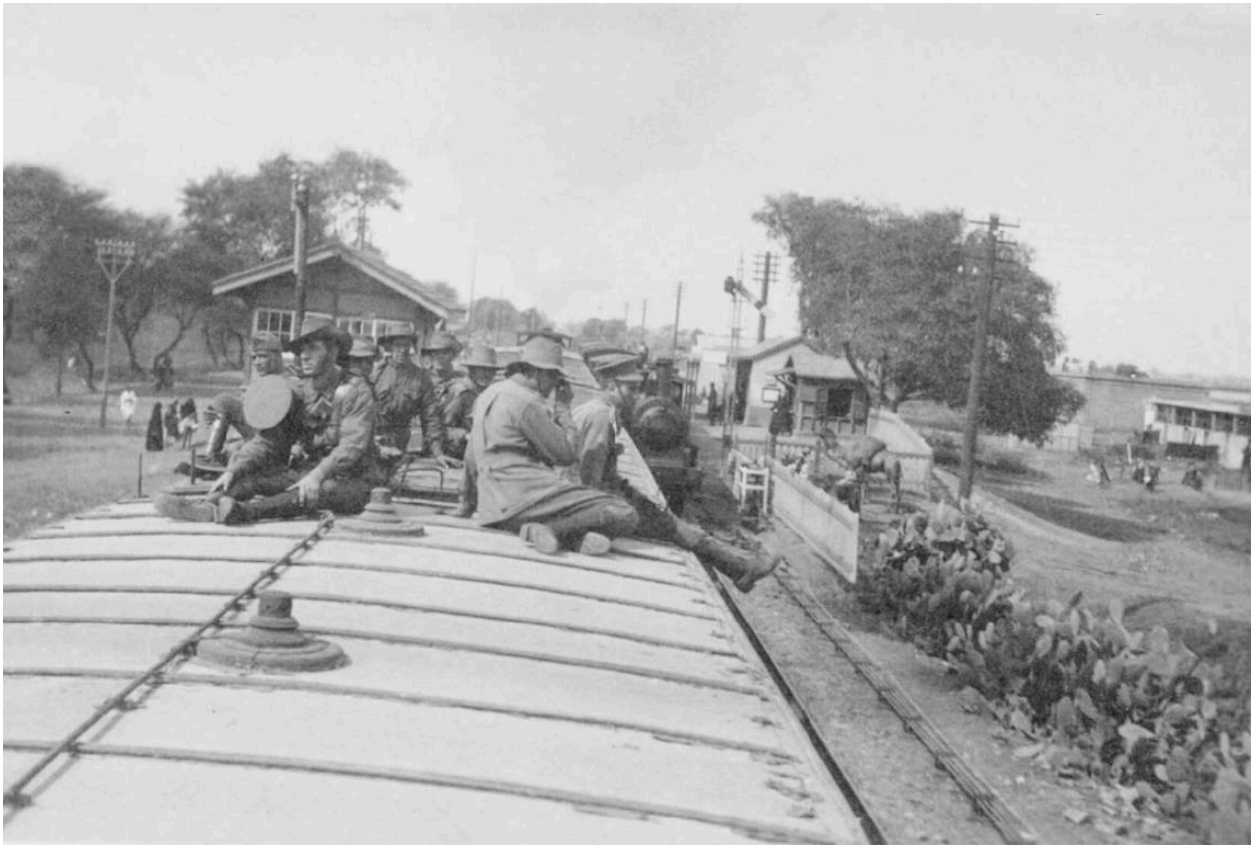


Figure 20 British soldiers taking trains from Egypt to the Palestinian frontline during World War I.
Source: Private collection.

[475] FO 141/478/1-2, "Kantara Palestine Railway," 1916.

Workshop employees endured the extremely challenging wartime working conditions with little resistance. Individual petitions were still prevalent, but the collective labor movement experienced a temporary halt, especially as a result of the draconian censorship and the enforcement of martial law by the colonial government.[476] However, by the end of the war, Egyptian society was roiling with nationalist sentiments. In November 1918, Egyptian nationalist politicians and major social groups believing Egypt and its people had equally sacrificed economically and politically for the Allied Powers's vicotory, established a delegation (*wafd*) that would represent Egypt at the 1919 Paris Peace Conference. Preparing for the peace conference, they planned to demand an immediate end to British colonial rule in Egypt. For their parts, British authorities barred the delegation's trip to the Peace Conference, nor did officials allowed them to go to London to press the issue. They arrested the leader of the delegation, Saʿd Zaghlul, as well as three other members of the Wafd Party on March 8, and exiled them to Malta. The hearthbreaking news of Wafd's thwarted attempt for national independence not only provoked agitation from the upper echelon of the Egyptian society—politicians, businessmen, social activists, landowners, who would later become the Wafd Party, but also spread out into the Egyptian streets, which intensified the already tenuous and precarious relationship between ordinary Egyptians and British rulers.

Discontented with working conditions, unrest had grown among railway workers since early 1919. The Jabal al-Zaytun freight car repair workshop was at the center of workers' agitation because the nationalist syndicate MTWU had established its strong base in Alexandria and had cultivated workers' militancy by sending nationalist lawyers to assist the workers' movements. In Feburary, Muhammad Effendi Hussayn al-Fararji, an attorney representing workers' demands, wrote a petition to the ESR General Manager Macauley, requesting a

[476] Beinin and Lockman, *Workers*, 85; ʿIzz al-Din, *Tarikh al-Tabaqa*, 186.

doubling of their wages, an end to arbitrary dimissals and fines, and leaves of absences for hajj, and extra time off for Friday prayer. Macauley, believing that workers' requests were purely incited by a few nationalist and Bolshevist-leaning leaders, refused to concede to their demands.[477] Macauley decided to transfer seven key activists to different and distant locations, such as Luxor and Suhag, to disperse workers' organziation thus weakening their ability to demand change as a cohesive unit. Al-Fararji, traveling to Cairo to file a complaint petition in the name of the Jabal al-Zaytun workers, was unsuccessful in having them reinstated and returned to the workshop.[478] Despite this failure, the Jabal al-Zaytun workshop remained the MTWU's most reliable base for recruiting railway workers into its activist branches.

A general strike took place on April 3 to 5 and from the 7th to the 22nd of the same month in 1919, provoked by the arrest and the subsequent exile of Saʿd Zaghlul. During these periods, the State Railway was only able to run a few trains, relying primarily on its European staff. Laborers of the locomotive department, especially in Bulaq (ʿAnabir) workshops, constituted the backbone of the strikes. The prolonged strikes of the ʿAnabir workers brought most maintenance and repair work to a sudden halt until the end of May.[479] Of note, the participation rate in strikes among different types of workers varied sharply. Egyptian permanent way inspectors, for instance, were much less involved, partially because these workers had been accustomed to their individualistic types of labor and seldom needed to engage in teamwork. So, they were much insulated from the rest of laborers and the nationalist mobilization. Additionally, the top level of railway workers—those who received better payment and held positions closer to the management—also tended to avoid joining in strikes, fearing that they would lose their vested

[477] FO 141/687/8705/2, The British record shows the name of the MTWU lawyer was Hassayn al-'Arargji.
[478] ʿIzz al-Din, *Tarikh al-Tabaqa*, 177.
[479] Beinin and Lockman, *Workers*, 97.

interest in the nationwide turmoil.[480] Beinin and Lockman posit that railway workers, while participating in a massive number of strikes, did not form any unions or self-established organizations during the 1919 Revolution.[481] The long-existing division within railway workers offers a good reason for their conclusion. Railway workers, sequestered in different positions in the colossal railway infrastructure, were particularly difficult to coordinate and organize under a single umbrella. Workers from locomotives workshops, in comparison to the rest of railway employees, were much more prepared and willing to accept guidance from nationalist elites who took the initiative to approach them for incorporating in the nationalist movement.

The railway administration tried every means possible to reduce the loss caused by strikes. In 1919, the ESR recorded an average of 50 percent growth in earned wages for all its employees. By early 1921, the average wage for ESR employees had nearly doubled compared to two years earlier.[482] However, not all railway workers were fortunate to receive wage increases. British intelligence documents showed that the administration permanently dismissed 155 unionists during the general strikes.[483] However, the actual number of dismissals, including that of temporary workers, could be much higher than a few hundred. To solve the urgent work output demands due to striking employees, the ERA introduced British soldiers to temporarily take over the striking workers' responsibilities.[484] The more "disciplined" British soldiers were perhaps the most reliable persons that the ERA could trust when numerous native workers had abandoned their work or were deciding to leave. After the waves of labor strikes ebbed in May, the railway administration opened a volunteer employment office and started to recruit new workers as "volunteers." From November 1 to 15, this call was reported to be "well responded"

[480] FO 141/586/3/12999, "Ministry of Communications: Egyptian State Railways."
[481] Beinin and Lockman, *Workers*, 98.
[482] DD, DWQ [2001/003771], 1921.
[483] FO 141/781/8915, "General Staff Intelligence," April 28, 1919.
[484] *Muqattam*, "Maslaha al-Sikka al-Hadidiyya al-Misriyya, Iʿlan," March 17, 1919.

to and registered a total 2,339 names who were willing to work for the administration. Of these registered names, 386 were Europeans and the remainder were Egyptians.[485] Thus, the railway administration strategized to replace revolutionary-minded workers with new and perhaps less militant alternatives to keep Egyptian trains rolling.

While it is important to acknowledge the tremendous progress that railway workers made in the general strikes of 1919, these strikes also exposed the common difficulties and challenges of early labor movements. The complexity of railway labor divided workers' experiences, making them incapable of forging a unified front in opposition to their capitalist counterparts. Without strong internal solidarity, active railway workers in ʿAnabir and other workshops felt the neccessity and urgency to build close alliances with external nationalist lawyers and activists—initially from the MTWU and later from the Wafd Party, to sustain their struggle against the railway management. This alliance made ʿAnabir workers the spotlight of contestation during the 1919 Revolution. In comparison to the still nascent and fragmented working class, the ESR adopted systematic counterstrategies to suppress workers' strikes. Using draconian methods that specifically targeted the most militant workers while meeting average workers' minimum demands for wage increases, the administration suppressed the possibility of forming an independent railway workers' union until the late 1920s.[486]

Sabotage and Murder: Insurrections Along the Rail

In his correspondence with the British Foreign Office, Reginald Wingate confidently predicted that the exile of Saʿd Zaghlul and his associates "should discourage and discredit the

[485] FO 141/586/3/12999, "Ministry of Communications: Egyptian State Railways."
[486] Since the late 1920s, Bolshevik ideas grew much popular among railway workers and some of these workers started to establish their own syndicates, which separated them from the ideological guidance and political organizations of Egyptian nationalists. See MN, DWQ [0069-026575], December 7, 1930.

extremists."[487] However, Wingate woefully misjudged the situation. Zaghlul's ouster from Egypt intensified the already fraught and frosty relationship between the Egyptian populace and British authorities in Egypt. Large-scale demonstrations broke out in major Egyptian cities, albeit in a relative peaceful fashion. In contrast, demonstrators in less urbanized areas were far more radical and were more prone to resort to violence as practical means to achieve their political demands.

Over the course of wartime campaigns against the Ottoman army, Egyptian Expeditionary Force (henceforth EEF) had developed a sophisticated communications systems depending on railways, telegraph, and telephone to efficiently deploy military resources and information. This system, however, became the site of intensive conflicts during the revolutionary period. According to the wartime report of the British Ministry of Communications, railway lines (both state-owned and private), telegraph and telephone lines suffered from severe vandalism and active sabotage with most of the damage occurring outside Egypt's urban centers. Between March and April 1919, more than 200 places in railway lines and 63 stations suffered from certain degrees of damage, costing a total of some L.E. 400,000 in economic loss.[488] Some stations were destroyed to the extent that the saboteurs removed the stones of the station buildings. Stores, offices, weighing-machines, signal boxes, locking gear, block instruments, telegraph and telephone instruments, wires, and many other kinds of equipment were sabotaged to the point of being completely useless.

Violence against railways received heavier retaliation from British authorities who committed to resuming the railway transportation and restoring public order. The martial law that was proclaimed in Egypt on November 2, 1914 did not end with the war. Under this clear yet

[487] FO 371/3714/39198, "Egyptian Political Situation," March 9, 1919.
[488] FO 141/586/3/12999, "Ministry of Communications: Egyptian State Railways." British Air Intelligence recorded some railway damage cases in its Air Intelligence Summery, see FO 141/745/5, "Nationalist Riots: An Intelligence Summary," March 1919.

suppressive legal framework, the temporary head the EEF was capable of controlling and dispatching both military and civil forces to respond to popular unrests. Facing the deteriorating situation after Zaghlul's exile, the EEF adopted draconian methods in an attempt to restore order. On March 13, the EEF warned to shot anyone who tampered with or attempted to damage railways, telegraph, or telephone lines. Four days later, a more deadly order was issued confidentially within the EEF that British soldier would engage in collective punishment and retaliation by burning villages closest to the damaged railway tracks. To hide this inhumane policy from the public, British counselor Sir Ronald Graham censored all media to publish the news.[489]

On March 15, a demonstration in Mansura exemplified how a popular protest could readily evolve into railway sabotage. Several days before the demonstration, an Egyptian chemist named Shukri Sadiq went to a chemist shop and purchased 200 grams of potassium chloride and 500 grams of glycerin, the ingredients that enabled him to make explosives. Because of this unusual and suspicious purchase, the police arrested Sadiq and put him in prison. Yet, for some inexplicable reason, Sadiq was released after a short time and joined the March 15 demonstration. Sadiq was one of, but certainly not the only protestors who carried self-made explosives or weapons during the Mansura demonstration. At 10 a.m., the protestors collided with British soldiers, resulting in 8 natives killed and 20 wounded. Since protesters knew that more British soldiers would soon arrive via the railway and provide reinforcements from other areas to Mansura, a few demonstrators decided to burn the station on the State Railway at Sharbin and removed some of the rails on the Basse Égypte Railway. As a result, all railway traffic stopped on that day near Mansura.[490]

[489] Fahmy, *Ordinary Egyptians*, 139.
[490] FO 141/747/6/8954, "Unrest at Mansourah," March 16, 1919.

Since both state-owned and private railways during the Revolution period were almost exclusively used for transporting government officials and imperial soldiers and no longer served civil purposes, plenty of demonstrators viewed the railway as an infrastructural and institutional accomplice to the British military suppression of Egypt's independence movement. Sabotaging railways not only illustrated the growing anti-British sentiment, but also functioned as a realistic strategy to prevent imperial personnel supplies from arriving that might endanger local nationalist movements. From the perspective of British authorities, the situation in Egypt was deteriorating quickly, as such railway sabotage and other strategies of cutting communications spread throughout the entire country, in Cairo, Tanta, Damietta, and even more gravely, in Upper Egypt.[491] In his March 22 correspondence with Sir Reginald Wingate, the British High Commissioner, General Macauley stated that "this kind of damage affects the efficiency of a railway very much and will considerably reduce the number of trains which is possible to run and the amount of goods which can be dealt with."[492] The frequency of railway vandalism lasted for over one year. Until the early 1920s, *al-Ahram* newspaper still frequently covered cases about attacks on railways.[493]

Rampant sabotage and frequent workers' strikes severely challenged the capacity and efficiency of railway transportation. Additionally, the British authorities worried that the Egyptians who were flooding into Egypt's major cities would add fuel to the ongoing turmoil. Consequently, the G.O.C Egyptian Expeditionary Force issued a travel restriction on March 22 for railway travelers. According to this order, no traveling was allowed on railway lines south of Cairo. The Delta network only allowed British and other foreigners to travel between Alexandria,

[491] FO 371/3714/41569, "Military Report," March 15, 1919.
[492] FO 141/745/1/8889/1, "Nationalist Riots: Import and Transport of Supplies," March 20, 1919.
[493] *Al-Ahram*, January 2, 1920, "Hirasa al-Sikka al-Hadidiyya;" *al-Ahram*, January 20, 1920, "Hawadith al-Qitar;" *Al-Ahram*, February 3, 1920, "Haditha Muhajama al-Qitar."

Ismailia, Port Said, and Suez, if they showed valid passports and could prove their residency in one of these cities. All Egyptians were prohibited from traveling by train, except if they were government employees or if they had been granted a special permit by the EEF.[494] The British authorities viewed the discriminative travel ban as appropriate punishment for the recent attacks on railways. When they announced the reopening of train services in Lower Egypt on May 10, they also warned that "any attacks on the railway will be dealt with not only by punishment of the persons concerned but also by the withdrawal of railway facilities from the area in which the outrage occurs, and may possibly result in the restrictions which are now being abolished being re-imposed on the travelling public in general."[495] The provision of public utilities like railways became instrumental for British authorities to prevent future riots that might disrupt the colonial social order.

British authorities were also concerned about and feared that unexpected cuts in train transportation would result in a nationwide shortage of food supply, and thus would stimulate even stronger anti-British sentiment in Egyptian cities, which almost completely depended on external food supplies. According to the Supplies Control Board's minutes on April 20, 1919, after more than a month's turmoil, the stock of flour held by dealers and bakers in Cairo, Alexandria, and the Canal towns would not last for more than 3 or 4 days. There were similar sugar and meat shortage in major Egyptian cities after more than a month of disturbances.[496] Normally, the peak of cereal imports happened in June. The ESR would prepare its transportation capacity, such as checking rail safety, repairing rolling stocks, hiring additional seasonal workers, approximately one month in advance to guarantee the more frequent-than-usual cargo transportation. If Egypt's major cities were to run out of food supplies before June,

[494] FO 141/745/2/8898/4, "Restrictions on Travelling in the Interior," March 27, 1919.
[495] FO 141/745/2/8898/18, "Notice," May 7, 1919.
[496] FO 141/745/1/8889/3, "Supplies to the Civil Population of Egypt," March 20, 1919.

nationalist agitation would soon follow. Facing the imminent food crises, Milner Cheetham, who replaced Reginald Wingate as the British High Commissioner during the Revolution, chose to conceal this information from the public to prevent and neutralize any further turmoil.[497]

However, impaired railway lines and railway strikes had adversely impacted Britain's ability to transport food supplies from abroad and Upper Egypt. Food prices soared and impoverished Egyptians suffered the most from the worsening conditions. British archeologist George Davis Hornblower wrote on April 25 about what he witnessed in Cairo, "there [were] many people of the lower classes practically starving, most of whom would perpetrate any mischief if it would bring them a few dollars (or less)."[498] To cope with this anticipated food shortage, the Supplies Control Board ordered the immediate importation of Australian flour and local maize from rural areas to meet the ever-present demand in Cairo, Alexandria, and Canal cities until the end of June.[499] The British military also supplied a certain quantity of horseflesh and camel to meet the protein needs of the urban populations. To avoid using broken railway lines, these supplies were brought by water transportation, which, despite its slow speed and lesser capacity, was the only viable choice for the British authorities.[500]

At times, demonstrations evolved into direct confrontation between Egyptian crowds and security forces at railway stations. Egyptian demonstrators were shot, arrested, and even killed during the conflicts. There were cases in which British soldiers also suffered casualties, and in these scenarios, British authorities revealed their anxiety related to these emergency conditions. On March 15, at 8 a.m., about 2,000 Egyptians gathered before the Shariʿa court and the parquet (equivalent to the prosecutor's office) of the Qalyub village in support of the detained Wafdist

[497] FO 141/745/1/8889/2, "Correspondence from M. Cheetham to the Lordship," March 16, 1919.
[498] FO 141/745/1/8889/4, "Correspondence from George D. Hornblower to the Ministry of the Interior," April 25, 1919.
[499] FO 141/745/1/8889/3, "Supplies to the Civil Population of Egypt," March 20, 1919.
[500] FO 141/745/1/8889/6, "Correspondence from Walter Campbell to Keown-Boyd," April 25, 1919.

leaders. British records showed that the demonstrators were "carrying pieces of timbers or thick sticks."[501] Yet the initial progress of the demonstration showed little sign of excessive violence. The central aim of the protestors was to shut down the court and the parquet, which they believed hardly represented social justice. After the protesting crowd stayed two hours in front of the court, the *maʾmūr* (district officer) received instruction from the *mudīr* (province governor), ordering him to command the police force to disperse the gathered crowd. Apparently, this order irritated a good number of the protestors. Galvanized, they together marched towards the nearby Qalyub train station. After arriving, they began destroying the station doors and windows. At first, the maʾmur and the police commandant abstained from firing at the crowd to try to diffuse the situation. As the looting continued, some demonstrators obtained levers, axes, screw-wrenchers, and many other weapons from the railway stores. The point of no return happened when protestors obstructed a train loaded with British soldiers that approached Mansura from the Sharqiyya province. The British soldiers on that train, unable to stabilize the chaos and eager to withdraw from the station, fired multiple shots to disperse the demonstrators. These shots were followed by even more shots from the local police, who saw British soldiers' shoots as a sign of violent suppression. However, the gunshots did not intimidate the protestors, but quite to the contrary, enraged them and turned the situation into a direct conflict. In an ensuing group fight, a British soldier was stabbed to death. Three Egyptians, Yahya Abdel Rahman, Hussayn Ahmad Hilal, and Mitwalli al-Saʿid, were held accountable for the death and handed over to the military court. The protesters suffered far greater losses. Three Egyptians were killed by gunfire, and five more wounded. But no British soldier was held accountable for any of these crimes or atrocities.[502]

[501] FO 141/747/8/8972/1, "Death (murder) of a British Soldier at Kaliub Railway Station," March 15, 1919.
[502] FO 141/747/8/8972/1, "Death (Murder) of a British Soldier at Kaliub Railway Station," March 15, 1919.

During the nationwide protest, it was common for Egyptian railway employees and railway security forces to sympathize with demonstrators who might not follow the law, and on many occasions, supported the violent acts of their compatriots. Especially in Upper Egypt where social control from the central Cairo government was relatively inadequate, law enforcement on the railway had little to no incentive to stop such improvisational conflicts. On February 7, 1920, led by a local poultry dealer named Abd al-Baqi Ali, a group of rioters armed with knives and pikes attacked the first-class carriage of a train in Dairut (a town near Asyut). When the murder happened, there were three people in the carriage: British Colonel Pope, Shukri Bey from the Prison Department, and a ticket inspector. The rioters paid little attention to the latter two, perhaps because both were natives. Colonel Pope, however, was targeted and brutally killed after his failed attempt to escape. His body was eventually put into the engine furnace with some witnesses stating that it was possible that he was still alive when he was incinerated. The rioters then broke all doors and windows of the carriage with stones, sticks, and pikes. During the carnage and railway sabotage, the acting station master Sidi Effendi Hanan could clearly hear the riot from his office, but he sent a belated message call for police assistance some twenty minutes after Colonel Pope's untimely death. Furthermore, the *mulazim* (lieutenant) Tani Abdu Effendi and his 30 subordinates, arrived at the scene unarmed and unprepared to intervene in the conflict. They watched the rioters leave the scene without apprehending any of them. According to the investigation report submitted to the Ministry of Council, the police "took little or no active part in the fighting [against the rioters]." Nor did they "[provide] an adequate escort, either to travel on with the train, or to conduct the party to the Markaz at Dairut for safety, and did not send a warning to the Markaz at Dayr Mawas or Mallawi (the next two train stations)."[503] Evidently, local railway staff and policemen in this case shared complicated feelings about

[503] MN, DWQ [0069-007057], February 7, 1920.

violence agitated by nationalist demonstrations. Although they were employed to maintain public security, they publicly allowed—and perhaps even encouraged—excessive violence against British citizens by their willful inaction.

If the tragic murder of Colonel Pope reflected a dereliction of duty by railway policemen in failing immediately to stop the violence, the propensity toward more extreme violence culminated as the train proceeded downstream along the Nile. In the stations of Dayr Mawas, Mallawi, and Minya, more rioters boarded the train, either climbing into the carriage or sitting on the roof. In the next two and half hours of this riotous trip. Six more victims, including five British military officers and one Egyptian custodian, were slaughtered in exceptionally cruel and brutal ways. In other carriages, some 60 Egyptian soldiers were returning on leave after their missions in Sudan. Perhaps out of a sense of relief that their British superiors would no longer be able to order them around, they "joined cheering and beating the sides of their compartment to show their approval" when the murder was taking place.[504] Although no evidence showed that any Egyptian soldiers committed the murder themselves, they extended enormous moral support to the rioters who perpetrated the violence. After all, these rank-and-file soldiers had military duties to protect their British superiors. But agitated by the nationalist atmosphere among the local population in less urbanized areas and the inequities of British command, Egyptian soldiers became spectators in this scene of excessive violence.

Conclusion

Ziad Fahmy, in his retelling of the axis-tilting history during the Spring of 1919, describes the diverse, colorful, and fascinating popular culture blossoming in Egyptian streets,

[504] MN, DWQ [0069-007057], February 7, 1920.

involving dancing, chanting, play, public speech, debate, and religious assembly.[505] This chapter, by shifting the focus from Egypt's urban centers to less developed areas, reveals the repertoires of contention that the Egyptian populace selected to address the deep-rooted problems of social inequality, injustice, and racism that plagued various contact zones within the rail sector. These contentious acts—petitions, strikes, and insurrections—guided the powerful sociopolitical interactions that grassroots Egyptians engaged in for social equity and prepared them for their participation in the broader nationalist movement.

In a colonial society like early twentieth-century Egypt, colonizers spoke the language of violence, and in retrospect, they also comprehended violence as a logical response from the colonized. When individual petitioners lodged their own grievances to their venerated rulers, they might be blessed to obtain mercy and find grace in their personal livelihood. But at the same time, they lost the chance to bring about more fundamental change to the colonial society. As for grassroots revolutionaries of 1919, their actions were far from bourgeois-oriented, elegantly operated, or adherent to any sophisticated rationales. They responded to the nationalist clarion call from various corners of the nation, and unavoidably carried with them unwanted facets of recklessness, intolerance, political myopia, and other kinds of imperfections. To acknowledge these imperfect facets does not undermine the historical achievement of the 1919 Egyptian Revolution, but rather affirms the inclusiveness of the historical event and its grassroots nature. It was these rebellious and contentious people from the bottom of Egyptian society that brought about the dynamics and final victory of the national struggle. As Mao Zedong remarks on the peasant movement in Hunan, China, "a revolution is not a dinner party…[It] is an insurrection, an act of violence by which one class overthrows another." [506]

[505] Fahmy, *Ordinary Egyptians*, 134-166
[506] Mao Zedong, "Report on an Investigation of the Peasant Movement in Hunan," March 1927.

CONCLUSION

The construction of the new Imbaba Bridge, one of the most iconic structures for the Egyptian railway even today, was completed in 1924. Taking more than twelve years to complete, this bridge was the last megaproject under the supervision of the British-dominated Railway Administration.[507] On February 28, 1922, Britain unilaterally declared Egypt's independence and ended Egypt's protectorate status. However, this declaration was not received positively on the global scale and especially among the Egyptian population. Britain's unilateral declaration included several items that curtailed Egypt's full independence. Among the four reservations, the declaration guaranteed "the security of the communications of the British Empire in Egypt."[508] Since the Railway Administration had entrusted the Ministry of Public Works to the newly established Ministry of Communications in 1919, it was also exempted from the transfer of power.

The Egyptian population's dissatisfaction with the 1922 Unilateral Declaration converged into a new wave of political campaigns in support of Saʿd Zaghlul's release. Railways, again,

[507] The first iteration of the Imbaba Bridge was constructed in 1891. The iron bridge enabled trains to cross over the Nile River. However, the Imbaba Bridge showed signs of structural defects in 1897. See BNA, ZSPC 11/303, "The Egyptian Government Railways and Locomotives," July 1941. The second Imbaba Bridge, which is the current version, started construction in 1912 by the Belgian engineering firm Baume-Marpent. The bridge includes two railway tracks, two passages for motor vehicles, as well as two passages for pedestrians. Anonymous, "Cairo's Bridges over Time: Tracing a History of Construction," *Egyptian Streets*, May 24, 2019, available at https://egyptianstreets.com/2019/05/24/cairos-bridges-over-time-tracing-a-history-of-construction, accessed in May 14, 2021.

[508] Albert P. Blaustein, Jay A. Sigler, and Benjamin R. Beede, eds., *Independence Documents of the World*, vol. 1 (New York: Oceana Publications, 1977), 204-05.

became a site of conflicts and political violence. On February 7, a British railway official was attacked. This was followed by stringent military and punitive measures against the urban quarter where the attack occurred. On March 1, five British soldiers and three Egyptians were injured in a bodily conflict near the Cairo railway station. Statistics show that casualties, trials, executions, and other sentences resulting from political crimes of violence began to increase in the second half of 1922 and peaked around February and March of 1923.[509]

With the ever-growing violence of nationalist protests, Egypt's fully instated independence became a much more urgent question, especially that the Railway Administration's status had remained an institutional puppet of the British Royal Engineers. The radical wing of Egyptian nationalist leaders, including Saʿd Zaghlul, called for a rapid Egyptianization of the administration and proposed to stop seeking advice and counsel from London when deciding affairs related to the railway.[510] This claim received strong opposition from conservative British railway officials. R. B. D. Blakeney, who served as the ERA's General Manager between 1919 and 1923, requested that Edmund Allenby, the British governor of Egypt, continue to preserve the Railway Administration under the British command even though Britain had already acknowledged Egypt's nominal independence. He persuaded Allenby that railways "[formed] an important part of imperial communications, and therefore, should maintain a status quo.[511] However, Allenby shortly thereafter removed Blakeney from his position and replaced

[509] FO 141/583/1, "Riots and Murder Statistics," 1919-1925; FO 371/45919/J1061, "A List of the Political Crimes Which Took Place Between the Years 1910 and 1946."
[510] Robert Tignor, *State, Private Enterprise, and Economic Change in Egypt*, rev. ed. (Princeton, NJ: Princeton University Press, 2017), 87.
[511] FO 371/8959, "Correspondence from Allenby to Curzon," January 14, 1923. Blakeney complained "of obstructive and improper interference with his work on the part of Egyptian Under Secretary of State, with the result that efficiency of Railways is now seriously threatened."

him with Mr. Bersford Maxwell, who, unlike Blakeney, did not have a military background.[512] This personnel shuffle revealed Allenby's moderate attitude on the issue of railways.

In the second stage of the Egyptian parliamentary election on January 12, 1924, the Wafd Party won a landslide majority, electing Saʿd Zaghlul as Prime Minister and the country's de jure *zaʿim al-umma* (national leader). Although the Wafdist government was short-lived, it critically influenced the personnel structure of the Egyptian Railway Administration. On March 15, King Fuad opened the first Egyptian constitutional parliament amid popular celebrations. In the new Wafdist cabinet, Egyptian engineer Abdel Hamid Pasha Sulayman was appointed the General Manager of the Egyptian State Railways, Telegraph, and Telephones, while he also held a concurrent post as the Minister of Public Works.[513] British officials were never able to reclaim this crucial railway position after Abdel Hamid's tenure.[514] Administratively, Egyptian engineers successfully regained control over railways in the Egyptian territory since 1924. Instead of relying on British officials, technicians, and laborers, the new nationalist administration laid down policies to train technically capable native engineers to round out its administrative and operational positions. The remarkable historical event marked a new phase of nationalization in the history of Egyptian railways.

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[512] Hayʾa al-ʿAmma, *Egyptian Railways*, 26.

[513] Gilbert F. Clayton and Robert O. Collins, eds., *An Arabian Diary* (Berkeley, CA: University of California Press, 1969), Appendix IX.

[514] A total of five Egyptians had been in the position of the General Manager during the British occupation period. They were Sami Pasha, Ali Rida Pasha, Yacoub Artin Pasha, Boghos Nubar Pasha, Iskander Fahmy Pasha. Of note, Abdel Hamid Pasha Sulayman belonged to the influential al-Sirri family. The patriarch Ismaʿil Sirri Pasha held positions as the Minister of Public Works and the Minister of Defense multiple times in nine governments between 1908 and 1926. Abdel Hamid Pasha was Ismaʿil Sirri Pasha's son-in-law. Four members of al-Sirri family once held the position of the Minister of Public Works. Samir Raʿafat, "Villas Power and Politics," *Cairo Times*, January 18, 2001, available at http://www.egy.com/zamalek/01-01-18.php.

Paradoxes of Colonial Railways

There is no single criterion whereby to assess the historical significance of Egypt's colonial railways between 1876 and 1924. To conclude this dissertation, I contend that three paradoxes characterized the Egyptian railway under its colonial administration. The first paradox was the railway's profitability and its engineering development. Controlled by British officials, the grant policies of the colonial railway embodied the will and interests of the global empire. From 1876 to 1904, Egypt's financial quagmire provided the definite reason and the utmost motif for the international intervention in the Egyptian railway, which provided reasons, albeit unjustified, for the administrative domination of British officials. To repay Egypt's colossal public debt as early as possible, the Caisse de la Dette Publique, partnering with the Railway Administration, enforced rigid austerity policies to exploit Egyptian railways' revenue for that purpose. This substantial and incessant financial transfer accomplished the circulation of capital from infrastructures in Egypt back to the hands of European creditors. With the strengthening of European investors, they continued speculative activities in Egyptian market, and created the "financial prosperity" at the turn of the twentieth century. Exteriorly, austerity in public-spending sectors laid the very foundation for the high tide of British colonial rule under Lord Cromer.

The success in increasing the railway system's profitability, however, came at the cost of multiple interconnected failures in its engineering operations. Obsessed with profits, the Railway Administration substantially ignored the infrastructure's long-term development. Thus, severely insufficient investment in the railway's future characterized the first half of the colonial period, resulting in the system's aging equipment, frequent delays and accidents, and deficient training for local engineers. To solve the Egyptian government's financial constraints, it granted concessions to European consortia for financing private railway companies separate from the

state-own railway. These railway concessions further engendered Egypt's sovereignty and incurred strong oppositions from Egyptian nationalist intellectuals as well as the general public.

The second paradox reveals the contradiction between the railway's modernization effects and the country's under-industrialization. During the colonial years, railways replaced waterway navigation to become the most crucial means of domestic transportation. The Railway Administration not only managed to lengthen the Upper Egyptian line further south to Aswan, but also significantly complicated the rail network by doubling existing lines and incorporating new auxiliary lines built by private companies. Consequently, the total length of tracks more than tripled from 1,355 kilometers in 1879 to till approximately 4,500 kilometers in 1914. Accordingly, the number of passengers increased by ten times and tons of goods by six times.[515] Railways reached more rural villages and tremendously popularized the transportation of goods to the Egyptian masses. In military operations, railways played a crucial role in supporting military personnel and supplies that ensured a British victory in the ʿUrabi Revolt, the Sudanese expeditions, and the First World War. Both civil and military uses of the railway brought Egypt from an agricultural producing country to the Age of Steam.

The unbalanced and exploitative railway development in Egypt marked a quintessential example of westernization without industrialization, a developmental pattern that still plagues most developing countries today. New technologies and more standardized management installed by British engineers and administrators significantly modernized the sphere of Egyptian railways, and in an objective scale, made the gap between Egypt and Europe less discernable. But the country was far from industrialized, even though pioneering Egyptian intellectuals began

[515] In 1880, the number of passengers was 3,086,478 and the tons of goods were 1,143,312. See *Statistics Returns*, 17. In 1913, the number of passengers was 27,941,187 and the tons of goods were 6,370,716. See *Reports by his Majesty's Agent and Consul-General on the Finances, Administration, and Condition of Egypt and the Sudan in 1913*, 26.

to imagine an industrial Egypt. Because the rail sector could not meaningfully transform the productive forces towards industrialization, new social relations that marked a capitalist society also belatedly arrived in Egypt, such as labor unions. Furthermore, Egyptian railways also provided opportunities for the reproduction of preexisting social relations and blended them with new colonial power dynamics in train stations and passenger cars. Consequently, railways contributed to an increasingly westernized yet unindustrialized and colonial society in Egypt.

The third paradox is situated in the centralization of colonial governance and the irregularities of its local agencies. As an infrastructure that stretched across the breadth and length of Egypt, how to maintain its public security incurred intensive colonial anxieties over social disorder. To strengthen supervision from Cairo offices, the central government and the Railway Administration coordinated and adopted increasingly hierarchical personnel structures and militarized strategies that aimed to directly supervise all activities along the rail. This transformation was heightened during the Great War and the post-war Revolution when Royal Engineers officers and British soldiers directly supervised the safety of major railway lines. These centralization measures to the utmost degree consolidated British domination over the the complex rail networks in Egypt.

Britain's endless pursuit of power, however, was accompanied by incessant resistance. In reviewing the history of railway crimes, labor movements, and insurgencies, we discover grassroots desires and practices to redistribute social wealth, repurpose the railway's promises of technological modernity, or directly challenge the legitimacy of colonial governance. Railways were synonymous with macro-dimensions of geopolitics, economy, and governance; they also gave shape to and were shaped by quotidian human experiences that British colonial rule failed to consider.

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