MA Thesis Colonial and Global History

Continuing a Legacy

Dutch influence on the development of Nagasaki in the nineteenth century.

Name: Davey (D.) Verhoeven
Student number: s1607626
Date of submission: 27 - 01 - 2020
E-mail: d.verhoeven.4@umail.leidenuniv.nl
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Supervisors: Dr. A.F. Schrikker
Dr. A. van Dissel
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Introduction – The influence of the Dutch on the development of Nagasaki during the second half of the nineteenth century.

"Nagasaki was where it all took place, and the exotic centre to which one could come to see foreigners, Dutch and Chinese, albeit at a distance.".[1] These are the words of the historian Marius B. Jansen as he describes the uniqueness of Nagasaki throughout the Edo-period[2] (1603 – 1868) of Japan. This extraordinary position that Nagasaki had was mostly due to the special position it fulfilled in the (international) trade system of Japan during the Edo-period. It was in this city that two special foreign enclaves were situated; the fan-shaped island of Deshima, from which the Dutch conducted their trade with Japan, and the square-shaped walled compound not far from there, which hosted the Chinese trading quarter (*Tōjin yashiki,* 唐人屋敷[3]). It was these two enclaves in Nagasaki that were responsible for the majority of the contact with the outside world in Japan during this era. Nagasaki was one of the few locations in Japan where foreign trade was allowed (the other locations being the island Tsushima between Japan and Korea, the Ryukyu Islands and the Matsumae domain on Hokkaido). On top of that, it was the only city in the whole of Japan where trade with Europeans took place.[4]

Yet when reading about the situation of Nagasaki at the start of the Meiji era (1868 - 1912) one can barely recognize this prestigious port city anymore. The numerous changes that the opening of Japan and the subsequent Meiji Restoration[5] brought hit Nagasaki hard. By the 1870s Nagasaki had lost but all of its prestige and seemed to become just one of many other cities in Japan, as foreign merchants and capital steadily left the city because of a gradually

[1] M. B. Jansen, *The Making of Modern Japan* (2002) 64.

[2] The Edo-period also known as the Tokugawa-period was the period between 1603 and 1868. The period was named after the ruling Tokugawa-clan who took control in 1600. The period was characterized by increasing seclusion policies and by over two centuries of relative peace and prosperity. The last part of this period was known as the *Bakumatsu*-period (1853 – 1868, Jp 幕末). This last period saw the end of the isolationist policies of the preceding centuries and marked the beginning of major reforms in Japan.

[3] This thesis will add Japanese characters to Japanese names of concepts that can be translated like as example the Chinese trading quarter. Names of characters and places will not have Japanese characters added to them.

[4] Ibid, 63 - 64.

[5] The Meiji Restoration (Jp. 明治維新) was an event in 1868 that marked the end of the military dictatorship in Japan and restored power to the Emperor. The period after 1868 is also known as the Meiji Era (1868 – 1912) and was characterized by many political and social reforms that had begun in the preceding *Bakumatsu*-period.

worsening foreign trade situation.[6] This loss of its historical position also becomes abundantly clear from a news article written in the Nagasaki Press in April 1870. The article describes:

"It is painful to note the swift and sure decay of foreign trade at Nagasaki. As firm after firm finds it advisable to withdraw its capital from the port, as resident after resident finds the utter stagnation of trade rendering his labour unnecessary, as day after day business seems to grow worse instead of better, the end becomes more and more certain to our unwilling sense. We struggle against the thought that our power is no more in Nagasaki, we try to fancy that a better time is coming, but as no signs of that better time show themselves, we cannot help anticipating the final result."[7]

The decline of the prestigious, bustling port city was a relatively swift one, but it does not mean that there were no attempts made to keep Nagasaki one of the most prominent cities in Japan. Early 2019, the University Library of Leiden acquired a collection of documents that show a very different Nagasaki. The newly acquired collection of University Library concerns the 'Hideshima Archive' of the Nabeshima-clan[8] (rulers of the Saga domain, situated north of Nagasaki), one of the few clans which were tasked with the defence of Nagasaki during the Edo-period. The archive contains a wide array of detailed military lessons, maps of Nagasaki and other sensitive materials regarding national defence that they seemingly based on Dutch knowledge that they acquired in Nagasaki. As a result, many of these documents feature the attempted modernization efforts in Nagasaki (and its surroundings) in the decade after 1853 to keep Nagasaki on par with other cities in Japan. Looking at these documents you see a Nagasaki bay bustling with foreign ships, the development of coastal defences and Western-style training exercises for armies (and navy) that occurred there. While these documents are mostly militaristic in nature, they are very much connected to the wider modernization developments in other sectors. The first decade after the opening of Japan still seems to have been a prosperous time for Nagasaki.

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[6] L. Earns, 'The Foreign Settlement in Nagasaki, 1859-1869', *Historian 56:3*, (1994) 499.
[7] *The Nagasaki Press,* 16 April 1870, 2 in: L. Earns, 'The Foreign Settlement in Nagasaki, 1859-1869', *Historian 56:3*, (1994) 499.
[8] Leiden University Library Special Collections, *Hideshima Archive of the Nabeshima han 1854 - 1863*, Or. 27.750, Shelf 22.513 F (Leiden, the Netherlands)

Now the question one would ask is how a city, which seemingly had everything going in its favour, started to disappear so quickly from the stage. The most obvious answer here would relate to the events of the 8th of July 1853, the day Commodore Matthew Perry (1794 – 1858) approached Japan with his American gunboats. When Commodore Perry forced the Japanese to open negotiations with him, he staunchly refused to do so through Nagasaki, thus undermining the position the city had as the 'window to the West'.[9] He also forced negotiations to open the other ports of Japan, so that the Western countries were no longer confined to the boundaries of Nagasaki.[10] The year of 1853-1854 is not without reason regarded as a major turning point in Japanese history. The opening of the ports set a new course for Japan, one with more Western influences and one that would also see the rise of the imperialistic Japan of the late nineteenth and early twentieth century.

But as with many things, the answer here is not that straightforward. The arrival of Commodore Perry was not the first attempt to break the status quo in Japan's contact with the West. Since the beginning of the nineteenth century a few countries had been eyeing the Dutch presence in Nagasaki with envy. Primarily these were the United Kingdom, Russia and the United States of America. During the period of *opperhoofd*[11] Hendrik Doeff (1777 – 1835, on Deshima between 1803 – 1817), while the Netherlands and most of its colonies were occupied by either the French or the English, there were multiple attempts undertaken to break the monopoly of the Dutch in Japan.[12] The most famous of these incidents was the so-called '*Phaeton* incident' of 1808 in which a British frigate tried to sail into the harbour of Nagasaki under a stolen Dutch flag in an attempt to ambush Dutch trading. Even though the *Phaeton* failed in ambushing the ships, as the Dutch ships were late that year, the incident scared the Japanese enough to revise their seclusion policies and also prepare for similar incidents in the

[9] W. McOmie, *The Opening of Japan 1853-1855: A comparative study of the American, British, Dutch and Russian naval expeditions to compel the Tokugawa shogunate to conclude treaties and open ports to their ships* (Folkestone 2006) 90 – 105.
[10] Ibid. 261 – 275.
[11] *Opperhoofd* (chief) was the title given to the individuals that led the outposts of Deshima until 1860. After 1860 the title was replaced by only the title "Dutch Commissioner in Japan" for the highest Dutch official in Japan.
[12] W.A. Veenhoven, *Strijd om Deshima, Een onderzoek naar de aanslagen van Amerikaanse, Engelse en Russische zijde op het Nederlandse handelsmonopolie in Japan gedurende de periode 1800 – 1817* (Leiden 1950) 9.

future.[13] These attempts to break the monopoly of the Dutch in Nagasaki can be seen as the prelude of the opening of Japan by Commodore Perry. These attempts continued irregularly throughout the first half of the nineteenth century, but it was not Japan who eventually had its ports opened by 'gunboat diplomacy' first.

Since 1757 Westerners were also no longer able to freely call at port cities in China, similar to the situation in Japan. Canton was the only city in China where Westerners were allowed to conduct their trade thanks to seclusion regulations imposed by the Qing dynasty.[14] This all changed with the eruption of the First Opium War (1840 – 1842) in which China was forced to open its ports to Western trade. By the end of the First Opium War England had come out as the main power in East Asian trade.[15] The unfolding of events in China greatly interested but also scared both the Japanese and the Dutch governments. The balance of power in the region was shifting and the old traditional order in Japan (with foreign trade limited to small enclaves) was increasingly threatened. The attitude of the Dutch towards their trade in Japan also changed because of the First Opium War. During the 1840's the small island of Deshima in Nagasaki transformed from a trading post to a (pre-)diplomatic post through which the Dutch hoped to gain an advantageous position in Japan before the other nations (like the UK and the USA) would arrive.[16] An example of this change in attitude is the letter that King William II of the Netherlands (1792 - 1849) sent in 1844. In the letter the king warns the *shogun*[17] that it was in everyone's best interest if Japan would open its ports, on its own terms, before it would be done for them. Simultaneously the king requested that official diplomatic channels with the Netherlands would be opened, something that was unthinkable in the two-hundred years prior. Even though the *shogun* cordially dismissed the warning, it must have cautioned him for what

[13] N. Wilson, 'Tokugawa Defense Redux: Organizational Failure in the Phaeton Incident of 1808', *The Journal of Japanese Studies 36:1* (2010) 1 – 6.
[14] H. Masashi, 'Canton and Nagasaki Compared in the Context of Global and World History', *Itenario 37:3* (2013) 7 – 8.
[15] Ibid, 7 - 10.
[16] M.P.H. Roessingh, *The Archive of the Dutch Factory in Japan 1609 – 1860* ('s Gravenhage 1964) X.
[17] The *shogun* (Jp. 将軍) was the military ruler of Japan who together with his government, the *bakufu* (Jp. 幕府), ruled Japan for almost 700 year. The Tokugawa clan was the controller of the title *shogun* and the *bakufu* during the Edo-period (or Tokugawa period) from 1600 – 1868, until the Meiji Restoration restored power to the emperor of Japan.

might come to pass.[18] For the Dutch it became important (from a trade and prestige perspective) that when Japan would open its ports, they would be able to leave their mark on this new era for Japan.[19]

Yet when looking at the available literature it seems as if the Dutch just vanished post-1853. Just by looking at the titles of books that explore Japanese-Dutch relations this notion becomes clear. Books like Grant K. Goodman's *The Dutch Impact on Japan (1640 – 1853)*[20] and *Japan and the Dutch (1600 – 1853)*[21], Els M. Jacobs' *The redhaired in Japan: Dutch influence on Japanese cartography (1640 – 1853)*[22] and H. Paul's *Nederlanders in Japan, 1600 – 1854: De VOC op Deshima*[23], to name a few, all incorporate 1853/54 as the year the Dutch influence in Japan started to wane (if not disappeared altogether). And while this thesis will not argue that the events that occurred in 1853/1854 greatly dictated the decrease of Dutch influence on Japan in the years after that, it will argue that the various actions of the Dutch still had a profound influence on various branches of Japanese society in the decades after 1853 (especially in Nagasaki). Simultaneously can these various attempts and actions by the Dutch be framed in a wider picture of decline, both of Dutch influence in Japan as the role of the Dutch on the world stage. While these actions were of considerable worth to Japan's initial modernization efforts, they can also be viewed as (failed) attempts by the Dutch to keep their old place in a world that was passing them by.

Recent years saw some increase in research into the Dutch influence on various parts of Japanese society post-1853. In *National Prestige and Economic Interests* Minori Kogure argues that the Dutch definitely had their own ambitions and interests in securing proper diplomatic relations with Japan even after 1850, long after their position as a maritime (super)power had waned, as they were looking to expand into new markets and retain their old position. They wanted to expand into new markets thanks to the so-called '*cultuurstelsel*' ('cultivation system',

[18] Nationaal Archief The Hague, Nederlandse Factorij in Japan, 1609 – 1860, arch. nr. 1.04.21/inv. nr. 1707 – 1716, Antwoord van de shogun T. Ieyoshi de waarschuwing/Reply of the shogun T. Ieyoshi to a warning (1844).
[19] E.M. Jacobs, 'Met alleen woorden als wapen. De Nederlandse poging tot openstelling van Japanse havens voor de internationale handel (1844)', *BGMN: Low Countries Historical Review 105:1* (1990) 75 – 77.
[20] G. K. Goodman, *The Dutch Impact on Japan (1640 – 1853)* (Leiden 1967).
[21] G. K. Goodman, *Japan and the Dutch (1600 – 1853)* (Richmond 2000).
[22] E. M. Jacobs, *The redhaired in Japan: Dutch influence on Japanese cartography* (Vancouver 1983).
[23] H. Paul, *Nederlanders in Japan, 1600 – 1854: De VOC op Deshima* (Weesp 1984).

implemented in 1830), a system where farmers in the East Indies were forced to allot parts of their fields to export crops for Dutch colonial trade. This work by Kogure examines what the Dutch tried to achieve diplomatically in Japan following its opening and also argues that prestige was an important factor to the actions of the Dutch but rarely goes into how these achievements connected with other developments in Japan.[24]

Similarly, *Monopolists to Middlemen* by Martha Chaiklin also examines Dutch diplomacy, but Chaiklin focusses on the diplomatic successes the Dutch had in the negotiations between Japan and other Western countries. Chaiklin also argues in her work that the Dutch are often, unjustly, seen as irrelevant in the opening of Japan and subsequent years, while all the credit goes to the Americans and their (gunboat) diplomacy.[25] In her work, she argues that the Dutch were vital to the diplomatic ventures of various countries in *Bakumatsu* era Japan and that the Dutch networks and knowledge played an important role for various developments in those years. Without the efforts of the Dutch, the treaties that the Americans and other countries concluded might not have been possible and Dutch liberalism lingered in diplomacy with Japan in the years to come. Yet, also this work never ties this influence with actual developments in Japan at that time, but instead stays on a higher (mainly diplomatic) level.[26]

Another aspect that is an area of attention for researchers is *rangaku* (Jp. 蘭学, meaning 'Dutch learning'). *Rangaku* was an important branch of science in Japan and focused on studying various parts of Western science (mostly medicine, language, botany and physics) to possibly adapt them for the Japanese society. To study Western sciences scholars were completely dependent on the books and objects that the Dutch would bring with them. The development of such educational (medical) networks in Edo-period Japan is the subject of works like 'Surgery by the Red-haired Barbarians'; Dutch Physicians in Japan, 1600 – 1870' by J.E. Veldman[27] and *Network of Knowledge* by Terrence Jackson.[28] Both works are examples of

[24] M. Kogure, *National Prestige and Economic Interest: Dutch Diplomacy toward Japan 1850 – 1863* (Maastricht 2008).
[25] M. Chaiklin, 'Monopolists to Middlemen: Dutch Liberalism and American Imperialism in the Opening of Japan', *Journal of World History 21:2* (2010) 263 – 269.
[26] Ibid. 249 – 269.
[27] Veldman, J E. "'Surgery by the Red-haired Barbarians'; Dutch Physicians in Japan, 1600-1870." *Nederlands Tijdschrift Voor Geneeskunde* 145:52 (2001) 2542-2547
[28] T. Jackson, *Network of Knowledge: Western Science and the Tokugawa information revolution* (Honolulu 2016).

research into the role of *Rangaku* in Edo-period Japan and which role it played in the shaping of science in that era. Veldman gives in "Surgery by the Red-haired Barbarians" a summary of the complete history of Dutch medical teachings in Japan from 1600 till 1870 in only a few pages. Veldman also states that the Dutch were fundamental not only for founding the first medical hospitals in Nagasaki, Tokyo and Osaka but even credits them with establishing the basis for all Western medicine in Japan.[29] While the first medical school/hospital in Japan which was founded by the Dutch is very interesting and, rightfully so, gets a lot of attention, it will not be included in this thesis. This because the medical school was no defining institution in Nagasaki becoming a military-industrial centre.

Jackson's *Network of Knowledge* describes the influence of *Rangaku* in Japan through the life of one specific scholar; Ōtsuki Gentaku (1757 – 1827). In this work, Jackson describes the Dutch influence on his life and works. By using this specific scholar he shows the reader that this influence was widespread among *Rangaku* scholars during the Edo-period, but he also summarizes shortly how this influence continued into the Meiji era in the final chapters of his work.[30] Works like these are the newest addition to similar research into this subject like Marius B. Jansen's 'Rangaku and Westernization'[31] and Sumio Ishida's 'The age of "*Rangaku"*[32] of the 1980s. While these studies are vital to understanding how Western knowledge was processed in Japan, these studies rarely discuss how Dutch knowledge influenced development in *Bakumatsu* era Japan and mostly focus on the period before 1853. Other researches that cover the activities and influence of the Dutch during the *Bakumatsu* era (and later) are also often conducted on microlevels, focusing on individuals and their actions. Examples of these are *Een Miskend Geneesheer: Dr. J.K. Van Den Broek En De Overdracht Van Kennis Van Westerse Technologie in Japan, 1853-1857* by Herman J. Moeshart[33], which focuses on one of the Dutch doctors which went to Japan to train local doctors, and *Four Dutch Pharmacists in*

[29] Veldman, "Surgery by the Red-haired Barbarians', 2545 – 2547.
[30] T. Jackson, *Network of Knowledge,* 165 – 188.
[31] M.B. Jansen, ' Rangaku and Westernization', *Modern Asian Studies 18:4* (1984) 541 – 553.
[32] S. Ishida, 'The age of "*Rangaku"* (Dutch learning): Medical education in 19th century Japan', *History of medical education : proceedings of the 6th international symposium on the comparative history of medicine-East and West* (1981) 151-179.
[33] H.J. Moesthart, *Een Miskend Geneesheer: Dr. J.K. Van Den Broek En De Overdracht Van Kennis Van Westerse Technologie in Japan, 1853 – 1857* (Amsterdam 2003).

Japan, 1869 – 1885 by J.W. Verburgt[34]. M. Taniguchi & Z. Bowers' 'Pompe van Meerdervoort and the First Western Medical School in Japan'[35] similarly covers Dutch influence in the medical sector in Nagasaki through the perspective of another Dutch individual in Japan.

These three publications are examples of the *Rangaku*/Dutch influence on medicine in Japan during the *Bakumatsu*, but there are also publications of microlevel on other aspects of development in Japan like J. Stellingwerf's *Zijne Majesteits radarstoomschip Soembing overgedragen aan Japan*[36] (*'His Majesty's paddle steamer Soembing, transferred to Japan')*. Stellingwerf uses admiral G. Fabius diary to narrate the story of the transfer of a Dutch warship (the *Soembing*, later renamed the *Kankō maru*) to Japan as part of diplomatic exchanges and how Fabius experienced Dutch influence in Nagasaki. Stellingwerf's work is an example of Dutch influence in the military-industrial field and the first Western naval school in Japan. While such microlevel style publications are important to understand the day-to-day actions and the details of Dutch influence in Japan, they rarely tie these individual stories to greater developments occurring at that time. On a more metalevel, publications like Mark Ravina's *To Stand with the Nations of the World* (that encompasses Japan's efforts to modernize in the second half of the nineteenth century), often completely skip past the influence of the Dutch during the *Bakumatsu* era. Instead he gives most of the credit of Japan's Westernisation developments to Americans, English and French attempts from the mid-1860s and onwards.[37]

By tying these micro-level stories to the developments on a larger scale, like those in Nagasaki during the *Bakumatsu* and later, we can learn more about how these actions of individuals influenced larger developments at play in post-1853 Japan (and vice versa). The central question this thesis will thus attempt to answer is: 'To what extent did the Dutch influence shape the development of Nagasaki after the opening of Japan in 1854?'. To narrate the development of Nagasaki three sectors of Nagasaki will be examined; the military sector,

[34] J.W. Verburgt, *Four Dutch Pharmacists in Japan, 1869 – 1885* (s.l. 1991).
[35] M. Taniguchi and Z. Bowers, 'Pompe van Meerdervoort and the First Western Medical School in Japan', *Journal of Medical Education 40* (1965) 448 – 454.
[36] J. Stellingwerf and G. Fabius, *Zijne Majesteits radarstoomschip Soembing overgedragen aan Japan: De drie diplomatieke reizen van G. Fabius ter opening van Deshima en Nagasaki in 1854, 1855 en 1856* (Zutphen 1988).
[37] M. Ravina, *To Stand with the Nations of the World: Japan's Meiji Revolution in World History* (Oxford 2017) 97 – 120.

the (rising) industrial sector and the (declining) trade sector in Nagasaki. The end date of this paper will be 1900 because this time span gives us the opportunity to examine the remaining Dutch influences in the three aforementioned sectors until these influences almost completely disappear by the year 1900.

To show the developments in Nagasaki, this research will use the methodology of David Palmer's 'Nagasaki's Districts'[38]. Palmer uses a social-geographic approach in his article to narrate the interaction between the contact with the West and the development of Nagasaki from its earliest foundations until the destruction by the atomic bomb in 1945. In his publication he examines the developments per sector/neighbourhood in Nagasaki and how these are influenced by contact with the 'West' that took place in the city. Palmer shows with his approach how linking Western influences on a social/political level influenced the growth of various neighbourhoods in Nagasaki.[39] This paper will have a similar social-geographical/geopolitical approach but in a different scope and timeframe. This paper will instead explore the developments made in three main sectors of Nagasaki in the nineteenth century. As a result the following three sub-questions have been formulated. The first question is: 'How did the Dutch presence in Japan influence the developments in the military sector of Nagasaki in the nineteenth century?'. The second sub-question this thesis will answer is: 'How did the Dutch presence in Japan influence the developments in the industrial sector of Nagasaki in the nineteenth century?'. The final sub-question of this thesis will be: 'How did the Dutch presence in Japan influence the developments in the trade sector of Nagasaki in the nineteenth century?'. The efforts of the Dutch in Nagasaki will also be examined in conjunction with the changing position of the Dutch in the world. This way a broader narrative will be created where research of individual topics like industrialization, militarism and trade in Nagasaki will be compared parallel to each other and how these are influenced by greater developments in Japan and the world.

As mentioned before, the first aspect (and chapter) of this thesis will focus on military developments in and around Nagasaki. Modernizing its military to protect the country became

[38] D. Palmer, 'Nagasaki's Districts: Western Contact with Japan through the History of a City's Space', *Journal of Urban History 42:3* (2016) 477 – 505.
[39] Idem, 477 – 482.

one of the prime issues Japan faced after 1853. To achieve this Japan initially turned to its longstanding relations with the Dutch in Nagasaki. Through these interactions with the Dutch, the foundation was laid for a modern navy and shaped new coastal defence policies. The second chapter will focus on the rise of the (military-)industrial aspects of Nagasaki. To produce the supplies for its new military a powerful industrial workforce was vital. Nagasaki and its surroundings are where many of the first industrial developments took place, many of them through interactions with the Dutch. The final aspect and chapter of this thesis will focus on how Nagasaki developed from a bustling city revolving around foreign trade at the start of the 1850s to an increasingly (military)-industrial complex. This change is the one that the citizens of Nagasaki likely felt the most as they had to adapt to the new economic situation in the city that had arisen by the late 1870s. This change in nature of the city was also tied to greater developments happening in Japan and were also influenced by the Dutch. The Dutch, especially through the *Nederlandsche Handel-Maatschappij* (NHM)[40], had to carefully manoeuvre to protect their own assets while taking advantage of the new open Japanese market.

Many of the works that were described above will play an important role in analysing and narrating the shifting situation in Nagasaki during the nineteenth century and to correlate the various developments during that era. To further supplement the selected literature for this thesis, various sources will be used to help analyse the described changes through more contemporary perspectives. Contemporary Dutch sources will play an important role in supplying necessary details because they offer a wide selection of Dutch perspectives. Examples of these are sources of the Dutch government, like files from the Dutch consulate in Nagasaki and Yokohama, and documents from the NHM. The dissertation *Neêrlands streven tot openstelling van Japan voor den wereldhandel* from J.A. van der Chijs (1867)[41], which includes many unpublished Dutch sources, will be used at times throughout this thesis. This dissertation was also widely used as reference material for the Dutch government back then because the Dutch were still very much involved in Japan at that time. These sources will be used in conjunction with more personal narratives. Examples of these are the narratives of Janus

[40] The NHM was a large private Dutch company which mainly focused on Dutch interests in East-Asia. It is often regarded as the spiritual successor of the VOC and had close ties with the Dutch government.
[41] J.A. van der Chijs, *Neêrlands streven tot openstelling van Japan voor den wereldhandel* (Amsterdam 1867).

Henricus Donker Curtius[42] (the last *opperhoofd* of Deshima from 1852 – 1855, and first Dutch Commissioner in Japan till 1860), Dirk de Graeff van Polsbroek[43] (a diplomat sent by the Dutch government who was in Japan from 1857 till 1870), Philipp Franz von Siebold (1823 - 1829 and 1859 - 1862 in Japan and avid researcher of Japan)[44] and Admiral Gerhardus Fabius (who made diplomatic trips to Nagasaki in 1853, 1854 and 1855)[45].

The reason that Dutch sources will have a prominent position is because of their sheer availability and accessibility. But where possible other nation's sources will also be used, like Commodore Perry's personal journal[46]. Also the account of Thomas Blake Glover (1838 – 1911. Also known as 'the Scottish Samurai', 1859 – 1911 in Japan), who lived and traded in Nagasaki for a big part of his life and worked closely with the NHM, will be used in this thesis.[47] Due to a language barrier will Japanese sources not be included in this paper unless translated. Regretfully, because of this will all the Japanese perspectives in this paper be completely based on contemporary literature. If Japanese sources would have been accessible they could have been used to examine the Japanese impression of Dutch influences in Nagasaki post-1853, as a counterweight to (possibly exaggerated) views of Dutch activities in Dutch source materials. These non-Dutch works of literature will nonetheless give us a degree of different perspectives and complement the Dutch source materials, even if they are not contemporary primary sources. Besides the written sources, Japanese visual sources will also be used at times in this thesis. Maps and other visual materials, like paintings and drawings, will be used to visualize the changes in Nagasaki's landscape. Especially when it comes to the growth of the industry in Nagasaki the sheer amount of maps can be a boon to supplement written texts with a visualization of these developments. To visualize the Dutch influence on military developments in and around Nagasaki this paper will also use the aforementioned 'Hideshima archive'-collection that the Leiden University Library acquired. This rich collection of documents can give

[42] J.H. Donker Curtius, *Traktaat: Hunne Majesteiten de Koning der Nederlanden en de Taikoen van Japan* (s.l. 1859).
[43] H.J. Moeshart and D. de Graeff van Polsbroek, *Journaal van Jonkheer Dirk de Graeff van Polsbroek: Belevenissen van een Nederlands diplomaat in het negentiende eeuwse Japan* (Maastricht 1987).
[44] P.F.B. von Siebold, *Open Brieven uit Japan* (Nagasaki 1861).
[45] Stellingwerf and Fabius, *Zijne Majesteits radarstoomschip Soembing*.
[46] M.C. Perry, R. Pineau (ed.), *The Japan Expedition, 1852 – 1854 : The personal journal of Commodore Matthew C. Perry* (Washington 1968).
[47] A. McKay, *Scottish Samurai: Thomas Blake Glover 1838-1911* (Edinburgh 1997).

us more insight in the knowledge that the Dutch passed on to the Japanese and how the Japanese (especially the Nabeshima-clan of the Saga domain) used this knowledge.

Because of the accessibility to primarily Dutch sources this paper has to be wary that most events will be seen through a 'Dutch lens'. By adding sources and literature from other countries an attempt can be made to negate this as much as possible, but it is almost impossible to completely filter this Dutch perspective. Most of the Western sources in Japan at the time have also incorporated some form of exaggerations to make their feats appear grander than they were. A famous example of such an exaggeration is the arrival of Commodore Perry in the bay of Edo in 1853. American reports of the Japanese astonishment (both that of civilians as officials) at the arrival of American warships in the bay of Edo make it seem as if the event was similar to aliens visiting Earth. In reality, it is more realistic that there was mostly curiosity, as many in Japan were already to some degree aware of the developments in the world (especially among government officials), even if it was only on paper.[48] To make sure such exaggerations are not accidentally accepted as truth such claims have to be cross-checked with other sources, like visual ones or other reports of the same event.

The main objective of this thesis is to create a more comprehensive narrative of declining Dutch influences on the development of Nagasaki after the opening of Japan and how this is tied to Nagasaki becoming a military-industrial centre. The influence of the Dutch can be seen as a last attempt to maintain an old system that they profited from and they hoped to compete with other Western nations for influence in Japan. Because they had an old connection with Japan they could still maintain their position for a while. Eventually, the competition from other Western nations became too strong and much of the Dutch influence of Japan was replaced by other nations, often building further on foundations the Dutch helped to build. This was especially the case in Nagasaki and its surroundings, where the presence of the Dutch was deeply tied with the city.

[48] Ravina, *To Stand with the Nations,* 89.

1. Laying the foundations for a modern Japanese military in Nagasaki, 1854 - 1868

The arrival of Commodore Matthew Perry with his modern Western-style steamships in 1853 was the latest in a series of confrontations between Japan and the West. Even though Japan had successfully repulsed earlier attempts to reach its mainland, the sheer force Perry brought was a rude awakening. Many influential figures within Japan quickly realized that this gap in strength had to be closed, and soon. How to close this gap was the subject of many discussions, but a logical step for many was that Japan would rely first on its long-standing friendship with the Dutch. The Dutch were eager to supply the necessary help, hoping to retain their "special" position in Japan and staying ahead of the competition. They quickly supplied Japan with its first-ever steam-driven warship and also succeeded in opening the Naval Training School (which was founded in 1855 beside Deshima in Nagasaki). Dutch military knowledge also quickly managed to find its way into various other military sectors; like infantry drills, artillery and coastal defences.

Various research, both in the Netherlands as in other countries, already examined considerable parts of the founding of the Japanese navy and which role the Netherlands played in this. Especially the transfer of the *Soembing*, Japan's first-ever steamship, is a much-discussed (and celebrated) event in both Japanese and Dutch histories. Yet most of these papers either focus on either the Dutch achievements or on the Japanese navy side. How these military activities shaped the future of Nagasaki is much less examined in contemporary literature, while these activities can be seen as the root of the military-industrial complex in Nagasaki of the twentieth century. The aim of this chapter is to abridge the already established narratives of the Dutch training and Japanese navy and project how these shaped Nagasaki. As will be shown below, while the Nagasaki Training Centre was quite short-lived, the policies of the Dutch in Nagasaki(/Japan) and of the Japanese *bakufu* created an environment that required the rise of industry in the city and supplied it with a well-defended port that was ideal for later imperialistic ambitions.

1.1. Japan faced with a Western threat

When Commodore Perry arrived in the bay of Edo in 1853 with his 'Black Ships' it was for many people the first time seeing the vast difference between Japanese and Western naval strength. The sight of Commodore Perry's warships - two steam frigates and two sloops-of-war with the latest guns the West had available – entering Edo's bay must have been an awe-inspiring sight to the local fishermen and other people going on about their daily lives. But to the military and higher officials of the *bakufu,* this incident was a vastly different experience. The sight of these warships was a wake-up call for many within the *bakufu*. The fact that the defence around the bay of Edo was pretty much powerless against the military power that Commodore Perry had at his disposal was a disgrace for high placed military officials.[49] The sheer difference in power was also an important factor in Perry being able to dictate the terms in the negotiations of Japan opening a few of its ports to American ships. The arrival of these ships was not a complete surprise though, as the Dutch had already warned the Japanese government of the possibility of such an event in the years prior to Perry's arrival. But to see the Japanese guardships – small wooden ships with no cannons, relying on the swords and rifles of its crew in combat – being nothing more than pesky annoyances to Perry's ships, hit the officials who had been maintaining a *status quo* in maritime defences hard.[50]

Nonetheless, raising awareness for the need of a modern navy and coastal defences already happened many years before the arrival of Commodore Perry. Throughout the early nineteenth century, there were numerous attempts by various foreign powers to test Japan's military power and their devotion to the *sakoku* policy[51]. Most famous of these incidents were probably the Rezanov delegation to Nagasaki (1804), the *Phaeton* incident (1808) and the *Morrison* incident (1837). The Rezanov delegation was an attempt by the Russian government to establish official trade relations with Japan after an earlier smaller delegation managed to book some diplomatic progress with the Japanese government. What the Russians did not

[49] McOmie, *The Opening of Japan 1853-1855*, 90 – 92.
[50] Ibid, 92 - 94.
[51] *Sakoku* (Jp. 鎖国, literally meaning 'locked up country') was the name given in the modern era to the collection of laws and policies enforced by the Tokugawa shogunate to regulate foreign trade and influences in Japan between 1836 and 1853. Even though there were many laws limiting trade, foreign trade did prosper during this era.

realize was that the success of the earlier delegation laid in its smaller scale and that the Japanese still refused any official contact.[52] The much larger Rezanov delegation completely failed and was promptly dismissed from Nagasaki. In retaliation, ambassador Nikolai Rezanov (1764 – 1807) ordered that Russian vessels should raid several Japanese ports along the northern coasts, hoping displays of power would entice the Japanese to open communications. Even though some damages were inflicted on both sides during a couple of skirmishes, further escalation was not deemed profitable by either party.[53] For now, the *status quo* in Japan's relations with the outside world was successfully maintained.

The *Phaeton* incident of 1808 followed not long after the Rezanov's visit to Japan and was the second unwanted visit by a foreign nation in a short period. But where Rezanov's visit to Nagasaki itself was peaceful, besides the inability to bar them from entering Nagasaki, the *Phaeton* incident exposed the weaknesses in Japan's coastal defence.[54] The *Phaeton* made its way peacefully into the bay while flying a stolen Dutch flag. Once it was in the bay, the crew of the *Phaeton* took the Dutch and Japanese officials that came to inspect the ship hostage. The defenders of Nagasaki were completely powerless against the suddenly hostile frigate.[55] Not only was Nagasaki completely undermanned (with roughly 50-60 defenders versus the 280 – 350 men crew of the *Phaeton*[56]), the outdated cannons around the bay would also have had a near-impossible task in dealing with a fully-armed modern frigate like the *Phaeton*.[57] The *Phaeton* incident of 1808 laid the weaknesses in the coastal defences bare and showed that reforms were desperately needed. This was even more painful for the *bakufu* when you compare the situation between the Rezanov attacks and the *Phaeton.* The Russian attacks on the northern ports were just relatively undefended coastal towns. Nagasaki, on the other hand, was supposed to be the most heavily guarded gate through which contact with the West was

[52] Ravina, *To Stand with the Nations of the West,* 58 -59.
[53] Ibid, 60 – 62..
[54] N. Wilson, *Defensive Positions: The Politics of Maritime Security in Tokugawa Japan* (Cambridge, MA 2015) 114 – 115.
[55] Ibid.
[56]Ibid, 115. As the trading season was already almost over when the *Phaeton* arrived, the Nagasaki magistrate had already allowed domanial troops to return to their homes. Normally Nagasaki was supposed to have between 200 and 400 men to man all the defensive positions.
[57] Ibid., 115 – 121.

maintained. And even the defences of Nagasaki were powerless against modern Western vessels.

While the *Phaeton* incident caused some (minor) changes in Nagasaki's defences, these were fairly short-lived. The defence of the bay of Nagasaki was intensified, but within a decade a steep decline was seen again in the defensive initiatives. Guarding the coasts around Nagasaki with thousands of troops against a threat that may-or-may-not come was just too expensive to maintain. The biggest change that the *Phaeton* incident eventually brought was the "shell and repel" edict of 1825, in which uninvited foreign ships could be fired upon without any warning.[58] This edict showed that the *bakufu* still had faith in its coastal defence capabilities, even around Nagasaki. And for the Japanese it had some minor successes, like with the *Morrison* incident of 1837. The *Morrison* was an attempt to open trade relations with Japan by the USA under the guise of returning some unfortunate Japanese castaways that they picked up in Canton. The morning after its arrival, the cannons around Edo's bay opened fire upon the trade vessel and the same happened when the *Morrison* arrived later at Kagoshima (Southern Kyushu).[59] Repelling the *Morrison* was a success for the *bakufu* and for now reaffirmed that they had the strength to maintain the *sakoku* policy.

The first major shifts in modernizing the coastal defences of Japan came when China clashed with the United Kingdom. The First Opium War in China (1839 – 1842) showed the vast power difference between East-Asian and Western navies. The Chinese navy was powerless in the face of the modern British ships and could not prevent a relatively small invasion force from raising havoc along the south-eastern coast. The resulting Treaty of Nanjing, in which China had to agree with humiliating concessions to the invading British troops, ended an era of seclusion policies for China.[60] Thanks to the Treaty, China lost authority over its own ports and coastal territories, which was a worrying prospect for various *bakufu* officials. Throughout the 1840s the *bakufu* got numerous reports written by both their own officials and through Dutch channels about how China was steadily losing the ability to choose its own policies in coastal

[58] Ibid, 119 – 121.
[59] McOmie, *The Opening of Japan 1853-1855*, 24 – 31.
[60] C. C. Northrup ed., *Encyclopedia of World Trade: From Ancient times to the Present, vol. 4* (New York 2005) 449 – 450.

affairs. The Dutch on Deshima annually presented the news to the Japanese and report of the 1840s not only mentions how China lost to the United Kingdom but also how other Western countries were eagerly sending their own envoys (escorted by warships) to force deals with the Chinese.[61] Presenting the news of the humiliation of China seems to have been a tactic by the Dutch to slowly convince Japan to open its own ports. The Dutch saw the situation unfolding in China and if something similar would happen in Japan their monopoly would likely be undermined.

Thus the Dutch started preparing to prevent Japan from being opened by force and, more importantly to them, save their own monopoly on the Japanese trade. While the Dutch had not made any profits on the trade through Deshima for many decades, they still staunchly protected it. For the Dutch it was a source of prestige and they also saw opportunities to take advantage of their Japanese trade for the new situation in the Dutch East Indies (present-day Indonesia). Starting in the mid-1830s the Dutch started to produce considerable revenue through the newly enforced 'cultivation system'[62] in the Dutch East Indies and the need arose for new markets to sell these colonial products. With the changing situation in East-Asia, the Dutch saw their chance to turn Japan in one of these new markets and include Japan in their sphere of influence.[63] So in 1844, an exchange happened that had not happened in the centuries before. The highest official of the Netherlands (at that time King William II) send a letter directly to the highest official of Japan (Shōgun Tokugawa Ieyoshi, 1793 - 1853)[64]. In the letter, the Dutch king warned the Japanese government of the impending risks, as foreign powers were (supposedly) eagerly eyeing the opportunity to open the ports of Japan next. The situation in China, together with the ever more frequent incidents along the Japanese coasts,

[61] S. Iwao, *Oranda Fūsetsufaki shūsei: A collection of the "world news" presented annually by the Dutch factory at Deshima to the Tokugawa shogunate 1641 – 1858* (Tokyo 1979) 386 – 399.
[62] The 'cultivation system' was a system employed in the Dutch Indies where, in theory, 20% of the agricultural land had to be devoted to crops destined for trade ('cash crops', like tobacco, tea etc.) or, farmers had to work 60 days a year on government-owned lands. The system drastically increased the profits on the Dutch Indies trade during the mid-nineteenth century.
[63] Kogure, *National Prestige,* 32 – 33.
[64] Even though the exchange was technically on the highest level, the letter and response were in practice designed and treated by lower officials (on the Dutch side by the famous Philipp Franz von Siebold). Nonetheless, this was an unique occurrence and broke with the normal contact procedures that stipulated that contact was to be maintained through the Dutch trading post.

were the proof of this (according to the Dutch).[65] As such, the Dutch urged the Japanese to open their various ports on their own terms and increase the possibilities to conduct foreign trade through these ports (preferably in a manner that was advantageous to the Dutch). This would be the best compromise between two evils for the Japanese; taking away any *casus belli* for the foreigners to forcefully open the Japanese ports by allowing them to trade while still retaining control over its own borders.[66] The answer from the Japanese was a disappointment though for the Dutch. In a letter from the Dutch minister of colonies it was described that the answer of the Japanese government was: '*While the Japanese saw the wisdom in the words of the Dutch, they could not indulge the Dutch with open ports or other advantages. To the Japanese, the policy of isolation was put in place by the wisdom of their ancestors and they were in no position to argue with their judgment*.'.[67] The answer of the Japanese made it clear that the *status quo* of the last centuries would remain until Commodore Perry arrived in 1853 to open the ports (as the Dutch had warned would happen). Even though the *status quo* was maintained in the 1840s, a few prominent officials in Japan were already aware that large reforms were necessary if Japan were to protect its own policies. And Nagasaki, the frontline of Japan's contact with the West, was the place where most of these changes were taking root.

1.2. Training a modern navy in Nagasaki

While the Dutch plans for the opening of ports were declined, the Dutch were still determined to maintain their unique position after the opening. And in 1854, when Perry forcefully opened the ports, an opportunity presented itself to Dutch. They hoped to gain this advantage by offering the Japanese something they desired most: a modern, Western-style navy. That the Japanese desired this themselves becomes abundantly clear from the annual imperial demand[68] for the year 1854. The annual demand of that year was a very long list of ships, naval supplies and knowledge to be supplied by the Dutch in the summer of 1854 or as soon as

[65] Nationaal Archief The Hague, Ministerie van Koloniën (MvK) arch. nr. 20.10.02/inv. nr. 4294/458, Minuutbrief aan Ph. F. von Siebold (The Hague 3 November 1843).
[66] Ibid.
[67] Nationaal Archief The Hague, Kabinet des Konings (KdK) arch. nr. 2.02.04/inv. nr. 4186/M-20 'Brief van de minister van koloniën' (21 May 1846).
[68] The Japanese annually requested a supply of objects from the Dutch as tribute, which could range from a wide variety of stuff. Among the objects were often scientific or exotic objects and books.

possible after that. Examples of things requested by the Japanese were: one (middle-sized) steamship, three or four corvettes, two brigs, various smaller boats, various experienced officers and sailors who could teach, naval books, naval mortars, cannons and many more military supplies.[69] Even though the list was long, the Dutch moved quickly and supplied a part of the requested goods. Comparing the full list of demands to what the Dutch actually supplied, it is likely that the colonial government could only spare just enough 'gifts' to keep the Japanese satisfied to not start looking to other foreign powers. In the summer of 1854 the Zr. Ms *Soembing* arrived in Nagasaki, completely supplemented with an experienced crew. The crew of the *Soembing*, together with its Captain Gerhardus Fabius (1806 – 1888), was kept very busy during their stay in Nagasaki. Various Japanese detachments made daily visits to the ship to learn all about modern naval techniques and various high placed officials, like the governor of Nagasaki and the lord of the neighbouring province of 'Fizen'[70] (The Dutch name for the province Hizen, the Saga domain of the Nabeshima-clan), took time to inspect the Dutch warship (and the English squadron that visited Nagasaki simultaneously).

Though the diplomatic envoy of 1854 was a success, the Dutch were also well aware that they had to act quickly if they would keep this advantage. Donker Curtius (1792 – 1864), the Dutch commissioner in Japan (former position of *opperhoofd*), knew that the Dutch could not supply all the Japanese military demands as quickly as the Japanese wanted (especially compared to powers like Britain, the United States or Russia). So Donker Curtius tried to press this issue into an advantage for the Dutch. He informed Japanese officials that due to the complexity of the modern naval training it would be risky to have the exercises be conducted through the assistance of translators. So the commissioner requested that the Japanese would teach promising students the Dutch language so they could learn first-hand from Dutch teachers in Nagasaki.[71] This request by Donker Curtius solved three problems for the Dutch. Firstly, teaching the Japanese Dutch would require some time. Time the Dutch could use very

[69] Nationaal Archief The Hague, Nederlandse Factorij in Japan, 1609 – 1860, arch. nr. 1.04.21/inv. nr. 1689, Geheim Archief, Dagregister. Met bijlagen. 1853 november 15 - 1854 november 27 in: J.A. van der Chijs, *Neêrlands streven tot openstelling van Japan voor den Wereldhandel* (Amsterdam 1867) 431 – 435.
[70] Fabius and Stellingwerf ed., *Zijne Majestejts Radarstoomschip Soembing*, 35.
[71] Nationaal Archief The Hague, MvK, arch. nr. 2.10.02 inv. nr. 5861, Zeer Geheim Verbaal 1854, 'Mening van het Nederlandsche Opperhoofd, 15 oktober 1853', nr. 103 appendix G (20 March 1854).

well to work on fulfilling the various other demands. It also gave the commissioner and the colonial government time to negotiate with the Dutch government in The Hague to offer the Japanese more permanent supplies and commitments (like a naval training centre in Nagasaki[72]). Secondly, it gave the first generation of Japanese naval trainees a dependency on Dutch, thus limiting the basis of first-generation Japanese naval personnel to Dutch study materials until other languages would become available. And last, the Dutch hoped this would consolidate the basis of the Japanese navy in Nagasaki. This was where the Dutch had a base for over two centuries and were deeply entrenched in the system there. This would make it harder for other Western countries to bypass Dutch assistance to tap into exchanges with the Japanese (e.g. trade, knowledge and military).

As the training ventures of the first Japanese naval officers in Nagasaki turned out to be a great diplomatic success for the Dutch, they quickly sought to further expand this opportunity in their favour. By the time the *Soembing* left Japan again on the 26th of October 1854, around 200 Japanese had followed the various training exercises that had been offered by the crew of the *Soembing* in Nagasaki. But while the training exercises that the *Soembing* supplied were a success, it was clear that if Japan really was to have a modern Western-style navy it would need more permanent institutions to supply enough well-trained officers and sailors. Without such institutions, it would be near-impossible to train the necessary personnel for a navy that could challenge the navies of the other major powers in the world.[73] The dangers of an invasion by Western nations was prevalent prior to 1853, but this fear among *bakufu* officials had not dissipated after the opening. Among certain groups within Japan the idea of "conquer or be conquered" was slowly spreading. And one way to protect against such threats is to make sure you can stand toe-to-toe with the other major nations. To do this they were prepared to make

[72] Donker Curtius proposed a naval training center outside Deshima in Nagasaki shortly after requesting that the Japanese trainees would learn Dutch. This training center was eventually established in 1855 and would also give the Dutch more freedom of movement; Nationaal Archief The Hague, MvK, arch. nr. 2.10.02 inv. nr. 5861, Zeer Geheim Verbaal 1854, 'Brief van Donker Curtius aan de Gouverneur van Nagasaki, 22 oktober 1853', nr. 103 appendix GG (20 March 1854).

[73] V. Enthoven, 'Oude vrienden: De Nederlandse rol bij de opbouw van de Japanse marine, 1850 – 1870' in: E. Buchheim, V. Enthoven, T. Jackson etc, *Leidschrift: Tussen vriendschap en vijandschap: Nederland en Japan door de eeuwen heen 33:2* (2018) 77.

any necessary investment to create a strong navy. One that could potentially rule the seas.[74] It was these world views of various key figures within the *bakufu* which gave impulses to the creation of a modern military and navy. It also provided opportunities for Western nations, like the Netherlands, UK, USA and France, to supply necessary knowledge and military equipment in return for diplomatic concessions from the Japanese. This seems to have been an important tool of the Dutch to try and exert more influence in Japan and compete with the other Western nations.

The biggest change in creating the modern navy for the Japanese in Nagasaki came with the transfer of the *Soembing* to the Japanese navy and the opening of the Nagasaki Naval Training Center (1855 – 1859, see figure 1) in October and November of 1855 respectively. The transfer of the *Soembing* was a diplomatic move by Donker Curtius to reaffirm the friendship between the Netherlands and Japan, whilst simultaneously hoping to show the Japanese that the Dutch could supply any requested equipment (and quicker than other foreign nations could. A steamship was on their annual demand after all). That other nations were vying for the same goals becomes clear when noting that mere days after the transfer of the *Soembing* (now renamed *Kankō Maru*) a similar offer for a warship was sent to the Nagasaki magistrate by the English commander in Japan.[75] The opening of the Naval Training Center happened in conjunction with the transfer of the *Soembing,* as the students could get first-hand experience with the theoretical knowledge they learned at the Training Centre on Japan's own steam warship.[76]

The *Soembing* that the Netherlands supplied was far from "state of the art" though when it was transferred in 1855. It was even already deemed near-obsolete, as paddle steamers (like the *Soembing*) were rapidly replaced by propeller-driven steamships in the 1840s/1850s.[77] The proposed gifting of the warship led to some commotion within the Dutch parliament, as various members did not agree with the Ministry of Colonies transferring a

[74] J.L. Huffman, *Japan and Imperialism, 1853 – 1945* (Ann Arbor 2010) 5 – 11.
[75] G. Fabius, 'Het aandeel der Nederlandscche Marine in de openstelling van Japan en in de vorming der Japansche oorlogsvloot in de jaren 1844 – 1867', *Marineblad 49* (1934) 281 – 289.
[76] Enthoven, 'Oude Vrienden', 80 – 83.
[77] Xiao-Jun Du, 'Nagasaki Training and Newly Established Modern Japanese Navy', *Journal of Foreign Studies issue 3* (2010) 44 – 49.

warship from the already (abysmal) naval defence of the East-Indies to a foreign power.[78] Eventually, the parliament was placated by the promise that this was a good opportunity to replace the near-obsolete *Soembing* with a newer ship, as the Dutch recently also acquired the capabilities to build newer (propeller-driven) frigates.[79] Nonetheless, the visit of Fabius with his *Soembing* to Nagasaki was regarded as a diplomatic success by the Dutch at the time. At the end of the Fabius' visit in 1854, the Japanese reaffirmed their friendship with the Dutch, declared that they would look to Dutch for their modernization and they simultaneously ordered two new propeller-driven warships (which were actually modern in the 1850s).[80] It was a desperate gamble of the Dutch to stay ahead of the British and Americans, but for now, the Japanese were unaware of the outdated state of most of the Dutch naval material. The now renamed *Kankō-maru* would serve as a training vessel while two modern Dutch-built frigates would join the Japanese navy in the following years.

When you look at the total numbers of the personnel trained at the Naval Training Centre, it may seem to have been a fairly small-scale endeavour. During its four year existence, the Naval Training Centre only trained two classes; the first of 1855 – 1857 had twenty-two students (with four officers) and the second of 1857 – 1859 had thirty-seven students (with six officers). Besides these men around forty imperial students and twelve students from Kyushu domain *daimyo*[81] joined the second group (thus totalling 128 students, though some imperial students were soon after relocated to the newly founded training school in Edo in 1858).[82] The new training school in Edo was founded by the old Japanese director of the Nagasaki Naval Training Centre, to the regret of the Dutch. Fabius was of opinion that moving the training school to Edo would cause a divide between the Japanese and the Dutch because training would now occur far away from the century-old outpost of Deshima. As such, many influential Dutch officers, like Fabius and Gerhard Pels Rijcken (1810 – 1889, Dutch commander of the

[78] The whole naval defense of the East-Indies was undertaken by twelve warships, most of which were by either obsolete ships or ships in disrepair; Tweede Kamer der Staten-Generaal, *Verslag der Handelingen van de Tweede Kamer der Staten-Generaal, Volume 18* (n.d.) 761 – 762; Kogure, *National Prestige*, 131 – 132.
[79] Ibid.
[80] Fabius, *Zijne Majesteits*, 31 – 38.
[81] *Daimyo* (Jp. 大名) was the name of the feudal warlords of Japan who ruled the majority of lands in Japan until the Meiji-period .
[82] Ibid.

Nagasaki Naval Training School) were of opinion that training should continue in Nagasaki. They emphasized that training in Nagasaki would have been the best for both Japan and the Netherlands.[83] Nonetheless, the *bakufu* saw it differently. They knew that the Dutch could not keep up with their increasing demands and many *bakufu* officials thought it was important to centralize the training of new officers near Edo (closer to the seat of shogunal power).[84] This conviction of the Dutch military personnel showed that it was clear to them that Dutch influence on Japan was tied to the city of Nagasaki. To them, Nagasaki was the place where they were pulling the strings and could influence the Japanese to a degree. In the other major cities they had to start from scratch beside countries like the USA, the UK and France. The Netherlands would not long keep up with these countries without a head-start and they were very much aware of that.

Figure 1 Students of various clans march to the Nagasaki Naval Training Center, situated in front of Deshima. Painted by 陣内松齢 (Jinnai Songling) 'Nagasaki Naval Training Center', mid-nineteenth century, Chokokan Museum, Saga, Japan. http://www.nabeshima.or.jp/collection/index.php?mode=display_itemdetail&id=101 [last visit 16-07-2019]

[83] G. Fabius , 'Het aandeel der Nederlandse Marine', 295.
[84] J. de Vries, 'De geboorte van de Japanse marine', in: L. Blussé, W. Remmelink en I. Smits ed., *Bewogen betrekkingen. 400 jaar Nederland-Japan* (Hilversum 2000) 182 – 183.

But while the numbers trained by the Dutch in Nagasaki were relatively small, their impact on Japan was larger, as various naval students of the Dutch took up key positions in the *Bakumatsu* (and later Meiji-era) navy and government. The first graduates of the Nagasaki Naval Training Centre were vital in manning early naval expeditions of the Japanese. The Dutch built *Kanrin Maru* (transferred to Japan in 1857) had a large detachment from the Nagasaki trainees and escorted the first-ever delegation of Japanese to the USA in 1860.[85] Including the *Kankō Maru* (Soembing) and *Kanrin Maru* the Netherlands build a total of seven ships for the Japanese (six for the shogunate and one for the Satsuma domain) between 1855 and 1869, forming a considerable contribution to the early shogunal steam-powered navy.[86] The initial crew of these ships was largely reliant on students from the Nagasaki Naval Training Centre. These ships and the Nagasaki naval knowledge was later also applied in Edo and Kobe, where new training institutions (1859 and 1864 respectively) were founded (near the shogunal seat of power in Edo).[87] Secondly, among the graduates of the Nagasaki Naval Training Center were some persons who would grow out to become influential in the late *Bakamatsu* and early Meiji eras. Examples of these graduates are the statesman and naval engineer Katsu Kaishū (1823 - 1899), who lead the delegation to the USA in 1860, founded the Kobe Naval Training Center and played an important role in Japan's further modernization during the Meiji period[88], and Enomoto Takeaki (1836 – 1908) who became an admiral of the Tokugawa navy and was one of the founders of the Meiji-period 'Imperial Japanese Navy' (IJN).[89] How these two prominent individuals regarded their own studies under the Dutch is an interesting question for their biographies, but these were regretfully behind a language barrier for this thesis. Some of these

[85] J.L.C. Pompe van Meerdervoort, *Doctor on Deshima, Five years in Japan (1857 – 1863),* ed. and trans. by E. P. Wittermans (Tokyo 1970) 127 – 128.

[86] The *Bakumatsu-era* government ordered a total of eight warships and thirty-six smaller auxiliary ships from the French and Dutch between 1854 and 1869 (of which the Dutch supplied four warships and three auxiliaries). The other domains, mostly those on Kyushu like Satsuma, acquired thirty-eight foreign-built ships spread between them. J.C. Schencking, *Making Waves: Politics, Propaganda, and the Emergence of the Imperial Japanese Navy* (Stanford 2005) 15 – 16.

[87] Fabius, 'Het aandeel der Nederlandsche Marine', 293 – 298.

[88] Brittanica Academic, 'Count Katsu Kaishū', Brittanca Encyclopedia (2019), https://academic-eb-com.ezproxy.leidenuniv.nl:2443/levels/collegiate/article/Count-Katsu-Kaish%C5%AB/44858 [last visited 16-07-2019]

[89] Brittanica Academic, 'Enomoto Takeaki', Brittanca Encyclopedia (2019) https://academic-eb-com.ezproxy.leidenuniv.nl:2443/levels/collegiate/article/Enomoto-Takeaki/32693 [last visited 16-07-2019]

individuals, like the above mentioned two graduates, also received ministerial positions in the Meiji-government after 1869 and helped shape Japan's policies in the late nineteenth century.

And lastly, which is important for the nature of Nagasaki, this training centre laid the foundation for the course the city of Nagasaki would take in the next century. The Training Center itself only existed for roughly four years, but before it was moved, various naval facilities were also built in Nagasaki. Among these facilities were repair facilities and naval construction foundries/factories (more about these in chapter 2).[90] During the times of the Training Center, these facilities were still fairly small, even though they were significant in the sense of being some of the first-ever in Japan. But as time progressed into the 1870s/1880s these facilities would grow out to become the bustling Mitsubishi Shipyards that would dominate Nagasaki by the turn of the twentieth century. Especially as trade moved away from Nagasaki (more in chapter 3) would these changes in the city's character become very clear to its inhabitants.

1.3. Modernizing the army and coastal defences

While the Dutch influence on the modernization efforts of the Japanese navy was a celebrated prestige project for both the Netherlands and the *bakufu*, more covertly was Dutch military knowledge also utilized by various *daimyo* to modernize their local armies and coastal defences of Japan. The modernization of the army and coastal defences can also be placed in the 'conquer or be conquered' sentiment that was spreading in Japan as local *daimyo* saw opportunities to fulfil their own ambitions during the *Bakumatsu* (as became clear with the eventual Meiji Restoration). The modernization of the land forces started already a few decades before the opening of Japan (albeit at a relatively slow pace). That this was already happening earlier is not surprising, as it fits into Japan's *sakoku* policy. The *sakoku* policy closed the countries from the seas and relied on the superiority of Japan's armies and forts. [91] So it makes sense that the early modernization efforts were primarily aimed at modernizing the land forces, before shifting towards the seas. The need for this modernization became even more clear due to the failed encounters with hostile foreign powers during the first half of the nineteenth century (the Rezanov delegation attacks and the *Phaeton* incident). The initial modernization

[90] Fabius, 'Het aandeel der Nederlandsche Marine', 293 – 298.
[91] Wilson, *Defensive Positions*, 171 – 212.

efforts after these incidents were primarily undertaken by Kyushu *daimyo*, especially those who were responsible for the defence of Nagasaki (like the Nabeshima of the Saga domain and the Kuroda-clan of the Fukuoka-domain). These two clans were since the seventeenth century the prime defenders of Nagasaki and formed the frontline of Japan's contact with the West.[92]

Musketry was not a new phenomenon in Japan in the mid-nineteenth century. Even though Japan is often portrayed in popular media as a country of "samurai and cavalry", by the end of the sixteenth century various famous *daimyo* (like Oda Nobunaga (1534 – 1582), Toyotomi Hideyoshi (1537 – 1598) and Tokugawa Ieyasu (1543 – 1616)) fielded large contingents of matchlock troops, and even cannons, with devastating effect.[93] After the *Phaeton* incident of 1808, a rise can be noted again in interest for modernizing matchlock troops contingents, especially in domains closest to Nagasaki (e.g. Saga, Fukuoka and Satsuma). [94] That this was most noticeable in these Kyushu domains is not surprising. These domains were at the forefront of encounters with foreign powers that sought contact with Japan. Because of this they were also very aware of the firepower the West wielded (as they often witnessed events like the *Phaeton* incident first-hand). As a result, multiple Japanese military scientists and engineers started to study Western warfare and military technology through their contact with the Dutch (in a similar sense as *rangaku* was studied).

One famous example of these studies is Takashima Shūhan (1798 – 1866). Takashima was born in 1798 as the son of one of Nagasaki's elders. Because of his father's position he witnessed the contact with the Dutch on Deshima from a young age. In time he also became a city official and came in contact with *opperhoofd* Johan Wilhelm de Sturler (1773 – 1855. *Opperhoofd* between 1823 – 1826).[95] De Sturler was a veteran of the Napoleonic Wars (where he rose to the rank of colonel) and gained considerable military experience. Through his contact with De Sturler, Takashima learned various Western(/Dutch) military techniques and tactics; e.g. the use of drill exercises to instil discipline in foot soldiers and how newer models of artillery had to be deployed along infantry (mostly based on late Napoleonic-era warfare

[92] Ibid., 113 – 132.
[93] D. Collin Jaundril, *Samurai to Soldier: Remaking Military Service in Nineteenth-Century Japan* (New York 2016) 19 – 21.
[94] Jaundril, *Samurai to Soldier*, 19 – 21.
[95] Ibid, 21.

techniques). Takashima used this Dutch military knowledge to develop his own musketry style (*Takashima-ryū*) which gained himself the patronage of various *daimyo* on Kyushu.[96] The *daimyo* of Kyushu (and southern Honshu) eagerly adopted these exercises to Westernize their local armies in the 1820s – 1840s. Takashima even got national fame and got to show his drill exercises in Edo in 1841 to an audience of high-placed shogunate officials. But his rise to fame also got Takashima high placed enemies, especially among those who wanted to limit Western influence in Japan. In 1842 false charges were forged by high placed enemies to incarcerate Takashima, but by then various new Western military models were already adopted by *daimyo* armies.[97] For now was the shogunate not yet actively pushing for modernization of its forces but instead, only local *daimyo* were prepared to take this step of (small-scale) Westernization of their armies.

The development of coastal defences in Japan before the opening of Japan had more success. Nabeshima Naomasa (1815 – 1871), *daimyo* of the Saga domain, was one of the Kyushu lords who took great interest in *rangaku* during the 19th century (others, like the Satsuma domain, were also very interested in *rangaku*, but not as closely associated with the defence of Nagasaki). Nabeshima was an ambitious man and was in a way the main force behind the modernization of coastal defences in Japan. His father, Nabeshima Narinao (1780 – 1839), was as *daimyo* in charge of Nagasaki's defences during the *Phaeton* incident. The failed defence of Nagasaki mostly led to a loss of prestige for the Saga domain. As future heir to this domain and as a man with many ambitions, Naomasa wanted to avoid a similar incident during his reign.[98] When Naomasa became the *daimyo* of the Nabeshima family in 1830 (though he only got full control in 1835), became remodelling the Nagasaki harbour defences one of his primary prestige projects.

Naomasa went great lengths to realize his plans and pushed the limits of what was acceptable as a *tozama daimyo*[99]. An example of this is the unsanctioned visit he made to the Dutch warship *Palembang* in 1844. When the Dutch warship visited Nagasaki to deliver the

[96] Ibid, 21 – 22.
[97] Ibid.
[98] Wilson, *Defensive Positions*, 118 – 119.
[99] *Tozama daimyo* (Jp. 外様大名) were *daimyo* of clans that had only submitted to the Tokugawa-clan after their rise to power and had thus not supported them during their rise to power.

letter of King William II, it was a major opportunity to examine the modern weaponry the warship wielded. Naomasa was not eager to let this opportunity slip by and visited the warship without permission of any Tokugawa officials.[100] Normally such unsanctioned contact between a *tozama daimyo* and a foreign power would have led to major repercussions, but Naomasa managed to get away with it by explaining it as a necessity to defend Japan effectively.[101] Most likely Naomasa was not punished for this action because he was a vital part of Japan's coastal defence in a time that the threat from abroad increased rapidly.[102] Thanks to the visit to the *Palembang*, and to his other contacts with the Dutch as a defender of Nagasaki, Naomasa got vital information to modernize coastal defences. In the 1840s and 1850s he undertook massive projects to realize his visions, with some great successes. Evidence of Naomasa's modernization efforts are found in various remnants of Nabeshima-clan archives and collections. Most of these archives/collections are still found in Japan, but one of these archives is also found recently in the Leiden University Library in the Netherlands.[103]

The Hideshima archive (Hideshima was a translator family of the Nabeshima-clan, though it is unclear if this individual also directly worked for the Nabeshima) in Leiden features a wide selection of various documents regarding the military modernization that took place through the contact of the Nabeshima clan with the Dutch (most documents are dated for the 1850s and early 1860s). Among these documents are a wide selection of schematics of cannons, an index of flags of many foreign powers, drill exercises, cannon emplacement techniques and other Western military knowledge.

[100] Ibid, 122 – 124.
[101] Wilson, *Defensive Positions,* 122 – 124.
[102] Ibid, 126 – 132.
[103] Hideshima, *Hideshima Archive of the Nabeshima han*, Or. 27.750 Shelf 22.513 F, (Leiden University Library, Leiden).

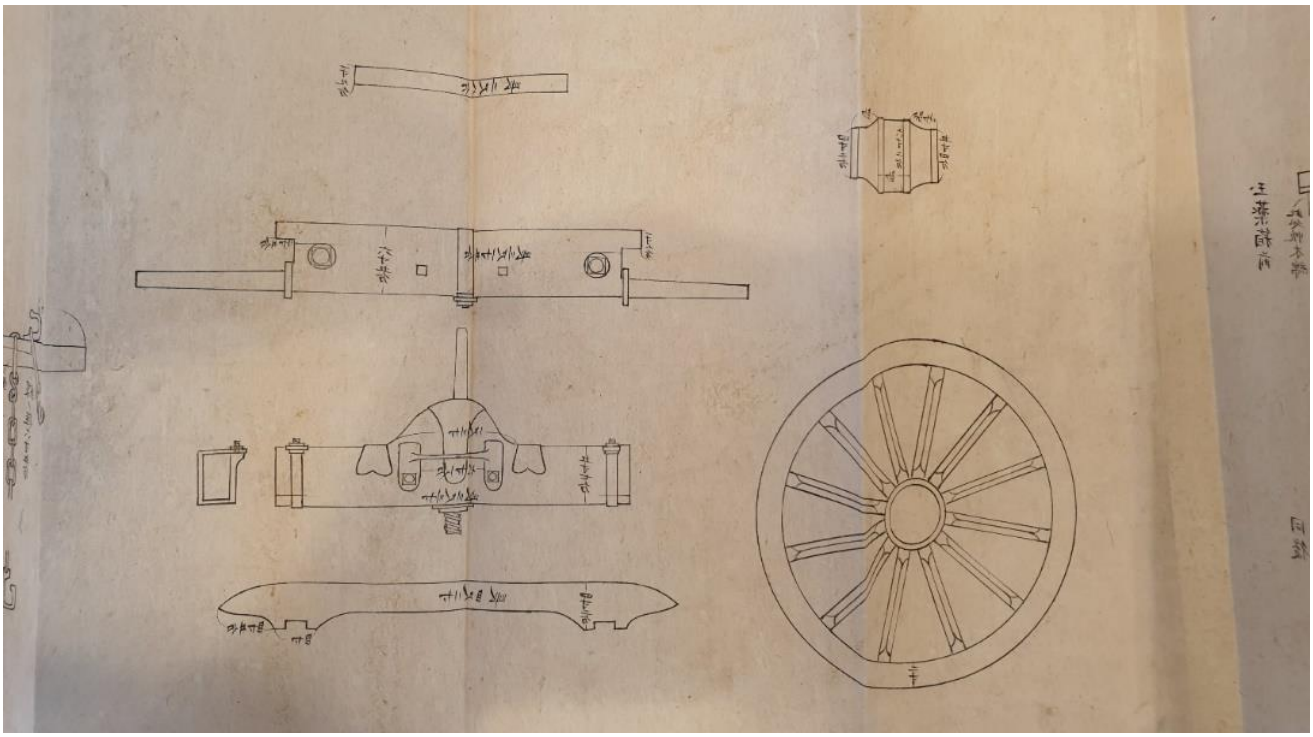


Figure 2 A schematic of a cannon parts, here specifically the carriage that a cannon rests on. Hideshima, Hideshima Archive of the Nabeshima-han, Or. 27.750 Shelf 22.513 F, (Leiden University Library, Leiden) document 11, drawing of cannons with text.

These documents have only recently emerged and are a potential source for many new insights into the Dutch-Japanese military knowledge exchanges. While studying these documents it becomes clear that these documents reaffirm the reports that had thus far been almost exclusively found in only written sources. A good example of these are the schematics of the cannons. Cannons were one of the defining aspects of improving the Nagasaki coastal defences. When Naomasa visited the *Palembang* he observed that the cannons were one the aspects that had grown in effectiveness in the nineteenth century. Not only did Western steamships now wield bigger artillery pieces, but they could also fire further, more accurately and the warships were more manoeuvrable.[104] The Japanese gun emplacements of the 16th – 18th centuries would have considerable problems if they were to target newer steamships. For Naomasa Nagasaki was the perfect place to show that he could realize his ambitions in employing Japanese-build large-bore cannons. [105] Nagasaki was also the frontline of the contact with

[104] H. Mitani, *Escape from Impasse: The Decision to Open Japan* (Tokyo 2006) 71 – 72.
[105] Ibid, 73 – 75.

foreign powers and it was closely watched by Tokugawa officials. Nagasaki was thus the best place to test such new artillery pieces and simultaneously show off the capabilities of your domain to the Tokugawa shogunate.

The result of these ambitions was that in the year 1850, four years prior to the opening of Japan, the Saga domain managed to create the first cast-iron furnace that was able to create metallurgy on an industrial scale in Japan with knowledge gained through the Dutch. This foundry focussed on producing cannons and other cast-iron weaponry and would play an important role in arming pro-imperial forces during the Meiji Restoration.[106] It is very likely that the designs of these cannons fabricated in the Saga domain coincide with the schematics that are found in the Hideshima archive. The schematic in figure 2 not only features drawings of how various cannon parts (here featuring parts of the carriage) had to look, there are also small notes of the lengths of parts and construction instructions featured. Saga domanial troops were also extensively trained in the use of these guns and were taught various drill exercises to battle in file and rank, the standard in European warfare in the late 18th and early 19th century. In figure 3 you can see a depiction of one such training exercises, while figure 4 features a training booklet for officers. The booklet has many different variations of exercises and with notes in Japanese how to conduct these. Other booklets in this archive describe the different commands (in both Dutch and Japanese translations) that are needed to command the troops.

These Saga troops were also important in manning the new gun emplacements on the many islands outside Nagasaki bay, a new type of defence line that was adopted to intercept potential hostile vessels before they could enter the bay and lay waste to the city.[107] Figure 5 depicts how to employ a so-called 'killing zone' by utilizing the many small islands in front of the bay of Nagasaki, minimizing the room hostile ships had to manoeuvre. On map 1 is then depicted how such a 'killing zone' is employed in Nagasaki. With red dots and squares, the various gun batteries and lookout are depicted, while red lines likely show the firing arcs of these batteries. While these new gun emplacements lacked the necessary rifling techniques to

[106] Wilson, *Defensive Positions,* 156 – 158. The majority of cannons and guns up until the Meiji Revolution would still be imported from Dutch, Russian, American and British sources. Nonetheless were Saga cast weapons vital in a few decisive battles of the Meiji Revolution, like the Battle of Ueno in Tokyo.
[107] Ibid, 157 – 162.

effectively engage steamships and were already moved back towards the inside of the bay by the early 1860s (to quell any potential hostilities between Japanese and foreigner in Nagasaki)[108] they nonetheless had a profound influence on the following decades. Not only did the experiments in Nagasaki bay lead to the erection of new coastal defences in other treaty ports in Japan (like Edo (now Tokyo), Osaka, Hakodate and others)[109], for Nagasaki these defences set the port town up as a fortified harbour in the late nineteenth and twentieth century.

With these new defences (in and outside the bay), its natural sheltered bay surrounded with mountains and the knowledge of Western military techniques located in the city (thanks to the Naval Training Centre and the Saga Domain efforts, both through contact with the Dutch) Nagasaki was set to become a prime military-industrial port town. The Dutch had supplied the Japanese through Nagasaki with the best military material and knowledge they could miss at the time (even if it was not always the best in the world). But as the needs of the Japanese changed, various parts of the military institutions in Nagasaki were transferred away from the Dutch to Edo, Osaka and Edo. Nonetheless, even though the training centre moved away, the foundation of other supporting industrial facilities was already constructed by the Dutch in Nagasaki. These will be further discussed in chapter 2. It was this combination of lingering military-knowledge combined with these supporting facilities that Nagasaki started to further evolve into a military-industrial complex.

[108] A. Cobbing, *Kyushu: Gateway to Japan* (Leiden 2008) 221 - 224.
[109] Ibid, 162 – 174.

Figure 3 Saga domanial troops being trained in Nagasaki. In the middle two Dutchmen are visible, who are supervising the exercises. Hideshima, Hideshima Archive of the Nabeshima han, Or. 27.750 Shelf 22.513 F, (Leiden University Library, Leiden) document 13 Drawings Color. 9 sheets with drawings.

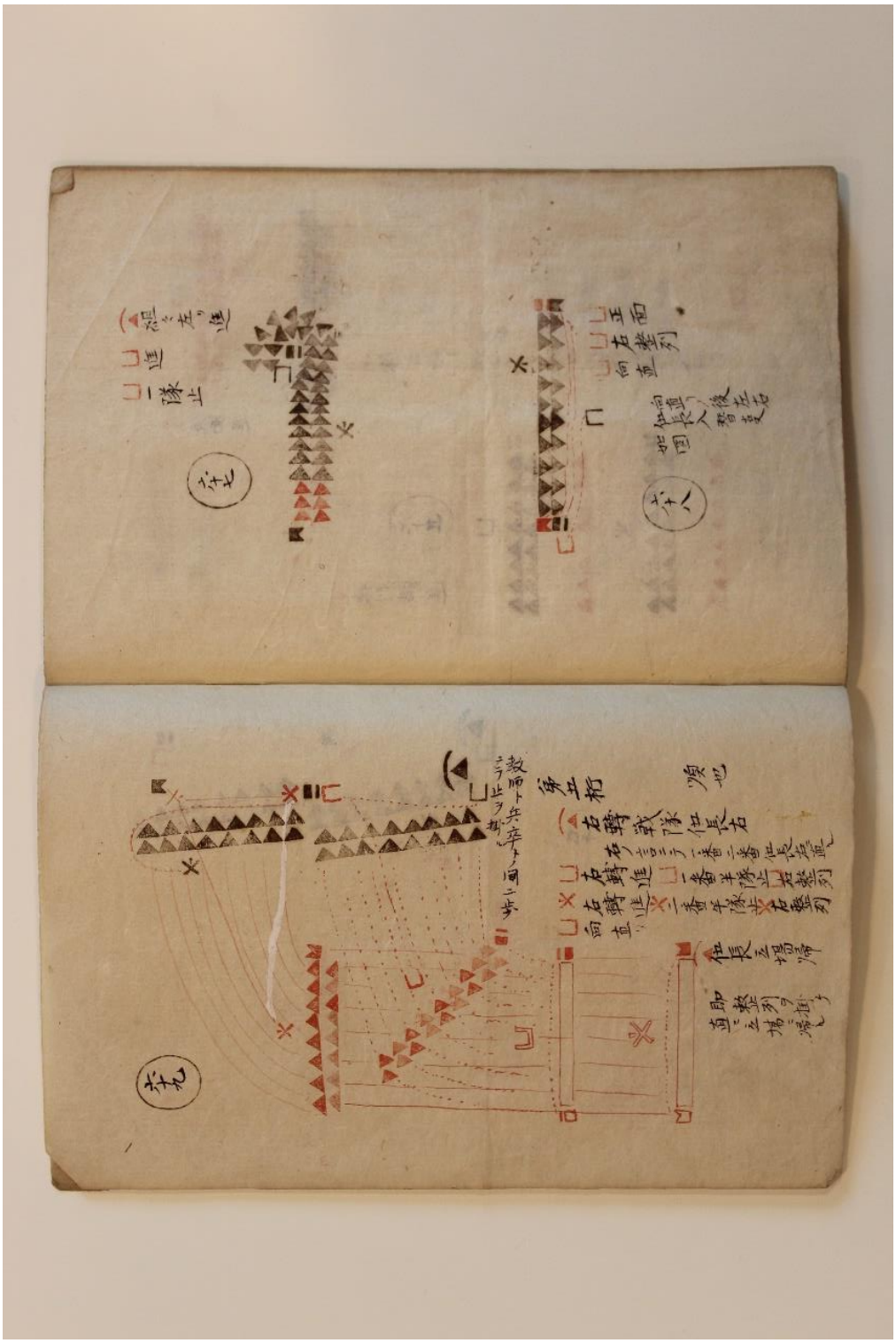


Figure 4 Drill exercises on paper based on Dutch knowledge. The booklet has a few dozen different drills described with various movement orders, positions for officers and cannon position within ranks. Hideshima, Hideshima Archive of the Nabeshima han, Or. 27.75

Figure 5 Chart where an example is given of a so-called 'kill zone', an area where high concentration of fire makes it near impossible to avoid getting hit. The islands outside of Nagasaki bay functioned as a 'kill zone' for incoming hostile vessels. Hideshima, Hideshima Archive of the Nabeshima han, Or. 27.750 Shelf 22.513 F, (Leiden University Library, Leiden) document 7: Map with cutout. Colour. Details of an island and present buildings.

Map 1 Detail of Nagasaki bay map, with various foreign vessels and (in red) the various gun emplacements that guarded Nagasaki bay. With red lines the targeting direction is shown and how the islands created a "kill zone" by cross-firing on any ship attempting to enter the bay with ill-intention. Hideshima, Hideshima Archive of the Nabeshima han, Or. 27.750 Shelf 22.513 F, (Leiden University Library, Leiden) document 5: Map. Colour. Depiction of the bay of Nagasaki, military vessels and positions. Legend in red on the bottom left.

2. Fuelling the fires of modern industry, 1854 - 1900

A commonly accepted notion is that the industrial modernization of Japan started after the opening of Japan in 1854. Yet in reality, just as in the preceding chapter with the modernization of the military, the basis for the modernization of industry in Japan already happened in the decades prior to 1854. This is not entirely surprising as the rise of modern industry was, to an extent, tied to the need for a modern army. Just as described in chapter 1, for various high placed officials it became exceedingly clear in the early nineteenth century that a modern army was necessary to defend Japan against any potential foreign incursions. The ability to defend the homeland meant little if Japan did not have the means to supply its own demand for resources and equipment. Japan needed a strong industry to further its ambitions.

The influence of Dutch engineers in Japan is a subject that has been mostly studied on a microlevel, mostly examining the achievements of individual engineers. The engineers H. Hardes (1815 – 1871), J.K. van den Broek (1814 – 1865) en J. de Rijke (1842 – 1913) are engineers (to name a few) who are widely known, both in Dutch and Japanese literature. Yet while their achievements are closely studied, they are rarely framed within the larger developments at the time in Japan. And then specifically in Nagasaki, as most of these Dutch engineers worked in this city and its surroundings. This chapter aims to bridge the activities of the Dutch engineers in Nagasaki and frame them within the industrial developments of the city during the second half of the nineteenth century. This will be done to show that that influence of the Dutch engineers laid the foundation, either direct or indirect (sometimes alongside other Western nations' engineers), for the later industrial course that Nagasaki would take in the late nineteenth and twentieth century. To do this, this chapter will first set out to explain which (social/geographical) factors in Nagasaki and its surroundings made it ideal for industrial activities. After that, the second part of this chapter will narrate how industry, construction and engineering grew in Nagasaki (before and after 1854), and its direct surroundings on Kyushu, through contact with the Dutch. These two aspects of the chapter have an important role in explaining the circumstances in how a relatively small international trading town grew out to become a major (military-)industrial complex and which role the Dutch played in this development.

2.1. How to build an industrial port-city

Before we can delve into the development of Nagasaki into an industrial complex in the second half of the nineteenth century, it is first important to establish which conditions are vital for an industrial port city to prosper. These conditions have to be examined to understand why Nagasaki was an ideal location for such endeavours and how/why Dutch influence could take root there. Not every town that is situated on the coast can as easily be developed into a thriving industrial port, as industrial port towns (and port towns in general) are highly dependent on the right surroundings, infrastructure and the availability of necessary knowledge and capital.[110] This paragraph will examine what these necessary conditions are for a port town and how these correlate with Nagasaki.[111]

The first condition of any port city to flourish comes in the form of its surroundings and the infrastructure that connect these surroundings. Most important for this is how a port city connects between the 'outside world' and its hinterland. Goods have to be able to flow into the port from all over the world and then easily be able to transport towards the internal market, but simultaneously, goods from the internal market also have to be able to easily reach the port city. Most port cities that flourished in Europe in the nineteenth/twentieth century were ports that had the best connection with the hinterland (be it through rivers, railways or other transport methods).[112] Nagasaki does not stand out on this point. Not only was Nagasaki's position as 'international trade port' initially chosen because it was far away from the major cities of the country (e.g. Edo, Kyoto and Osaka), the bay of Nagasaki was also renowned for its sheltered, mountainous surroundings.[113] While these mountains were renowned natural protection in the time of sails (especially in an area that is frequently plagued by typhoons, around three to eight pass over Nagasaki annually[114]), they severely limited the ability to build infrastructure in the modern era. If goods were to be transported from and to Nagasaki, it had

[110] M.B. Miller, *Europe and the Maritime World: A Twentieth Century History* (New York 2012) 23 – 32.
[111] This paragraph is based on an early essay: D. Verhoeven, *Modernizing the Gateway: The development of the maritime landscape of Nagasaki during the time of Imperial Japan, 1853 – 1945* (Leiden 2017). This essay has been adapted and expanded to be used within the context of this chapter.
[112] Miller, *Europe and the Maritime World,* 25 – 27.
[113] D. Pacheco, 'The founding of the Port of Nagasaki and its Cession to the Society of Jesus", *Monumenta Nipponica 25:3/4* (1970) 308 – 309.
[114] Japan Guide, 'Typhoons', https://www.japan-guide.com/e/e2117.html. [last visited on 02-09-2019]

to be by cargo ship across the oceans and seas that surround Japan.[115] This thus logically limited the potential of a port city that aimed at supplying an internal market. This also explains why Nagasaki is quickly replaced by other cities that were more conveniently located for trade in Japan; like Osaka, Kobe and Yokohama.

But even though its (once renowned) location did not help Nagasaki in the modern era, the city had some other advantages that other port cities did not have. These were the exact advantages that Nagasaki needed to grow into an industrial port city. Most important of these advantages is the availability of coal. Coal is a vital resource for any major industry to be able to exist, especially in the nineteenth century where steam-engines were powered with coal. In Europe, the availability of coal deposits dictated if locations were suited for the growth of industry. Countries with major coal deposits, like England and Germany, managed to reach higher levels of industrial growth throughout the nineteenth century than competitors who did not have the same access to coal (e.g. France, the Netherlands, Italy and Spain).[116] The same dependence on coal for the existence of major industry was also present in Japan. But the necessity to have easy access to coal (and other natural resources) was an issue for a country like Japan, where resources were fairly scarce.

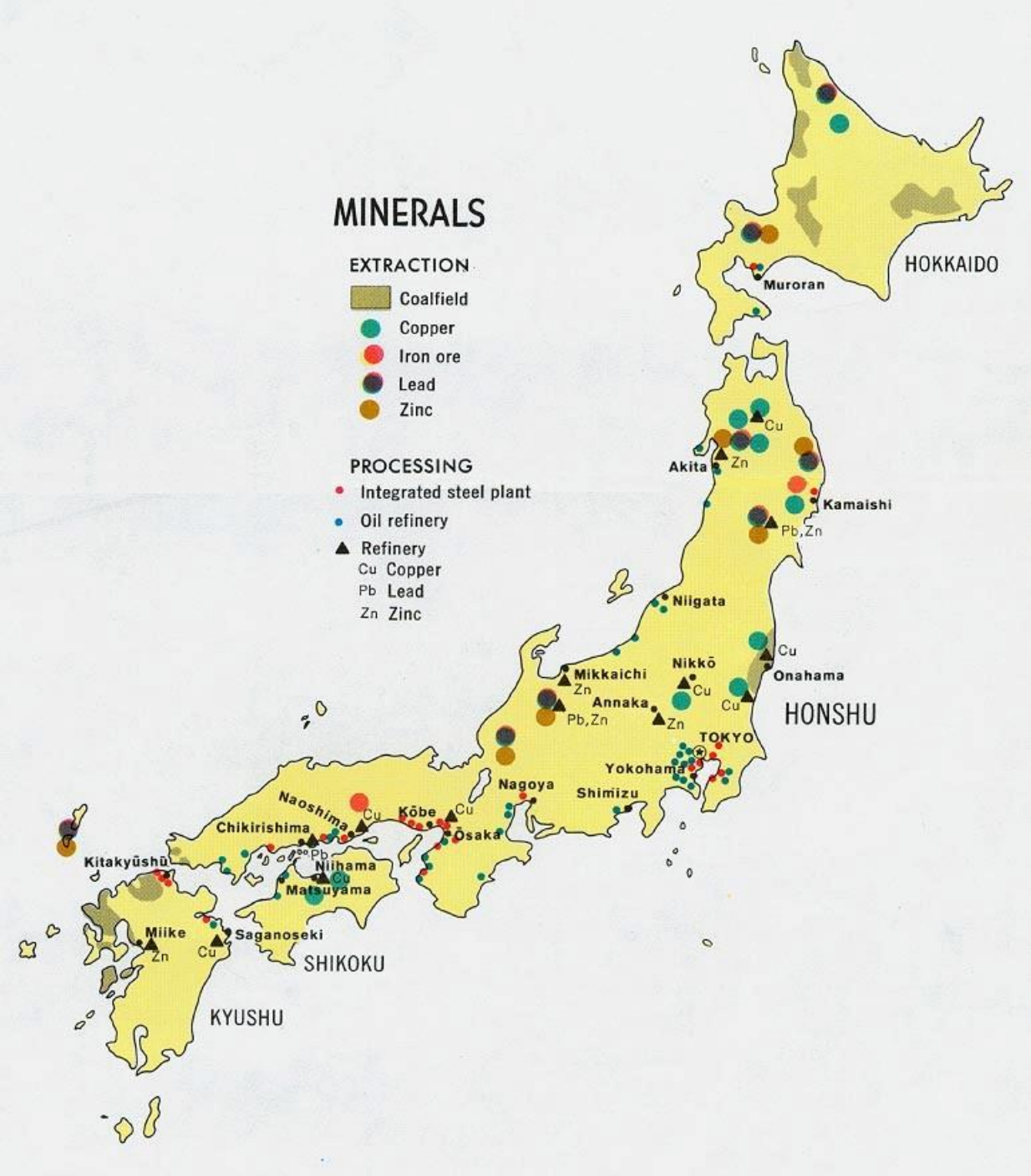
The first chapter already established that Japan had a dire need for a strong (heavy) industry if its military would ever be able to operate on the same level as the other major powers in the world. Most of the strongest military nations in the world, like the United States of America, the United Kingdom and Germany (after 1870) were also characterized by having access to large amounts of natural resources and formidable industrial power.[117] Compared to these other major nations had Japan only relatively limited natural resources in its territory. As seen on map 2 (see page 42), major coal deposits are only found on Hokkaido (in the north of Japan), near Onahama (near present-day Tokyo) and on Kyushu (near Nagasaki). It is thus logical that if Japan were to gain a powerful modern army it would either have to develop these domestic coal fields or find other sources abroad (either through trade or conquering

[115] Jansen, *The Making of Modern Japan*, 93.
[116] J.P. McKay, C.H. Crowston, M.E. Wiesner-Hanks, et all., *A History of Western Society since 1300* (Boston 2014) 660 – 662.
[117] Ibid, 663 – 667.

territories).

The potential importance of the coal deposits of Kyushu is also already noted by the various international reports that circulated in the 1830s and 40s. International sources, like the *Asiatic Journal* (vol. 29 of 1839)[118], the *Chinese Repository* (Vol. 9 of 1840)[119] and A.G. Findlay's *A directory for the navigation of the Pacific Ocean* (1851)[120], to name a few, all make special mention of Philipp Franz von Siebold's report of the importance of the coal on Kyushu that he witnessed during his travel to Edo in 1826[121]. Siebold reports that the coal around Nagasaki is of good enough quality to be made into coke for furnaces, which is a fairly uncommon resource in Japan.[122] After the opening of Japan, coal mining around Nagasaki quickly grew to large proportions. By the end of the nineteenth century, the Takashima coal mine and the Hashima coal mines (just south of Nagasaki) became together some of the biggest coal suppliers of the Kyushu-based industries (and even Japan as a whole).[123] The nearby presence of coal was thus already regarded as an important asset for Nagasaki and soon became an important factor for the rise of industry in the region. And it was the Dutch presence in the city, together with various British engineers, that played a role in the creation of the necessary mining facilities to exploit these coal fields, as will be explained in the next paragraph.

[118] A. Parbury and Co., *Asiatic Journal* (London 1839) 195.
[119] Anon, *The Chinese Repository* (Canton 1840) 385.
[120] A.G. Findlay, *A Directory for the Navigation of the Pacific Ocean: Volume 1* (New York 2013) 639.
[121] P.F. von Siebold, *Manners and Customs of the Japanese: Japan and the Japanese in the Nineteenth Century. From Recent Dutch Travels, Especially the Narrative of Von Siebold,* edited by J. Murray (London 1852) 97.
[122] Ibid.
[123] N. Murakushi, 'Technology and Labour in Japanese Coal Mining', *Project on Technology Transfer: The Japanese Experience* (Tokyo 1980) 6 -7.



Map 2 Minerals in Japan. Most of the coal deposits in Japan were found in the north of Japan (where winters were much harsher) and in the south, on Kyushu (near Nagasaki). Source: University of Texas, 'Japan Minerals Map' (online image, 1971) available at http://www.mappery.com/Japan-Minerals-Map [04-09-2019].

But there were also other important, more political, factors in Nagasaki's surroundings that gave it way to becoming an industrial centre. Firstly, Nagasaki was also an ideal connection between Japan and greater Asia. After Japan opened up to the West, more changed than just Japan's technology and political landscape. A shift in ideology also started to take root in these years, a shift towards imperialism. During the *Bakumatsu*-period was Japan, sometimes violently (like the Bombardment of Kagoshima by the British in 1863), but mostly economically confronted with the Western notions of imperialism. [124] While Japan was never colonized like many Asian and African countries, it was heavily economically exploited by foreign countries. The Tokugawa government overall successfully faced many imperialistic notions from the West (trade did triple during the *Bakumatsu* period[125]), but they nonetheless greatly suffered under the so-called 'Unequal Treaties' (like the American Harris Treaty of 1858) that heavily favoured Western foreigners operating in Japan. The main two problems of these treaties were the extraterritoriality granted to foreigners and the one-sided tariffs that were imposed. The extraterritoriality agreements ruled that foreigners were henceforth judged under their own countries' jurisdiction when breaking the law, instead of by the laws of Japan.[126] The tariff laws gave Western countries almost complete control over trade tariffs with Japan. As a result, Japan lost a degree of sovereignty over its own domestic market and only made relatively small amounts on tariffs (Japan's income from tariffs was only 3%, while countries like Germany and America earned roughly 50% of their trade income through tariffs).[127] Japan was an independent country, but through these treaties occasionally exploited by their Western 'peers'. This perceived unfairness led to growing dissatisfaction across the country, especially in the southern domains. Such interactions with Western powers were vastly different from their relations with the West in the past centuries, where they had often been the dominant power.

The Tokugawa shogunate did not survive this fairly sudden change in their power situation and they eventually fell to a combined coalition of Satsuma and Chōshū domain forces (and contingents from other Kyushu-domains) who perceived this as a weakness. After the

[124] Huffman, *Japan and Imperialism*, 9.
[125] Ibid, 10.
[126] K. Shinichi, *The Political History of Modern Japan Foreign Relations and Domestic Politics* (Milton 2018) 53 – 55.
[127] Ibid.

Meiji Restoration was the Emperor reinstated and the Satchō-alliance[128] became the ruling power in Japan.[129] The new Satchō-alliance led to two major changes, which were intertwined with each other; the rise of imperialism and moving various institutions to Satchō-aligned territories (which were mostly on Kyushu). It was between these two situations that Nagasaki could rise as an industrial powerhouse. While Nagasaki was directly governed by the Tokugawa, the city was situated directly between domains that were aligned to the Satchō-alliance. This made Nagasaki ideal to develop further for the Satchō-alliance during the Meiji-period (besides Nagasaki already being a developed port city during the Edo-period) as will be explained further below.

The rise for imperialism in Japan saw an increase in the need for strong naval and military-industrial centres. After the Meiji Restoration Japan started to look increasingly outwards. The first step in its territorial expanse came in the form of solidifying Japan's control on its southern and northern borders. Japan already had close contact with the Ainu people in the north (mostly surrounding modern Hokkaido) and the Ryukyuans (on the modern Okinawa islands). During the 1870s both of these countries/regions were assimilated by the Japanese state.[130] With Hokkaido and the Ryukyus now secured, Japan could look towards its neighbouring countries for further expansion. These were the first steps of a country that was set to walk a similar imperial road as many Western countries. The next step for Japan was to look for new countries to include in their sphere of influence, to use these as a market for its goods and to gain the natural resources that Japan desperately needed to develop its industrialization efforts.

The prime targets for this were the countries to the west of Japan; Korea and China. Both Korea and China were a massive potential market to sell Japan's trade goods and were also bountiful with much-needed resources (like coal, iron, wheat and gold). This was especially the case in the northern region historically known as Manchuria. If Japan were to get a foothold in this region it would greatly expand its capabilities to further increase its sphere of

[128] Short for Satsuma-Chōshō alliance. The Satsuma and Chōshō domains were the predominant powers in this alliance but they were supported by mainly Kyushu domains who also gained considerable more power after the Meiji Restoration.
[129] Huffman, *Japan and Imperialism*, 10.
[130] Ibid., 15 – 17.

influence.[131] To increase their might over these regions hard military power was deemed necessary. Historically, Japan always had a strong land-based army. During moments like the Meiji Restoration (and the related Boshin War of 1868-1869[132]) Japan showed that even after two hundred years of relative peace, it was still a potent force. The navy, on the other hand, had greatly suffered during the Edo-period, where Japan mostly retreated from the seas. As the first chapter explained Japan had gained a few modern naval ships through its contact with the Dutch and other Western countries in the years of the *Bakumatsu*-period. These were the foundation for a new modern navy, but many more were needed than these few ships.

Because of this, after the Meiji Restoration, many ports in Satchō-territory in southern Japan were chosen to be modernized and further expanded to build the new Japanese Imperial Navy. Similarly, trading ports were also expanded to host greater trade volume, both in the size of the ships they could handle and in the number of goods they could store. These two development are related because conquering new territories was also to gain more trade power.[133] Nagasaki was thus one of the cities situated within the Satchō-territories and was a prime candidate for further expansion, as it already had the necessary military/naval knowledge situated there (as discussed in chapter 1). Later during the Meiji period (in 1886), a military naval port was opened in Sasebo, a mere 50 kilometres north of Nagasaki. Sasebo would grow out to become one of the major ports of Japan's imperialistic plans for the Asian theatre and was heavily supported by Nagasaki.[134] It was among these circumstances that Nagasaki rose out to become one of Japan's major military-industrial complexes. While this system was eventually completely carried by Japanese expertise and craftsmanship, its early growth depended heavily on importing necessary foreign knowledge. Especially during the *Bakumatsu*-period (1850 – 1860s) was Dutch influence notable. The next paragraph will explore the role that various Dutch individuals played in the rise of industry within Nagasaki and its surroundings.

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[131] P. Schran, 'Japan's East Asia Market, 1870 – 1940', in: A.J.H. Latham and H. Kawakatsu, *Japanese Industrialization and the Japanese Economy* (London 1994) 201 – 206.

[132] The Boshin War (Jp. 戊辰戦争) was the name given to the civil war between the pro-imperial Satchō-alliance and pro-shogunate forces. The war saw some battles and led to the Meiji Restoration.

[133] Huffman, *Japan and Imperialism*, 16 – 17.

[134] Schencking, *Making Waves,* 29 -30.

2.2. From Dutch expertise to Japanese endeavours

The influence of the Dutch on Japanese industrialization comes in many variations. Dutch knowledge was passed on through spreading various books, through state actors but also through individuals who were hired as part of the Japanese government's own efforts. Dutch influence in Japanese industry, construction and engineering (summed up as 'industry' henceforth) also varied from building small factories, expanding coal mining and overseeing the construction of bigger projects like ports. Often this also happened in cooperation with other foreign powers like the United Kingdom, where the Dutch played a bridging role between Western expertise and contact with the Japanese. Just like with the story of modernizing the military in Japan, the story of modernizing the industry in Japan starts decades before the opening of Japan. And similar to the modernization of the army, the warlord Nabeshima Naomasa plays an important part in the earliest machinations of Japanese Western-style industry.

As the former chapter examined, Naomasa had big ambitions when it came to the military prestige of his domain after the humiliation of the *Phaeton* incident. But modernizing your military does not just mean that importing military knowledge and teaching it to your troops and officers is enough. One also needs the necessary military equipment to supply troops; guns, ammunition, uniforms, artillery, ships etcetera. To equip a decent sized force one requires higher quantities and standardization than individual craftsmen can supply. Proper industrial-sized production plants, which can produce large quantities of standard-issue equipment, are hence a must for a modern army. And that's exactly what Naomasa aimed to acquire for his domain.[135] During Naomasa's reign various books filled with Western knowledge of various topics were already circulating throughout Japan. Most of these were imported through Deshima in Nagasaki, as Japan requested many scientific books from the Dutch that could be studied within the *rangaku* movement. One of these books that circulated was the fairly new *Bijdragen tot het gietwezen in 's rijks ijzer-geschutgieterij te Luik*[136] (Roughly translated *Contributions to the iron-casting works in the state's iron artillery foundry of Liege*)

[135] Goodman, Japan and the Dutch, 154 – 155.
[136] U. Huguenin, *Bijdragen tot het gietwezen in 's rijks ijzer-geschutgieterij te Luik* (The Hague, 1834).

which was imported by the Dutch trading vessel *Marij en Hillegonda* in 1836. The 337-page book gives a detailed look into the production of the, by then still relatively modern, iron reverberatory furnaces situated in Liege (modern-day Belgium) and also goes into the various requirements and processes needed to produce artillery pieces in larger quantities. This book included 13 plates and 10 tables to visualize how such a foundry should work and look like.[137] For Naomasa, this was the ideal book to build his initial military industry. The low-ranked Saga samurai Sugitani Yosuke (dates unknown), who studied in Edo, had just started the translation of this very book while Naomasa started to formulate his plans for ironworks in his domains. Sugitani finished the translation in the years after 1836 and delivered it to Naomasa when he returned to Saga (the precise year seems to be unknown).[138] This book was then successfully used to build Japan's first reverberatory furnace in Saga (completed in late 1850). This furnace managed to produce its first 36-pound coastal gun by 1853.[139] That a fully functional (even if it had some production flaws) foundry could be built with just a translated Dutch book and some pictures is a sign of a deep understanding of the Dutch language and its role within Western science in Japan. The cannons produced at this site eventually shaped the Nagasaki landscape as they were used in arming the coastal defences of the city after the opening of Japan (as discussed in the first chapter).

But soon after the opening, industrialization also started to take place in the city of Nagasaki itself. The industrialization in Nagasaki was first directly linked to the opening of the Nagasaki Naval Training Center. In the year 1856 it was decided that Nagasaki needed a factory/repair workshop that could service the newly build Japanese naval ships and other visiting foreign ships with necessary maintenance. The Japanese government had already ordered multiple Dutch-built steam-engines for this purpose from the Dutch navy a year before. They also requested that Dutch engineers would install these engines at an appropriate site on the northern shore of Nagasaki. While the Dutch navy was no longer renowned as a potent force around the world, they seem to have been quite apt at working with steam engines and followed the latest development in the UK closely. The Dutch navy was quick in studying new

[137] Goodman, Japan and the Dutch, 154 – 155.
[138] Ibid, 155- 157.
[139] Wilson, *Defensive Positions*, 154 – 156.

designs, learning from mistakes (especially those made in the UK) and adapt them to their own force.[140] While the Dutch naval engineers were mostly trained with adapted English knowledge, the training seems to have been thorough and diligent. [141] Dutch naval engineers thus seem to have had a good grasp of their expertise and were proficient enough to transfer their knowledge to the Japanese and build the foundations of modern industry in Japan, even if they were not always the latest developments in the field.

For the job of installing the steam engine the Dutch naval engineer Hendrik Hardes (September 1857 – April 1861 in Japan), who had already proven his worth on various ships and locations, was enlisted.[142] Hardes was included in the crew of the steamship *Japan* (later renamed to the *Kanrin Maru*), which was ordered by the Japanese government while transferring the *Soembing*. This was the same ship that also supplied the military personnel that would train the Japanese naval personnel at the Nagasaki Naval Training Center (as discussed in chapter 1).[143] The job that Hardes was enlisted for with Japan's newly ordered steam engines was described as 'install them, get them up to speed and supervise them through the first stages' ('*op te stellen, aan de gang te brengen en aanvankelijk besturen*').[144] He also soon learned that the purpose of these steam engines was to build a reparation workshop for new steamships and to develop new mines in Nagasaki's surroundings (will be discussed below). The workshop was to be built on the opposite shore of where Deshima was situated, in a little town called *Akunoura* (Jp. 飽の浦町, 'the red village'). The Dutch also learned from this order that the Japanese were especially interested in techniques to fabricate industrial iron (objects).[145] This interest in the techniques of industrial iron casting is no surprise. The need for strong iron is a vital part to build most Western-style military equipment and this industrial-sized production of iron was vastly different from the techniques that had historically been used for

[140] J.M. Dirkzwager, 'De Nederlandse marine als pionier in de technische ontwikkeling. Ontwikkeling en gebruik van stoomketels in het tweede kart van de 19de eeuw', *Tijdschrift voor Zeegeschiedenis 11:1* (1992) 41 – 55.
[141] Ibid, 55 – 56.
[142] H. Stapelkamp, 'Hendrik Hardes (1815 – 1871): grondlegger moderne Japanse scheepsbouw en industrie', *Tijdschrift voor Zeegeschiedenis 11:1* (1992) 29 – 30.
[143] Chijs, *Neêrlands streven tot openstelling*¸480 – 498.
[144] Nationaal Archief The Hague, Ministerie van Koloniën (MvK) arch.nr. 2.10.02/inv. nr. 553, Verbaal 7 november 1856 nr. 17, brief Ministerie van Koloniën aan de gouverneur-generaal van Nederlands-Indië (7 november 1856).
[145] Ibid.

tools and weapons in Japan.[146] That Japan had problems with this new way of iron casting also becomes clear from Naomasa's effort in producing the first cast-iron cannon. While the furnace opened in 1850, it took them over three years to get the process right to cast their first iron cannon.[147] The interest in these steam engines, the repair workshop and iron casting fit seamlessly in the Japanese need for a modern military. It was exactly these kinds of factories and techniques that were used in the production of industrial-grade military equipment and other large scale projects. And it was Dutch engineers that were very active in supplying the necessary materials and knowledge for this during the 1850s and early 1860s.

The first pile for the construction of the factory was driven into the ground on 23 December 1857 and 6 months later (on the 19th of July 1858) actual construction begun. For the construction, Hardes was assisted by two other Dutch military engineers; engineer J.M. van Aken (dates unknown) and engineer D. Lasschuit (dates unknown).[148] Together with a team of Japanese workers they successfully managed to construct the majority of the workshop in a little under a year's time. In May of 1859, the large furnace and the wind machine were also done, followed by the steam hammer in July.[149] During the construction of the workshop, it already managed to prove its worth on multiple occasions. The *Kanko Maru*, Japan's first steamship, needed multiple repairs during 1858-1859 and also the Russian frigate *Askold*, that had received heavy damage during a storm, was repaired by Hardes' workshop in 1858.[150] The final repair workshop, complete with its steam hammer, windmill and furnace was apparently an impressive feat that was seen almost nowhere else in Asia if we may believe Dutch contemporaries. Dr. Phillip Franz von Siebold (1796 – 1866) also reports in his 'Open Letters' from his second journey to Japan that:

"Dit Etablissement ziet in dit jaar zijne voltooijing te gemoet. De inrigting van deze werkplaats verdient niet alleen met regt de naam van eenen algemeenen reparatiewinkel voor stoomwerktuigen, zij is ook door een stoomhamer, eene smederij, eene ijzer-en kopergieterij en

[146] Wilson, *Defensive Positions*, 155 – 158.
[147] Ibid, 154 – 158.
[148] Moeshart and De Graeff van Polsbroek, *Journaal van Jonkheer Dirk de Graeff,* 30 -31.
[149] Chijs, *Neêrlands streven tot openstelling*¸482 – 485.
[150] Stapelkamp, 'Hendrik Hardes', 33 – 34.

eene draabank ezv. op de nieuwste en meestdoelmatige wijze en zoo volkomen ingericht, dat zij voor werktuigkundige arbeiden van ieder aard geschikt is en al spoedig zich als eene instelling zal doen kennen, die beoosten de Kaap de goede hoop, behalve die te Soerabaia, zijns gelijke niet heeft."[151]

Von Siebold was likely a bit biased with his claim that only in Surabaya, the largest city in the Dutch Indies and hosting the largest naval base of the Dutch colonies, another workshop of similar significance was found in Asia. Though making an untruthful claim would not have gotten him far, as readers from other nations surely would quickly notice if such a claim were proven not true. Besides, the workshop by Hardes was one of Japan's first and finest at the time and greatly appreciated by the Japanese authorities for its role it could play in the industrialization of Nagasaki's port.

That Hardes' efforts were greatly appreciated by the Japanese government became clear when the Nagasaki Naval Training rather abruptly came to an end in 1859. Most of the Dutch military detachment that was teaching in Nagasaki was send home except for a small crew; Dr. Pompe van Meerdervoort (1829 – 1908) to continue building his hospital and Hardes (with a supplement of supporting stokers and engineers) to continue his work on Nagasaki's industrial site which the Japanese authorities deemed worth continuing.[152] Hardes' contract was supposed to end in December 1860 but was even further extended for his great worth to the Japanese cause by another four months. A letter from the Japanese government in December 1860 even reads that Hardes still has much that he could teach to the Japanese and hence they request the extension of his stay.[153] The construction of the Nagasaki repair workshops was thus perceived as a great success by Japanese authorities. For the city of Nagasaki it laid the foundation for an industrial site that would later become the Mitsubishi Nagasaki Shipyard (which would grow out from this small workshop and dominate Nagasaki. See the edited map 3 at the end of the chapter details of the industrial growth in Nagasaki

[151] P.F.B. von Siebold, *Open Brieven uit Japan* (Nagasaki 1861) 41 – 42.
[152] Nationaal Archief The Hague, Archief van het consulaat-generaal te Yokohama, arch.nr. 2.05.15.18/inv. nr. 1/184 & 185 and 2/344, 369, 393, 489, 504 & 513, Algemene Correspondentie 1860-1870 (January-July 1860 and Augustus-December 1860).
[153] Ibid.

between 1860 – 1924). Simultaneously, for the Dutch it laid the groundwork for the good reputation of other Dutch engineers. Small groups of engineers continued to be employed by Japanese government even after Dutch experts in other sectors were already released from their services (and often got replaced by either other foreigners or newly trained Japanese experts). The Japanese historian Juichi Kusumoto (1918 -), who specializes in the history of Nagasaki, even goes as far as saying: 'The role of Hardes in the History of modern-shipbuilding and industry in Japan cannot be overestimated; it may not be too much to say that the basis of the industrial Japan of today was indeed laid by Hardes' efforts in Tokugawa Japan.'[154]. The successes of Hardes and his team have thus likely contributed to the good reputation and the further employment of Dutch engineers in Japan. And both during and after Hardes' stay in Japan many more Dutch engineers came to Japan who managed to leave some kind of legacy.

One such example of another engineer/scientist whose influence was felt throughout Kyushu was Dr. J.K. van den Broek. He worked in Nagasaki from 1853 till 1857 and during his stay was approached various times by retainers of Kyushu-domain *daimyo* to learn about Western industry and engineering.[155] As the doctor writes himself:

'… De blaaswerktuigen waren voor een ijzer-smeltoven veel te klein. Dit begrepen al zeer spoedig de vorsten van Fizen (Saga), Tsikoesen (Chikuzen) en Satsoema. Daarom lieten zij mij verzoeken hunne dienaren wel te willen onderrigten. Modellen van hoogvoens, reverbeerovens, blaaswerktuigen en dergelijke werden door een' Japanschen timmer, die in mijne bijzondere dienst was, vervaardigd en aan hen uitgereikt. … Naar deze modellen werden die ovens opgerigt,…'[156].

The three domains of Saga, Fukuoka (then Chikuzen) and Satsuma were some of the major clans in Kyushu, and also influential during the Meiji-era. In the period right after 1854 these clans were eager to get their hands on Dutch knowledge that still flowed through Deshima. But also in Nagaski proper was Dr. van den Broek's knowledge indirectly influential. He taught many

[154] J. Kusumoto, 'Hendrik Hardes, Dutch Naval Machinist Officer, and Akamatsu Daisaburo's Holland Diary', in: *Bulletin of the Japan-Netherlands Institute* 15:2 (1991) 95 – 110. The Article is written in Japanese but has an English summary attached to it.
[155] H.J. Moeshart, *Een miskend geneesheer* (Amsterdam 2003) 177 – 184.
[156] Dr. J.K. van den Broek, 'Kantteekeningen bij den officieusen tekst' in: *De Tijdspiegel* (1861).

Japanese interpreters, scientists and engineers, among which also Shinagawa Tobei (dates unknown) and Motoki Shōzō (1824 – 1875). Both of these men worked on a Japanese foundry in Nagasaki (with mixed success) and later also opened a chemical laboratory in Nagasaki, which would produce many necessary chemical compounds that were used in Nagasaki's industry.[157] Shozo later also oversaw the construction of Nagasaki's first iron bridge (named *Kuroganebashi.* Jp. 鉄橋) by using the knowledge he learned from Dr. van den Broek.[158] The efforts of Dr. van den Broek are a good example of Dutch influence on the industrial developments in Nagasaki where Dutch knowledge was taught to Japanese specialists who then in turn adapted this knowledge to build various projects. Dr. van den Broek is one example but there are many more similar instances where Dutch knowledge was adapted to modernize the industrial sector in Nagasaki (and beyond).

And Hardes and Dr. van den Broek were just some of many others that were employed by the Japanese government after the opening of Japan. Some other notable names, but who worked primarily outside of Nagasaki were Cornelis J. van Doorn (1837 – 1906. In Japan between 1871 – 1880) and George A. Escher (1843 – 1939. Father of the famous artist, 1873 – 1878 in Japan).[159] Both of these civil engineers deserve more words devoted to them, as their accomplishments are numerous and noteworthy, but within the limits of this thesis, it suffices to mention that they are some prime examples of the civil engineers that continued to work in Japan (besides other foreign specialists from primarily the UK, USA, Germany, France and Russia) even after the Dutch naval engineers had returned home. An engineer who joined Van Doorn and Escher but fits within the limits of this thesis is Johannis de Rijke (1873 – 1903 in Japan, who even became Vice-Minster within the Home Ministry of the Japanese government and worked as an instructor at the Imperial Engineering College of Japan).[160] In the 1880s De Rijke was tasked with revitalizing the port of Nagasaki after trade had collapsed in the 1870s

[157] Moeshart, *Een miskend geneesheer,* 191 – 192.
[158] Ibid.
[159] Kingdom of the Netherlands, 'X Dutch Civil Engineers in the Meiji Period', in: *Dutch-Japanese Relations* (no date). https://www.netherlandsandyou.nl/your-country-and-the-netherlands/japan/and-the-netherlands/dutch-japanese-relations [last visited: 03-11-2019]
[160] Ibid.

and Mitsubishi had just moved into the city (1884).[161] Nagasaki's bay had always been renowned for its 'natural sheltered and deep bay', but for the nineteenth century the bay's depth (with centuries of deposition of its river) started to reach its limit. When it came to such big water-related projects the Japanese seem to have often turned to either British or Dutch engineers. This is in a way not entirely surprising, as the skills of British engineers and their proficiency with steam engines was world-famous, but Dutch engineers seem to have also enjoyed some renown.

The Netherlands has a long history of having to fight nature itself to keep large parts of the country from flooding. To combat this the 'Rijkswaterstaat' institution was founded in 1798 and during the reign of King William I (1815 – 1840) many new canals, dykes and other water-related projects were undertaken. In 1842 the 'Royal Academy of Civil Engineers' (predecessor of the Technical University of Delft) was founded to further professionalise civil engineering and the institution soon grew out as a hub where international knowledge was studied and processed. Dutch civil engineers received extensive training and could measure up to their colleagues from the USA and the UK.[162] In the second half of the nineteenth many Dutch civil engineers also travelled to the Dutch East Indies to work on various projects there. Here they faced new problems, as the challenging natural conditions in East-Asia were different from the conditions in the Netherlands. It was from the Dutch East Indies that Dutch civil engineers also found employment in other Asian counties, like China and Japan, combining their expertise from home with their experience in Asia to create a new civil engineering tradition.[163] Combining this with the good reputation that Dutch engineers had gained after successful projects like Hardes' factory, it seems that the Japanese still often sought out Dutch engineers for various big projects (especially if these projects required water management). Dutch engineers can as a result be seen working on projects all the way up till the twentieth century, when the use of foreign specialists as a whole declined in Japan.

De Rijke's was one of these civil engineers that found a challenge in Asia. His main

[161] Palmer, 'Nagasaki's Districts', 483 – 484.
[162] H.W. Lintsen, 'Two centuries of central water management in The Netherlands', *Technology and Culture* 43:3 (2002) 549 – 559.
[163] W. Ravesteijn, 'Between Globalization and Localization: The Case of Dutch Civil Engineering in Indonesia, 1800-1950', *Comparative Technology Transfer and Society 5:1* (2007) 35 – 54.

challenge as the lead engineer was the deposition of sands by the river that came from the mountains, which slowly filled the harbour. He eventually proposed a big, invasive project where the seabed was dredged and breakwaters were installed to keep the bay deep enough for the most modern of ships (see map 4 at the end of this chapter for a map of Nagasaki's depths).[164] The project was completed in 1893 and was a great success. The bay's depth was now sufficient for major shipbuilding activities, which was just in time, as Mitsubishi was shifting to become a major producer of warships for the Japanese navy. Japan was eyeing its neighbours for potential conquests (starting with China in 1894) and a strong navy was necessary for these conquests. As such, the Imperial Japanese Navy was a major investor in the development of the Mitsubishi Nagasaki Shipyards.[165] This development of the Nagasaki shipbuilding sector by the Japanese navy in conjunction with De Rijke's efforts to 'revitalize' Nagasaki's port can thus be seen as further reinforcement of the notion that Dutch efforts in Nagasaki's development were often related to the city gradually becoming a military-industrial centre.

The last aspect that was important to Nagasaki's rising industry was the aforementioned presence of coal in the vicinity. And also in this aspect the Dutch played a role in the development of mining facilities. Just to the south of Nagasaki were two major coal fields on small islands, Hashima (better known as Gunkanjima or 'Battleship Island' (Jp. 軍艦島)) and Takashima. The latter of these coal-rich islands was exploited with the help of foreign powers[166]. Takashima mine was first exploited by the Scottish entrepreneur Thomas B. Glover during early 1870 and later by a joint-venture of Dutch and British engineers.[167] Again, the Saga domain played an important role in the developments made in and around Nagasaki. Naomasa already commissioned Dutch navy engineers to survey the Takashima coal mine for him in the hopes of gaining an important coal site within his domain to fuel his ambitious industrial

[164] K. Iwamoto and C. Hein, 'Cross-Cultural Engineering: The Role of Dutch Civil Engineering in Modern Port Planning in Japan (1870s-1890s)', *Proceedings International Planning History Society 18:1* (2018) 1- 8.
[165] Y. Fukasaku, *Technology and Industrial Development in Pre-War Japan* (London 1998) 24 – 32.
[166] Hashima mine was not exploited until 1887, after the Takashima mine was very successful for business in Nagasaki. B. Burke-Gaffney, *'Hashima: The Ghost Island', Crossroads 4:2 (1996). http://www.uwosh.edu/faculty_staff/earns/hashima.html [Last visited: 22-11-2019.*
[167] J. McMaster, 'The Takashima Mine: British Capital and Japanese Industrialization', *Business History Review 37:3* (1963) 217 – 219.

projects as early as 1858.[168] By the request of Naomasa, Dutch engineers also drew plans and wrote suggestions to build a modern Western-style mine to maximize the output of the Takashima coalfield.[169] The Japanese were even recommended to install the recently acquired (Dutch) steam engines in the coal mines, to automize the draining process and greatly increase both safety and further increase output.[170] It is likely to assume that Naomasa sought out the Dutch navy for this job because of their longstanding ties with the Kyushu domains and Naomasa (and his retainers) were also acquittanced with the skills of Dutch engineers through his study of Western engineering during the 1830s-1850s. He had after all extensively studied Dutch(/Western) engineering knowledge to be able to construct the first-ever reverberatory furnace within Japan.

Eventually, the project was put on hold, probably because of shogunal opposition, and not resumed until late 1869 when joint Dutch, British and Japanese ventures started working together on the mines. The Dutch NHM had acquired ownership of the Takashima mine in late 1870 after the Scottish Thomas B. Glover (who had bought the mine early 1870) had gone bankrupt. Glover would afterwards act as the overseer of the mine for the NHM with a team of Dutch, British and Japanese engineers and surveyors (chapter 3 will go into the details of how this joint venture came to be). Much of the foundation of the three main pits of Takashima was realized by these Dutch and British civil engineers who had made complicated plans to make it a truly modern mine that could supply a lot of Japan's industries with the coal. Yet the plan was never finalized by the European engineers as shortly after the start of the construction the Meiji government published the 'Direction for Mining' (March 1872). This 'direction' ordered that all mines were to be nationalized and most foreign employees should be expelled from the projects.[171] Nonetheless, the (now experienced) Japanese engineers that remained managed to completely modernize the Takashima mine following the plans the Dutch and British engineers had drafted, eventually making it the first Western-style mine in Japan by the mid-1870s.

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[168] The surroundings of Nagasaki were divided among various surrounding clans to share the burden of its border protection. These islands outside of Nagasaki were part of the Saga domain, even if they were closer to Nagasaki.
[169] Murakushi, 'Technology and Labour in Japanese Coal Mining', 27.
[170] W.J.C. Huyssen van Kattendyke, *Uittreksel uit het dagboek van W. J. C. Ridder Huyssen van Kattendyke, kapitein-luit. ter zee, gedurende zijn verblijf in Japan in 1857, 1858 en 1859* (The Hague 1860) 68 – 69.
[171] Ibid. 30 -32.

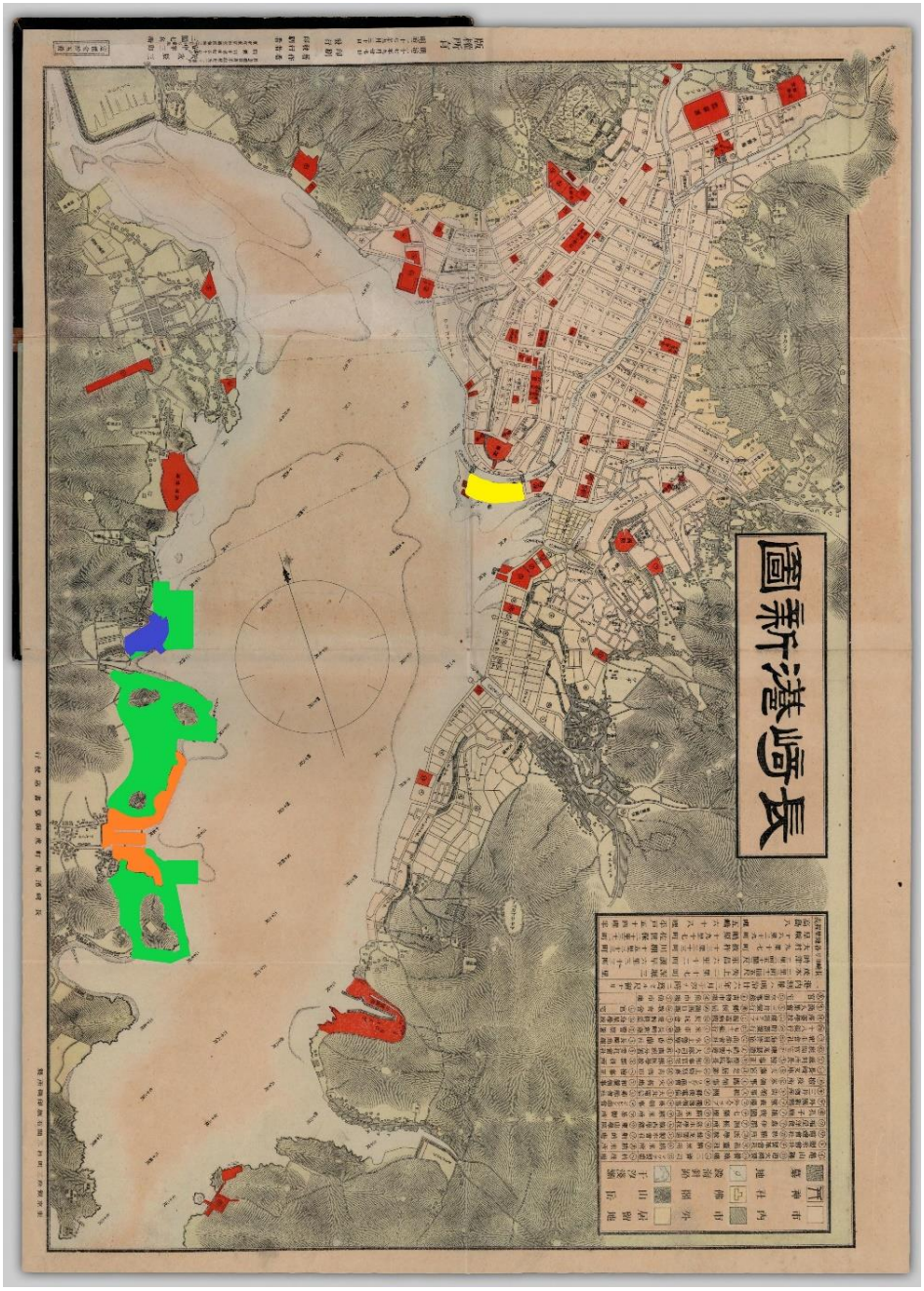
Mitsubishi later acquired the mine in 1881 and the Takashima mine became Japan's prime supplier of cheap coal during its industrialization efforts, especially in Nagasaki and its surroundings.[172]

Ships carrying large amounts of coal soon became a common sight in Nagasaki's harbour, fuelling its fires of industries as the shipyards grew on its northern shore. The Takashima coal mine was not completely realized by Dutch engineers alone, but they did play an important role in its foundation. From the start were Dutch engineers requested to draw plans for the mine and later they worked alongside British engineers in the construction efforts. The construction of the mine was also tied to the developments in the city itself, as the steam engines in the mine were the same ones that Hardes' team worked on and the coal from Takashima fuelled the fires of the repair workshop in Nagasaki (that had significantly grown by the 1870s). Simultaneously was this mine also linked to Naomasa's ambitions, who (as established in chapter 1) extensively relied on Dutch knowledge for his modernization efforts. As a result, Dutch engineers can be seen as a leitmotif throughout Nagasaki's industrialization of the nineteenth century.

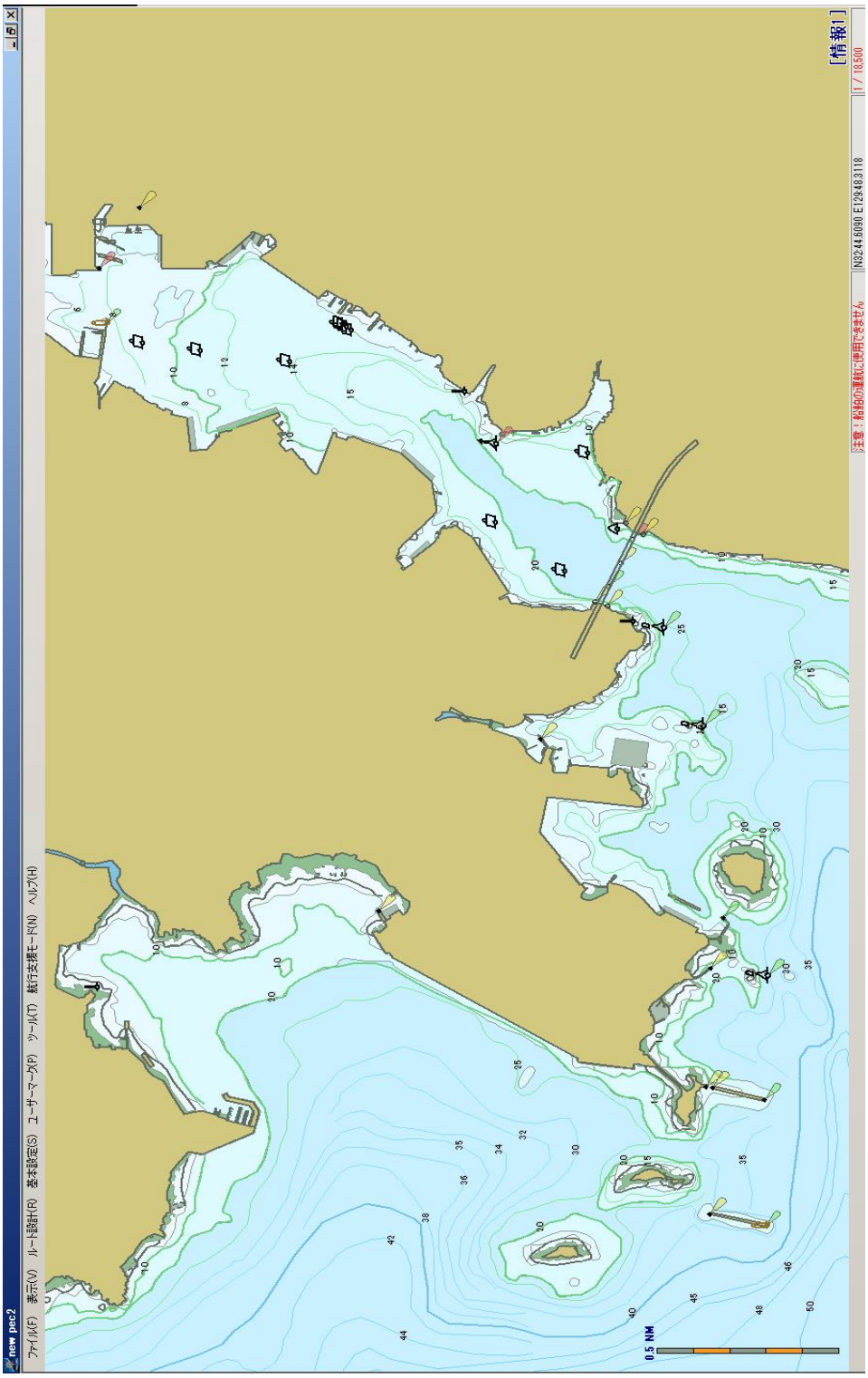
As Japan started to modernize and look to the West for knowledge, for Nagasaki it came naturally that they would first turn to the Dutch for said knowledge. As a result, the Dutch were soon found playing a role in kickstarting various industrial projects in and around Nagasaki, like the Hardes' workshop, or teaching Japanese engineers. Dutch engineers had the expertise to construct industrial sites and institutions thanks to a long tradition of naval and civil engineering in the Netherlands. In these fields could Dutch engineers compete with foreign specialists from other nations. But in other engineering fields (e.g. heavy industry and architecture) or outside of Nagasaki the Dutch engineers rarely managed to leave a mark in Japan. Because the first Dutch engineers were mostly navy employees, most engineers were also released from their services when the Dutch naval detachment was sent home. Only a few civil engineers remained after that. Nonetheless, the basis that the Dutch helped to establish in

[172] McMaster, 'The Takashima Mine, 237 – 239.

Nagasaki would become the foundation for the later Mitsubishi Shipyards (and related institutions) that would dominate Nagasaki in the nineteenth century.



Map 3 Nagasaki bay (1894) with own editing to depict the expansion of its industrial sites. In bright yellow the former bounds of Deshima for comparison. Dark blue is Akunoura, the site of Hardes' steam workshop (1858 - 1861). In bright orange are further expansions by other companies and later Mitsubishi between 1874 – 1894. With green the growth of Mitsubishi Nagasaki Shipyards is depicted during 1894 – 1928 (and closely how it was on the eve of World War 2, based on Nagasaki map 1928 in Kjeld Duits Collection). Both 1860 and 1894 maps are courtesy of the University of British Columbia, available at https://open.library.ubc.ca/collections/tokugawa/items/1.0223031#p0z-5r0f: [22-10-2019].



Map 4 Map of the depths in modern-day Nagasaki Bay. In the map, it is shown that the shallowest part of Nagasaki is now roughly 10 meters, while around the shipyards it is around 15 meters deep. Source: Courtesy of Randy Sasaki of the Kyushu National Museum.

3. The fading of Dutch trade within Nagasaki, 1854 - 1874

When Commodore Perry and his black ships opened the ports of Japan, it sent a shockwave of change through the country. It ushered in a new era with new possibilities and opportunities for both the inhabitants of Japan and foreign traders who sought to take advantage of the new market. To little surprise, many foreigners from countries that had no access prior to 1854 to Japan (e.g. Americans, British, Germans, French and Russians) quickly travelled to Japan to access this new huge market once trade treaties were concluded in 1858. But also for the Dutch, who already had access to Japan, much changed when it came to trade with Japan. The Dutch could now access the Japanese market through other entry points. First through three 'Treaty Ports' (Yokohama, Hakodate and Nagasaki) before opening fully by the 1870s. Whereas other foreign powers tried to gain access to Japan through other ports, Dutch trade (especially through the NHM, with close ties to the Dutch government) decided to heavily invest into their presence in Nagasaki to access the Japanese market through there.

This chapter will delve into the ambitions the Dutch had for their trade with Japan after 1853 and how their presence influenced Nagasaki's trade sector throughout the second half of the nineteenth century. To this end, this chapter will look into the goals the Dutch were trying to achieve, the treaties they sought and the resulting actions. This chapter will argue that the Dutch, both the government and later the NHM, had ambitions to further develop Nagasaki as their port of choice. As a result, Dutch activities started to become increasable more interwoven with the Nagasaki trade sector. The Dutch were set on using their centuries-long experience in the city to their advantage, even though it was quickly noticeable that Nagasaki had structural problems to become a successful trade port city. Simultaneously can this chapter be seen as the 'other side of the coin' from the second chapter as the decline in trade was also linked to the rise of industry in Nagasaki. The second chapter already explored which boons and disadvantages Nagasaki had as a port city, of which the most disadvantageous for trade were its distance from the centre of power in Japan and the limited access to the hinterlands. Because the second chapter already explained these factors this chapter will primarily focus on Dutch economic policies regarding Japan and how (Dutch) trade declined in Nagasaki.

3.1. Dutch goals, policies and treaties for trade in *Bakumatsu*-era Japan

The coming opening of Japan came in times that the position of the Dutch on the world stage was changing. The centuries-old balance of power in Asia had shifted after the Napoleonic Wars. Yet there were also new opportunities to be found, as the output of their East-Indies colonies had been rising since the 1830s under the so-called '*cultuurstelsel*'. Due to this new system the Netherlands had gained a surplus of colonial goods and was seeking for new markets to sell these products on.[173] With a population of roughly thirty million was Japan, logically, an interesting target for these goods, but under the *sakoku* isolation there was only limited access for Dutch traders. Besides the financial opportunities, there was also a matter of prestige. For over two centuries the Dutch had enjoyed exclusive access among Western powers to the Japanese market. That the prestige issue was important to the Dutch becomes apparent when looking at the continuation of trade in Japan while profits were dwindling (even becoming negative) throughout the eighteenth century and early nineteenth century. In this period, the (almost) exclusive access to Japan's trade goods, culture and nature played an important factor in the prestige the Netherlands enjoyed as a (maritime) nation. As the risk of Japan getting forcefully opened increased constantly throughout the 1840s/50s, Dutch officials became aware that they would have to take the lead in opening Japan. If they would let other foreign powers take they lead, it would likely mean the end of their prestigious position and any chance of keeping the upper hand in Japan.[174]

The best chance for the Dutch to keep the upper hand was to gain a treaty where other nations would have to conform to the same limited trading situation that the Dutch were in. A lesser position compared to the Dutch would probably also work, though that would undoubtedly not be accepted by other Western nations.[175] If other nations would also be bound to Nagasaki, like the Dutch, they would have to settle in a setting where the Dutch had been a dominant factor for over two centuries. Even if the rest of Japan would open at a later date, all nations would start from Nagasaki, which would create more even opportunities. That the Dutch government aimed for the plan to settle everybody in Nagasaki becomes clear from

[173] M. Kogure, *National Prestige and Economic Interest*, 278.
[174] Ibid, 10 – 11.
[175] Ibid.

the conceptual treaty that Dr. Phillip Franz von Siebold wrote for them in 1852. Siebold's draft contained five articles total and two of these explicit state that trade should be henceforth conducted exclusively in Nagasaki. Two other ports would also be opened, but solely for provisions (one in the Ryukyus and one on Hokkaido).[176] The draft that Siebold submitted to the Dutch Ministry of Colonies was very influential for the final result and was expanded by the Governor-General in Batavia to six articles. The Governor-General even further emphasized the importance of trade in Nagasaki for other nations, but under similar circumstances to the Dutch.[177] Especially the first sub-articles of article four in the final treaty that was submitted to the Japanese in 1852 summarizes the Dutch intend clearly:

'**Art. 4**.

A. *De haven van Nagasaki schijnt het geschikst om voor den handel met vreemdelingen te worden opengesteld, en, daar de opening van geene andere havens wordt voorgesteld, blijft zoodoende de gemeenschap van vreemde natiën met de overige gedeeltes van Japan afgesloten.*
B. *Zulk een* Opperhoofd *is echt niet de eenigen koopman, maar het hoofd der vreemde kooplieden.*
C. *De Nederlanders hebben Desima tot verblijfplaats; ook voor vreemden zoude, zoo voor hunne woningen als voor hunne magazijnen, eene plaats kunnen worden aangewezen.*
D. *Daar bij de wetten van Japan het aan de ingezetenen verboden is om regtstreeks handel te drijven met vreemde kooplieden, zoo meent Zijne Majesteit, dat het hier aangegeven middel groot nut kan hebben.*[178]

In this article, the Dutch advise that a continuation of the pre-1853 trading situation would be most beneficial for 'all'. The Dutch proposed that the pre-1853 limitations should be used to accommodate all the other foreign nations that come to Japan in Nagasaki, complete with their own *Opperhoofd* and confined quarters. In reality this treaty would likely be mostly beneficial

[176] Nationaal Archief The Hague, Ministerie van Koloniën (MvK) arch.nr. 2.10.02/inv. nr. 5853 Geheim Verbaal 1852, dec 1, 431.
[177] Ibid.
[178] Chijs, *Neêrlands streven tot openstelling*¸ 79 - 85.

to the Dutch. All other nations would also be limited to the relatively limited Nagasaki market, where it was hard to spread their influence and where the Dutch competition had centuries of experience.

This proposal by the Dutch to open the ports of Japan on its own terms was eventually politely declined by the Japanese. The Americans arrived a year later to forcefully open them, just as the Dutch suggested they would in their proposal of 1852.[179] Initially, the treaty that Commodore Perry concluded with the Japanese in 1854 did not grant trade privileges but only gave access to provisions in some Japanese ports. But what Commodore Perry already emphasized in his treaty was that the Americans would not accept access to just the port of Nagasaki (as it was out of the way for the USA) and they would not be confined to a small area as the Dutch and Chinese had been till this point.[180] The treaty from Commodore Perry laid important groundwork for the influential 'Harris Treaty'[181] of July 1858, which included many of the viewpoints Perry had regarding the opening of multiple ports and the freedom foreign traders would require in Japan. Eventually the 'Harris Treaty' (and the other 'Ansei Treaties'[182] with other nations in the same year) opened the three ports of Hakodate, Nagasaki and Yokohama (1 July 1859), followed by Osaka and Kobe (1 January 1863, but postponed till January 1868) and Niigata and Edo/Tokyo in January 1869.[183] The trade treaty that Donker Curtius eventually negotiated with the Japanese on the 18th of August 1858 was one of these 'Ansei Treaties'.[184] By then the Netherlands had failed to be the first to gain a trade treaty with Japan and be an example to the rest, as they had aimed to be ever since King William's II letter of 1844. This treaty by Donker Curtius also did not include any of their former plans to isolate foreign trade to Nagasaki.[185] That the Dutch had to be content with a similar position to the other foreign nations in Japan meant that the Dutch had lost its advantageous position. For the

[179] Ibid, 93 – 106.
[180] Perry, R. Pineau, *The Japan Expedition,* 168 – 169.
[181] Official name 'Treaty of Amity and Commerce' between the United States of America and Japan of 1858, full text on https://www.loc.gov/law/help/us-treaties/bevans/b-jp-ust000009-0362.pdf
[182] The 'Ansei Treaties' were the trade treaties with the USA (July 29, 1858) followed by the Netherlands (August 18, 1858), Russia (August 19, 1858), United Kingdom (August 26, 1858) and France (October 9, 1858).
[183] F. de Goey, 'A Case of Business Failure: The Netherlands Trading Company (NHM) in Japan, 1859 – 1881', *Zeitschrift für Unternehmensgeschichte 58:1* (2013) 109 – 110.
[184] J.H. Donker Curtius, *Traktaat: Hunne Majesteiten* (s.l. 1859).
[185] Ibid.

Dutch this meant that they now had to find another way to leave their mark in Japan. Chapter 1 and 2 already discussed how the Dutch aimed to do this with the regards to military and industrial developments (and investments). Simultaneously, the Dutch seemingly decided to increasingly invest in and develop their Nagasaki trade network. This with the goal to incorporate this trade port further into their intra-Asian trade network (as will be explained below).

Looking at the 'Ansei Treaties', open foreign trade did not really start in Japan until the opening of the ports of Hakodate, Yokohama and Nagasaki in 1859. Until 1859, trade in Nagasaki was still primarily dominated by Chinese and Dutch traders, even though the ports of Japan were already opened to some degree.[186] Traders from the other nations: Americans, British, Russians and French, only entered the scene *en masse* in 1859 and quickly carved out their share of the Nagasaki trade.[187] The Dutch plan, to get a superior position compared to the others, had already decisively failed by 1859. The Dutch had hoped they could use their long-standing friendship, the respected position of 'Dutch' doctors (like Von Siebold) and their own knowledge of Japan, to advance their situation ahead of the competition. As such the disappointment in the Netherlands was great when the 'Harris Treaty' with the United States was concluded. The USA had gotten certain privileges before the Netherlands could negotiate them, showing that even though the Netherlands had a 'Most Favoured Nation'-agreement[188] with the Japanese, they were not granted these privileges first.[189] It was clear for the Dutch parliament they were only following behind other nations at that point, instead of leading them. The Dutch Minister of Colonial Affairs also remarked: '… at present, so to speak, the Netherlands only follows other powers, especially the United States of North America.'[190].

By 1859 the Netherlands had thus lost most of its prestigious position and privileges compared to the other nations and they were no longer the only ones in Nagasaki. Nor were

[186] B. Burke-Gaffney, *Nagasaki: The British Experience 1854 – 1945* (Kent 2009) 14 – 17.
[187] Ibid, 18 – 28.
[188] This agreement meant that the Dutch would be automatically given all the rights and privileges other nations also acquired in negotiated treaties.
[189] Kogure, *National Prestige*, 185 – 195.
[190] Ibid, 190; Nationaal Archief The Hague, Ministerie van Koloniën (MvK) arch.nr. 2.10.02/inv. nr. 5903 Geheim Verbaal 1859, 1 - 76.

they all confined like the pre-1853 situation. The situation rapidly changed between 1859 and 1868. Where around 1859 the Dutch were still the second largest foreign trading group (behind the Chinese), a decade later they only came in fourth in numbers. In 1868 there were 375 Chinese, eighty-one British, thirty-nine Americans, thirty Dutch, fifteen French, eight Portuguese and six Swedish residents living in Nagasaki.[191] While the Chinese were the most numerous, their position was a bit ambiguous within Japan. The resulting situation of the Opium Wars (both First and Second), the lack of formal relations between China and Japan and the disassembling of the Chinese quarters created a vacuum within the position of Chinese traders in Japan. They could still work in Japan, but had no legal representation nor could they claim privileges that the Western nations had acquired. As such most of these Chinese residents ended up working for newly arrived Western traders, who gladly used their knowledge of trade in Japan to get ahead of the competition.[192] Their wavering position becomes even more clear from a letter which F.G Myburgh (British consul in Yokohama) wrote to R. Alcock (the diplomatic representative of Britain in Japan). In this letter, he writes that many Chinese traders even approach Western traders to 'buy' an employee position within the Western companies, just to get some kind of legal protection in Japan.[193] The Chinese trade had been one of the pillars on which Nagasaki had prospered and this virtually disappeared within a short period. The replacing Western trade was not nearly as advantageous to the Japanese thanks to the clauses in the various 'Ansei-treaties' that heavily favoured Western traders.

Contrary to the position of the Chinese, the Dutch were inferior in number in Nagasaki, yet they seem to have had considerable influence. Numerous foreign companies came to Nagasaki after 1859, even multiple Dutch ones, but none might have been as big or as influential as the *Nederlandsche Handel-Maatschappij N.V.* was. The NHM was by far the biggest company that came to Nagasaki after 1859 and was also one that had strong ties with the Dutch government. The NHM is described as 'the most powerful financial interest at

[191] B. Burke-Gaffney, *Holme, Ringer & Company: The Rise and Fall of a British Enterprise in Japan, 1868-1940* (Leiden 2013) 25.
[192] P.K. Cassel, *Grounds of Judgment: Extraterritoriality and Imperial Power in Nineteenth-Century China and Japan* (Oxford 2012) 94 – 96.
[193] Quote by Myburgh to Rutherford (12 December 1861) in M. Paske-Smith, *Western barbarians in Japan and Formosa in Tokugawa days, 1603-1868* (Kobe 1930) 247 - 248.

Nagasaki and had invested heavily in Glover and Company'[194] throughout the 1860s. While the company did not only trade directly in Japan, they seem to have also influenced the Nagasaki market by using their large financial capital to finance companies. This made many (foreign) companies in Nagasaki dependent on the fate of the NHM in the city.[195] Glover's company is an example of such a company and is a name that was also mentioned in chapter 2 as the owner of the Takashima mine. Glover was known as a very successful businessman and was a major player in the Nagasaki trade sector. But both the stories of the NHM and Glover also have their share of failure. Glover's conglomerate of Nagasaki companies went bankrupt in 1870[196] and the NHM saw revenues going down rapidly throughout the 1870s (having to close their headquarters in Nagasaki in 1874 and completely withdrawing from Japan in 1881)[197]. These dates very much coincide with the 1870 newspaper quote from the introduction, which lamented that Nagasaki was no longer the same as before and the outlooks were grim for trade and the inhabitants. This likely points to a strong correlation between the failures of Nagasaki's biggest financial power (NHM), one of its biggest entrepreneurs (Glover) and the dwindling trade position of Nagasaki within Japan, as will be explained in the next paragraph.

3.2. Dutch power looming behind the Nagasaki trade sector

Now the question is, what happened during the 1860s (and early 1870s) with the trade sector in Nagasaki and how was this influenced by the Dutch? Initially, after the ports opened for trade in 1859, Nagasaki attracted foreign traders from far and wide. These traders started to heavily invest in businesses located on the southern shore of Nagasaki (beside Deshima, and opposite of where industrialization efforts were underway) and making these buildings their headquarters. By October 1860 the first residents (mostly consuls from various nations) took up residence here, after which the area started to attract most of the foreign businesses in Nagasaki. On the 15th of April 1861, an edict was even issued by the various foreign consuls, proclaiming that all foreign (Western) traders should relocate to this area. This 'foreign

[194] De Goey, *A Case of Business Failure*, 118. Glover and Company is a collection of businesses which played a big role in the Nagasaki trading sector and will be further examined below.
[195] Ibid.
[196] A. McKay, *Scottish Samurai,* 138 – 148.
[197] Ibid. 117.

settlement' became known as the 'Ōura Bund' and hosted all foreign traders in Nagasaki from 1861 onwards (with the exception of Chinese traders).[198] For most of the traders that took up residence in Nagasaki the main reason seems to have been the direct connection the city had with Chinese cities like Shanghai and the rest of East Asia beyond that.[199] This reason is fairly identical to the reason why Nagasaki was an ideal location for Japan's rising imperialistic ambitions in the second half of the nineteenth century. From Nagasaki it was a fairly straightforward journey to reach most other East Asian destinations. But the trading sector in Nagasaki also had some inherent problems. Many traders that came to Nagasaki hoped to make quick profits with small businesses and very little starting capital. They loaned money from bigger companies (like the NHM), then took advantage of the rising market in Nagasaki and after which they disappeared as quickly as they appeared again with their profits.[200] This is naturally not a healthy occurrence for a trading port, as this meant that not only companies did not stick around for further business ventures, it also meant that money was rarely finding its way into the city. As a result, Nagasaki benefitted relatively little from Western foreign trade, even while some Western companies like the NHM and the British Jardine Matheson & Co. made considerable revenue there.

This brevity of the businesses in Nagasaki also reflects in the numbers. In the period between 1865 – 1870 thirteen companies settled in Nagasaki, but by 1871 only two of these companies were still in existence.[201] So most of these fortune seekers either perished through bankruptcy or disappeared with their profits within a few years of their arrival. Most of the money they made left the city (or even the country) and citizens of Nagasaki working in the trade sector enjoyed little stability. How the citizens of Nagasaki experienced the instability of the 1860s is hard to predict and is rarely discussed in Western sources. It would be worth looking into if Japanese source materials tell more of their experiences. Looking at the Nagasaki newspaper quote, it seems that while the citizens enjoyed little stability regarding trade, the 1860s were regarded as better times than the 1870s. Unstable job prospects were likely better

[198] Lane, *The Foreign Settlement*, 486 – 488.
[199] Burke-Gaffney, *Holme, Ringer & Company*, 12 – 13.
[200] De Goey, *A Case of Business Failure*, 111.
[201] S. Sugiyama, 'Thomas B, Glover: a British merchant in Japan, 1861-70', *Business History 26:2* (1984), 132.

than no job prospects at all for the inhabitants of Nagasaki.

While there were many smaller companies, there were also bigger companies that decided to settle in Nagasaki. These companies generally had more long-term plans for the city. Examples of the most prominent of these were the Dutch NHM and Scottish entrepreneur Thomas Blake Glover (which started small but soon grew big). As their businesses were set to be more long-term, they also became more interwoven with the economic situation of Nagasaki. As a result, the faith of these companies eventually also became important factors to the economic health of the city. The NHM came to Nagasaki in 1859 after sending the Dutch trader Albertus Baduin (1829 – 1890) and Dr. Von Siebold to Japan to enquire if Japan would be interested in the goods the NHM could supply.[202] The Dutch aimed to use the Japanese market to sell large quantities of colonial goods; especially coffee and sugar, but also other spices. Besides the colonial goods, the Dutch also sought to sell European linen and military supplies. In return, they sought payment in rare metals (mostly gold and silver, but also copper). The NHM knew though that exporting large quantities of rare metals would eventually cause problems, as the Japanese had historically been careful with exports of their rare metals. A solution for this was to also invest in a rising new commodity in Japan, namely coal, as the Dutch were looking for a supply of the material for its colonies.[203] The Dutch assistance in the emergence of the coal industry in Nagasaki (as discussed in chapter 2) was thus no coincidence, but rather part of larger Dutch plans to attempt to create a new trade commodity within Japan which they could trade in their East-Asian network and use themselves in the Dutch East-Indies.

The answers from Baduin and Von Siebold were positive for the NHM and the company decided to open a permanent office in Japan, settling their headquarters on Deshima[204] (which was incorporated into the foreign settlement area in 1863). It has to be considered though that Von Siebold's part in the positive response was likely also rather biased and exaggerated the interest of the Japanese in Dutch products. Siebold was very eager to return to Japan and continue the activities that he was forced to abandon when he was banished in 1828. When he

[202] Nationaal Archief The Hague, Nederlandsche Handel-Maatschappij (NHM) arch.nr. 2.20.01/inv. nr. 11351, Factorij te Batavia, Secretarie en confidentieel 1859-1871, 5 February 1859.
[203] Kogure, *National Prestige*, 135 – 147.
[204] Nationaal Archief The Hague, Nederlandsche Handel-Maatschappij (NHM) arch.nr. 2.20.01/inv. nr. 11347, Factorij te Batavia, Secretarie en confidentieel 1859-1871, 8 September 1859.

finally returned to Japan he quickly continued with gathering plants for his own business ventures, resumed his research and undertook other activities which did not benefit his employers at the NHM. Because of the many rumours surrounding conflicts of interest he was already let go again by the NHM in 1860.[205] Nonetheless, the Dutch choice to further Nagasaki as their base of operations seems to have been primarily based on two factors: firstly, to continue using the centuries-old system through Deshima and secondly to use Nagasaki because of its connection to the rest of Asia.[206] While the latter reason is used more often, as the city's direct connection to the rest of East Asia is clear (and mentioned by both other foreign traders and for Japan's imperialistic ambitions), the first reason is most likely a continuation of (false) hopes that the Dutch still enjoyed special treatment over other foreign traders in Nagasaki. Nonetheless, the answers of Baduin and Siebold meant that the Dutch would eventually decide to develop their trade ventures in Nagasaki on the existing Dutch networks there, similarly to the development of industry and military from the first chapters.

Thomas Glover, on the other hand, could have easily been grouped with the many new foreign traders that came to seek fortune in Japan. When he arrived in Japan in September 1859 he was still a young man at the age of twenty-one, with little capital and knowledge of Nagasaki.[207] But the main difference between Glover and the majority of fortune seekers in Nagasaki is that he managed to create a legacy in the city. His various businesses became important aspects of Nagasaki's trade sector and also got intertwined with NHM interests in Japan. Glover already got acquittanced with the Dutch ventures within a few days of his arrival. He took up residence in one of the houses on Deshima, close to the headquarters of the NHM, and he acquired a Dutch interpreter because the Japanese generally only spoke Dutch as a (Western) foreign language.[208] He worked two years for the British Jardine Mathenson & Co. that set up a branch in Nagasaki (the biggest British company in Nagasaki). Jardine was one of the various British companies (others were smaller, like Walsh & Co. and Bent & Co.) that dominated the Nagasaki trade sector between ca.1858 – 1863 using their strong position after

[205] J.A. Compton and G. Thijsse, 'The Remarkable P.F. B. von Siebold, his life in Europe and Japan', *Curtis's Botanical Magazine 30:3* (2013) 304 – 305.
[206] De Goey, *A Case of Business Failure,* 113.
[207] McKay, *Scottisch Samurai*, 17 – 18.
[208] Ibid. 19 – 21.

the Opium Wars to peddle products between Nagasaki and China. These companies already made small (illegal) forays into the Nagasaki market before the 'Ansei Treaties' were concluded. By 1859, when the NHM arrived, these companies had already established their share of the trade in the city and were direct competitors to the NHM. By the early 1860s the NHM, with its much larger financial capital, had overtaken most of these British companies in market share.[209] The ambitious Glover eventually left Jardine to found his own branch office of Jardine in Nagasaki.

Glover founded the "Glover & Co." company together with Francis Groom (Dates unknown) and started to trade in tea, which was Nagasaki's prime export product at the time. But Glover later also expanded to other Nagasaki products like silk, seafood and coal (from the Takashima and Hashima mines as discussed in chapter 2). Glover quickly gained renown and his various business ventures played an important role on the Nagasaki trade market. While he did earn considerable funds himself, most of these ventures were realized with large sums of money he loaned from the NHM and the Jardine main office.[210] Glover also acquired the mining rights to the Takashima Mine from the Saga domain in 1869, as he had witnessed the rising profits of the coal sales in Nagasaki during the 1860s. The Takashima mine was already supplying Japan with cheap coal, but now industry in Nagasaki was growing, he thought that purchasing the coal mine would be a smart investment.[211] The purchase of this mine would eventually have big effects for Glover, the NHM and also Nagasaki (as will be discussed below).

Besides these legal businesses, Glover had also earned large sums of money with a very risky business during the 1860s. Noting the growing dissatisfaction among the Kyushu and Southern Honshu clans, Glover decided to sell military equipment to the would-be rebels of the Meiji Restoration of 1868. He learned of their growing discontent from incidents concerning the Chōshū clan[212], the Satsuma clan[213] and other clans in (Southern) Japan. As shrewd as Glover was, he noticed the brewing storm and decided to supply these rebelling clans with military

[209] Lane, *The Foreign Settlement*, 485.
[210] Burke-Gaffney, *Holme, Ringer & Company*, 14 – 17.
[211] McMaster, 'The Takashima Mine', 220 – 221.
[212] The Shimonoseki campaign of 1863, involving fights between Western forces and the Chōshū clan,
[213] The Anglo-Satsuma War of 1863, where British forces bombarded the Satsuma clan capital.

equipment, which he acquired from various sources, among them the NHM.[214] But Glover was not the only one. Some of the most important clients of the NHM were the samurai classes, both on the Tokugawa side and on the (growing) pro-imperial side.[215] During the 1860s both sides purchased large quantities of military equipment and steamships (both the shogunate as the Satsuma bought steamships) from the NHM. The profits from the military equipment sales that the NHM and Glover ran through Nagasaki were high, giving them the opportunity to reinvest the profits in other aspects of their Japanese ventures.[216] The NHM used these profits to open new offices in Yokohama (1964), Kobe/Osaka (1968) and Tokyo (1869[217]), but mostly lend money to other businesses.[218] Glover used his profits, together with new loans, to invest in the Takashima coal mine and other Nagasaki-based businesses.[219] Both the NHM and Glover thus profited greatly from the rising tensions before the Meiji Restoration and they used these profits to invest in new business ventures (both of other companies as in their own) in Nagasaki.

But neither of Glover nor the NHM seem to have anticipated the effects the instability of the early Meiji Restoration would have for their businesses in Nagasaki. Most direct and obvious of these major changes was the sudden disappearance of the revenues from the military equipment sales.[220] With the Meiji Restoration won by the Satchō-alliance and the Emperor restored there was no need for large quantities of weapons. Especially also since Japan started to get its own (military) industries running in the late 1860s (see chapter 1 and 2). This change removed a large part of the revenues that both these companies could have otherwise invested in their Nagasaki businesses, or even stay profitable. But there were other changes after 1868 that also played a vital role in the eventual disappearance of these two major companies from Nagasaki.

Glover was as entrepreneur always searching for new business ventures (and for more

[214] McKay, *Scottisch Samurai*, 40 – 50.
[215] Nationaal Archief The Hague, Nederlandsche Handel-Maatschappij (NHM) arch.nr. 2.20.01/inv. nr. 11347, Factorij te Batavia, Secretarie en confidentieel 1859-1871, 24 March 1859.
[216] De Goey, *A Case of Business Failure,* 114 – 115.
[217] The Tokyo office of the NHM closed within a few months because of disappointing revenue.
[218] Ibid.
[219] McMaster, 'The Takashima Mine', 220 – 221.
[220] McKay, *Scottish Samurai*, 116 – 128.

money to finance these). One of his primary investors for his various ventures was the NHM, which was the main financial power in Nagasaki and which profited greatly from the interest on its loans to other businesses (with interests going as high as fifteen to eighteen per cent).[221] The business historian Shinya Sugiyama (1949 -) noted that during the 1860s the NHM invested an amount of 460.000 dollars into Glover & Co. (with inflation translates to roughly 11.7 million dollars (2019)). This equalled more than a whole year's profit that the NHM made in Japan during the 1860s.[222] So while these companies were both competitors in Nagasaki, they were also highly dependent on each other. Glover constantly came up with new business ventures in Nagasaki, and the NHM often supplied him with the necessary funds. After which the NHM earned more money because of the high-interest rate. Of course, neither party was exclusively dealing with each other, because Glover also loaned large sums from his old employer Jardine among others. But Glover and the NHM were also often business partners in some form or another. This circle of new ventures, new investment and again new ventures continued during the whole of the 1860s and played an important role in keeping the trade sector alive in Nagasaki with flowing capital. Glover's companies and the NHM were important to many inhabitants of Nagasaki as the city was in the 1860s still very much orientated on foreign trade and their business ventures created a steady supply of jobs. Yet this all changed in 1869 when Glover purchased the Takashima mine.

Glover had completely overestimated the purchase of the Takashima mine from the Saga domain. Glover seemingly had hoped that with the increasing sales of coal in Nagasaki (and beyond) he could easily pay off the 70.000 dollars it had cost him (it was all the capital he had left supplemented with loans from the NHM and Jardine). But the promised profits did not come quickly enough. Before he had a chance to earn his money back, various creditors (in Japan and from abroad) approached him to demand repayment of outstanding loans. Glover did not have this money and soon struggled to pay off his debts to the NHM, Jardine and the various others.[223] Glover desperately tried to acquire new loans to pay off his currents debts,

[221] De Goey, *A Case of Business Failure,* 118.
[222] Sugiyama, 'Thomas B, Glover, 129.
[223] Glover had also loaned considerable amounts from companies in the United Kingdom, especially to purchase military equipment which he wanted to sell in Japan. McMaster, 'The Takashima Mine', 222 – 223.

but after long consideration, both the Jardine company and the NHM deemed that liquidation of all his assets was the only option. Glover & Co. was declared bankrupt on 22nd of August 1870.[224] As the largest creditor of Glover & Co., the NHM became the trustee of the company and took over its assets. The NHM liquidized many assets in Nagasaki (except for the Takashima mine) to pay off the remaining debts to Jardine and others.[225] Glover subsequently offered his services to pay back all his debts by overseeing the Takashima mine for the NHM. This shows that he was still eternally optimistic that his purchase of the mine was the right one. His optimism also shows from the following quote from Glover's liquidation meeting with his creditors: "… that at the public meeting held at the Consulate [on the 16th], T.B. Glover, enthusiastic to the last, has voluntarily offered his services gratis to superintend the practical working of the mine, he himself has thus apparently small doubt of ultimate success."[226] But even with his undying enthusiasm, with Glover & Co. bankrupt, the truth is that Nagasaki had lost one of its biggest businesses. One which had supplied many a Nagasaki citizen with jobs during the 1860s as the NHM could not keep these businesses running. The resulting closure of many business ventures (and the jobs these brought) likely contributed heavily to the increasing feeling of despair that was growing in the Nagasaki trade sector by the 1870s.

But for a while it seemed like Glover had been right all along about the Takashima mine's potential. The sales from the mine soon started generating considerable revenue, offsetting the dwindling revenue from other sectors in Japan for the NHM. In the years directly after the Meiji Restoration, various Western businesses were forced to close. New laws and demands during the Meiji period made it harder for Western businesses to operate as they did before.[227] But thanks to the mine, the NHM managed to offset not only the losses in other sectors of trade, but it also offset the debt from the bankruptcy of Glover & Co. and debts from other companies that went bankrupt and were henceforth impossible to collect.[228] Within two years' time, the Takashima mine had generated over 300.000 dollars, three-quarters of what

[224] McKay, *Scottisch Samurai*, 145.
[225] McMaster, 'The Takashima Mine', 223.
[226] Quote in *The Nagasaki Shipping List's report of the second meeting with creditors, 19th September* (1870) in: McKay, *Scottisch Samurai*, 146.
[227] De Goey, *A Case of Business Failure,* 119 - 120.
[228] Ibid, 120.

the NHM invested in Glover & Co. during the whole 1860s.[229] The Takashima mine, that was already developed with the help of Dutch surveyors throughout the 1850s and 60s, not only supported the rising industry in Nagasaki (which was developed on foundations laid by the Dutch in the 1850s), it also kept the NHM afloat in Nagasaki during the turbulent years directly after the Meiji Restoration. The NHM also gratefully noted in their annual report of 1873 - 1874 that the sales and commission on their coal mining business in Nagasaki was one of their most profitable ventures in Japan and played a large role in keeping the company profitable between 1870 and 1874.[230] The sales of the coal from the mine was thus an important factor in the NHM staying profitable during the dwindling trade during the late 1860s and 1870s. Without this source of income would the NHM not have been able to generate enough revenue to continue operating in Japan. To an extent, the fate of the NHM was now tied to the existence of the mine while the financial capital of the NHM was tied to many businesses within Nagasaki.

Yet this construction could not endure long for the NHM, as the new Japanese Meiji government had larger ambitions (setting their eyes on imperialist ambitions in Asia). To that end started they nationalized all natural resources in the country to ensure they had full control of their own resources. The 'Direction for Mining' came into existence in 1872 and soon after the Japanese government bought the Takashima mine from the NHM (the sale was completed end of November 1874). The Japanese government paid 400.000 dollars for the mine, which the NHM demanded for the sale to offset the remainder of the debts it had acquired when taking on Glover's debts.[231] While the NHM headquarters in Amsterdam were satisfied with the profits from the sale, the NHM agent in Yokohama quickly noted that this number was small compared to the revenue the mine could have potentially generated for the company.[232] The loss of this important source of income for the company became quickly apparent. In the year of 1873 – 1874 the NHM still made some profits (over 100.000 dollars yearly), but each year

[229] McMaster, 'The Takashima Mine', 224.
[230] Nationaal Archief The Hague, Nederlandsche Handel-Maatschappij (NHM) arch.nr. 2.20.01/inv. nr. 5096, Jaarverslagen van de NHM-vestigingen te Japan. 1863-1880, 'Hoofdagent in Japan, 1871-1880', Jaarverslag 1873 – 1874.
[231] Ibid.
[232] Nationaal Archief The Hague, Nederlandsche Handel-Maatschappij (NHM) arch.nr. 2.20.01/inv. nr. 11292, Ingekomen brieven bij de hoofdagent in Japan te Yokohama van de NHM, de Factorij en de agentschappen in Japan en Singapore 1871-1881, 'NHM-hoofdkantoor te Amsterdam 1871-1880', 14 January 1875.

afterwards the company incurred negative numbers (going as low as -250.000 dollars in 1875-1876).[233] The reason for these diminishing results of the NHM seems to have been mostly a structural one. In a letter by the Chief Agent of the NHM in 1875/76 he describes that the NHM failed to generate revenue because of five reasons; outstanding loans they failed to recover, insufficient working capital from the Netherlands, loss of Dutch prestige over the years, lack of direct connections with Europe and restricted connections with other foreign trading houses.[234] The NHM Board of Directors also apparently refused to invest in new sectors (like tea and petroleum) after the profitable trade in military supplies disappeared after the Meiji Restoration. [235] After the Meiji Restoration the new Japanese government seems to have decided to order new large warships from other sources, like the United Kingdom, which could handle larger (and more modern) orders than the Netherlands. Japan could also build its own smaller warships now, which the Netherlands mostly supplied, as industry had started to rise in the country (as seen in chapter 2). The NHM thus failed through a combination of structural problems, failure to adapt to the changing market and the Netherlands losing ground to other foreign powers by the 1870s.

With the disappearance of one of its biggest business partners (Glover & Co.), the profitable Takashima mine and general dwindling trade profits, there was not much left for the NHM in Nagasaki. Because of this, the NHM, the biggest financial power in Nagasaki, decided to leave the city in 1874 and move its headquarters to Yokohama. But for the NHM this move was too little and too late, the numbers stayed in the red and the NHM completely left Japan in 1881 because it was deemed unprofitable to continue.[236] With the removal of the NHM the outlook for various Nagasaki trading businesses changed dramatically. Without the NHM there was a power vacuum within Nagasaki. For the citizens in the town, of which many lived (direct or indirectly) from the foreign presence in the city, the downfall was complete as most Western businesses and the biggest investor for new companies had left by the mid-1870s. With the

[233] De Goey, *A Case of Business Failure,* 120 - 123.
[234] Nationaal Archief The Hague, Nederlandsche Handel-Maatschappij (NHM) arch.nr. 2.20.01/inv. nr. 5096, Hoofdagent in Japan, 1871-1880, 'Rapport van Boord van Bestuurders, 15 Maart 1877'.
[235] De Goey, *A Case of Business Failure,* 119 – 120.
[236] Ibid, 123.

foreign trading sector almost completely disappeared, many citizens in Nagasaki were ultimately forced to seek employment in the rising industrial sector in the city.

In the end, the NHM was not the sole reason that Nagasaki failed as a trading port city. The Nagasaki trade sector was plagued with various, more structural problems as the first part of this chapter discussed. Most prominent of these problems was that Nagasaki was too far away from the majority of the Japanese market (e.g. Edo/Tokyo, Kyoto and Osaka). Nagasaki was mostly ideal for traders that sought to connect Japan with the East-Asian markets, which attracted many Western foreigners (mainly British and Dutch traders) with strong ties to China and the East-Indies. The NHM was among these ventures that sought out Nagasaki for its connection with East-Asia but mostly started to influence the Nagasaki trading sector by financing many of these businesses with short-term loans. Because of this business model started NHM to become increasingly interwoven with the economic health of the city.

Yet when by the late 1860s the situation of foreign trade started to become less profitable for companies in Japan it started to reflect on both the situation of the NHM and Nagasaki. The profits of the NHM dwindled because they failed to adapt to the new situation of the post-Meiji Restoration. Simultaneously, the city suffered under the worsening situation of the NHM and related companies (like Glover and Co.). At the turn of the 1880s, there was barely anything left of the famous foreign trade that had characterized Nagasaki for over two centuries and the citizens were desperate for a breath of fresh air. Ironically for Nagasaki, this 'fresh air' came in the form of the polluting heavy industries of Mitsubishi that took over the Nagasaki Shipyards in 1884. Yet their arrival was a welcome one for the citizens of Nagasaki as they could supply them with what they needed most: a stable source of employment. Nagasaki could prosper again, even though it was in a different sector than they had traditionally found employment in.

Conclusion

"*We struggle against the thought that our power is no more in Nagasaki, we try to fancy that a better time is coming, but as no signs of that better time show themselves, we cannot help anticipating the final result*."

It was these words from the *Nagasaki Press* in the spring of 1870 that introduced the situation that this thesis examined. These words cited above are filled with a sense of lamentation and melancholy, which was apparently deeply felt among the citizens of Nagasaki at that time. Foreign trade had been struggling all over Japan ever since the Meiji Restoration that happened two years prior to the article. Foreign businesses were forced to close as they saw their profits dwindling and perhaps nowhere in Japan was this felt as dire as in Nagasaki. Foreign trade had been one of the pillars on which the city had thrived ever since its foundation in the sixteenth century. Ever since its earliest days, many foreigners had come and gone to try their luck in the Nagasaki trading sector. Access to Nagasaki was very limited and as a result, also very prestigious. This city was the place to be if one wanted exotic goods that were nearly impossible to get elsewhere, both for Japanese and foreign traders in town. Yet this all changed with the coming of Commodore Perry in 1853. Commodore Perry succeeded in which many before him had failed to do, he managed to forcefully negotiate access to Japanese ports. Soon many Western nations jumped on the opportunity to negotiate their own terms of access to Japan, which are nowadays known as the 'Ansei Treaties' of 1858. Starting from 1859, eager foreign traders swarmed Japan to explore new opportunities.

It was this changing situation that inspired the central question of this thesis. Throughout this thesis the question: 'To what extent did the Dutch influence shape the development of Nagasaki after the opening of Japan in 1854?' stood central. I have sought to answer this question by looking at the influence of the Dutch presence in Japan on developments in the military, the industrial and the trade sectors of Nagasaki in the nineteenth century. The resulting answers not only shows that the Dutch presence in Nagasaki heavily influenced the developments in the three sectors in the city, but also that these influences in the sectors were interwoven with each other. As a result, influences in one sector either stimulated or hindered developments in the others. How these influences were interwoven

becomes clear when you frame these developments on a larger scale with each other. This framing all starts with the new situation after 1853, which meant a decline for what can be called the 'old order'; the Tokugawa shogunate, the Chinese and the Dutch. The decline of the Tokugawa during the *Bakumatsu* era is probably the most famous. The Tokugawa shogunate already struggled for many years prior to the arrival of Commodore Perry, but eventually failed to keep control of the country during the *Bakumatsu* period. Discontent grew slowly among the various clans in Japan, especially over the privileged treatment of foreigners, until it was a powder keg waiting to explode. The explosion came in the form of the Meiji Restoration, where mostly southern Japanese clans rose up in rebellion and forced the shogunate to give up power.

But also for the Chinese and Dutch things drastically changed now that they had lost their monopoly. For the Chinese things mostly changed in the form of their changed position within Japan. After the Opium Wars had Chinese traders to be content with new positions, often operating as middlemen between the Japanese market and Western companies. In this position, they were still able to use their trade knowledge of the East Asian trade, while simultaneously gaining a small form of legal protection. With the Chinese quarters in Nagasaki dismantled (officially in 1859) and Chinese traders often becoming middlemen, Nagasaki had lost one of its pillars of foreign trade. For the Dutch, things did not look much better. The reality that it was very likely that the Netherlands was set to lose its trade monopoly on Japan was already growing among Dutch government officials throughout the nineteenth century. Nonetheless, the Dutch still desperately tried to stay ahead of the competition in the new era for Japan. The Dutch planned to protect their own monopoly on the Japanese trade by lifting the status of Nagasaki to become the main trade city of Japan. The Dutch knew they could not protect their monopoly by force, so their only hope was to acquire a deal where the Netherlands could still fulfil a prominent position in Japan. As the Japanese government declined the Dutch proposals, the Dutch were forced to find another way to gain an advantage in Japan. This led to the Dutch assisting the Japanese in the development of military and industrial knowledge while simultaneously promoting their trade.

When it came to acquiring trade opportunities the Dutch government seems to have been hesitant. Diplomatically the Dutch struggled to keep up with the other nations, especially

with the USA. Even though the Dutch had centuries-long trade relations, it took the Netherlands four full years to negotiate a new trade treaty (a full month after the Americans and only one day before the Russians did). The NHM, one of the largest Dutch companies at the time and one of the largest trade powers in Asia, did not establish a headquarters in Nagasaki (or Japan at all) until 1859. The characteristics of trade in Nagasaki and the instability of the *Bakumatsu* era provided the NHM with many business opportunities they could take advantage of. The NHM shaped the Nagasaki trading sector by supplying various business ventures with starting capital (in the form of high-interest loans) that they desperately needed. With their trade in colonial goods from the Dutch East Indies, selling military supplies to Japan and collecting interest they could keep investing in new businesses in Nagasaki, after which they collected more interest. The NHM (as the biggest financial power in Nagasaki) created a circle of short-term businesses and loans in and around Nagasaki with their business policy. While this situation was profitable to foreign businesses, it did not leave much for the citizens that had to deal with unstable companies that employed them and profits that only in small margins found their way into the city itself.

This circle could not last though as it was very sensitive to changes on the market and the economic stability of Japan. During the 1860s profits from trade in Nagasaki started to dwindle. Businesses in Nagasaki started to gradually go bankrupt or move to Yokohama and other cities, decreasing the pay-outs the NHM got on its investments (including debts they could not collect from their respective debtors). Almost simultaneously, the end of the Meiji Restoration caused an end to the profitable sales in military supplies. Yet the NHM could persist for a while in Nagasaki because the bankruptcy of Glover & Co., one of the biggest business entrepreneurs in Nagasaki, handed them the Takashima coal mine. The NHM managed to offset otherwise negative numbers with the sales from this coal mine and survive longer in Nagasaki than was likely viable. But also this venture was short-lived as the NHM lost their rights to the mine when the Meiji government nationalized all natural resources in the country.

By the early 1870s, Nagasaki had lost the majority of foreign trade in the city (among them Glover & Co.) and the biggest financial power in town (the NHM). At this point, no one could blame the citizens of Nagasaki for having a negative outlook on the future of their

beloved city. Yet the disappearance of foreign trade from the city was not the end for Nagasaki. When the Dutch had failed to take the lead in opening Japan they had become determined to show the Japanese that they were still the obvious choice to guide them into the new era. Specifically by showing the Japanese government that they could help Japan became a modern Western-style nation. The effects of this determination was mostly felt in and around Nagasaki, where the centuries-old connections of the Dutch ran deep. As the centre of Dutch influence in Japan was situated in Nagasaki, the city became a hotspot for Japan's early military and industrial modernization efforts. Dutch officers trained Japanese sailors, officers and engineers, supplied them with new military vessels and build the necessary industries to support these efforts. These military materials and the related knowledge might not have always been the latest in the world (especially compared to the British and the USA), for the Japanese this was an important basis on which they could later adapt and develop more modern knowledge from other nations.

The transformation of Nagasaki from an international trade port to one of the biggest military-industrial complexes in Japan (and beyond) was the result of various factors. Some of these factors were found in its geographic location, like the vicinity of natural resources and its direct connection to the rest of Asia. But other factors were very much the result of policies and goals. Japan was looking for a way to catch up with the Western nations and required the necessary knowledge to fulfil these ambitions. The Dutch, on the other hand, were desperately trying to try to retain their position in Japan and were eagerly offering this knowledge. Nagasaki was the logical location for these exchanges and it shaped the future of the city. Even after most of the Dutch initiatives had left Nagasaki during the 1850s – 1870s, their legacy persisted in the role they played in the early developments in various sectors of the city. Dutch officers, doctors and engineers had acted as an important bridge in transferring Western knowledge to Japan. Sometimes they transferred (Dutch) knowledge directly to the Japanese and other times they acted as important middlemen between the Japanese and the experts of other nations (like the joint ventures in mine building, steam engines and civil engineering projects).

David Palmer showed in his 'Nagasaki Districts', how the contact with the West in Nagasaki shaped the social geographical landscape of the city. In his article, he created a

narrative for the city by looking through outside influences on the city. He did this by highlighting each neighbourhood and how these evolved under contact with the West. This thesis took a similar approach to its methodology but adapted it by highlighting three sectors in the city instead of looking at neighbourhoods. Nonetheless, just like Palmer's article, this thesis also aimed to connect the wider correlation between the influence of Westerners and the wider developments in the landscape of the Nagasaki in the second half of the nineteenth century. This thesis ended up as an effort to create an integrated history, combining the historical writing of different sectors in Nagasaki (industry, military and trade) with historical writings of larger developments in the world (like the position of the Netherlands in Japan and also in the world, or the ambitions of Japan post-1853).

This was done with the aim to create a more inclusive historical narrative where small scale developments are framed within larger developments but also to challenge the common misconception that the Dutch influence on Japan ended when Commodore Perry forcefully opened the ports of Japan. The influence of the Dutch is just one example, but there were many continuities in various sectors of Japan before and after 1853. Yet in literature the year 1853 seems to be regarded as a completely different era from the centuries before. While this is true to a degree, to really understand the events of the post-1853 era it is important to also examine the decades before. For the Dutch case in Japan, the misconception of the abrupt ending of the Dutch influence is already evident just from the sheer amount of books that end in 1853. When it comes to the period after 1853 there is a lot less written about Japanese-Dutch relations. This while many old institutions persisted and various new projects were developed upon the old Dutch networks in Japan. Most research that focuses on the Dutch and Japan after 1853 generally only focus on one aspect of the interactions; e.g. the founding of the navy, building of factories, diplomacy or trade. These papers generally are very thorough and detailed, but simultaneously rarely connect these with wider developments in Japan and the world. While the Dutch quickly lost ground to the specialists of other Western counties, as they were either more numerous or better equipped, they still managed to leave a legacy in various sectors in Japan. This happened mostly by creating the foundation for various sectors and projects, which were later in the nineteenth and twentieth century expanded further upon (either by specialists

from other nations, like the UK and USA or by Japanese specialists).

This thesis connected the developments in three sectors in Nagasaki to create a wider narrative for the city. Performing research this way could also be done for other cities in Japan, or other cities (or even countries) around the world, to create a more comprehensive narrative. Looking at Nagasaki, just researching the individual activities of the Dutch makes it seem like these are just isolated actions and developments. But when these developments are placed in a larger picture, it becomes clear that the various (relatively small) Dutch activities played a role in shaping the future of Nagasaki and was the result of larger ambitions by both the Japanese and the Dutch. Even if the outcomes might have not always been intentional. If Nagasaki's future as military-industrial complex would have had looked much differently without the Dutch influence is hard to say. All we can conclude now is that Nagasaki did become a thriving military-industrial complex dominated by the Mitsubishi Nagasaki Shipyard by the twentieth century, building many ships for the Imperial Japanese Navy and becoming (in)famous in history. All of which can be traced back to a small steam-powered workshop in a relatively small port city which was famous for its foreign trade.

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