

Flowing Connections in the Strait of Malacca: Nature, Trade, and the Rise of a Global Transit Corridor, c. 1850–1900¹

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In the stormy autumn of 1795, on his way from Madras, India, to the Moluccas (also known as Maluku Islands), the British engineer Walter Caulfield Lennon crossed the Strait of Malacca. Located between the Malay Peninsula and the island of Sumatra, the Strait of Malacca offered Lennon by far the shortest path between the Indian Ocean World and East Asia. Lennon's sailing ship, the *Suffolk*, had been held up in the Bay of Bengal by the transitional period at the end of summer, when the southwest monsoon turns northeast and heavy rains make navigation almost impossible and reached Malacca more than six weeks after leaving the Indian coastlines.² His

¹ This article is part of a Ph.D. project that develops the analytical value of environmental transit corridors for the theoretical grounding of global history, using the Strait of Malacca's imperial transformation in the second half of the nineteenth century as an empirical example. For additional information see <https://europa.unibas.ch/en/about-us/people/academic-staff/lars-kury>. I wish to thank Madeleine Herren as well as the editors and reviewers of this issue for their valuable suggestions and comments on earlier versions of this article.

² Walter Caulfield Lennon, "Journal of a Voyage through the Straits of Malacca on an Expedition to the Molucca Islands under the Command of Admiral Rainier

with Some Account of Those Islands at the Time of Their Falling into Our Hands, and Likewise Suggestions Relative to their Future Better Management in Case of Being

Retained in Our Permanent Possession," *Journal of the Straits Branch of the Royal Asiatic Society*, no. 7 (1881 [first published 1796]): 51–74.

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3 Lennon, "Journal of a Voyage," 62.

4 *Ibid.*, 64.

5 Rudolf Martin, *Über Eine Reise durch die Malayische Halbinsel* (Basel, 1900). For the scientific results of Martin's journey, see Rudolf Martin, *Die Inlandstämme der Malayischen Halbinsel: Wissenschaftliche Ergebnisse einer Reise durch die Vereinigten Malayischen Staaten* (Jena, 1905).

report to the East India Company was written during the British occupation of Malacca during the Napoleonic Wars and explored its economic potential in anticipation of future British rule. In his account, the numerous layers of foreign rule set the historical pace. By the end of the fifteenth century, Malacca had already risen to become the most important center of power in the Southeast Asian archipelago. Originally used as a transshipment hub for Muslim traders traveling between India and China, the port of Malacca became entangled in the struggle for imperial control among the Europeans in the early sixteenth century. As an outpost of the Portuguese Empire since 1511 and from the mid-seventeenth century onwards under Dutch colonial rule, Malacca developed into a microcosm of the early modern trading world. When Lennon visited Malacca in 1795, the ancient city still enjoyed a reputation as a trading hub for both regional and global markets. Although its harbor was largely isolated from its own hinterland by impenetrable jungle, Lennon mentioned that Dutch Malacca was "situated in the most favourable way for uniting all the resources of a rich country with an easy communication by sea to foreign markets."³ In fact, the British placed great confidence in Malacca's environmental advantages for prosperous trade even in the upcoming nineteenth century. Comparing Malacca with the recently established Navy Post in Penang, Lennon argued, "Malacca is better situated for trade, particularly that carried by the Malays in their prows; and it is the key of the straits, since no ship can pass but in the sight of it."⁴ After a short layover in Malacca, the *Suffolk* meandered further eastwards, fighting tides and unpredictable currents, in an utterly unexplored maze of reefs, islands, and channels, on her way out of the strait.

A century later, in the spring of 1897, the Swiss anthropologist Rudolf Martin crossed the Strait of Malacca in the same direction, heading east from Colombo, on a North German Lloyd steamer.⁵ Only three shipping days after leaving Colombo, his steamer turned into the strait, passing Sumatra to the south



and the Nicobar Islands to the north. Enclosed between the British Empire in Malaya and the Dutch Empire in Indonesia, however, the Strait was no longer comparable to the passage Lennon had encountered a century before in 1795. In Martin's account, the number of shipping channels had increased drastically, and telegraph cables lined up tightly on the bottom of the sea before reaching out into the world. The stretches behind the strait's coastlines, once places of hidden Hindu shrines and dense Malaysian jungle, were now overgrown with palm oil and rubber plantations. And where once sailing ships crossed paths on their way between India and China, now a maritime highway of hundreds of steamers connected the markets in the East and West. "It was not 400 years ago," Martin recalled later, "that the first European ship entered this strait seeking the Malacca that the Portuguese were told was the most important spice market in the whole East. [. . .] Today, Malacca is a place abandoned by European trade, almost exclusively a Chinese city; the harbor is silted up, the ruins of a mighty Portuguese cathedral still peer down from the height of the hill - the last witnesses of former splendor and culture." Further southeast, Martin reached the end of the strait, entering the waters of Singapore, a place that recorded an unprecedented rise in economic importance throughout

Figure 1. A painting of the Dutch port of Malacca at the height of its commercial glory, in the mid-eighteenth century. The port continued to serve as the Strait of Malacca's main transshipment hub until the beginning of the nineteenth century. Source: Didot, *Histoire générale des voyages* (Paris, 1750), Wikimedia Commons.

6 Martin, *Über eine Reise durch die Malayische Halbinsel*, 2. Unless otherwise noted, all translations are the author's.

the nineteenth century. "In 1809," Martin finally remarked, "there were only a few Malay huts and boats of the Orang Laut here, those sea gypsies who at that time roamed almost all the coasts of the Malay Archipelago. Today, on the same spot, a city of over 200,000 inhabitants arises, nearly incomparable to any other port in the world."⁶

Both Lennon's and Martin's accounts offer insights into the nineteenth-century history of a global transit corridor that is characterized by a complex interaction of continuity and transformation: On the one hand, the Strait of Malacca, the shortest link connecting the Indian Ocean and the South China Sea, continued to be one of the most important transit corridors throughout the nineteenth century. At the same time, the global connectivity of the various locations along the strait's coastlines, such as the port of Malacca, seems to have changed fundamentally in the nineteenth century. Where a cosmopolitan group of traders had encountered a global hub for the trade in Southeast Asian spices in the 1790s, a century later only ruins indicating its former glory remained. Instead, just a few miles to the East of Malacca, on a spot where in the early 1800s only a Malaysian fisherman's village had existed, by the end of the nineteenth century a new transit hub had emerged: Singapore.

In line with recent research on infrastructure in global history, this paper proposes to use the analytical value of transit corridors in order to unravel the interplay between global connections and disconnections in the case of the Strait of Malacca. I argue that non-artificial transit corridors are particularly valuable for illustrating the dynamics of global connectivity and the interdependence of included and excluded spaces. To develop this argument, I will first discuss the value of a theory on transit corridors for global history and the use of the Strait of Malacca in particular as an example for the study of global connections. In the next section, I will use the development of the tin trade across the Strait of Malacca as an example in order to examine how changing

trading routes could create new global connections and at the same time sever existing ones, often resulting in the marginalization of previously commercially significant places and communities. In this section, I will be arguing that the discovery of new tin deposits in the Malay hinterland of the Malacca Strait, starting the 1840s, caused a huge shift in the global connectivity of the various places along the strait's coastlines. On a conceptual level, my essay proposes to conceive of the Malacca Strait's imperial transformation in the second half of the nineteenth century as the making of an environmental type of infrastructure.⁷ In addition to human agents, this also requires to include non-human factors and forces like the hinterland's nature and local environmental conditions into the historical analyses of global connections.

I. A Global History Theory on Transit Corridors: The Strait of Malacca as a Case Study

In recent years, the field of global history has entered a phase of consolidation. Instead of previously dominant smooth narratives of transregional relations and one-way narratives toward an ever more integrated world, scholars nowadays explore the coexistence of connections and disruptions. Instead of enthusiastic studies on moving goods and ideas, the field has been increasingly debating the tense interplay between excluded and included spaces and the role of those who so far remained in the shadows of cosmopolitan convergence.⁸ This development has gained particular momentum within the historiography on global infrastructure. Following Sujit Sivasundaram's observations on the nineteenth-century port of Colombo, for instance, the physical making of connections has always been related to boundedness and disconnections.⁹ Whenever we speak of global connections, we inevitably overlook those people and places who do not have a share in these connections. Others make similar arguments regarding communication technologies or mobility infrastructure, such as the railway, the telegraph, or maritime

⁷ On Environmental Infrastructure, see Emmanuel Kreike, *Scorched Earth: Environmental Warfare as a Crime against Humanity and Nature* (Oxford, Princeton, 2021); Martin Kalb, *Environing Empire: Nature, Infrastructure and the Making of German Southwest Africa* (New York, Oxford, 2022).

⁸ Examples include Zoltán Biedermann, *(Dis)Connected Empires: Imperial Portugal, Sri Lanka Diplomacy, and the Making of a Habsburg Conquest in Asia*, (Oxford, 2018); Zoltán Biedermann, "(Dis) Connected History and the Multiple Narratives of Global Early Modernity," *Modern Philology* 119, no. 1 (2021): 13–32; Sujit Sivasundaram, "Towards a Critical History of Connection: The Port of Colombo, the Geographical 'Circuit,' and the Visual Politics of New Imperialism, ca. 1880–1914," *Comparative Studies in Society and History* 59, no. 2 (2017): 346–84; Roland Wenzlhuemer, "Connections in Global History," *Comparativ* 29, no. 2 (2019): 106–21.

⁹ Sivasundaram, "Towards a Critical History of Connection," 347.

10 Martin Meiske, *Die Geburt des Geoengineerings: Grossbauprojekte in der Frühphase des Anthropozäns* (Göttingen, 2021); Eike-Christian Heine, *Vom grossen Graben: Die Geschichte des Nord-Ostsee-Kanals* (Berlin, 2015); Belge Boris, "(Dis) Connected: Railway, Steamships and Trade in the Port of Odessa, 1865–1888," *Journal of Balkan and Black Sea Studies* 3, no. 5 (2020): 49–69; Mikko Toivanen, "Disconnectivity in the Age of Globalization: Coastal Ecology, Telegraphy, and Empire in the Sunda Strait, 1863–1883," *Arcadia*, no. 28 (2021).

11 The development of an analytical concept on the use of environmental transit corridors in global history is the subject of the Ph.D. project this article builds on. For previous theoretical reflections on the phase of transit in global history, see Roland Wenzlhuemer and Michael Offermann, "Ship Newspapers and Passenger Life: Aboard Transoceanic Steamships in the Late Nineteenth Century," *The Journal of Transcultural Studies* 3, no. 1 (2012): 77–121; Wenzlhuemer, *Doing Global History*, 145–68;

transport facilities.¹⁰ These studies all agree that infrastructures not only share a unifying but also a dividing impact. They privilege some while working to the disadvantage of others. They often displace residents and local industries or make old transportation and trading routes irrelevant. Historical narratives of worldwide entanglement are therefore increasingly based on a tense interaction between global connections and disconnections, reflecting in a sense the twenty-first-century post-globalizing world.

Broadly speaking, transit corridors refer to areas and zones that experience a particularly high rate of passage by people and goods and have been shaped by these to some degree.¹¹ They typically connect two points, commercially or geographically, and therefore serve as a distinct link. Among the most prominent examples are the territories around the Suez Canal connecting the Red Sea and the Mediterranean, the tunnels at Mont Cenis or at Gotthard in the Western Alps, and the Strait of Malacca in Southeast Asia linking East Asia and the Indian Ocean World.¹² Their histories are shaped by a multitude of transregional exchanges and contacts. Moreover, from the perspective of the traveler or commodity passing through, transit corridors mark part of their journey between two ports, cities, or markets. In transit corridors, one might therefore say, the phases in-between the starting or end point of a global connection – the transit phases so to speak – occur in multiple clusters. In line with recent literature on shipping channels in global history, such a supposedly highly

Martin Dusenberre and Roland Wenzlhuemer, "Editorial – Being in Transit: Ships and Global Incompatibilities," *Journal of Global History* 11, no. 2 (2016): 155–62.

12 On the Suez Canal, see Valeska Huber, *Channelling Mobilities: Migration and Globalisation in the Suez Canal Region and Beyond, 1869–1914* (Cambridge, 2013); on Mont Cenis, see Wenzlhuemer, *Doing*

Global History, 121–44. Further examples include the Eurasian caravan corridors of the Silk Road. See Jagjeet Lally, *India and the Silk Roads. The History of a Trading World* (London, 2021).

connected space provides an ideal case for a detailed investigation of global connections.¹³

Transit corridors play a pivotal role in historical narratives of globalization. In this paper, I argue that the entanglement of global connections and disconnections is especially reflected in a long-term perspective on non-artificial (or environmental) transit corridors. They offer a contrasting paradigm to the many artificial infrastructural projects of the imperial age and allow to be conceptualized as environmental infrastructures. It is in these spaces, where the actual transit between two distant places becomes tangible, and where global connections are created, interrupted, or redirected. Or, to put it another way: Looking at environmental transit corridors in a diachronic perspective, historians can trace processes of both connectivity and disconnectivity and weave both into their narrative of historical globalization. This applies to the Strait of Malacca especially in relation to the following points:

First, the Strait of Malacca's history as a transit corridor reaches far back to pre-modern times. Surrounded by the Malay Peninsula and Sumatra Island, the strait has been the shortest route between the South China Sea and the Indian Ocean for centuries.¹⁴ This environmental passage is therefore an excellent example of both continuities and change – transit operations continued throughout the centuries but took different forms and directions. Well before the nineteenth century the passage had been a highly frequented route, located at the southernmost tip of the Asian mainland, connecting the East Asian markets of China, Japan, and the Southeast Asian archipelago with those of India, Europe, and the East African coastline. One could even say its unique location made it an environmental type of infrastructure.¹⁵ This allows historians to trace the increase or decrease of border crossings, changes of global trade, and the general development of transit operations along the strait's coastlines all the way back to the pre-modern era. In fact, centuries before the technological transformations of the nineteenth century, the passage had

13 See, for instance, Huber, *Channelling Mobilities*; Wenzlhuemer, "Connections in Global History."

14 For the geostrategic importance of the Strait of Malacca, see Donald B. Freeman, *The Strait of Malacca: Gateway or Gauntlet?* (London, 2003).

15 For an overview of trade and migration in the Malacca Strait region in the early modern period, see Malcolm H. Dunn, *Kampf um Malakka: Eine wirtschaftsgeschichtliche Studie über den portugiesischen und niederländischen Kolonialismus in Südostasien*, (Wiesbaden, 1984); Nordin Hussin, *Trade and Society in the Strait of Melaka: Dutch Melaka and English Penang, 1780-1830* (Copenhagen, 2007); Peter Borschberg, *The Singapore and Melaka Strait: Violence, Security and Diplomacy in the 17th Century* (Singapore, 2010); Leonard Y. Andaya, *Leaves of the Same Tree: Trade and Ethnicity in the Strait of Melaka* (Honolulu, 2008); Paulo Jorge de Sousa Pinto, *The Portuguese and the Strait of Melaka, 1575-1619: Power, Trade and Diplomacy* (Singapore, 2012).

16 Pinto, *The Portuguese and the Strait of Melaka*.

17 See, for instance, Goh Chor Boon, *Technology and Entrepot Colonialism in Singapore, 1819–1940* (Singapore, 2013); George Bogaars, "The Effect of the Opening of the Suez Canal on the Trade and Development of Singapore," *Journal of the Malaysian Branch of the Royal Asiatic Society* 42, no. 1 (1969): 208–51.

18 Wong Lin Ken, "The Trade of Singapore, 1819–1869," *Journal of the Malayan Branch of the Royal Asiatic Society* 33, no. 4 (1960): 4–325; Wong Lin Ken, "Singapore: Its Growth as an Entrepot Port, 1819–1941," *Journal of Southeast Asian Studies* 9, no. 1 (1978): 50–84; Chiang Hai Ding, *A History of Strait Settlements Foreign Trade 1870–1915* (Singapore, 1963), 51–79.

witnessed a considerable number of crossings by Arab traders, European colonialists, Asian merchants, naturalists and adventurers from all over the world.¹⁶ It therefore provokes comparisons, namely the question how such non-artificial infrastructures related to human-made structures imbued with great political significance, such as imperial infrastructural projects in the nineteenth century. What was the impact of technological and political endeavors such as the opening of the Suez Canal in 1869, the introduction of the treaty ports in China and Japan, the construction of roads and railways in the Federated Malay States, or the global demand for new raw materials on the Strait of Malacca's commercial statistics?¹⁷ And which connections characterized the Malacca Strait's economic networks both before the nineteenth-century infrastructural revolution and in its aftermath? Commercial connections and the indicators of global trade are particularly promising for comparisons such as these, as the settlements along the Strait of Malacca's shores proved to be ideally located not only for the export of tropical commodities, but also for the special characteristics of global entrepot trade.¹⁸

Second, investigating environmental transit corridors, historians can also raise questions about the interplay of local and global developments: Did the demand for new commodities change the local importance of the transit corridor? Were non-artificial infrastructures exploited by the European empires to provide geostrategic and commercial gateways or, by contrast, did they grant the local population an unintended gain in power? And how did local conditions shape the global connectivity of different locations in the transit corridor, especially in times of infrastructural, technological, and economic change? Transit corridors are particularly well suited for considering these local idiosyncrasies because they offer a variety of small-scale opportunities for comparison. Along a maritime transit corridor, for instance, there is usually not just one port of call for ocean-going cargo vessels, but several, each with different local specifics and advantages. These may

be commercial, geographical or geomorphological. In the late nineteenth century, for example, deep-sea steamers could no longer call at the same ports in the Strait of Malacca as pre-modern sailing ships had done before. Environmental transit corridors were therefore not only impacted by local environment conditions, in this case by insufficient water depth, but even by new technologies in shipbuilding which led to ever larger ships capable of carrying more cargo. In other words, the coastline's geomorphological nature had an impact on the number and type of ships calling at a port, thereby affecting both the port's trading activity and transregional connection. Similarly, the demand for early modern trading goods like spices or textiles in the eighteenth century required different local facilities at the strait's ports than in the early twentieth century, when the demand for Malay rubber placed new infrastructural and geographical requirements on transit ports. Again, local conditions such as a port's connection to plantations or mining fields determined whether it would remain competitive. Therefore, environmental transit corridors condense the possibility of establishing connections to different places and actors. As a result, connections occur in the plural, they differ, and they become comparable. In the case of the Malacca Strait, for instance, different ports, hinterlands, or merchants may be integrated into a study of connected and marginalized spaces.

Third – closely linked to the local dimension – investigating non-artificial transit corridors allows for conceptualizing them as what Environmental historians nowadays call “environmental infrastructures.”¹⁹ This approach directs the attention of historians to relations between infrastructure and nature and the multiple agents involved in the imperial transformation of colonial territories. It is therefore important to conceive of transit corridors not only as passages – the ocean highway, so to say, where the transit phase of global connections is most clearly tangible – but also as a geographical space that comprises more agents and forces besides ships

¹⁹ See Kreike, *Scorched Earth*; Kalb, *Environing Empire*.

and seamen. Rather, the Strait of Malacca encompasses the transit ports and human agents such as colonists, merchants, and the economies and enterprises located in the port cities. This includes not only sea-based but also land-based infrastructure and logistics that organize the transportation of goods and people between East and West and between the Malay hinterland and the world market. Moreover, the strait was frequented by local merchants who cultivated the corridor well before the arrival of Western enterprises. Such a comprehensive view on the strait even includes non-human actors such as the physical environment and biological agents: the tropical waters, calm and blue in the January winter yet battered by heavy rains in the summer monsoon; the coastlines, the seabed, the cliffs and sand dunes, the bays and rivers that drain into the strait; the minerals and raw materials mined in the strait's hinterland, and the mountains and plains whose climate correspond closely with the maritime world. It even includes biological agents like animals and diseases, which sometimes hindered, and sometimes facilitated the imperial projects in the Malacca Strait. In other words, conceiving of the Malacca Strait as environmental infrastructure includes multiple agents and forces; and the diversity of possibly connected elements across the Strait appears in a variety of actors and stakeholders that go far beyond the mere passage.

To employ these conceptual thoughts on environmental transit corridors empirically, it is necessary to bring nature, empire, and local idiosyncrasies into dialogue with one another. For this purpose, I suggest focusing on environment factors like, for instance, the distribution of minerals needed for the extraction of tropical commodities. The commercial history of these minerals and commodities reaches far back to pre-industrial times and was heavily impacted by nineteenth-century imperial and ecological expansion. This approach provides an analytical space that relates technological and infrastructural transformations to the natural environment. Furthermore, it requires a range of sources that track the

changes in connectivity over time: First, historical scientific publications offer important insights since they dealt with the ecology and economic potential of colonial lands.²⁰ Second, colonial correspondence among governors, engineers, naturalists, or merchants frequently indicate continuing interest in these resources and the commercial exploitation of the tropics. Finally, commercial statistics and trade returns provide insights into the quantitative shifts in local and global trading connections.

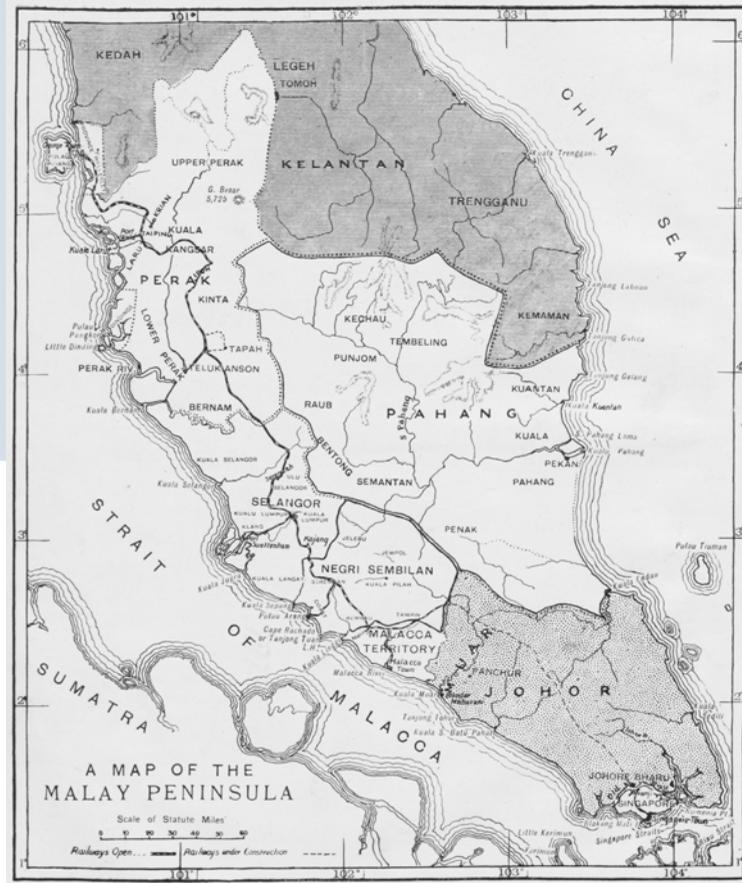
We have seen that environmental transit corridors provide an analytical lens for tracing processes of historical globalization. These highly connected zones are ideally suited for a detailed investigation of local-global relations and the transformation of global trade and commercial connectivity over time. The Strait of Malacca also offers a unique opportunity of including human and non-human factors and forces corresponding to the maritime passage. For global history, environmental transit corridors thus help illustrate questions about the dynamic shifts of global connectivity, depending on empire, nature, and the local environment. In the following, I will introduce an example that can serve to illustrate the potential of environmental transit corridors for the study of flowing and shifting connections. As the study of this example illuminates, conceptualizing the Strait of Malacca as an environmental transit corridor also enables historians to investigate contrary developments: The making of new and the transformation of old connections across the Strait also had regressive effects and initiated processes of marginalization in global networks.

II. Case Study: Following the Transport of Tin across the Strait of Malacca, c. 1850–1900

My example examines the trade in a metal extracted from the oxide ore cassiterite (SnO_2), which naturally occurs around the Strait of Malacca in shallower alluvial deposits, namely tin. I will discuss how the discovery of the world's largest

²⁰ See for instance the voluminous bibliography on tin published in 1912 by Frank Hess and Eva Hess, *Bibliography of the Geology and Mineralogy of Tin* (Washington D.C., 1912).

Figure 2. A map of the Strait of Malacca south of the Malay Peninsula in the early 1900s, including open and planned rail-way lines. The British Crown Colonies Penang, Malacca and Singapore formed the Strait Settlements. Together with the Federated Malay States (Perak, Selangor, Negri Sembilan and Pahang) and the Unfederated Malay States (Johore, Kedah, Kelantan, Perlis and Trengganu), the peninsula constituted the territory of British Malaya. Source: Arnold Wright and H. A. Cartwright, eds., *Twentieth-Century Impressions of British Malaya: Its History, People, Commerce, Industries, and Resources* (London, 1908), 2.



²¹ For an overview on the history of tin, see Mats Ingulstad, *Tin and Global Capitalism: A History of the Devil's Metal, 1850-2000* (New York, 2014); Ernest Sydney Hedges, *Tin in Social and Economic History* (London, 1964).

tin deposits on the Malay Peninsula from the late 1840s onwards impacted both the imperial project of transporting tin – from the mining districts in the Malay hinterland via the strait’s ports to the global markets – and the global connectivity of the various transit ports along the Strait of Malacca’s coastlines.

Tin is one of the oldest metals known to humankind. While it was mainly used in alloy form in ancient times, it became an important element of industrial civilization in the nineteenth century.²¹ Mainly due to its use as rust protection by coating steel and iron sheets with molten tin, the metal developed into a key element in numerous industries, ranging from the military to electrical and mechanical engineering and the textile industry.

From the mid-1800s onwards, as the demand for tin dramatically increased on world markets, it played a key role

in European imperial expansion into the tropical world. On the one hand, the commercial extraction of tin in the colonies compensated for resource constraints in Europe. Since the European mines were largely exhausted at this time, the Europeans increasingly turned to distant raw materials to meet the enormous demand for tin of modern consumerism. On the other hand, industrially produced supplies such as the tin can influenced numerous other commodity flows connecting Europe with its colonies.²² According to reports of Rudolf Martin, whom we already encountered at the beginning of this essay, the exploitation of tin had serious and lasting consequences for the tropical environment, especially in the Malacca Strait region: “The mining system has its great disadvantages for the land: the fertile humus is eroded over long distances, rendering it unusable for any cultivation for a long time to come. Moreover, the leaching process washes the fine sandy soil into the rivers, accelerating the already naturally existing silting process, which destroys the most important and cheapest routes over time.”²³ Thus Martin already indicated at the end of the nineteenth century what environmental historians nowadays frequently state: There is hardly any other commodity better suited than tin to illustrate the tense interplay between imperial power and colonized environments and between mass destruction and mass consumption.²⁴

Since pre-modern times, Malay tin found its way to the world markets via the ports along the Strait of Malacca on the western coastlines of the Malay Peninsula. Ever since the Dutch took control of the peninsula in the seventeenth century, and well into the early nineteenth century, the fortress of Malacca was considered the natural outlet for Malay tin. In fact, Malacca, “the port at the end of the monsoons,” had many natural advantages as an entrepot for both the Malay traders and for the Dutch Empire:²⁵ Since the port was located in a strategically favorable position in the middle of the strait, the Dutch rulers had hoped to monopolize the output of tin

22 The tin can truly had a pervasive influence in economics and industry all the way to everyday life. Its invention facilitated the preservation of food and its transportation over ever-increasing distances. See Corey Ross, “The Tin Frontier: Mining, Empire, and Environment in Southeast Asia, 1870s-1930s,” *Environmental History* 19, no. 3 (July 2014), 469.

23 Martin, *Über eine Reise durch die Malayische Halbinsel*, 10.

24 One could even say tin followed the classic pattern of ecological imperialism. See Corey Ross, “The Tin Frontier;” Corey Ross, *Ecology and Power in the Age of Empire. Europe and the Transformation of the Tropical World* (Oxford, 2017), 136–63.

25 Tomé Pires, *The Suma Oriental of Tomé Pires*, vol. 2 (London, 1944), 228.

26 Lewis, "The Tin Trade in the Malay Peninsula," 56.

27 Thomas John Newbold, *Political and Statistical Account of the British Settlements in the Strait of Malacca, viz. Pinang, Malacca, and Singapore*, vol. II (London, 1839). 23–4.

28 For an overview of early works on the metal, see Hess and Hess, *Bibliography of the Geology and Mineralogy of Tin*.

29 There is a sizeable literature on the economic, social and political dimension of the industry in Southeast Asia. See Wong Lin Ken, *The Malayan Tin Industry to 1914 with Special Reference to the States of Perak, Selangor, Negri Sembilan and Pahang* (Tucson, 1965); Yat Hoong Yip, *The Development of the Tin Mining Industry of Malaya* (Kuala Lumpur, Singapore, 1969); Francis Kok-Wah Loh, *Beyond the Tin Mines: Coolies, Squatters, and New Villagers in the Kinta Valley, Malaysia, c. 1880–1980* (Singapore, 1988); Amarjit Kaur and Frits Diehl, "Tin Miners and Tin Mining in Indonesia, 1850–1950," *Asian Studies Review* 20, no. 2 (1996): 95–120.

on the peninsula by excluding other purchasers.²⁶ Furthermore, the tin deposits discovered in the seventeenth century in Negri Sembilan, the immediate hinterland of Malacca, were ideally connected to the settlement's port by the Linggi and Selangor rivers just north of the city. For the Malaccan traders, it was much easier to reach the mines via these river routes than crossing the impenetrable jungle of the Malayan highlands. In order to keep the export of tin exclusively confined to Malacca, the Dutch even tried to consolidate their monopoly in a number of treaties with the local chiefs of Kedah, Perak, Selangor and Sungei Ujong. Even though this policy was not entirely successful, early modern Malacca quickly developed into the main outlet for tin exports in the Strait.²⁷

Tin developed into a truly global resource in high demand from the 1850s onwards, which is reflected by the enormous increase of scientific literature on the metal in the same time period.²⁸ The Malacca Strait region was crucial for the nineteenth-century rise of the industry.²⁹ Previously described by the British as inconspicuous "No-Man's Land," it was only with the rise of the mining industry that the interior of the Malay Peninsula developed into "one of the most thriving and contented communities owing the British sway."³⁰ The unprecedented boom in tin-mining on the peninsula began in the 1840s and 1850s, following the discovery of the world's largest tin deposits in the hinterland of the Strait of Malacca.³¹ The newly found tin fields were usually owned by Malay rulers; however, since the Malay chiefs often lacked funds to open new mining enterprises, they initially began to rely on Chinese merchants and Chinese labor. In

30 Arnold Wright and Thomas H. Reid, *The Malay Peninsula. A Record of British Progress in the Middle East* (New York, 1912), 6.

31 The origins of the tin trade in the Malay Peninsula, however, go well back to the pre-modern era. See, for instance, Dianne Lewis,

"The Tin Trade in the Malay Peninsula During the Eighteenth Century," *The New Zealand Journal of History* 3, no. 1 (1969): 52–69.

the already established seventeenth-century mining districts of Lukut, Kanching, and Ampang in Selangor, for example, Chinese enterprises opened new and much deeper mining fields. At the same time, the ancient Chinese mining district in Klang expanded significantly, turning the neighboring Kuala Lumpur into a center for the collection and distribution of the metal. Further south in Negri Sembilan, Chinese mining enterprises located in Malacca revived the eighteenth-century tin mines along the Linggi River. The greatest impact on the Malayan tin industry, however, came with the discovery of large tin deposits in Larut, Taiping and in the Kinta Valley in Perak in the late 1840s by the Malay Long Jafaar, son of a minor Malay chief. In the following years, Jafaar cooperated closely with Chinese financiers in Penang and Malacca to bring the Chinese to mine the rich tin deposits in Perak. Together with the fields in Selangor, the deposits in Perak were among the largest concentration of tin in the region.³²

Accordingly, the mid-nineteenth-century rise of the mining industry in Malaya relied heavily on Chinese enterprises and the influx of Chinese workers in the region. In the words of environmental historian Corey Ross: While in the eighteenth century “the early Malay tin frontier was [. . .] largely limited to shallow deposits on the sides of the foothills that benefited from both good drainage and good access to water, [. . .] the arrival of Chinese *kongsis* (commercial syndicates fueled by ‘coolie’ labor) marked a significant expansion of this frontier, both outward but more importantly downward.”³³ In fact, the Kinta Valley, where the number of Chinese miners grew from 1,000 to over 100,000 in the second half of the nineteenth century, became not only the most populous and densely inhabited district in the Malay States, but also the world’s largest tin field.³⁴ From a geological perspective, the newly discovered reservoir formed the so-called “Western Tin Belt,” created by the weathering of tin-bearing granite beds. These deposits – until the late 1860s mainly extracted by Chinese miners from Malacca – extended along the western side of the Malay States

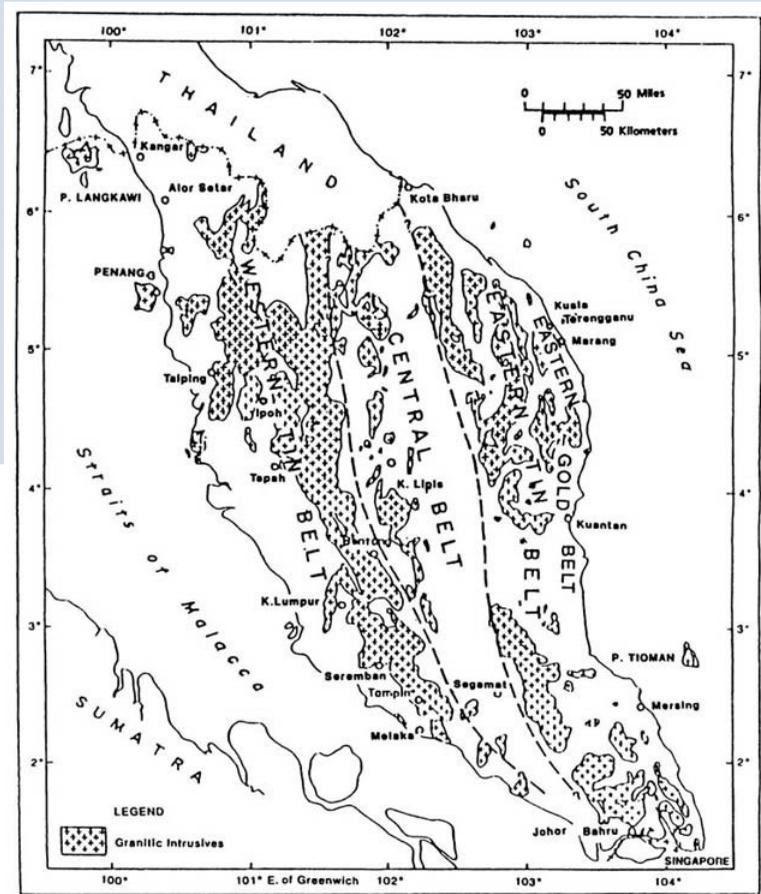
32 Wong Lin Ken, *The Malayan Tin Industry to 1914*, 13–31. See also Khoo Kay Kim, “Taiping (Larut): The Early History of a Mining Settlement,” *Journal of the Malaysian Branch of the Royal Asiatic Society* 64, no. 1 (1991): 1–32.

33 Ross, *Ecology and Power*, 141–42.

34 Loh, *Beyond the Tin Mines*; Salma Nasution Khoo and Abdur-Razzaq Lubis, *Kinta Valley: Pioneering Malaysia’s Modern Development* (Perak, 2005).

35 John B. Scrivenor, *The Geology of Malayan Ore-Deposits* (London, 1928), 4–5.

Figure 3. The geological western tin belt is separated from the less abundant eastern tin belt, on the shore of the South China Sea, by a deeper gold-bearing belt. Source: Thadshajini Suntharalingam, "Malaysia: Peninsular Malaysia," *Encyclopedia of European and Asian Regional Geology* (1997), 525–30.



³⁶ Wong Lin Ken, *The Malayan Tin Industry to 1914*, 30.

Perak, Selangor and Negri Sembilan down to the Riau Islands near Singapore.³⁵ (See Fig. 3)

Well into the nineteenth century, the rivers connecting the coastlines near Malacca and its hinterland continued to serve as the main transportation routes for tin on the Malay Peninsula. As late as 1844, still more than half of all tin from the Malay States was carried to Malacca for re-export.³⁶ Along with the discovery of new deposits, however, the transport of tin, from the Malay mines via the ports along the Strait of Malacca to the global markets, turned into a highly complex endeavor – with lasting impacts on the coastal settlement’s connectivity.

In the second half of the nineteenth century, the largest part of tin exports moved from Malacca to the other Strait Settlements (Penang and Singapore), the British crown colonies



Figure 4. Open cast mine near Taiping, Perak, c. 1908. Source: Arnold Wright and H. A. Cartwright, eds., *Twentieth-Century Impressions of British Malaya: Its History, People, Commerce, Industries, and Resources* (London, 1908), 506.

in British Malaya.³⁷ Although Chinese labor continued to be a key force, Western enterprises took over large parts of the mining and smelting industry of the peninsula in the 1870s. Simultaneously, the so-called “Strait Tin,” the commercial name given to tin imported from the Strait Settlements on the London Metal Exchange, flooded the European markets: While between 1844 and 1848 a total of around 5,000 tons of Strait Tin were imported to Europe, this number rose to almost 22,000 between 1869 and 1873, and to more than 169,000 in the period between 1900 and 1904.³⁸

However, as the amount of tin discovered and extracted grew, so did the logistical challenge of commodity transport from the dense jungles in the Malay hinterland to the settlements along the Strait of Malacca: From the 1850s onwards, the largest tin deposits were no longer to be found in the hinterland of Malacca, but further north in Selangor and Perak, which were much more accessible via roads and railways from a range of hitherto industrially unimportant fishermen’s villages in Perak and Selangor than from the distant and ancient port city of Malacca. Given these changing conditions, the British colo-

37 British Malaya included several British territories, mainly on the Malay Peninsula, from the late eighteenth century until the end of World War II. (See Fig. 2) It comprised the territories of the Strait Settlements, the Federated Malay States (FMS) and the Unfederated Malay States (UMS). The Strait Settlements was the official name given to the British Crown Colonies of Malacca, Penang, and Singapore on the northern shore of the Strait of Malacca between 1826 and 1946. The FMS covered the sultanates of Perak, Selangor, Negri Sembilan and Pahang. The semi-independent UMS included Johore, Kedah, Kelantan, Perlis and Trengganu. For a recent overview on the history of British Malaya, see Lynn Hollen Lees, *Planting Empire, Cultivating Subjects: British Malaya, 1786–1941* (Cambridge, 2017).

38 This development corresponded closely with ever higher tin prices and an increase

in the industrial consumption of the metal in Europe. Wong

Lin Ken, *The Malayan Tin Industry to 1914*, 12, 212.

39 Memorandum from F. Weld, Governor of the Strait Settlements to Earl of Derby, Colonial Office, 23. May 1883, The National Archives, Kew (hereinafter TNA) CO 273/120 No. 120.

40 Amarjit Kaur, "The Impact of Railroads on The Malayan Economy, 1874-1941," *The Journal of Asian Studies* 39, no. 4 (1980): 695.

41 Letter from Cecil Clementi Smith, Governor of the Strait Settlements, to Lord Knutsford, Colonial Office, March 2, 1889, TNA CO 273/159 No. 6-7.

nial administration gradually developed plans for a complex logistical transportation system, connecting the large mining districts in the northern Malayan hinterland with the Strait of Malacca's coastlines. Beginning in the early 1870s, the negotiations surrounding these logistical endeavors are increasingly reflected in the interaction between the Colonial Office in London, the Government House in the Strait Settlements, and the residents and resident engineers of the Malay States. These ventures included, among others, the planning of the railway lines across the Federated Malay States, connecting the mining districts in Perak and Selangor with the strait's ports.

According to an 1883 memorandum from the Governor General of the Strait Settlements, the immediate goal of this new transportation system in Malaya, consisting of roads and railways, was not only to establish transportation facilities between the mining districts and the Strait of Malacca's ports but more generally to open up the agricultural and mining regions throughout the entire peninsula.³⁹ Accordingly, the late nineteenth-century "transformation of the economy" in Malaya was closely linked to the construction of railways.⁴⁰ After the establishment of the first railroad lines providing transportation infrastructure between the mining districts in Taiping and Kuala Lumpur with Port Weld and Port Klang in the early 1880s, accessing the large tin deposits in Larut and the Kinta Valley became the British Empire's major economic purpose on the peninsula. (See Fig. 5) As the Governor of the Strait Settlements submitted initial plans to the Colonial Office in London in March 1889 for the construction of a line connecting Teluk Anson, the port of Lower Perak, with the Kinta Valley, he urged that "the Railway is urgently needed for the development of the country." He continued: "The government has to face this position. Off the country, the natural resources [. . .] are left without being opened out by a Railway. There is every prospect owing to the navigation of the rivers becoming every year more and more difficult, that it will not only not progress but may go back into jungle."⁴¹

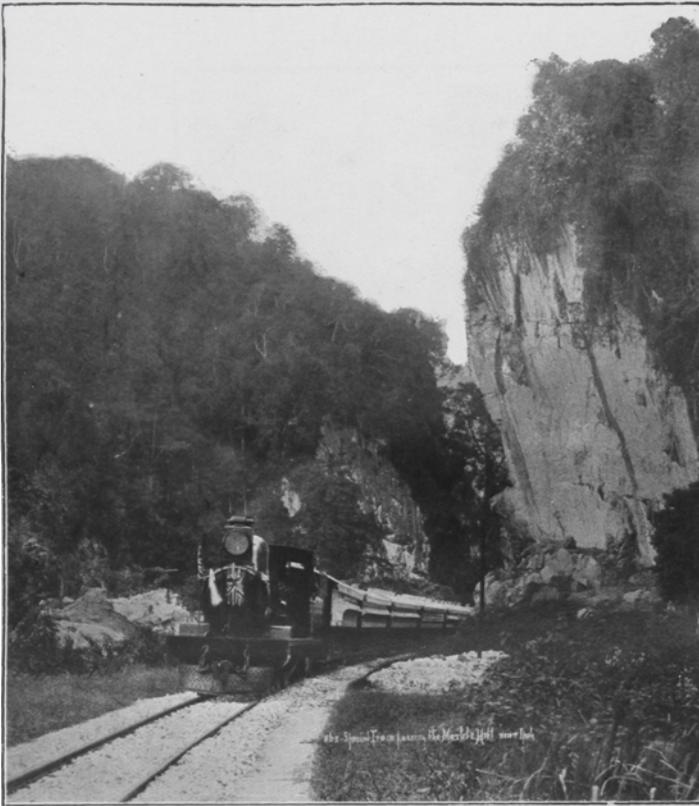


Figure 5. The Perak State Railway on Marble Hill, Ipoh, connecting the tin-mining districts in Kinta with the port in Teluk Anson. Source: Arnold Wright and H. A. Cartwright, eds., *Twentieth-Century Impressions of British Malaya: Its History, People, Commerce, Industries, and Resources* (London, 1908), 308.

In order to allow access to the tin deposits in Kinta, the governor argued, the expensive and risky transportation, requiring several days of travel, from the port at Taluk Anson, “the point nearest to the country,” to the Kinta mines by boats, buffalo, bullock carts, and elephants – as developed by the Malays over centuries – needed to be replaced by the construction of a railroad.⁴² While some of these projects, such as moving the trade routes in Perak to the deeper and more accessible Dinding Bays, were never fully realized, other locations were successfully integrated into the transportation system of tin across the coastlines.⁴³ These included the ports in Teluk Anson and Port Weld, providing transit and transportation facilities between the Strait and the Perak mines, as well as Port Swettenham and Port Dickson, serving the mining districts in Selangor.

⁴² Ibid.

⁴³ On plans to integrate the Dinding Bays into the trade network of tin across the Strait, see Letter from Cecil Clementi Smith, Governor of the Strait Settlements, to Lord Knutsford, Colonial Office, January 28, 1859, TNA CO 273/158 No. 16.

44 The integration of Malacca into the Malay Railway network, for instance, did not take place until the early twentieth century. See Kaur, "The Impact of Railroads on The Malayan Economy, 1874-1941."

45 *Strait Settlements Blue Books 1870-1884; Annual Trade Returns Strait Settlements 1885-1900.*

46 Interestingly though, the amount of tin imported to Singapore from the Malay States remained quite small, imports from Penang and Malacca, however, increased strongly from the 1870s onwards. Therefore, most of the tin deposits in Selangor and Perak first made their way to Singapore via Penang and Malacca before being shipped around the world. The tin imported into Singapore from the Malay States came largely from Pahang, located in the peninsula's eastern tin belt. However, the Pahang supplies were much more limited and largely ignored by the Strait capitalists. Consequently, the amount of tin imported from the Malay States in Singapore stagnated after 1850. See Wong Lin Ken, *The Malayan Tin Industry to 1914*, 30-31.

Consequently, the physical availability of tin in Perak and Selangor led to an increase in the economic importance of the ports of Teluk Anson, Port Weld, Port Swettenham, and Port Dickson. Due to the smaller tin deposits in Negri Sembilan, the hinterland of Malacca, the ancient port city gradually lost its role as the main transit hub for tin.⁴⁴

However, according to the Strait Settlements' annual trade returns,⁴⁵ global export rates of tin from the Strait Settlements did not increase at the Perak or Selangor ports, where the supply of tin was highest, but further eastwards in Singapore, located far away from the large tin reservoirs in the Malayan hinterland.⁴⁶ Economic historians usually explain this dynamic by referring to Singapore's low duty rates for commodities and the freedom of its port.⁴⁷ In the following, however, I propose to focus more on another dynamic, resulting from changing infrastructural requirements for global transit ports as the shipping volumes increased. This includes a reflection on the physical environment Singapore Island offered in a colonial world which was increasingly reaching natural limits to commercial and industrial growth. Empirically, this perspective allows for an inclusion of the accounts of naturalists and engineers who usually do not appear in Singapore's nineteenth-century economic history. And it directs our attention to several environmental advantages Singapore Island offered in the second half of the nineteenth century, including local idiosyncrasies and small-scale environmental conditions, that allowed the rise of the Malacca Strait as a global transit corridor to continue.

First and foremost, its geographical location made Singapore an unrivaled port of call both for native junks from the South-

47 Chiang Hai Ding, *A History of Strait Settlements Foreign*

Trade 1870-1915, 6. Wong Lin Ken, "Singapore: Its Growth

as an Entrepot Port, 1819-1941," 75.

east Asian archipelago and for large ocean-going steamers.⁴⁸ In 1897, Rudolf Martin considered Singapore's location "outstandingly favorable from a strategic and commercial point of view" and saw this as the main reason for its unique rise as a "trading center of the very first rank."⁴⁹ In fact, located at the southernmost end of the Asian continent, Singapore Island was not only well positioned for the import and re-export of Malay tin, but served as the central transshipment hub for merchants and resources from the Dutch East Indies and the Southeast Asian mainland (including Cambodia and Indochina). Unlike Batavia (present-day Jakarta), Singapore was located on the direct route connecting the European and East Asian markets following the opening of the Suez Canal in 1869.⁵⁰ Ever since, Singapore benefited from an influx of enterprises and merchants who had been located in the Dutch East Indies before. Previously, a significant part of the East-West trade still ran via the Cape Route and the Sunda, Lombok and Makassar Strait (with stopovers in Batavia and Manila), bypassing the longer route via the Malacca Strait.

Second, unlike the Perak and Selangor ports or Malacca, Singapore had a natural harbor that provided deep and sheltered berth for large ocean-going vessels. As early as 1849, the surveys of the Strait of Singapore by the engineer and government inspector John Turnbull Thomson had indicated that the bay next to the Singapore River, the former New Harbour (later Keppel Harbour), offered a natural deep-water berth providing not only sufficient shelter for deep steamers but also the geomorphological infrastructure required for refueling and loading the ships.⁵¹ In 1887, the Strait Trading Company opened a tin smelting facility on Pulau Brani, an island located in the middle of New Harbour. (See Fig. 6) Due to its close connection to New Harbour, the company's business flourished and quickly moved the tin smelting industry from the Malay States to Singapore Island.⁵² Singapore not only offered excellent natural and geomorphological conditions for the transit and trade of tin, but even featured the specific

48 Sir Stamford Raffles noted this already back in the 1810s when he opened the trading post on Singapore Island. However, the Bengal government only became aware of its true geostrategic importance in the 1830s and 1840s. See Hikayat Abdullah ben Abdul Kadir Moonsee, "Concerning Colonel Farquhars going to look for a place to establish a settlement," in J.R. Logan (ed.), *Journal of the Indian Archipelago and the Indian Ocean*, vol. 6 (Singapore, 1852), 585-604.

49 Martin, *Über Eine Reise durch die Malayische Halbinsel*, 3; Martin, *Die Inlandstämme der Malayischen Halbinsel: Wissenschaftliche Ergebnisse einer Reise durch die Vereinigten Malayischen Staaten* (Jena, 1905).

50 Bogaars, "The Effect of the Opening of the Suez Canal."

51 Boon, *Technology and Entrepot Colonialism in Singapore, 1819-1940*, 45.

52 W. G. Huff, *The Economic Growth of Singapore: Trade and Development in the Twentieth Century* (Cambridge, 1997), 255.

53 The term “Strait Produce” is used in the sources to refer to all products from the Malacca Strait region which were brought to Singapore and stored there for transshipment, such as pepper, gambia, gutta percha, tin, sugar and rubber. D.D. Daly, “The Metalliferous Formation of the Peninsula,” *Journal of the Straits Branch of the Royal Asiatic Society*, no. 2 (1878): 194–98. See also John H. Drabble, *An Economic History of Malaysia, c. 1800–1990. The Transition to Modern Economic Growth* (Basingstoke, 2000).

54 On the commercial importance of the Singapore River for native trade, see Stephen Dobbs, *The Singapore River: A Social History 1819–2002* (Singapore, 2003).

55 On the connection between regional trade on the riverbank and global trade in New Harbour see John Cameron, *Our Tropical Possessions in Malayan India: Being a Descriptive Account of Singapore, Penang, Province Wellesley, and Malacca: Their Peoples, Products, Commerce, and Government* (Singapore, 1865), 56–57.

geographical and infrastructural logistics for transforming the raw material into its liquid and thus more easily transportable physical state.

Third, the mouth of the Singapore River, passing through the old city center, provided an ideal natural anchorage for the import and transit of “Strait Produce.”⁵³ While New Harbour attracted ocean-going vessels, smaller coastal ships and other crafts such as Malay prows and junks preferred to anchor near the river, where European merchants inspected and purchased the tropical goods for re-export.⁵⁴ By combining New Harbour and the mouth of the Singapore River, the island offered an excellent environment for traffic and transshipment between the archipelago’s local merchants and the global trading routes. Or, to put it differently: The outsourcing of long-distance trade to New Harbour turned the Singapore River into a hub connecting both regional and global markets. By now, products from the Malacca Strait region such as tin (and increasingly rubber from the 1900s onwards) were collected on the riverbank and transported to New Harbour for global export.⁵⁵ Moreover, by providing new docking facilities at New Harbour in the 1860s, and constructing a railroad connecting the port to the city center in the 1880s, the British supplemented these environmental conditions with the physical infrastructure required to increase the amount of moving goods between the Asian hinterlands and the world market.⁵⁶ Again, the making of new connections across the Malacca Strait might be considered a coproduction of human agents and labor on the one hand, and the physical environment on the other.

To sum up, from the early modern period until the first half of the nineteenth century, the amount of tin exported from the Malay Peninsula depended largely on the mining fields

56 To accomplish these projects, colonial engineers and naturalists were sent to Singapore in large numbers from the

late 1860s onwards. Their main task was to examine and explore natural limits to economic growth and infrastructural

possibilities to expand global trade. See “Railway across the Island of Singapore,” April, 1889, TNA CO 273/159 No. 3.



Figure 6. Keppel Harbour from the eastern ridge of Mount Faber, c. early 1900s. The chimneys on Pulau Brani, an island in the middle of the natural deep-water berth of New Harbour, were part of the Strait Trading Company's tin smelter. Source: National Archives of Singapore, Image-No.: 19980007346 – 0024.

in the immediate hinterland of Malacca. At this time, the tin trade across the peninsula was largely dominated by the Malay indigenous communities, and the ancient city of Malacca became both the main export center for tin and the metal's main transit hub. Following the discovery of new mining fields further north in Perak and Selangor in the second half of the nineteenth century, however, Malacca was replaced by Singapore as the peninsula's principal export destination for tin. Simultaneously, the Malay's local transportation routes, based on indigenous knowledge about rivers, reefs, and tides, were gradually superseded. This development was the result of an imperial infrastructural policy of governing the transportation of tin via roads and railroads from the distant mines via the strait's coastlines to the natural deep-water berth at New Harbour on Singapore Island. In this process, the ports along the strait's coastlines (including Teluk Anson, Penang, Port Swettenham, and Port Weld) became regional feeder ports of Singapore. Moreover, one could even say that the Malay Peninsula turned into one major hinterland serving Singapore Island. Unlike these feeder ports, Singapore itself offered better environmental conditions to handle increasing shipping volumes. This transformation in transportation and trade leads to the conclusion that the degree of global connectivity of places across the Strait of Malacca's coastlines depended mostly on two main factors: first, on the connectivity of the coastal settlements to their own hinterlands, an indicator one could perhaps call "hinterland connectivity;" and second, on the

strait's physical environment and the behavior of colonists in response to these environmental conditions.

Conclusion

In the post-globalizing twenty-first-century world, historical narratives of worldwide entanglements are increasingly based on a dialectical approach that accounts for both global connections and disconnections. In this article and my broader research project, I suggest that by exploring the history of environmental transit corridors, we gain valuable insights into the ambiguous aspects of connectivity and their ecological and spatial dimensions. Within corridors of transit, connections break, they are diverted and created, and they become comparable. The case of the Strait of Malacca is particularly useful to illustrate these considerations: It represents an environmental infrastructural corridor used for trade and commerce since pre-industrial times, which distinguishes the strait from the many artificial infrastructural projects of the age of imperialism and lets us analyze modern economic connections against the backdrop of long-term change. In the Strait of Malacca, a variety of connections become tangible. In addition to ties of global trade, this includes regional links into the strait's broader environment shaped by different non-human factors and forces – including the hinterland with its ecology – and human actors, such as imperial stakeholders in the ports, Chinese and local merchants, engineers and naturalists. The constant interplay of the global and the local, infrastructure and nature, and human agents and non-human factors and forces, also led to certain disconnections and processes of exclusion.

The transport of tin across the Strait of Malacca, highlighted in this article, illustrates such local-global dynamics. Newly found tin deposits in the northern part of the Malay Peninsula forced the British imperial actors to introduce new infrastructural policies and commercial transportation routes from the 1870s onwards. As a result, previous trade operations based

on indigenous knowledge and logistics became marginalized. While in the early nineteenth century the rivers near Malacca still served as the indigenous' main transport engines to the mining districts in Negri Sembilan, the hinterland of Malacca, the second half of the nineteenth century saw the British colonialists' extension of transportation routes in Perak and Selangor through roads and railways in order to access new mining deposits. Henceforth, Malacca, lacking any substantial tin deposits in its own hinterland, lost its role as the most important transit hub to other coastline settlements and became – compared to its previous position – disconnected.

Another dynamic resulted from the physical environment and the increase of tin shipped through the Strait of Malacca: The new regional transit ports provided neither the environmental conditions nor the physical infrastructure required to cope with larger shipping volumes. Instead, the former fishermen's village of Singapore turned into the region's largest transit hub for tin due to a number of environmental advantages. This underlines that connections in global transit corridors are by no means static, but dynamic and shifting phenomena. The tensions between local conditions, imperial infrastructures, and the natural environment may even lead to the marginalization of previously highly connected places. Foregrounding such cross-currents and disconnecting effects allows us to tell the history of worldwide entanglements in a way that incorporates not only human actors, but also non-human factors and natural forces, as well as local idiosyncrasies into narratives of global change.

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