

THE NAGASAKI NAVAL TRAINING SCHOOL
IN THE CONTEXT OF JAPANESE-DUTCH RELATIONS IN MID NINETEENTH CENTURY

by

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ABSTRACT

The purpose of this thesis is to study the origin of Japan's modern navy, the history of which began when the ruling Tokugawa Bakufu (Shogunate) opened a naval training school at Nagasaki in 1855. The thesis is therefore concerned primarily with this school, the Nagasaki Naval Training School.

From the very beginning, the Dutch, as the only Europeans in Japan in those days, were involved as promoters of the School. The earliest Dutch suggestion that the Bakufu look to the improvement of Japan's defenses was made in 1844 by a delegate who brought a royal letter from King William II to the Shogun. The Dutch King in his letter advised the Japanese to open the country to the world. Again in 1852, prior to the visit of Perry, the Dutch government dispatched an envoy on a steamer, warning of imminent dangers for Japan. The presence of the well-armed steamer worked as a demonstration of modern naval power for the Japanese.

After Perry's naval mission of 1853, responding to the Bakufu's request, the Dutch actively made suggestions for the creation of a modern Japanese navy. They initiated the idea of the School and took the responsibility for naval training. The first half of the thesis tries to answer the question why the Dutch worked hard for the creation of a modern navy for the Japanese in the mid-1850's by presenting Dutch activities in diplomatic negotiations with the Japanese. The argument among some interested Japanese over the issue of national defense is also discussed, since the Bakufu's decision to build a modern navy was one of the responses that the Japanese made to the enforced opening of Japan's doors to the world in 1853.

The Nagasaki Naval Training School provided not only Bakufu samurai students but also local domain students with opportunities to pursue systematic Western-style naval training. The students gradually overcame language and other barriers and learned various modern naval skills and marine technology and organization. Under the guidance of Dutch instructors, the Bakufu built a factory for the repair of naval ships as a part of the School's supporting facilities.

This was the first modern factory in Japan utilizing machinery from Europe.

In spite of successful operation, the Nagasaki Naval Training School was closed in the spring of 1859. The decision to terminate the School was made for political reasons, arising from the Japanese side as well as from the Dutch side. While the Dutch feared that the other Western powers would suspect that they were helping the Japanese accumulate naval power to repulse Westerners, the Bakufu became reluctant to give samurai from traditionally anti-Bakufu domains opportunities to learn modern naval technology. These anxieties coincided in the second half of 1858 and finally brought the School to an end.

Although the School was short-lived, it had considerable direct and indirect influence on Japanese society. The School educated many naval officers and engineers who would later become not only founders of the Japanese Imperial Navy but also promoters of Japan's shipbuilding and other industries. A medical school with the first Western-style hospital, started as a part of the Nagasaki Naval Training School, contributed to the education of many medical doctors. Both Bakufu and local domain samurai were sent to the School, and through naval training, they got acquainted with each other. They gradually became aware of the integrity of Japan as a country among other nations, a notion which tended to supplant their exclusive concern with their origins in Bakufu or other domains. The thesis concludes that while many young men from the School became leaders of the new society after the Meiji Restoration of 1868, various facilities built for the School provided Meiji Japan with a valuable industrial inheritance.

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PREFACE

In the last 400 years, Japan's naval policy has varied greatly according to the attitude of the governments of the time towards the rest of the world. Shortly before the Tokugawa period (1603-1867), the Japanese were ocean-going people. Both as traders and raiders, they travelled all along the coasts of Southeastern Asian countries as well as nearby Korea and China. Shipbuilding technology developed rapidly during this period, and, in the early 17th century, many ships built in Japan were said to have compared well with their European counterparts. But in the middle of the 17th century the ruling Tokugawa government adopted a policy of isolation from the rest of the world mainly because it feared the spread of Christianity in Japan. Doors to the outer world were almost completely closed and the building of ocean-going ships was strictly prohibited. Naturally, no significant development in the field of naval affairs was seen in this period. The isolation policy was maintained unchanged until the middle of the 19th century. In the second half of the 19th century, however, the tendency was drastically altered. First for the purpose of national defense and then for aggressive advances towards neighbouring countries, the Japanese devoted themselves to the rapid development of sea power. In less than half a century since the Japanese adopted an offensive policy towards neighbouring countries, Japan's modern navy grew large enough to dominate the eastern half of the Pacific ocean with victorious experiences in the Sino- and Russo-Japanese Wars and World War I. But its glorious history ended in World War II when almost all Japan's naval ships were wiped off the surface of the Pacific Ocean.

In less than one century, Japan's modern navy developed from virtually nothing to its culmination in the 1930's and early 1940's. Although many studies have been done on Japan's modern navy, almost all of them are about

the development after the Meiji Restoration of 1868. Very few have been presented, even in Japanese, concerning the origin of Japan's modern navy in the middle of the 19th century. The purpose of this thesis is to fill part of this gap in the naval history of the late Tokugawa period. This purpose will be achieved by a study of the Nagasaki Naval Training School, as it was the first modern naval institution in Japan. In other words, the actual development of Japan's modern navy began when the Nagasaki Naval Training School was opened in 1855. The School was, however, not an idea solely of the Japanese. The Dutch at Nagasaki, as the only Europeans in Japan at that time, were deeply involved in this scheme. Due to the isolation policy, the shipbuilding technology of Japan was far behind its European counterpart. In the development of a modern navy, the Japanese had to obtain technological and organizational aid from the Dutch. Therefore, this thesis deals with the relationship between Japan and the Netherlands, especially in the middle of the 19th century. By way of introduction, the early Tokugawa maritime defense affairs will be briefly discussed, since knowledge of general Tokugawa maritime policy may help readers understand the development of naval affairs in the 19th century.

This thesis is written based on information available in Japanese and English. Because of my lack of knowledge of the Dutch language, I used Dutch materials only when Japanese translations were available. This language problem was, I believe, to a great extent overcome by the use of reliable Japanese translations, verified from related studies.

As mentioned above, there are very few studies on the early development of Japan's modern navy. Perhaps Bakumatsu ni okeru Waga Kaigun to Oranda (Japan's Navy and Holland in the Late Tokugawa Period) published by Mizuta Nobutoshi in 1929 is the only work which tried to cover this subject in detail. The author says his study utilized various Dutch documents found in archives in the

Netherlands. Some of the information concerning diplomatic negotiations at Nagasaki between the Japanese and Dutch is very valuable. Unfortunately, however, the book has some wrong information and misprints, and it has no references at all. Besides Mizuta's study, Kaigun Rekishi (The History of the Navy) by Katsu Kaishū is also very important. It is a collection of old documents with his comments, rather than a descriptive history. As we shall see, Katsu was one of the most important figures not only at the Nagasaki Naval Training School but also in late Tokugawa and early Meiji politics, and his Kaigun Rekishi and related writings are essential for this study. Yet the chronology of some documents in this book is incorrect and information of doubtful validity is proffered. The portion of van Kattendyke's diary written in Japan is the most useful source of information on how he and other Dutch instructors at the School saw Japanese students. With regard to diplomatic negotiations between the Japanese and Dutch, the most valuable source is the Bakumatsu Gaikoku Kankei Monjo (Documents Concerning Foreign Relations in the Late Tokugawa Period), a section of Dai Nihon Komonjo (Historical Documents of Japan), although this thesis could utilize it only to a limited extent due to the unavailability of certain volumes in Vancouver. This deficiency was compensated for by use of works which made partial use of its documentation, and these are listed in the bibliography.

In this thesis Japanese personal names are given in the conventional form with family names preceeding given names. Japanese words have been underlined except for a few common words like "samurai." In the case of anglicized Japanese words, macrons have not been used; for example: "shogun" instead of "shōgun." All translations were made by the writer, except where a work published in English is cited as the source for the quoted Japanese material.

In this thesis, dates are all converted to Gregorian calendar equivalents. But for convenience in further research, Japanese dates are added in brackets: first year-period (nengō) and then month and day. Conversions were made based on Gaimu-shō (ed.); Kindai In-yō Reki Taishō-hyō (Conversion Tables of Japanese and Gregorian Calendars for Modern Times, Gaimu-shō, 1951).

Finally I wish to express my special appreciation to my supervisor, Dr. W. Donald Burton, who have patiently rendered assistance and advice to me. I am also grateful to Dr. John Howes of the Department of Asian Studies who gave me many important suggestions. I owe my special thanks to Mr. Tsuneharu Gonnami of the Asian Studies Library who help me make full use of the collection of the library.

T.H.

CHAPTER I Introduction: Maritime Affairs in the Tokugawa Period and the Development of the Discussion of Maritime Defense

The Tokugawa Bakufu¹ governed Japan for more than two and a half centuries (1603-1867). During this period, the Tokugawa Shoguns spent great energy to establish a solid ruling system. Many regulations and orders were proclaimed in its early stage, and, as time passed, they gradually came to be understood as sohō (ancestral laws) that nobody was allowed to change. This was so in maritime affairs, too. The regulations and orders of the early 1600's were to remain in effect well into the 1800's, causing many contradictions in Bakufu foreign and defense policies. The isolation policy adopted by the Bakufu and the development of the argument on maritime defense affairs are the most important issues in the history of maritime affairs in the Tokugawa period.

In the late 16th and early 17th centuries, because of policies for the promotion of foreign trade taken by Toyotomi Hideyoshi and his successor Tokugawa Ieyasu, the traffic between Japan and other Asian countries and Europe increased greatly, and this tendency accelerated the development of Japan's shipbuilding industry. As European and Chinese ships often visited Japan, Japanese shipwrights actively learned from them. Especially after 1604 (Keichō 9), when Ieyasu commenced the Go-shuin-sen Seido (Red Seal Vessel System), which authorized certain daimyo, merchants and others to engage in foreign trade, more and more sturdy ocean-going vessels were required, thus encouraging shipwrights to learn more from advanced foreign technology. The size of Go-shuin-sen varied from 100 tons to more than 700 or 800 tons; however, most ships were about 200 to 300 tons. They were still basically traditional Japanese-type ships, rather weakly structured ones designed primarily for coastal routes, but they already showed many modifications and innovations learned from European and Chinese ships.²

On the other hand, as early as 1605 (Keichō 10) Ieyasu already possessed two ships of European design. William Adams, the English pilot/engineer of a Dutch vessel that stranded in Kyūshū in 1600, built these two-masted schooners. Their tonnage was said to have been 80 and 120 respectively. The larger one successfully sailed across the Pacific Ocean to Mexico in 1609.³ Four years later in 1613, the lord of Sendai han (domain) sent one of his retainers to Mexico and Spain.⁴ The ship for this mission was also a European-style ship with a company of 180 men.⁵ It was built under the direction of Mukai Tadamasu, the first hereditary admiral of the Funate (water force) of the Bakufu, and probably it made use of the experience and knowledge obtained from the construction of Adams' ships. These cases indicate that the Tokugawa Bakufu had been very eager to develop shipbuilding technology in its early stage, and the Japanese actually attained a relatively high standard of shipbuilding.⁶

Along with the development of shipbuilding technology, navigation technology was also greatly advanced during the same period. For voyages of Go-shuin-sen, at first Japanese often hired European pilots and then learned techniques for open-sea navigation and the knowledge of world geography from them. Their standard was soon raised to a high level and a very comprehensive navigation manual appeared in Japanese in 1618 (Genna 4).⁷

While the Bakufu encouraged foreign trade, it paid little attention to the development of a naval force. Ieyasu's policy was to promote foreign relations through trade but not by military means. The military threat from outside Japan could be more easily ignored in those days than in the late 18th and 19th centuries. The only naval achievement was the creation of the Funate (literally ship hands, i.e. water force). There were five groups of Funate, and each of them was led by an individual Funate admiral with thirty dōshin (perhaps equivalent to petty officers) and about fifty to eighty sailors.⁸ This Funate system was firmly established by the third Shogun, Iemitsu. Although his

enthusiasm did not last very long, Iemitsu in his early years planned the expansion of the Funate and had his men build two special warships, the Tenchi Maru in 1630 (Kan'ei 7) and the Ataka Maru in 1631. Along with all the daimyo in Edo, Iemitsu even held a review of the fleet off the town of Shinagawa near Edo, now Tokyo, in 1635.⁹

However, as the first edict on the sakoku (closing of the country, isolation) policy was issued in 1633, the Funate, far before it obtained sufficient power to be regarded as a naval force, gradually lost its raison d'etre in the Tokugawa military system. The enforcement of the isolation policy was not very difficult in those days. Westerners were usually in East Asia for the propagation of Christianity and trade without aggressive military designs. The series of edicts concerning the limitations on foreign contacts were imposed between the years 1633 and 1639. In 1635 the Bakufu forbade the Japanese to leave the country, and Japanese residents in foreign lands were also prohibited from coming back to their native country. Offenses against the edicts were punishable by death.¹⁰ The isolation policy was actually completed in this year. Some Portuguese still remained in Nagasaki, a port town in Kyūshū, but they as well were expelled from Japan in 1639 because of suspected collusion in the Shimabara Rebellion in which farmers and samurai revolted against the Bakufu under the banner of Christianity.¹¹ As the Shimabara Rebellion was led by Japanese Catholics, the Bakufu fiercely oppressed missionaries and devotees, and eventually it cut the ties with Catholic countries like Portugal and Spain. Only England and the Netherlands from Europe and China and Korea from Asia were allowed to send their people for trade with the Japanese. After English traders left Japan due to unsuccessful business, the Dutch and Chinese stayed in Japan in very small designated areas in Nagasaki.¹²

As one of the means of completing the isolation policy, the Bakufu placed a prohibition on the building and possession of any ships that were more than

500 koku capacity (about 50 tons) in the 1635 version of the Buke Shohatto (Laws for the Military Houses).¹³ At the same time, the Bakufu imposed restrictions on the structure of ships, banning the use of keels and more than one mast on a ship.¹⁴ Later, in 1638 and 1663, the Bakufu slightly relaxed the regulations and allowed ships larger than 500 koku for commercial transportation. The structural restrictions were, however, not removed.¹⁵ After that Japan's marine transportation was limited to coastal routes served by traditional ships such as bezai-bune, or sengoku-bune.¹⁶ And due to the weak structure of the traditional ships, Japanese seamen suffered repeatedly from shipwrecks, causing great damage to the national economy.

The Bakufu completed the isolation policy, but the policy was not guaranteed by the backup of defense facilities. The authority of the Bakufu, the moat-like ocean around the country, and perhaps the kamikaze (divine wind) in case of emergency were considered to be enough to enforce the isolation policy. By the order of the Bakufu, all the Europeans except for the Dutch and English left Japan, and eventually only a Dutch "factory" remained at Dejima (Deshima) in Nagasaki harbour. The people seldom saw foreign ships in Japanese waters until the second half of the 18th century. Almost no coastal defense was provided during this period. The only exception was Nagasaki. As the sole doorway to the outer world, it was directly governed by the Nagasaki Magistrate, who was responsible to the Bakufu for external trade and defense as well as the administration of this port town.¹⁷ The actual defense of Nagasaki was taken care of by Saga han and Fukuoka han, but few improvements were made after some inadequate defense facilities were constructed in the middle of the 17th century.

Some changes in defense arrangements elsewhere were the installations of the Uraga Magistracy at the mouth of Edo Bay (Tokyo Bay) in 1721 (Kyōho 6) and the Ezo Magistracy (or Hakodate Magistracy) in 1802 (Kyōwa 2). Yet these were mere additions of Bakufu posts without any effective improvement of defense

facilities.¹⁸ Only two ships which could be described as ocean-going vessels and had the potential to be converted to naval ships were built under the Bakufu's authority, and these had short lives and no offspring due to vagaries in the political fortunes of their sponsors.¹⁹ As one clearly sees, the Bakufu concerned itself mainly with defense facilities on land and even where it was on firm ground, only to a very modest extent. The Funate could have been the basis for a modern navy, but because of the negligence of the Bakufu, it showed no development after the 1630's. In 1842 (Tempō 13), the Bakufu directly controlled the following vessels:

9	ships with	60 or more	oars		
16	"	"	50	"	"
25	"	"	40	"	"
3	"	"	30	"	"
171	"	"	less than 29 oars		

224 ships in total under the Bakufu's direct control²⁰

The Tenchi Maru, the flagship of Tokugawa Iemitsu's fleet, had 100 oars, and the size of the ship was said to be about 100 tons. Assuming that this ratio of oars to tonnage could be applied to other ships, all the above ships that the Bakufu directly controlled in 1842 were much smaller than 100 tons. A naval expert explains the vulnerability of the Bakufu water force as follows:

Ships with at least forty oars were required for naval struggles. However, as traditional ships were very poorly constructed, once they came into contact with a Western ship, then they would be broken into pieces.²¹ The Japanese 'warships' were not at all suited to modern naval fighting.

Fortunately for the Bakufu, it was not drawn into serious military confrontations with foreigners through the 17th and early 18th centuries. After the establishment of the isolation policy, the Bakufu devoted itself solely to the completion of its domestic ruling system. But during the same period, Western countries were experiencing the Industrial Revolution and they were

about to go around the world with much more aggressive military designs. The industrial development of Russia was slower than the rest of the Western countries, but under the strong leadership of czars like Peter the Great and Catherine II this huge Eurasian country also actively advanced to its eastern territories. In the New World, English colonies were gradually accumulating their powers into one united country with their abundant resources and strong desire for independence. The world was changing, whereas most of the Japanese had little opportunity to know of its progress.

The so-called kaibō-ron (argument concerning maritime defense) was born in the second half of the 18th century when the peaceful reign of the Tokugawa Bakufu was disturbed by the Russian approach from the north. There are two climaxes in the history of the kaibō-ron; the first came in response to increased Russian activity soon after the kaibō-ron itself was born, and the second hit Japan after the visit of American Commodore Perry in 1853. At first the kaibō-ron was an argument among some concerned people who had been studying various matters concerning foreign countries through Dutch books and their translations. The most important characteristic of the argument was its advocacy of the creation of a national defense system. Under the Tokugawa Bakufu, each han was responsible only for the defense of its own domain and sometimes nearby special zones designated by the Bakufu. Although the local lords were vassals of the Tokugawa, as far as defense was concerned, they were responsible for the defense of their own domains.²² There was no unified command against threats from overseas. Under such circumstances, the idea of national defense was quite unique in those days. Besides this, the kaibō-ron in general dealt with suitable military systems for Japan, the financial means to build an effective defense system, and the Bakufu-han relationship in defense affairs. These ideas were seldom taken into serious consideration by the Bakufu. Instead, it

had a tendency to suppress this sort of discussion in non-Bakufu circles. Still, the necessity for a national defense system gradually came to be understood by the Bakufu, and, especially after Perry's challenge, national defense became one of the most urgent issues for the Bakufu to solve. The long campaign of the kaibō-ron advocates was rewarded when the Bakufu took many drastic measures for the realization of an effective national defense system including the creation of a modern navy. Now we will look at the development of the kaibō-ron in detail with an emphasis on opinions concerning a modern navy.

As early as the late 16th century, the Russians began to explore their eastern territories, and particularly in the early 18th century, they became very active under the rule of Peter the Great. In his reign, the Russians had already reached the eastern edge of Siberia and proceeded farther down to the Kamchatka Peninsula. Under these circumstances, Peter the Great planned the exploration of the Northern Pacific Ocean and the opening of sea routes to Japan, China and India from Siberia. His plans were realized after his death, during the 1730's. As a part of Admiral Vitus Bering's Northern Pacific Ocean expedition, Captain Martin P. Spanberg commanded a voyage to Japan in 1739. His ships sailed down along the Kurile Islands and then to the central part of Japan on the Pacific side. They several times tried to trade with Japanese ships off the coast and eventually visited some fishing villages.²³

In 1711, Russians first opened a settlement on the northernmost island of the Kuriles, and by 1768 they had reached Etorofu Island which was located about 150 kilometers away from Ezo proper (today Hokkaidō). After that Russian ships came to visit Ezo more and more frequently. Matsumae han, which ruled Ezo, was to a certain extent informed of Russian activities on the borders of its domain, but it reported little on these to the Bakufu in Edo. This was because Matsumae han was afraid of inviting interference by the Bakufu in

domain affairs.²⁴

Although Matsumae han tried to keep the information concerning the Russian activities from leaking to the Bakufu, it came to light through an unexpected affair. In 1771, Russian prisoners in Kamchatka revolted under the leadership of Moritz Aladar von Benyowsky, a Hungarian nobleman, and managed to obtain a small Russian ship.²⁵ On their way back to Europe, the ship was stranded several times on Japanese shores. While he stayed at Amami Ōshima Island, off the southern tip of Kyūshū, von Benyowsky wrote several letters to the Dutch at Nagasaki. These letters were first sent to the hands of the Bakufu from the islanders, but nobody could read the letters because they were written in German. The Dutch at Nagasaki were requested to translate the letters for the Bakufu. It was in one of these letters that von Benyowsky informed the Japanese of a false Russian plan to invade Japan. He mentioned that he has "important information to disclose," and then he continues that "this year, in accordance with a Russian order, two galliots and a frigate from Kamchatka sailed around Japan and set down all their findings in a plan, in which an attack on Matsma [Matsumae] and the neighbouring islands lying under 41°38' N. Lat. has been fixed for next year."²⁶ It was completely false information, but a very urgent and concrete warning to the Japanese. Yet nothing was done by the Bakufu. In other words, it seems that none of the Bakufu officials could comprehend what von Benyowsky meant in his letters. The Bakufu was too poorly informed about the situation in the northern territories to take any action based on the warning and it had very little military preparation for such a case anyway.

Prior to the Benyowsky case, a rumour that unidentified foreigners from the north engaged in smuggling with some Japanese in Ezo had spread among some interested Japanese. As it was impossible to keep the Dutch and interpreters at Nagasaki from confiding the Benyowsky warning to these knowledge-seeking Japanese, the identity of the men from the north was revealed and the concern

about the north was suddenly heightened. The kaibō-ron was brought to the main stage of history as a result of the Benyowsky warning. Some of the early and most important theses on maritime defense were written by Kudō Heisuke and Hayashi Shihei.

Kudō Heisuke was a doctor from Sendai han. When he completed his Akaezo Fūsetsu-kō (A Study of Red Ainu [Russians] Reports) in 1783 (Tenmei 3), the Bakufu administration was in the hands of Tanuma Okitsugu. As Tanuma promoted international trade during his days,²⁷ more and more information from the West flowed into Japan with the increase of trade. The main source was of course the Dutch Nagasaki Post, and the study of the West was called Rangaku (Dutch studies). The kaibō-ron was also closely related to the development of Rangaku. Kudō visited Nagasaki to study Dutch medicine in 1780. While in Nagasaki, he learned about the Benyowsky warning and northern affairs through some Japanese interpreters and the Superintendent of the Dutch Post.²⁸ Being alarmed particularly by the Benyowsky warning, he concentrated his interest much more in northern affairs than medicine. He collected further detailed information about Ezo and Russian activities through some retainers from Matsumae han, while he asked some Rangaku-sha (scholars in Dutch studies) to translate some Dutch books about Russian affairs.²⁹ Based on these, he completed the Akaezo Fūsetsu-kō. Having studied Russian affairs, Kudō in his book considers that "the Russians have heard of the abundance of precious metals in Japan and wish to trade with us."³⁰ And he advocates the development of Ezo and Russian trade from the viewpoint of maritime defense and the enrichment of Japan. This book was directly presented to Tanuma Okitsugu³¹ in 1783 and Kudo's opinions were adopted by the Bakufu, resulting in the dispatch of expeditions to Ezo in 1785 and 1786. The ideas in the Akaezo Fūsetsu-kō accorded well with Tanuma's policy of industrial and commercial development. By the time the expedition brought back information from the north, however, Tanuma had disappeared from the main

stage of politics. His successor, Matsudaira Sadanobu, showed little interest in the information described in the report of the expedition.³²

Like Kudō, Hayashi Shihei of the same Sendai han was also strongly influenced by the Benyowsky warning when he visited Nagasaki in 1772 (An'ei 1). He devoted himself to the study of maritime defense. His study was first published in 1786 (Tenmei 6) as Sangoku Tsūran Zusetsu (An Illustrated General Review of Three Countries) in which the geography of Korea, the Ryukyus (Okinawa), and Ezo was explained. Hayashi paid most careful attention to Ezo in this book, explaining the Russian colonization of the east and predicting a possible invasion of Ezo. As a countermeasure to Russian invasion, he advocated the development of Ezo. Unlike Kudō, who considered the visits of Russians as expressions of a wish to trade, Hayashi thought the Russians were aggressive invaders. Therefore, he was destined to study the problem of maritime defense more directly.³³

In the following year of 1787, Hayashi published the first volume of the epoch-making Kaikoku Heidan (Military Talks for a Maritime Nation) which aimed at the study of defense against threats from overseas. Prior to this book there had been many 'art of war' books based on domestic warfare in China and Japan, but none of those books had dealt with military conflicts resulting from external threat. At the very beginning of this book, Hayashi states the importance of considering the geographic characteristics of Japan.

What is meant by a maritime nation? It is a country not connected by land to any other, but bordered on all sides by the sea. There are defense preparations that are suited to a maritime nation, and that differ in kind from those prescribed in Chinese military works, as well as from those traditionally taught in Japan by various schools.³⁴

Hayashi fully understood the difference in military strategy and tactics between domestic and external warfare for an island country like Japan, and he advocated the creation of a modern navy modeled after a European one. While he was in

Nagasaki, he carefully studied the structure and equipment of Dutch ships. A result of the study appeared in the form of a pictorial explanation of a Dutch ship.³⁵ Solidly-built and well-equipped warships as well as Dutch-style cannons were his goal for the national defense.

Military preparation for Japan means a knowledge of the way to repel foreign invaders, a vital consideration at present. The way to do this is by naval warfare; the essential factor in naval warfare is cannons. To be well prepared in these two respects is the true requisite of Japanese defense, unlike the military policies appropriate to such continental countries as China and Tartary. Only when naval warfare has been mastered should land warfare be considered.³⁶

In Kaikoku Heidan Hayashi did not directly oppose the Bakufu order that prohibited the building of large warships, but, explaining Dutch ships very carefully, he claimed that no naval warfare was possible without ones like them. One of the most important demands in his book was the creation of a modern navy. It is hard to believe that Hayashi agreed with the Bakufu proscription. Rather, he hesitated to oppose the proscription when he thought the publication of the book itself might not be acceptable to the authorities.³⁷

Hayashi strongly emphasized the importance of defense around Edo Bay, which was the centre of Tokugawa Japan. As mentioned before, defense facilities were limited to the Nagasaki area in those days. He writes:

.....A frontierless sea road leads from the Nihon Bridge in Edo to China and Holland. Why is it that there are defense installations only in Nagasaki? My suggestion here is to station some daimyo in the provinces of Awa and Sagami [now Chiba-ken and Kanagawa-ken] to guard strictly the entrance to the [Edo] Bay. When the defense facilities are being arranged, the Bay area should be given priority.³⁸

By saying this, Hayashi predicted the possibility of invasion directly into Edo Bay by foreign ships and strongly insisted on the installation of batteries around Edo Bay. The defense of Edo Bay would be one of the most serious problems when external affairs turned out to be urgent, he claimed.³⁹ Nobody

before Hayashi had pointed out the necessity of the defense of Edo Bay.

Hayashi completed the entire 16 volumes of Kaikoku Heidan in 1791 (Kansei 3), but, as he had anticipated, it brought a great deal of trouble to him. Soon after the last volume was published, he was arrested by the Bakufu and his books were all banned in the summer of 1792. It was Matsudaira Sadanobu, the chief rōjū (councillor), who ordered the arrest of Hayashi and the ban of his writings. Hayashi was considered to have published books that dealt with national affairs, causing disturbances in the public mind. Matsudaira once said in one of his writings that "a man of virtue must devote his mind to worry about the country, but must not express his worry."⁴⁰ He could not think of allowing an ordinary man to speak out his opinion on national politics.

Although Matsudaira sent Hayashi to prison, it did not mean the former was able to ignore the necessity of improved national defenses strongly advocated by the latter. The defense of Ezo, especially, became a subject of argument among Bakufu officials as well as interested people. The visit of Russian Lieutenant Adam Laxman on the Ekaterina to Nemuro in Ezo on October 17, 1792 (Kansei 4, 9/2) put further spurs to the argument.⁴¹ Matsudaira began giving serious consideration to the improvement of defense; he inaugurated a cannon range in the suburbs of Edo, made a personal inspection trip around Edo Bay, authorized the construction of observation points around Edo Bay and so on.⁴² In fact, Matsudaira Sadanobu had to accept Hayashi's opinions.

Matsudaira studied foreign affairs seriously and wrote many theses on maritime defense. In addition, he ordered some of the Japanese scholars of Dutch studies to translate military books from the Netherlands.⁴³ However, Matsudaira's fundamental idea on maritime defense concerned not the defense of Japan as a whole but the defense of the Tokugawa Bakufu itself from the external threat and domestic confusion caused by it. Nothing that could be utilized to destroy the Bakufu system should be built even though external

powers threatened the country of Japan, he thought.

Influenced by Hayashi's writings and actual conditions around Japan, many others wrote books and memorials concerning national defense and world geography, especially about Russia. Some of these studies are carefully introduced by Donald Keene in The Japanese Discovery of Europe, 1720-1830. Among some that are not mentioned by Keene, there are several writers important to our subject. Ōhara Sakingo, a man from Sendai⁴⁴, wrote Hokuchi Kigen (Warnings about the North Land) in 1797 (Kansei 9). Main themes of his book were the defense of the north and the improvement of military equipment. Among the thirteen chapters on those subjects, Chapter 5, entitled 'Solid Warships Should be Built in Various Han,' explained the advantages of Western-style ships and urged the Japanese to build commercial-cum-military ships in the Western way. He considered it best for local han and the Bakufu to control these ships directly and engage them in commercial activities in ordinary times. However, he realized the importance of having a unified command in an occasion of emergency. He writes that "they [new ships] are ordinary commercial ships that belong to individual local han, but, in an emergency they should belong to nobody [but come under a unified command]."⁴⁵ This book seems to have been well read among high-ranking Bakufu officials, calling their attention to the problems of national defense and northern affairs. Nevertheless, his proposal for the improvement of military facilities was yet regarded as a mere desk-top theory.⁴⁶

The Phaeton incident in 1808 (Bunka 5) was a serious shock for the Bakufu. On October 8 (8/19), the British frigate Phaeton, disguised as a Dutch ship, suddenly anchored in Nagasaki harbour and abducted some Dutch officials as hostages to ensure the prompt supply of provisions. In fact, this hostility by the Phaeton was a part of wartime operations against Napoleon's empire, to which the Dutch belonged in those days.⁴⁷ It was not an attack directed against

Japan, yet this incident caused a great commotion throughout the whole country as well as within Bakufu councils.

In the following year, even among Bakufu officials arose voices demanding changes in the Bakufu military system. Koga Seiri, a Confucian professor at the Shōheikō, the Bakufu college⁴⁸, wrote a memorial to Bakufu executives. In this memorial he urged Bakufu men to learn naval warfare and help augment defense facilities. The most important point in his memorial was Koga's advocacy of the suspension of the prohibition on building large warships so that an actual naval force could be built.⁴⁹ Less than two decades before, Hayashi Shihei could not advocate this openly. Now, even a Bakufu official came to speak out in favour of drastic changes in the ancestral law.

Although gradually many people began urging the suspension of the prohibition of large warships, major Bakufu figures totally ignored them. Yet people all over the country were to experience the foreign presence around them more than ever. Russian Captain Vasili Golownin was stranded at Kunashiri Island in Ezo and captured by the Japanese in 1811 (Bunka 8). He was returned in 1813 in an exchange for some Japanese castaways in Russia.⁵⁰ British ships repeatedly visited Japanese waters. In 1818 (Bunsei 1) and 1821 they entered Edo Bay to unsuccessfully seek trade with the Japanese.⁵¹ Their behaviour became more and more hostile as they were not accepted by the Japanese. In 1824 some English sailors from whalers landed on the shore in Mito (now Ibaraki-ken) and were captured. Moreover, some other English foragers stole cows on Takara-jima Island off Satsuma proper (now Kagoshima-ken).⁵² In such an atmosphere, pioneers in the field of national defense pursued studies of new military technology and foreign affairs, despite negative pressure from the Bakufu on most of these private scholars.

Satō Nobuhiro, Takano Chōei, and Suzuki Shunzan were some of the other famous military pioneers in those days. Satō, known as an economist whose main

proposal was a centralized, unified nation based on strictly controlled industries, became known as a military theorist and technologist in his early days. Around the years of the Phaeton incident, he wrote several books on artillery, Western geography, and maritime defense policies. Satō's concern then shifted into the field of agricultural economics until he concentrated his interest once again in military affairs in the late 1840's.⁵³ Suzuki Shunzan's most important achievement was the completion of Heigaku Shōshiki (Ideas on Military Science). Together with Takano Chōei, also a Dutch scholar, Suzuki translated several Dutch books in the field of military science and compiled them into this 45 volume work on contemporary military science.⁵⁴ Covering almost all aspects of current military science including the building of warships, this opus was completed before 1839 (Tempō 10), but, perhaps because of the Bansha no Goku (Imprisonment of Western Scholars) in 1839, in which Takano and his associate Watanabe Kazan were arrested by the Bakufu, the work was not published until 1846 (Kōka 3).⁵⁵

After Koga Seiri wrote his memorial in 1809, few unconventional opinions concerning the building of a modern navy appeared, though some men like Satō, Takano, and Suzuki mentioned the importance of modern ships. This quiescence was, after all, due to the strongly oppressive attitude of the Bakufu against any private activities in military affairs by non-Bakufu people. The building of large warships was prohibited by the ancestral law which was the supreme sanction that regulated all Bakufu activities. Besides, the cost required to build large sea-worthy ships was almost prohibitive to local han, most of which suffered serious financial difficulties. Therefore, when few approaches were made by foreigners, little room existed to allow the growth of opinion in favour of a modern navy.

Tokugawa Nariaki of Mito han was one of the most powerful advocates who argued the necessity of large warships for the defense of Japan. Unlike the

aforementioned advocates among the samurai critics of the Bakufu, he possessed power to pursue the building of a modern navy. After he took the lordship of Mito han in 1829 (Bunsei 12) he eagerly devoted himself to the realization of military reforms not only in his own domain but also at the Bakufu level. It was he who repeatedly demanded the suspension of the prohibition of the building of large warships. According to Mito han Shiryō (Historical Documents of Mito Han), as early as the first half of the 1830's, he planned the building of a large warship. He employed several Rangaku-sha and had them translate Dutch books about shipbuilding.⁵⁶ When Nariaki wrote a memorial to the Bakufu in 1834 concerning the development of the Ezo area, he did not forget to mention that the ships to promote northern development should be Dutch-styled.⁵⁷ In 1838 (Tempō 9), he wrote a memorial concerning the building of large warships, planning to send it directly to the Shogun. Nariaki here emphasized the problem of the frequent shipwreck of traditional Japanese ships as well as the external crisis in order to obtain the suspension of the ancestral law.⁵⁸ This memorial was not submitted until the next year, but Nariaki quickly advanced his plan in his own domain. Soon after he wrote this memorial, he ordered his men to build a miniature model of a Dutch ship. As a result, a nine-foot long model ship was completed and used by his retainers to study the structure, construction and navigation of a Western-style ship.⁵⁹ He also enjoined his men to secure sufficient timber for future shipbuilding. The memorial was then handed over to the Shogun in the summer of 1839. But it seems this memorial was shelved by the Bakufu.

After the Japanese heard the news of the Opium War, Tokugawa Nariaki became even more enthusiastic for the building of large warships. In 1843 (Tempō 14) he repeatedly requested the suspension of the ancestral law.⁶⁰ The Bakufu, though it had by then realized the danger of external threat, rejected Nariaki's request, saying that "it could be immeasurably harmful if the daimyo

of the western provinces and others could plan and freely build extraordinary ships"⁶¹ as a result of the suspension of the ancestral law. Moreover, in 1844, Nariaki was punished and ordered to confine himself to his mansion, retiring from an active role. The Bakufu became suspicious of his military activities and felt uneasiness with this ambitious lord of Mito.⁶²

The last important memorial concerning maritime defense before the Dutch government sent a mission in 1844 was written by Sakuma Shōzan. Sakuma was a Confucianist from Matsushiro han (now Nagano-ken), the lord of which was Sanada Yukitsura, a son of Matsudaira Sadanobu. Sanada was appointed to be a rōjū in 1841 and took charge of coast defense affairs. Sanada chose Sakuma as his advisor for defense affairs and ordered him to make a survey of foreign relations. As a response, in 1842, Sakuma submitted a report to his lord. This was the so-called Kaibō Hassaku (Eight Measures for Coastal Defense). Sakuma here especially stressed the necessity of Western firearms and the creation of a modern navy. He insisted that the Bakufu should stop exporting copper to the Dutch in order to found as many Western-style cannons as possible. With regard to a navy, he recommended the purchase of some twenty modern warships from the Netherlands besides inviting military engineers and shipwrights to build a strong navy. He also denounced the Bakufu ancestral law that banned the building of large warships, saying that a modern navy was the only means to defend the country from the external threat.⁶³ Not much is known about how Sanada and the Bakufu under chief rōjū Mizuno Tadakuni evaluated these proposals, but the downfall of Mizuno in 1843 wiped out the possibility of adopting them. As a rōjū who had supported Mizuno's various reforms, Sanada also lost power after Mizuno left the Bakufu. Consequently, Sanada resigned in 1844, thus bringing a final blow to Sakuma's drastic proposals for the creation of a modern navy.

As we have seen, by 1844 many people including some Bakufu men involved

themselves in the kaibō-ron discussions and advocated changes in the ancestral laws which had been obstacles to changes in Bakufu policies on foreign and defense affairs. However, none of their proposals were taken into serious consideration by Bakufu executives. By this time they had been informed of the Opium War in China. Still they merely considered it was 'a fire on the other side of the river,' and they were unwilling to change the ancestral laws. In the 200 years of peaceful reign, the Tokugawa Bakufu had become too obtuse to adjust itself to the changes of the world.

On the other hand, some local han, especially in the southwestern part of the country, gave more serious attention to the proposals on coastal defense and the creation of a modern navy. For instance, at a han school in Chōshū (today Yamaguchi-ken), the study of Hayashi Shihei's once-prohibited writing Kaikoku Heidan became compulsory.⁶⁴ Some southwestern domains were much more sensitive to the changes of the world than the Bakufu in Edo, and it was in these domains that the kaibō-ron discussion on maritime defense thrived.

Outside stimulus was necessary to shift Bakufu foreign and defense policies, and such stimulus was on its way over the horizon.

CHAPTER 2 The Dutch Royal Letter of 1844

In his Kaigun Rekishi (The History of the Navy), Katsu Kaishū (also called Rintarō, Yoshikuni, Awa, Yasuyoshi) wrote:

In the seventh month of the first year of Kōka (August, 1844), the Dutch King sent his warship Palembang to Nagasaki. The Captain, H.H.F. Coops, brought a royal letter [to the Bakufu]. The letter was cordial advice, from which Japan obtained not a little benefit. This visit urged the Japanese to consider the building of a navy....¹

Katsu is well known today not only as one of the most important political figures who made the smooth transfer of power from the Tokugawa Bakufu to the Meiji government possible in the confusion of the late Tokugawa and early Meiji periods but also as a founder of Japan's modern navy. The Japanese navy grew very quickly after full-scale Westernization began in the 1870's. But prior to this, the role performed by Katsu in the founding of a modern navy was far more important than the contributions of others. When Katsu virtually retired from Meiji politics in the late 1880's, he devoted himself to the writing of his memoirs and the compiling of important documents of the late Tokugawa period. The Kaigun Rekishi is one of his endeavours in those days.

This important figure, Katsu Kaishū, acknowledged that the visit of the Palembang of the Netherlands with a royal letter in 1844 gave a great impetus to the Japanese in the creation of a modern navy. It is therefore necessary for us to review the background of this Dutch mission to Tokugawa Japan. The main emphasis will be placed on why the Dutch government decided to send an envoy to Japan at that particular time, and what kind of impact was created in the changing politics of the late Tokugawa period as a result of the visit of the Dutch envoy.

For more than 200 years after the closure of the country in the 1630's,

Dutch merchants continued trade with the Japanese at Nagasaki. The Dutch, together with Chinese merchants, monopolized the Japanese trade after the Bakufu instituted the isolation policy. As the Dutch were the only Europeans in Japan through most of the Tokugawa period, they enjoyed a monopoly in this profitable business. Because of the high profit, the Dutch merchants subjected themselves to poor treatment by the Bakufu at Dejima (Deshima), the tiny artificial island in Nagasaki harbour. They were actually confined on the island and always watched by Bakufu officials. The Dutch trade with Japan, however, deteriorated year after year, especially after the early 18th century. The biggest reason for the deterioration of the trade were the restrictions on foreign trade and monetary policies of the Bakufu. The number of Dutch trading ships was ordered to be cut gradually; the importation of some very profitable goods was forbidden; moreover, repeated re-coinage of gold currency caused a serious disadvantage for the Dutch merchants in money exchange.² Besides these reasons traceable to the Japanese, the Dutch merchants also seem to have shared responsibility for the poor turnover of trade. Sir Thomas Stamford Raffles of Britain censured the corrupt conduct of the Dutch merchants at Nagasaki in his History of Java. He judged that "the Dutch factory [at Nagasaki] was, and is, in fact, a sink of the most disgraceful corruption and speculation which ever existed."³ As Raffles was an Englishman who had been trying to take over the position held by the Dutch at Nagasaki, his accounts were very hostile to the Dutch. Yet the misconduct of business was quite common at Nagasaki. A Japanese historian says that "the Dutch East India Company pursued only its profits, sacrificing the dignity of the country and the honour of its people."⁴ And he continues that "this fact made the Japanese scorn the Dutch merchants, creating a serious barrier when the Japanese and Dutch needed a better understanding of each other."⁵

The so-called Tempō Reforms (1841-1843) by Mizuno Tadakuni, which

prohibited the use of imported luxuries as well as domestic ones, further worsened the Dutch-Japanese trade, since imported goods in those days were mainly expensive luxury items from China and European countries. Under such circumstances the Dutch gradually came to consider that free trade, though they might face severe competition with the other Western countries, would be much more profitable in the long run than the current monopoly system under the strict control of the Bakufu.⁶

In the field of foreign affairs, the first few decades in the 19th century ushered in considerable confusion in relations with Western countries. Many contradictory orders were issued one after another by the Bakufu. The Mu-ninen (No Second Thought) Expulsion Order in 1825 (Bunsei 8) reflects this confused foreign policy. The order enjoined all the local han and Bakufu authorities to destroy any foreign ships which came close to Japanese shores and capture or kill any crews who might land.⁷ This order was one of the countermeasures against troubles caused by the increasing number of foreign ships in Japanese waters.⁸ Before the issue of this order, the fundamental Bakufu policy towards foreign ships approaching the Japanese coastlines was found in an 1806 (Bunka 3) order which instructed the local authorities to supply foreign ships with necessary provisions, water and fuel, and to ask them to leave Japan by explaining the Bakufu's isolation policy.⁹ The drastic change in its foreign policy in 1825 was a result of the troubles caused by foreign ships, but it did not signify that either the Bakufu or local han held sufficient military power to carry out the new order.

When the Morrison of the United States came to Japan in 1837 (Tempō 8) to bring back some Japanese castaways as well as to open trade with Japan, the ship was shelled by the Japanese. The Morrison, because of its peaceful intent, did not carry any effective weapons against the bombardment, so it was obliged to leave Japan without attaining its purposes. This case, however, did not

prove that the coastal defense system of Japan under the new order was working. Rather, the Japanese were fortunate because the Morrison did not carry any weapons which would allow it to resort to force.¹⁰

The Morrison case created serious arguments not only among Bakufu officials but also among Rangaku-sha such as Watanabe Kazan and Takano Chōei. They openly or covertly denounced the Bakufu foreign policy, especially the Mu-ninen Expulsion Order. For example, Watanabe insisted that the British might raid Japan, claiming that the isolation policy was anti-humanitarian.¹¹ While the Morrison case developed into one of the most serious political struggles between the factions pro and con Western studies, the neighbouring Chinese empire, which also maintained a strong isolation policy, was about to be involved in a war against Great Britain.

News concerning the Opium War in China frequently came to Nagasaki through Dutch and Chinese ships. The Dutch news was sent to the Bakufu in the form of Betsudan Fūsetsu-gaki (Extra News Reports). In 1840, 1842, and 1843, a total of four Dutch Extra News Reports about the Opium War reached the Bakufu. They were based on the information appearing in Singapore English-language newspapers, and they explained the details of the war, from the cause of the conflict to the Nanking Treaty. The reports in particular analyzed the Chinese defeat by the British Navy. As the reports were based on pro-British newspapers, the defeats of Chinese troops were prominently mentioned. On the other hand, the Chinese sent more reports than the Dutch did, but they were less accurate until Chapu in Chekiang Province, the base of the Chinese ships to Nagasaki, was raided and occupied by the British. The Chinese reports of that event contained vivid impressions of warfare which pitted modern Western weapons against traditional and obsolete Chinese ones.¹²

The Bakufu learned from the result of the Opium War that the isolation policy was dangerous and could not continue in the face of modern Western

weapons. Still, the Bakufu hesitated to change its foreign policy fundamentally. The only clear step of re-orientation that the Bakufu took was to discontinue the Mu-ninen Expulsion Order. Instead of this anachronistic order, the Bakufu resuscitated the old 1806 order.¹³

The 1842 change of Bakufu policy was soon reported to the Dutch Nagasaki Post. In a letter to the Superintendent¹⁴ of the Post, the Bakufu said:

.....From now on, when foreigners come ashore to obtain provisions, water and fuel, they shall not be expelled by force; instead, amicable arrangements are to be made so that they will be able to leave Japan. Thus, the Dutch people can visit Japan with a sense of security. Foreigners should be thankful for such probity and fully understand this benign treatment.¹⁵

Reading this letter, the Superintendent considered the re-adoption of the 1806 order a good opportunity to improve the ailing Dutch-Japanese trade, and, at the same time, he understood that he had been asked to make the order widely known to other Western peoples. This was an example of how the original rather vague Japanese could be misinterpreted as a result of inadequate translation. He immediately wrote a report on this matter to the Dutch government.¹⁶

In the Netherlands, J.C. Baud, the Minister of the Colonies, led in the formulation of policy towards Japan. After examining the report on the Bakufu's new policy, he decided not to make it known to the other Western countries. He was afraid that the others might regard the Bakufu's adoption of the new policy as an indication of the suspension of the isolation policy. If the order were to be understood by other Westerners to mean that the Japanese welcomed foreigners, more Western ships would be visiting Japan, thus creating problems for both the Dutch and Japanese; while the Japanese might face unexpected conflicts with the other Westerners, the Dutch would become involved in strong trade competition with other Westerners. The Dutch, as mentioned earlier, were

gradually changing their trade policy with Japan from monopoly to free trade. But the change had to be done slowly under the leadership of the Dutch themselves in order to keep their superior position in Japanese trade. Baud had sufficient reasons to keep the information from leaking to the other Western countries. Instead, he decided to send an envoy to Japan to suggest the spontaneous opening of the country, explaining the international situation and warning of possible future conflicts in case Japan remained wedded to the traditional isolation policy. After all, it was a very good chance for the Dutch to re-establish better commercial relations with Japan.¹⁷

While Baud, as the minister responsible for Japanese affairs, elaborated his plan, a medical doctor was also considering the future relationship between the Netherlands and Japan. Dr. Philipp Franz von Siebold was one of the few people in Europe who understood the position of Japan in international politics at that time, and the role he performed in Netherlands-Japan relations was very important. As is now well-known, he first went to Japan in 1823 (Bunsei 6) as a medical doctor for the Nagasaki Post and stayed there until 1829. Besides his medical and other scientific contributions to the Japanese, after his return from Japan, he came to be known in Europe as an expert in the study of Japan and the Japanese. His most important publication, based on researches in Japan, was published in Leiden in 1832 under the title of Nippon.¹⁸

Von Siebold understood that for the Japanese the isolation policy was not only commercially unprofitable but also militarily dangerous. He was convinced that many Japanese hoped for the spontaneous opening of the country. During his stay in Japan, he once reported to the Dutch government that some Japanese were hoping for the abolition of the isolation policy in order for them to have better access to the Western world.¹⁹ After he returned to the Netherlands from Japan, he made approaches to the different levels of government to promote diplomacy in favour of the opening of Japan. His conviction was further

strengthened by the result of the Opium War. In October, 1840, King William (Willem), whose confidence von Siebold had won, ascended to the throne. Von Siebold thus obtained an opportunity to realize his long-held wish to devote himself to the establishment of a new relationship between the Netherlands and Japan.

The Dutch government finally decided to send an envoy with a royal letter to Japan to advise the abolition of the isolation policy and the opening of the country. In November, 1843, Baud officially requested von Siebold to draft a royal letter to the Shogun.²⁰

There are many factors that motivated the Dutch government to send a mission to Japan. The traditional close relationship, even describable as friendship,²¹ between the two countries greatly influenced the process of decision-making. Yet, the most important factor was of course economic. The Dutch government, like the other Western countries, pursued the possibility of realizing the full opening of Japan. It understood that free trade, instead of the current restricted trade with Japan, would be a more realistic way to improve the poor turnover of its business in Japan if it could be the leader in Japanese affairs by finding an opportunity to open Japan. Later in 1846, when von Siebold heard that warships from France and the United States had visited Japan, he set forth proposals in his private magazine for the policy that the Dutch government should take towards Japan. Although he wrote after the Dutch King sent his letter to Japan in 1844, still we can assume that the attitude held by von Siebold and the Dutch government on this affair changed little in those years. He would write:

.....Under these circumstances [the visits of the warships of France and the United States], our government should continue to extend further endeavours and kind advice for the opening of Japan. Thus, when Japan opens its doors to the world, our country shall naturally receive benefits from it as other countries shall do.²²

On August 15, 1844 (Kōka 1, 7/2), the frigate Palembang carrying the royal letter of King William II appeared in Nagasaki harbour. About two weeks before this arrival, another Dutch ship had reported the coming visit of the Palembang to the Bakufu Nagasaki officials, so warriors from Saga han were on a full alert to guard the harbour. Responsible officials in Nagasaki still remembered the bitter case of the Phaeton in 1808.²³ The top Bakufu Nagasaki official who felt disgraced by the incident had committed suicide. However, the Palembang, though it was also a warship, belonged to the Netherlands with which Japan had preserved a good relationship for more than two hundred years.

Captain H.H.F. Coops, the official envoy of the King, was welcomed by Pieter Albert Bik, the Superintendent of the Dutch Nagasaki Post. Izawa Masayoshi, the Nagasaki Magistrate, immediately dispatched a messenger to Edo to ask instructions from the Bakufu rōjū concerning the Dutch mission. In Edo, the rōjū, including Abe Masahiro and Mizuno Tadakuni²⁴, agreed to receive the royal letter and sent back necessary instructions to the Nagasaki Magistrate's Office. One and a half months after his arrival at Nagasaki, Captain Coops, together with Bik, finally presented the royal letter to Izawa on October 1 (8/20). The letter was soon forwarded to Edo in the hands of officials and an interpreter.

Captain Coops repeatedly asked the Bakufu to prepare a reply from the Shogun as soon as possible, saying his ship had to leave Nagasaki by the end of November (10/21), mainly because of weather conditions. Izawa understood Coops's request, and he asked the Bakufu rōjū for early instructions. The rōjū approved the request and sent Captain Coops a letter to acknowledge the receipt of King William's letter. It promised that the Bakufu would carefully examine the message and then write back to the Dutch government.²⁵ Thus, after more than three months stay, Captain Coops and his Palembang ended their mission unsatisfactorily and left Nagasaki on November 27 (10/18).

The royal letter was dated February 15, 1844, and bore the signatures of the King and J.C. Baud. It first mentioned the early history of Dutch-Japanese relations and then gave detailed information about recent Anglo-Chinese conflicts in which the Chinese empire had been easily defeated and required to open five ports for trade as a result of the Nanking Treaty. The letter warned the Bakufu of the possible effects of the Opium War on Japan. Taking the Chinese case as an example, the royal letter carefully explained the nature of the foreign policy of Great Britain, and the cause and the result of the Opium War. And then it predicted the possibility of conflict between the Japanese and Westerners which might lead to wars, in case the Bakufu chose to remain in isolation. The letter concluded the argument by saying that the Bakufu should ameliorate the laws against foreigners, urging the opening of the country and the establishment of unrestricted trade.²⁶

After receipt of the letter, the Bakufu rōjū held a series of discussions. Besides these discussions, opinions from the different levels of Bakufu officialdom were also sought on this matter. This quite unusual practice tells us how the Bakufu was at a loss to deal with the royal letter. On this occasion, Mizuno Tadakuni again served as the chief rōjū, but he no longer kept the strong leadership he had enjoyed in the days of the Tempō Reforms.²⁷ The details of the Bakufu's decision-making process concerning the royal letter have not yet been studied well. According to writings by Tokutomi Ichirō (Sohō) and Kudō Takeshige, on receiving the royal message Mizuno opined that increasing intercourse between countries was a trend of the world so that it would be impossible for Japan alone to remain in isolation. He concluded that Japan should adopt the pre-sakoku policy willingly rather than open the country as a result of foreign pressure. The Bakufu should encourage the ailing morale of the people and make a progressive long-range plan for the country. Unfortunately his influence was then too weak to persuade either the other rōjū and

Bakufu officials or the Shogun Ieyoshi, a strong exclusionist. Finally he gave up his plan. This disagreement on foreign policy was one of the main reasons for his second resignation from the post of rōjū.²⁸ Most of the Bakufu officials at this stage seem to have failed to realize the importance of the letter, and they hesitated to take any immediate action which, whatever it might be, would cause a drastic change in the Bakufu's foreign policy and its basic system.

The final decision about the royal letter was probably made after the resignation of Mizuno. As he was the only influential figure who advocated an affirmative response to the letter, his resignation naturally meant the adoption of a conservative policy, namely the rejection of the advice. On May 14, 1845 (Kōka 2, 4/9), Abe Masahiro, who became the chief rōjū after Mizuno's departure, handed down the answer to his junior officials. At Nagasaki, Izawa Masayoshi forwarded the answer to Bik on September 14 (8/13). Thus, the Dutch King and government had to wait for the Bakufu's answer for almost one year. The Bakufu letter answered the royal letter by saying that the Bakufu could not expand relations with the Dutch because of its ancestral laws. The Bakufu argued that the Dutch were allowed only to have trade (tsūshō) but not intercourse (tsūshin) with Japan, claiming these two to be entirely different matters.²⁹

In this way, the carefully prepared Dutch plan failed to attain its original goal, the opening of Japan to unrestricted trade. Although everything seemed to have been prepared well, the Dutch government received a courteous but flat negative answer from the Bakufu.

Although the Bakufu rōjū at that time were well aware of possible conflicts with foreigners in Japanese waters, they were reluctant to take any new concrete countermeasures. They ignored the Dutch advice about possible encounters and evasively answered only about trade affairs. The Bakufu responded to the Dutch by saying that the extension of the limits of trade and intercourse would be

against the ancestral law. The Bakufu letter was written to say that the Japanese side had no intention of negotiating the matter with the Dutch, even though the two countries had had a peaceful relationship over the past two centuries.

Although it was the sole channel between Japan and the Netherlands, the Dutch Nagasaki Post did not really function as a diplomatic channel. Probably it was unable to do so because of the unpopularity of the Post both among the general Japanese populace and among Bakufu officials. As Raffles mentioned, through its previous two hundred-year history, the Post gradually became corrupt and the Dutch lost their creditability with the Japanese.³⁰ As the Bakufu did not fully trust the Dutch at Nagasaki, it was natural that the rōjū were reluctant to follow the Dutch advice on such important matters as diplomatic and trade policies. Tokugawa Nariaki's letter to Abe Masahiro in 1846 (Kōka 3) about the Dutch royal letter clearly shows how one of the leading figures of the time considered it:

The Dutch people are clever; we must be on an alert for them. The letter of the King shows the so-called "self-interested kindness" which we do not need. They say they do not pursue their own interest, but by reading the letter carefully we can understand that it is their policy to seek for their interest not openly but covertly.³¹

The formalities that had been established at Nagasaki between the two countries also worked to prevent important issues from being processed smoothly. Many complicated and troublesome procedures hampered trade, and those formalities gradually influenced diplomatic negotiations. The same people were in charge of both affairs, and they maintained the formalities for their own sake. The case of the royal letter proved that negotiations over an important issue such as the opening of the country would be realized with difficulty through the channel of the Dutch Nagasaki Post and the Bakufu office of the Nagasaki Magistrate.

The Bakufu in Edo, although it already realized the danger of the isolation policy after the Opium War, had not yet been directly challenged by an advanced Western power with modern warships and firearms. The Dutch mission respected the traditional route of negotiation and chose Nagasaki instead of the capital, Edo. More than one thousand kilometers away from Nagasaki, Bakufu officials in Edo did not experience the direct impact of the visit of the Palembang. The Dutch at Nagasaki were, perhaps, imbued too much with Japanese ways.

The warship Palembang was obliged to stay in Nagasaki harbour for three months while the Bakufu went through lengthy discussions in Edo. While the Bakufu took little interest in the equipage of the Dutch mission, the ship in the harbour naturally attracted many concerned Japanese. The most concerned, other than local Bakufu officials, were the lord of Saga han, Nabeshima Naomasa (Kansō) and his men. He thought that it was a golden opportunity for him to study a Western-style warship. So he asked for permission of the Nagasaki Magistrate to board the ship, claiming that he had to see the inside and the equipment of the warship for the sake of his duty to guard Nagasaki.³² Izawa Masayoshi first hesitated to grant permission to Nabeshima, mainly because Nabeshima was a tozama daimyo³³, but finally he yielded to Nabeshima and authorized the visit to the Palembang.

As the lord of Saga han, Nabeshima Naomasa, in his thirty years of rule, accomplished many administrative reforms in his han. The reforms included the establishment of a new agriculture system to stabilize the income of the han; the encouragement of domestic industries such as porcelain manufacturing and coal mining; and the import of Western technology like reverberatory furnaces, cannon founding and shipbuilding.³⁴ Saga han finances were restored by these various measures and provided the domain with funds for military reforms that were to come. As Nabeshima's domain was one of those responsible for guarding

Nagasaki harbour, he was always concerned about coastal defense. He encouraged Dutch studies and treated scholars favourably in his own domain.

Nabeshima was warmly welcomed on board the Palembang on October 31, 1844 (Kōka 1, 9/20). He was much impressed by the navigational control mechanism of the ship and its military equipment, the firearms.³⁵ This bright lord of Saga must have had some idea of powerful Western cannons, but like any other Japanese at that time he could have had no concrete idea about Western-style warships. The pictures Hayashi Shihei had once distributed showed a Dutch ship, but it was a mere commercial freighter.³⁶ The visit to the Palembang created a great interest in Western-style warships in Nabeshima's mind. In writing a memorial on maritime defense to Abe Masahiro in 1846, Nabeshima recalled his visit to the Palembang and pointed out that "the mission's ship was heavily equipped with many cannons, and the total appearance of the ship was like that of a castle on the ocean."³⁷ This vividly tells us how amazed he was at the advanced warship from Europe.

As a response to the visit of Bakufu officials and Nabeshima Naomasa, Bik made a suggestion to the Bakufu through the Nagasaki Magistrate's Office about the creation of Japan's own naval force. This idea originated with Captain Coops and was then forwarded by Bik to the Bakufu. But the suggestion seems to have been neglected by Bakufu officials. When the main purpose of the mission was rejected, the suggestion was doomed to a similar fate. Yet, in contrast to the Bakufu officials in Edo, the people at Nagasaki began to learn more about Western-style ships.

From our point of view, the most significant point in the dispatch of the Dutch mission to Japan was the fact that a warship was used to bring the royal letter. The content of the letter was no doubt important to Japan. Still, the situation explained in the letter was not at all new to the Bakufu leaders. They had known about the Opium War and had feared possible threats to

Japan. However, the presence of the warship might cause disturbances among the Japanese. The Bakufu had to explain even to commoners what the Dutch were expecting in Japan, a kind of explanation it was not accustomed to make. Although the Bakufu did not change its basic policy, it was obliged to accept various small changes in maritime defense policies as more and more Japanese came to encounter foreign ships along the coastlines.

With the increasing threat around Japan, the Japanese realized the importance of defense. Many scholars had been advocating the strengthening of defense, and the Bakufu and local han could no longer ignore the need. Many expeditions to the north and surveys along the important coastlines were made by both the Bakufu and local han. In some strategic places, batteries had been authorized and constructed. At this stage, however, the foremost need was seen to be the construction of batteries along more of the important coastlines. A typical example is found in the military reforms planned by Mizuno Tadakuni as part of his Tempō Reforms. The main emphasis in his military reforms was the adoption of Western artillery for the fortification of Edo Bay. As a part of the reforms, in 1843 Mizuno created a new position called the Magistrate of Haneda who was responsible for the defense of Edo Bay.³⁸ Moreover, Mizuno tried to obtain supreme and sole command over the Edo Bay and Osaka areas for the Bakufu by means of the Jōchi-rei.³⁹ Two of the most important purposes of this order by the Bakufu were first to strengthen the Bakufu's economic base by obtaining high-yielding land around Edo and Osaka and second to acquire strong military command over the same area. Mizuno's military reforms were very progressive and ambitious for his time, but he has left no indication that he realized the importance of a naval force for defense against external threats. What he planned was to defend Edo and Osaka, the core of the Tokugawa Bakufu, not the entire country of Japan.

After Mizuno's resignation, the Bakufu was shaken several times by visits

of Western ships. On March 24, 1845 (Kōka 2, 2/17), the American whaler Manhattan appeared in Edo Bay to return Japanese castaways as well as to obtain provisions. After about one month's stay at Uraga, a port town at the gateway to Edo Bay, the ship left safely on April 21 (3/15). During its stay, however, the whole Bakufu was put into confusion. The order of the Bakufu in 1843 about the acceptance of Japanese castaways said that all castaways were to be received only at Nagasaki, not anywhere else.⁴⁰ Because of this order, most of the Bakufu officials were against making any exceptions in the case of the Manhattan. Nevertheless, Abe Masahiro gave way to the Americans, accepted the eighteen castaways and provided the ship with water, food and fuel.⁴¹ Abe's concession to the American ship was apparently due to information and knowledge that he had about the Opium War and other international affairs, but the Manhattan incident was a very minor one.

After the Manhattan, the Bakufu showed a more positive attitude towards maritime defense by creating the Kaigan Bōgyo Jimu Toriatsukai Kakari (Committee for Coastal Defense), or Kaibō-gakari for short. Abe himself and another rōjū directly presided over this committee for a while. But at first the committee was a group of officials that only discussed future policies. No further concrete measures were developed by the Bakufu after the Manhattan visit, though it was a simple forerunner of bigger events involving the Americans. Before the visit of the U.S. Indian Fleet in 1846, Bakufu officials did not fully appreciate the reality of Western military power, but they now had to realize that Japan faced a totally different and much more advanced military system than they had hitherto imagined.

On July 20, 1846 (Kōka 3, intercalary 5/20), the Columbus and Vincennes under American Commodore James Biddle were met by the Japanese when the two ships were approaching the Uraga area, the entrance to Edo Bay. The purpose of the visit of the American ships was to establish diplomatic relations and

begin trade with Japan. As Commodore Biddle understood that his mission was not to force the Japanese to open the country but to determine whether the Japanese would trade with the United States, the attitude of the fleet was not aggressive.⁴² However, the impact of the appearance of the two huge warships in Edo Bay upon Bakufu officials was tremendous.

According to an order of the Bakufu in 1844, if foreign ships entered farther into Edo Bay than the Uruga area against Bakufu orders, they were to be shelled and destroyed. And once foreign ships anchored in a harbour, all weapons on board were to be handed over to Bakufu officials until their departure.⁴³ It was of course impossible for virtually unarmed Bakufu officials to order the American fleet to follow these regulations. The defense facilities of Edo Bay were totally insufficient and inadequate to enforce the instructions.⁴⁴ The only way the Bakufu could deal with the American ships was to persuade them to leave Japan by explaining the traditional Japanese isolation policy.

The visit of the U.S. fleet taught the Bakufu that the ground forces and batteries along the coastlines of Edo Bay could not deal with American ships. During the visit, about 600 small Japanese ships were temporarily disguised as military ships for the Bakufu, but such ships were incapable of engaging in actual battle.⁴⁵

The U.S. fleet left Japan peacefully without any further disturbance, but the warships had an immeasurable influence on Bakufu officials, daimyo and other members of the ruling class. The defense of Edo Bay became one of the biggest issues that Abe would try to deal with during his administration.

In the autumn of 1846, the Bakufu sent a special inspection group to the Edo Bay area to investigate defense conditions. This inspection was the most extensive one of this kind since Mizuno Tadakuni had sent his men to the same area in 1843. According to reports prepared by some officials of the Uruga

Magistrate's Office who participated in the inspection tour, these officials were obviously aware of the necessity for military ships to guard the Bay. But they also knew that the construction of Western-style ships was extremely difficult for Japanese shipwrights. So they recommended that the Bakufu build Japanese-style military ships instead.⁴⁶

Prior to the dispatch of the inspection group, Abe indicated his intention to work for the construction of military ships. In a letter to Tokugawa Nariaki, who had written to Abe about warships he wrote:

You have been sending memorials on warships to which I am quite agreeable. Of course, Japanese cargo ships are vulnerable not only to attack by Western ships but also to bad weather. In the future, if Western ships stayed off the coast of the Uraga area and cut off the shipping routes, this place [Edo] would be pressed for provisions very soon.⁴⁷

And Abe concluded that the construction of warships was one of the most urgent issues. In fact, the letter tells us that Abe now fully understood the necessity of warships for the defense of Edo Bay before he received any report from the inspection group. It seems that by the end of 1846 Bakufu officials at all levels were well aware of the importance of warships. The impact of the American fleet of Commodore James Biddle on the Bakufu is clearly seen. Nevertheless, the construction of warships was not possible at this stage. The fundamental reason for this was technological, a low standard of basic practical studies in the Bakufu officialdom. Such local domains which had been continuing basic research in shipbuilding as Mito and Satsuma were willing to build large warships by themselves, but the Bakufu refused to give them any formal permission until 1853.⁴⁸

When Abe realized that he could not improve the defense system in a short time, he was forced to satisfy foreign demands in order to avoid military conflict. To persuade Western ships to leave Japan, he issued orders to supply

them with necessary provisions. The Bakufu in the late 1840's became not only less active in defense policy but also imbued with a reactionary mood. The number of Western ships that entered Japanese waters also temporarily decreased, giving those who advocated the expulsion of foreigners influence among Bakufu executives. In 1849 (Kaei 2) the Bakufu even suggested suspending the 1842 order which relaxed regulations concerning the treatment of foreign ships.⁴⁹ Furthermore, in 1850, the Magistrate of Finance reviewed the defense facilities around Edo Bay and sent a report to the Bakufu in which he concluded that the current defense facilities would be sufficient even when foreign ships came deep into Edo Bay.⁵⁰ As there had been no special construction of defense facilities there in the late 1840's, we can assume his report reflected the reactionary mood in the Bakufu in those days.

All the way from the Netherlands, the Dutch King had sent considerate advice to the Japanese. Even penetrating Edo Bay, foreign ships were visiting Japan frequently, and Bakufu executives were forced to realize that the international situation was changing. Yet, surprisingly enough, the attitude on the part of Bakufu executives towards defense and foreign policies remained unchanged. Rather, Bakufu executives as a whole grew more conservative than before after they knew more about the rest of the world. While the Bakufu floundered in conservatism, Nabeshima Naomasa of Saga han and his men saw a revelation of a new world. The warship Palembang in Nagasaki harbour taught him a lesson which others were to appreciate only slowly. The Bakufu needed a Palembang in Edo Bay to wake it up, and the Americans were soon to provide the necessary provocation.

CHAPTER 3 The Opening of Japan and Negotiations on Naval Matters

The rumour that the United States was again sending a fleet to Japan to negotiate the opening of diplomatic relations strongly stimulated the Dutch government. The Dutch immediately began working so as to maintain their superior position in Japan, yet their efforts were to be unsuccessful. On the other hand, Commodore Perry fulfilled his duty much more effectively than any Dutch Nagasaki Superintendent had ever done. The United States became the leader among the Western countries which had been trying to establish diplomatic relations with Japan. While the Dutch looked for a way to recover their superior position in Japan, the Bakufu was obliged to consider its defense affairs more seriously than ever before. The high-ranking officials of the Bakufu, faced with the military threat by Perry's four black ships in Edo Bay, fully realized the importance of obtaining advanced Western military technology to enable it to survive. Naturally the Bakufu had to rely on the favours of the Dutch in military affairs, because the Dutch were the only people from whom the ailing government of the Shogun could expect any assistance. The Dutch at Nagasaki who were at that time represented by Donker Curtius, a capable diplomat, did not miss this opportunity. In this chapter, the emphasis will be placed on the development of diplomatic negotiations between Japan and the Netherlands in relation to a treaty between them concerning naval training.

As early as 1850, the rumour that the United States planned to send a fleet to Japan to negotiate the opening of diplomatic relations reached Japan through the Dutch Nagasaki Post.¹ In the following year, F. Rose, the Superintendent of the Post, cautioned the Bakufu about a possible American visit by explaining the development of the American west, particularly the gold rush in California and the completion of a railroad at the Panama Isthmus.² But the information

from Nagasaki, as usual, had little influence on Bakufu foreign policy.

Early in 1852 (Kaei 5), the United States government officially decided to dispatch a special mission to Japan. The American representatives in the Netherlands told the Dutch government about the United States plan and requested the Dutch to give the American mission every possible assistance in Japan through the Dutch officials at the Nagasaki Post.³

As the rumour about the dispatch of the U.S. fleet to Japan had spread widely in Europe before the official announcement of the United States government, Charles Ferdinand Pahud, the Minister of the Colonies of the Dutch government, following his predecessor Baud, reached the conclusion that the Dutch government should advise Japan's Bakufu to abolish its isolation policy.⁴ Dr. Philipp von Siebold was also impressed by the same rumour, and as a part of his activities to realize the opening of Japan, he prepared a draft of a treaty between the Netherlands and Japan.⁵ He submitted it to Pahud in April with the advice that the Dutch government should actively participate in the coming negotiations between Japan and the United States. Von Siebold considered that by so doing the Dutch would be able to keep their superior position in Japan, and eventually would be thanked by the other Western countries when Japan peacefully opened its doors to them. In order to achieve his goal, von Siebold suggested that the Dutch government send another royal letter to the Bakufu, asking that negotiations be entered into for a proposed treaty with the Dutch.⁶

Despite the active suggestions by von Siebold, supported by Pahud and some others at court, the Dutch government was reluctant to become directly involved in Japan-U.S. negotiations.⁷ As a response to the request by the United States, the Dutch government simply answered the Americans that it would send a mission to Japan and tell the Bakufu to relax its restrictive isolation policy. Despite this somewhat casual attitude displayed for American benefit, however, the Dutch began working actively towards the improvement of Netherlands-Japanese relations.

The government soon adopted von Siebold's draft of a treaty with Japan and sent it with special instructions to the Governor-general of the Dutch East Indies in Batavia.⁸

The Governor-general at Batavia thereupon appointed J.H. Donker Curtius, a judge of the Higher Court of the Dutch East Indies, to be the new Superintendent of the Nagasaki Post and invested him with full powers to negotiate with the Bakufu on the matter of treaties. Usually the Superintendents of the Nagasaki Post were chosen from among senior officials who had been working there for several years, so the appointment of a high-ranking official like Curtius was quite exceptional. It evidently showed the zeal of the Dutch government to improve relations between the two countries prior to the visit of the American mission. The Governor-general prepared an official letter to the Bakufu according to the instructions of Pahud and entrusted it to Curtius with the proposed treaty.

On July 21, 1852 (Kaei 5, 6/5), Donker Curtius arrived at Nagasaki on the steamer Soembing. First of all, Curtius discussed with his predecessor Rose and some Japanese interpreters procedures for presenting the official letter to the Bakufu. Recalling the controversy over receipt of the 1844 royal letter, the Nagasaki Magistrate, Maki Yoshinori, refused to receive the letter at first. But, as Curtius explained that "the Governor-general of the Dutch East Indies, receiving an order of the King of the Netherlands, wrote this letter to the Nagasaki Magistrate, because the affair that is dealt with in this letter is so important to your country that we cannot keep silent about it,"⁹ Maki felt the Bakufu should see the letter. Yet he hesitated to receive it without prior consent from Edo. He therefore asked for instructions from the Bakufu rōjū. While Curtius began negotiations with Magistrate Maki about the official letter, he also submitted an Extra News Report as usual. This report again warned the Bakufu of the visit of an American fleet to Japan in the near future.¹⁰

In Edo, Maki's message from Nagasaki was soon sent to the Committee for Coastal Defense through the chief rōjū, Abe Masahiro. The members of the Committee advised that the Nagasaki Magistrate should receive the official "writing (kakitsuke)" of the Governor-general. They supposed that the official "writing" would be critical of Japan judging from the content of the Extra News Report, and therefore the Bakufu should see the "writing" as well. And they went on to say that the official "writing" was similar to a news report and not a letter; if it was not a letter, its receipt did not infringe the ancestral law that prohibited tsūshin (correspondence) with the Netherlands.¹¹ Thus the sacred ancestral law was kept unspoiled, while the Bakufu in actuality was able to read the letter from Batavia. After he received the instructions from Edo, Maki accepted the "writing" from Batavia on September 11 (7/28).

The fundamental ideas in the letter were that: the Bakufu should change its foreign policy so that possible conflicts with the coming U.S. fleet would be avoided; the Bakufu should make a commercial treaty with the Netherlands prior to the arrival of the U.S. fleet, as preparation for the U.S. diplomatic offensive; the Bakufu should appoint its representatives to negotiate treaty affairs with Curtius; the Bakufu should understand that this advice did not come from self-interest on the part of the Dutch government but from sincere good will which arose from the 200 year long friendship between the two countries.¹²

The proposed treaty was not intended to be a long-term one. The main purpose of the Dutch government was to take precautionary measures against the coming U.S. fleet. The attached explanation claimed that the proposal was prepared respecting traditional Japanese laws and customs. In other words, the proposal was, the Dutch said, a possible example of a treaty with Western countries.¹³ The respect for Japanese laws and customs might seem to indicate that the Dutch fully honoured the foreign policy of the Bakufu, but the real aim of the Dutch seems to have been to prevent any other Western countries from

being granted more privileges as a result of treaties than the Dutch had enjoyed traditionally in Japan.¹⁴

Receiving the proposed treaty, Maki, who did not have full power to deal with the Dutch on this matter, sent the translation of the proposal to Edo. The translation was submitted for the discussion of the Committee for Coastal Defense as usual. The members simply replied to the rōjū that they could hardly understand the details of the matter from the proposal, so that they should wait for the return of Maki to Edo. Soon Maki was brought back to Edo on rotation and reported to the rōjū:

The Dutch Superintendent is a greedy man. He knows that the United States will not be allowed to open trade with Japan because the United States has had no commercial relations before. Therefore, he plans to take more goods from Japan into the Netherlanders' hands and sell them to the United States, scheming to bar the visits of the Americans to Japan.¹⁵

Maki's answer shows how poorly a high-ranking Bakufu official in charge of foreign affairs understood the international situation. However, those were the days when the Bakufu had little confidence in the Dutch at Nagasaki. Maki's opinion was not strange to the rōjū, so they decided to disregard both the official "writing" from Batavia and the proposal of a treaty.

Later, on October 26, 1853 (Kaei 6, 9/24), several months after the arrival of Commodore Perry of the United States, Curtius would receive a letter from Abe Masahiro which notified him that the Bakufu had appointed an official of the Nagasaki Magistrate's Office as the representative for treaty affairs with the Dutch. The appointment, which was one of the direct effects of the visit of Perry on the Bakufu's foreign policy, gave Curtius hope for the future of the negotiations. However, what was done in meetings with Curtius was to consult over Japan's treaty affairs with the United States, not the Netherlands.¹⁶

After the visit of Commodore Perry in 1853, the Bakufu was obliged to take many measures to develop a new national defense system. On July 27 (6/22), a junior councillor (wakadoshiyori) was ordered to inspect the coastlines of strategically important areas. On August 6 (7/2), the Bakufu sought the opinions of Bakufu officials and local daimyo including tozama about the visit of Perry and possible countermeasures. The decision to build eleven gun batteries in Edo Bay was made on August 25 (7/21). The first drastic change in military affairs which affected the entire country came on September 16 (8/14) when the Bakufu for the first time since the 17th century allowed daimyo to bring guns into their residences in Edo. A further innovation was an order of fifty cannons by the Bakufu to Nabeshima Naomasa of Saga han. And finally on October 17 (9/15), the Bakufu suspended the controversial ancestral law which had prohibited the building of large warships for more than 200 years.

Tokugawa Nariaki of Mito han and Shimazu Nariakira of Satsuma han performed important roles in realizing the suspension of the ancestral law. As mentioned in the first chapter, Nariaki had been ready to build a Western-style ship since 1838. Soon after the Bakufu decision, he began to build one at a shipyard in Edo. On the other hand, Shimazu Nariakira had already secretly begun the construction of Western-style ships prior to the suspension of the law. He needed solidly-built warships for the defense of his southern territory. Satsuma shipbuilding will be discussed later in the following chapter. The Bakufu also began its own shipbuilding program with the construction of the Ho'o Maru at Uraga, but for some time it was to rely on assistance from Satsuma and Mito han as well as the Dutch for most of its new ships.¹⁷

Meanwhile, on October 15 (9/13), Mizuno Tadanori, the new Nagasaki Magistrate, visited Curtius at Dejima. He met Curtius to discuss the matter of the adoption of a Western naval system for the Bakufu. Mizuno mentioned that

due to the critical international situation the Bakufu would alter the traditional foreign policy and wanted to adopt a more advanced naval system from Europe; for this purpose, the Bakufu would like to order some ships from the Netherlands. In addition, Mizuno sought Curtius' personal opinion on this matter.¹⁸

On the same day, Curtius replied to Mizuno in writing. Curtius judged that this Bakufu request could be an excellent opportunity for the Dutch to recover a superior position in Japan both in diplomacy and in trade. The trade between the Netherlands and Japan was extremely poor at that time. The isolation policy maintained by the Bakufu had not been broken by the friendly Dutch but by the military threat of the United States. This resulted in a loss of Dutch supremacy in the field of diplomacy concerning Japan. The chance to improve the inferior position of the Dutch unexpectedly came to Curtius from the Bakufu. He explained necessary procedures to build a modern navy. What Curtius emphasized most in his letter to Mizuno was the importance of extensive naval training for young Japanese people under Dutch instructors. He wrote that many students would have not only to learn various subjects related to naval affairs but also to practice the actual operation of ships. Curtius added that it would require many months and perhaps even years for Japan to create a modern navy. After explaining the contents of naval training, he went on about ships, the procedures of purchase, monetary settlements and so on.¹⁹

During the month of October, Mizuno and Curtius repeatedly exchanged letters and discussed naval affairs. Two of the most discussed issues were the method of monetary settlement for the purchase of ships and the treatment of Dutch naval instructors in Japan. The Bakufu wanted to pay the cost of ships by exporting commodities to the Dutch whereas the Dutch expected to receive payment in gold, silver and copper. At the same time, the Dutch endeavoured to improve their treatment in Japan in conjunction with the start of naval

training by Dutch instructors. The Bakufu refused to change their treatment, claiming that it accorded with an ancestral law of the Bakufu, yet both parties gradually made mutual concessions and reached a certain measure of agreement. The Japanese urgently needed a modern naval force, and the Dutch wanted to recover their firm position in diplomacy and trade in Japan. According to the agreement, the Bakufu ordered about a dozen ships, their equipment, various cannons and technological books. Also the agreement stated that the Bakufu would pay the cost of those items with various commodities, instead of gold, silver or copper.²⁰ Although the agreement was made, it was not a formal arrangement. Rather it was a statement of the Bakufu's expectations, for it did not show, for example, either the number of ships or their individual prices. Still the Bakufu side believed that several ships would be coming to Japan the following year as mentioned in the agreement. Curtius sent the agreement to Batavia to obtain consent from the Dutch East Indies' and home governments. He wrote to the Governor-general at Batavia that the Dutch had to be careful to foster the enthusiasm of the Japanese in the creation of a modern navy by sending them some ships, including steamers.²¹

On July 29, 1854 (Ansei 1, 7/5)²², the Sara Lydia arrived at Nagasaki. The ship brought Curtius special instructions from Batavia concerning the Bakufu's naval plans. Curtius soon wrote a letter to Mizuno according to the instructions. First of all, he had to explain why the Dutch could not bring any ships for the Bakufu at this time. He claimed two basic reasons for the difficulties: one was the Crimean War in Europe; another was the Dutch fear that other Western countries might consider them to be helping the Japanese become more exclusionist by providing them with firearms and warships. Curtius knew that his answer would be totally unsatisfactory to the Bakufu. Therefore, he included some conciliatory sentences to the effect that,

The Dutch King is fully aware of the intention of the Japanese [to build a modern navy]. Therefore, in order to assist in the improvement of the Japanese naval system for the eternal security of your country, the King ordered arrangements to be made for a commercial steamer to be sent. However, by the time this ship [the Sara Lydia] left [Batavia] for Japan, the above-mentioned ship could not be obtained. We expect it will be available soon, and then it will be forwarded to Nagasaki via Batavia.²³

This arrangement by the Dutch seems to have made Bakufu officials very unhappy, as the Japanese were expecting to see several warships arrive for them. Yet, as the letter explained, the arrangement was perhaps the best possible one under the circumstances.

In the same letter, Curtius noted that the Dutch government had dispatched the steamer Soembing to Japan for some special purpose. The Dutch government was very much concerned with the progress of diplomatic negotiations between Japan and Western countries such as the United States, Russia and Great Britain. Commodore Perry had appeared in Uraga on July 8, 1853 (Kaei 6, 6/3), and Rear Admiral Putiatin of Russia had visited Nagasaki on August 22 (7/18) of the same year. Nevertheless, the Dutch had not been informed of the contents of those negotiations. Curtius mentioned to Mizuno that one of the main reasons for the dispatch of the Soembing this time was to obtain intelligence on those affairs. He explained it in the following way:

What our government wants to know now is the Japanese response towards the requests by the Americans and Russians. The reason why we ask for this is that the Dutch government expects Japan to promise to give the same treatment to us in case other countries are to be given more favourable treatment than we enjoy today.²⁴

This was an explicit statement of the demand for "most-favoured nation" treatment which was typical of the importunities of advanced Western nations in Asia at this time. The Dutch were impatient at having fallen behind the United States, Russia and other countries in negotiations for the establishment of diplomatic

relations with Japan. To catch up with the others, the Dutch would not hesitate to take advantage of the interest of the Japanese in naval affairs. Curtius therefore offered the Japanese a plan to carry out temporary naval training while the Soembing was in Japan. According to Mizuta Nobutoshi, this offer was made solely by Curtius without any consent either from the King or the Governor-general in Batavia. Of course the captain of the ship was not informed of Curtius' plan. Curtius needed something really special to keep alive the enthusiasm of the Japanese for the creation of a modern navy.²⁵

The steamer Soembing under Captain Gerhardes Fabius anchored in Nagasaki harbour on August 21 (7/28).²⁶ Mizuno sent an interpreter to Dejima to confirm the Dutch intentions concerning naval training. Curtius soon answered Mizuno on August 24 (intercalary 7/1), telling him that the Dutch were well prepared to work for the sake of Japan.²⁷ Receiving this favourable answer from the Dutch, Mizuno sent an explanation of the progress of the negotiations to the roju, asking for approval of the plan for temporary naval training.²⁸ After this, naval affairs at Nagasaki began to develop quickly. On August 27 (intercal. 7/4), Curtius sent Mizuno, in response to his request, the first memorial on the creation of Japan's modern navy by Captain Fabius. Katsu Kaishū wrote in his Kaigun Rekishi about the memorials prepared by Captain Fabius at this time as follows:

The origin of Japan's [modern] navy, of course, reflects the leaders' deep concern with the tendencies of the time and the future. Yet the contribution of the Dutch cannot be forgotten: the kind advice of the Dutch King who considered the long friendship between the two countries; the dispatch to Japan of J.H. Donker Curtius who explained the international situation to the Bakufu in 1852; and finally the presentation of precise and detailed memorials about a modern navy by Captain G. Fabius of the Gedeh [sic] in 1854. They all promoted discussion within the Bakufu and eventually led to the Bakufu's resolution to build a modern navy.²⁹

The first Fabius memorial began with examples of some of the Western countries such as Russia and the United States whose navies had recently been developed very quickly. Fabius said that "the seagirt country Japan, with its strong and brave people," should never ignore the examples of these countries.³⁰ He recognized the potential of naval power in Japan and described the kind of ships Japan should obtain.

For the preparation of a naval force, the purchase as well as building of sailing vessels would be fruitless. The ships must be steamers. Among them, paddle steamers are no longer satisfactory; only steamers with screw propellers are suitable.³¹

This was a very radical suggestion in 1854. Even Fabius' own ship was not a screw propellered one but a paddle wheeler. This single suggestion by Fabius tells us that he was sincerely presenting his memorials as a professional navy officer. Unlike a diplomat or a politician who might recommend an obsolete system to foreign countries, Fabius straightforwardly told the Japanese what he thought best, but his own government would not act according to the officer's prescription.

Fabius then recommended that the Japanese adopt wooden ships rather than iron-clad ones. "The reason for this recommendation is that in Japan facilities such as a building slip and dry dock are not yet available. Without these facilities, the cleaning of the bottom of ships and the scaling of rust could present a lot of difficulties."³² He went on to mention the necessity of dockyards and explained that Nagasaki was a suitable place for them because of the good tides and geographical surroundings. He also presented a plan for complete naval facilities at Nagasaki. Taking many examples from other countries, Fabius argued that the Japanese ought to employ many Dutch engineers to help construct the Nagasaki naval facilities. And then he urged the Bakufu to establish naval training schools. He listed necessary subjects that students would have to

learn and outlined the importance of naval education. He warned especially of a possible naval disaster if naval training were ignored or done unsatisfactorily.

Furthermore, Fabius added his opinions concerning study abroad for the Japanese; he said that young Japanese should go to Europe as that was the way to learn not only naval affairs but also customs in European countries. He concluded the first memorial by saying that he would like to teach the Japanese whatever they wanted to learn during his stay in Nagasaki because the Dutch had enjoyed good relations with this prosperous country of Japan for more than 250 years.³³

Mizuno Tadanori, after reading the first memorial, sent many questions to Captain Fabius. As a result, Fabius sent the second memorial on September 4 (intercal. 7/12). It began by replying to some of Mizuno's questions about the proposed naval training school. Fabius mentioned the important subjects that should be learned at the school, the necessity of good instructors, and to Mizuno's question about the wages for instructors, he in return questioned what kind of treatment the Bakufu would give to the instructors. The Dutch side was seriously concerned with their future status at Nagasaki and in Japan. And it seems Fabius was inspired by Curtius to argue this issue whenever possible to remind the Japanese of its importance. After he answered Mizuno's questions about the necessity of a dockyard and about the artillery problem, Fabius expressed his opinion on language training. He cautioned Mizuno about possible troubles, waste and inconvenience at naval training if students could not understand Dutch.

If the Magistrate's Office agrees to my explanations [about the importance of language training], first of all the Bakufu should open a Dutch language school at Nagasaki. It is important that young candidates for naval training be sent to the school first to learn the language.³⁴

The second memorial ended with encouragement for the Japanese to follow the examples of the Netherlands and Great Britain.

Look at a world map!The Netherlands is a small country; however, it has naval power with many experienced men. Therefore, it preserves the independence of the country, and in addition, it holds vast lands overseas. The existence of the Japanese Islands at the eastern part of Asia is like that of the British Isles at the west of Europe. Consequently, like today's Britain, Japan, when it develops a naval and a coastal defense system, is assured of becoming rich and strong through trade with the world.³⁵

Mizuno eagerly proceeded with his duty by asking further questions on naval training. On September 5 (intercal. 7/13), he wrote to Fabius first to ask about a possible wage range for instructors and inquiring about the possibility of obtaining quick practical naval training instead of starting from the very beginning to learn basic subjects such as physics and astronomy.³⁶ As the Bakufu desperately needed a naval force at that moment, Mizuno's idea represented those of the entire Bakufu which, as they thought, required capable seamen but not school students.

Fabius wrote a letter to answer Mizuno's questions and it was forwarded by Curtius to Mizuno on September 9 (intercal. 7/17). This was the third and last memorial on the creation of Japan's modern navy by Fabius. Showing the average wage levels of the Dutch naval officers in the East Indian region, Fabius wrote that the Bakufu had to be prepared to pay a good amount of wages to attract capable instructors all the way from Europe to Japan. And Fabius again emphasized the importance of the study of Dutch prior to any naval training. He reaffirmed that "the teaching [of naval subjects] to those who could not learn Dutch would be a waste of time and money."³⁷

The Bakufu wanted to train some seamen quickly and easily. In other words, the Bakufu expected that the Dutch would teach some rudimentary knowledge of naval operations to some of its men. It seems the Bakufu did not ignore the

difficulties of mastering modern naval technology, but, rather, could not understand that the advanced naval technology of the West had been built on an understanding of the fundamentals of many subjects. As a result Bakufu executives considered short-term naval training possible. Fabius felt obliged to give some examples of naval training schools and mercantile marine schools in the Netherlands to explain to Mizuno how a modern naval training program was hard to master in a short time.³⁸

As the conclusion of the third memorial, Fabius chose the subject of treatment for Dutch instructors in Japan. He claimed that when some European countries recruited foreigners for certain kinds of instruction, those governments treated the instructors very politely and arranged to eliminate all the inconveniences for them. This argument, of course, was added to prevent a possible problem with the Japanese when Dutch instructors began teaching in Japan. At the same time, it indicated that one of the most important points in negotiations for a treaty would be the same issue.

In our examination of the memorials, we have noticed a fundamental difference between the Dutch and Japanese plans for naval training. While the Bakufu basically aimed at obtaining temporary training in naval technology, the Dutch, who knew the difficulties in mastering the technology, patiently tried to persuade the Japanese of the necessity for comprehensive training by presenting many actual examples. Consequently, when Mizuno sent his opinions on the creation of a modern navy to the rōjū in Edo, he had become the first man to be aware of the necessity of comprehensive rather than temporary training.³⁹

While the Dutch and the Bakufu continued further negotiations on formal training, the purchase of warships, and treaty problems, temporary naval training was given to about 200 people from the Nagasaki Magistrate's Office, Saga han, Fukuoka han and others during the summer of 1854. Judging from various documents in these days, it was mainly a demonstration of the operation

of the ship by the Dutch crew.

On October 23 (9/2), Mizuno notified Curtius of the decision of the Bakufu concerning the treatment of Dutch nationals in Japan. He declared that the Dutch would enjoy the same privileges which were granted to Americans as a result of the Treaty of Peace and Amity between Japan and the United States. Reflecting on the special position of the Dutch in Japan, the Bakufu presented a letter promising them friendly treatment.⁴⁰ There were still some discrepancies between the actual treatment of the Dutch at Nagasaki and the treatment promised in the Japan-U.S. treaty even after this letter, but the Dutch considered the contents of the letter satisfactory for a while. The notice concerning the treatment of the Dutch in Japan was important, since it was one of the key issues that had been an obstacle to the realization of naval training for the Japanese.

In the first half of 1854, the Bakufu was seriously making a concrete plan for the creation of a modern navy. The leading figure in the planning was Tokugawa Nariaki, the retired lord of Mito han, who now was a Bakufu advisor for naval affairs. Concerning naval training, he suggested in a letter on July 28 (7/4) that Bakufu samurai should obtain it first and then local han samurai would learn from the Bakufu samurai. Yet, he continued, if there were many ships on which naval training could be carried out, samurai from local han such as his own domain should be allowed to join. The most important suggestion in this letter was Nariaki's insistence that the operation of modern ships should not be kept secret among a small number of people. He said that real coastal defense would be very difficult if the Bakufu and each local han kept the know-how of the operation of ships to themselves.⁴¹

According to Mito Han Shiryo (Historical Documents of Mito Han), the Bakufu completed a basic plan for naval training in mid-1854, but the content of the plan is not known. Probably it was still very vague as the Bakufu in Edo had

not yet heard any suggestions from the Dutch. When this Bakufu plan was forwarded to Nagasaki, the Nagasaki Magistrate had already informed the Bakufu of the information brought by the Sara Lydia. Therefore, the Bakufu then suspended its original plan and convened to draw up a new plan based on the information from the Dutch and the Nagasaki Magistrate. Again according to Mito Han Shiryo, there were two groups in the Bakufu. One, comprised of inspectors (metsuke), supported the plan by the Nagasaki Magistrate, Mizuno Tadanori. He insisted on the beginning of the purchase and construction of warships as well as naval training even though they would be costly. The other group, which consisted of officials responsible for financial affairs, were reluctant to bear the burden of creating a modern navy. They even insisted on the cancellation of naval training and warships. The negative policy was, however, overturned by Tokugawa Nariaki. He wrote a letter based on the aforementioned arguments to Bakufu executives on October 13 (8/22) in which he fiercely criticized the negative policy.⁴² Nariaki said that some special measures, namely creation of a strong naval force, were needed without the consideration of expense, just as "medicine was prepared regardless of expenses when the master of a family be very ill."⁴³ After the letter by Nariaki, the Bakufu was brought under his sway to the positive view favouring the building of two warships every eighteen months to a total of eight, and the start of naval training under Dutch instructors. On October 24 (9/3), the Bakufu formally ordered the Nagasaki Magistrate to ask the Dutch for warships and naval training.⁴⁴ Curtius learned of this discussion on November 10 (9/20). Captain Fabius had left Nagasaki on October 26 (9/5), but the Dutch seem to have been informally apprised of the Bakufu order before his departure.

When Captain Fabius left Nagasaki, he took a letter from Curtius to the Governor-general at Batavia. This letter outlined Curtius' plan to take advantage of this opportunity to re-establish the supreme position of the Dutch

in Japan.

It would be almost impossible to finish the construction of the ships that the Japanese ordered from us by the time they expect. Therefore, what do you think of a plan to present a commercial steamer to the Shogun in 1855 as a gift from our King? If a warship is available, I think, it would be even more attractive for them than a commercial steamer.

Once the Japanese own a steamer and learn how to operate it, surely they will order more ships from us. Then the cost of the gift ship will be easily recovered.⁴⁵

Curtius saw that his most important task in Japan, to secure a superior diplomatic position for the Netherlands, would be attained by taking advantage of naval training, which would also benefit the Dutch by expanding their trade. He knew that the creation of a naval force and the building of supporting facilities would bring tremendous business to the Netherlands. This diplomat of foresight precisely predicted that the Japanese would buy more and more ships in the near future, and it was important for the Dutch to establish their status as a reliable ship supplier for Japan.

The proposal of Curtius was soon agreed to by the Governor-general of Batavia and it was sent to the Netherlands to obtain the approval of the home government. The Dutch government endorsed the plan and decided to present the Soembing to the Shogun as well as formally giving its consent to send some Dutch instructors to Japan for naval training. It also approved the plan to build two steamers for the Japanese at this time.⁴⁶

On July 20, 1855 (Ansei 2, 6/7), the steamers Gedeh and, once more, the Soembing under Captain Fabius arrived at Nagasaki. Four days later, Curtius wrote a letter to Arao Narimasa, who had succeeded to the post of Nagasaki Magistrate in the previous year. In this letter, Curtius notified the Bakufu that his status at Nagasaki had been changed to that of "Netherlands Commissioner in Japan." In the same letter, he reported that the Dutch King would

present the steamer Soembing to the Shogun.⁴⁷

Although the Bakufu was supposedly eager to obtain steamers, about three months were to pass until the Dutch heard of the Bakufu's acceptance of the ship. On August 29 (7/17), Arao asked Curtius if the Dutch were prepared to spare some of the men under Captain Fabius for the naval training of the Japanese in case the Bakufu accepted the Soembing. Arao was anxious to know about the real intention of the Dutch in presenting a steamer and about their diplomatic plans on this visit. Curtius replied that he was given power to order some of the Dutch seamen to stay in Japan for naval training. However, the "Netherlands Commissioner in Japan" told the Nagasaki Magistrate that the Bakufu had to agree to conclude a treaty between the two countries prior to the start of naval training. Here, the Dutch revealed their intentions to secure a treaty from the Bakufu in exchange for naval training. Then Arao asked about the main concept of the proposed treaty. Curtius simply answered that he would explain it in writing when the Soembing was received by the Bakufu.⁴⁸

On September 5 (7/24), the report that the Bakufu had decided to accept the Soembing arrived at Nagasaki, and this was conveyed to Curtius. At this time Arao suggested that Curtius should present the proposal of the treaty as soon as possible. Three days later, on September 8, Curtius turned over the proposal with a letter to Arao. In the accompanying letter, Curtius repeatedly emphasized that the Dutch were well prepared to begin naval training for the Japanese at any time, but the treaty between the two countries had to be concluded before the start of training. He urged the Japanese to consider the proposal as soon as possible, and Arao in return promised to send it to Edo immediately.⁴⁹

The formal ceremony of the presentation of the Soembing was carried out on October 5 (8/25). The ship had been built in the Netherlands in 1850 and its measurements were 58 meters in length and 10 meters in width. It was equipped

with a 150 horsepower steam engine, and ironically, had paddle wheels instead of the highly recommended screw propeller. With six cannons on board it was an armed commercial ship rather than a warship.⁵⁰ The Soembing was not an old ship. However, especially in those years, technical innovations in shipbuilding were advancing rapidly. The merit of the screw propeller was already verified by every naval authority. Although it was contradictory to send a paddle wheeler to Japan after the Dutch themselves recommended screw propellered ships, the Dutch must have been happy to find such a good way to dispose of their outdated steamer.

Despite the explanation by the Nagasaki Magistrate that the Bakufu was working on the treaty proposal, no concrete progress was seen all through the autumn. On November 3 (9/24), Curtius met Arao to ask about the possibility of settling the affair by drawing up a temporary treaty on all the proposed issues. As Arao was worrying about the delay of naval training, and had the power to negotiate on a temporary treaty, he immediately agreed to Curtius' idea. The negotiations between the two soon began.⁵¹

The most important issue in the negotiations was the freedom of the Dutch to walk unhampered outside Dejima in Nagasaki. As Curtius and Fabius repeatedly mentioned in the letters they sent to the Nagasaki Magistrates, they had been most anxious about obtaining freedom of movement in Nagasaki. Both parties discussed the matter intensively. They reached a conclusion in a short time. In fact, as the Japanese had already concluded similar treaties with the United States and others, the negotiation with the Dutch must have been relatively easy. The delay in agreeing on the Japan-Netherlands treaty was most probably caused by the complicated bureaucratic system of the Bakufu itself. The signing ceremony of the temporary treaty was held on November 11 (10/2). Later this temporary treaty was reviewed and formally approved by the Bakufu. On January 30, 1856 (Ansei 2, 12/23), the formal treaty, which almost duplicated the

temporary treaty, was signed at Nagasaki.

The treaty recognized the exclusive rights of the Netherlands over Dejima and the jurisdiction of the Dutch consul over his people in Japan. It also relaxed the regulations about movements of the Dutch outside Dejima. The complicated regulations about the entry and departure of Dutch ships at Nagasaki harbour were also eased considerably. Although the treaty was an unequal one for the Japanese on the model of the American treaty, the two countries finally established formal diplomatic relations.⁵²

Three days prior to the signing ceremony of the formal treaty, the Nagasaki Magistrate officially proclaimed that the Dutch would no longer have any guard (actually surveillance) while they were outside Dejima.⁵³

The Dutch were very successful in this negotiation. They were triumphant not only in concluding the treaty with Japan but also in being commissioned for the naval training of the Japanese. The Dutch also became the sole supplier of the necessities for the training and building of a navy, and this was big business. Of course, their voice in Japan's international affairs was strengthened by the fact that they were working as a kind of military advisor. The Dutch finally concluded the treaty with Japan, and they simultaneously achieved something that the other Western countries had hoped for but could not realize.

CHAPTER 4 The Nagasaki Naval Training School

The Bakufu acted quickly to establish a naval training program and build a modern navy. Since the birth of the kaibō-ron in the late 18th century, about half a century had passed without any naval development in Japan. The conservatism among Bakufu officials could not be really shaken except by military threats. Yet, once the Japanese determined to build a modern navy after the strong American demonstration of power, they began building it very rapidly. We will cover in this chapter the operation of the Nagasaki Kaigun Denshū-jo (Nagasaki Naval Training School), especially the activities of its students. Furthermore, in conjunction with the main narrative, the programs and policies of certain local han such as Satsuma, Saga and Mito with regard to naval affairs will be examined to help analyze the context in which the Bakufu's program took place.

As negotiation over treaty affairs between Japan and the Netherlands progressed, both parties began to make final arrangements to start the actual training. Although the Dutch did not reveal it to the Japanese, they made all the necessary preparations, including the selection of possible instructors, before they left Batavia. Captain Fabius of the Gedeh was fully authorized to work on naval training with Commissioner Donker Curtius. While Curtius was working hard on negotiations with Bakufu Nagasaki officials, Fabius worked steadily to make the coming naval training successful by writing several further memorials to the Nagasaki Magistrate. They concerned such important matters as the contents of training and regulations on board.¹ As well, he invited non-Bakufu men to his ships and let them witness naval exercises before the start of formal naval training.

As we recall, the Bakufu in the previous year insisted on having only

rudimentary training for its men. This plan was rejected by Captain Fabius. He repeatedly explained the complexity and difficulties of naval operation by writing three special memorials to the Nagasaki Magistrate. The Japanese seem to have been convinced of the need for a more extensive program and had agreed to comprehensive training. However, Fabius again had to persuade the Japanese, who had expected to have only four or five general instructors, to accept a full-scale training program with many more able instructors.²

On September 7, 1855 (Ansei 2, 7/26), two days after the Bakufu told the Dutch that it gladly accepted the Soembing as a gift from the Dutch King, Fabius wrote a memorandum to Curtius. This was Fabius' response to the Japanese plan. One by one he outlined the contents of lessons and explained the necessity of inviting highly professionalized instructors in the different fields of study. He did not forget to stress that he had brought an excellent commander for the training.³ Nagai Iwanojō (Naomune), the metsuke (inspector), who was responsible for actual negotiations with the Dutch over naval training affairs, finally gave in to Fabius' plan and recommended it to the Bakufu in Edo for final approval.⁴

The negotiation of a temporary treaty came to a conclusion, and the two parties officially signed it on November 11 (10/2). The problem of the treatment of instructors, especially their pay, was also solved on November 9. After this, Fabius formally appointed the captain of the Soembing, G.C.C. Pels Rijken, to be the commander and head instructor of the training team, and gave him some directions concerning the training. Some of the main points in the agreement between the Japanese and Dutch appeared in these directions to Pels Rijken.

As of October 5, 1855, G.C.C. Pels Rijken is appointed as commander of the detachment. The mission of the detachment is to instruct the Japanese in the operation of the steamer Soembing.

All the members of the detachment will be temporarily regarded as attachés to the Netherlands Commissioner in Japan.

The detachment constitutes a part of the Royal Dutch Navy, not a part of the Japanese military forces.⁵

Fabius then personally chose instructors, mainly from the crew of the Soembing, and assigned them to certain fields of naval training. He was very careful in his selection, earnestly examining the character of each candidate to see if he was suitable for teaching. For instruction in engineering, for instance, he found no adequate lieutenant, and had to reject a sub-lieutenant because he judged the character of the man unsuitable for teaching. Consequently, Fabius appointed two midshipmen for this duty.⁶ Another of his directives explained the treatment that the instructors were to receive at Nagasaki.

Besides free accommodation at Dejima, the members of the detachment will be given special allowances by the Japanese government in addition to their normal payments by the Royal Dutch Navy.

The schedule of the allowances per month from the Japanese government is as follows:

G.C.C. Pels Rijken, Commander	450 guilders	(2,812.50)*
A.A. 'sGraeuwen, Deputy Commander	250 "	(1,562.50)
Sub-lieutenant C. Eeg	225 "	(1,406.25)
C.H. Parker de Yonge, Paymaster	225 "	(1,406.25)
Engineer Midshipmen	125 "	(781.25)
Chief Petty Officers	100 "	(625.00)
Petty Officers	75 "	(468.75)
Stokers	75 "	(468.75)
Sailors	65 "	(406.25)

* in silver monme (3.75 grams)⁷

The payment from the Bakufu was set at a slightly higher level than the instructors received from the Dutch Navy. This meant that in Japan they received twice as much pay as they received on their usual duties. In 1855, one koku of rice (180 liters) was valued at about 84 silver monme.⁸ So the highest paid Pels Rijken received the equivalent value of about 33.48 koku of rice a month or about 400 koku a year. Even the lowest paid sailors made about 4.8 koku monthly or 58 koku annually. Compared to the rice stipend that a Tokugawa samurai

received from the Bakufu or his lord, these were substantial sums. A samurai's stipend had to be shared by himself, his family and his retainers. On the other hand, what the Dutch instructors received was of course net payment. Therefore, the payment made to Pels Rijken could have been equal to at least 1,000 koku regular rice stipend. And a Bakufu samurai with 1,000 koku could be a candidate for a relatively high position such as Nagasaki Magistrate.⁹ The Bakufu considered that "it was not a very good idea to let spread a rumour to foreign countries that would affect the honour of the kokutai (national polity) in order to save a little money here."¹⁰ Subsequently the Japanese paid very high wages for various kinds of instructors from the Netherlands. This was really the only way the Japanese could attract many good instructors in those days. After the Tokugawa period, the succeeding Meiji government also followed the same policy. It seems that the policy paid off well in the long run.

A total of twenty-two instructors, more than half of whom were to be in charge of teaching practical techniques such as carpentry, stoking, sailing and sail sewing, were ready to start naval training whenever the Japanese were ready.

After the Bakufu confirmed the intention of the Dutch, it began making formal arrangements to begin a naval training school at Nagasaki.¹¹ On September 10 (7/29), the chief rōjū, Abe Masahiro, appointed as school director Nagai Iwanojō, one of the most knowledgeable and experienced men in naval affairs.

As students, the Bakufu first directly selected three prominent young Bakufu men. They were candidates to be captains of a future Bakufu fleet: Nagamochi Kyōjirō, a kachi-metsuke (sub-inspector) at the Nagasaki Magistrate's Office, Yatabori Keizō, a student at the Shōheikō college, and Katsu Rintarō (Kaishū), a young Dutch scholar in the Bakufu Office for Foreign Affairs (Ikoku Ōsetsu-gakari). Among these three, Katsu was to perform the most outstanding role in the coming schooling at Nagasaki, so it is proper for us to discuss how

he had paved the way for his future success in the Bakufu system.¹²

Katsu, later regarded as one of the founders of Japan's Imperial Navy, was born into a poor hatamoto (direct vassal of the Tokugawa) family in 1830 (Tempō 1). His father collected only 41 koku of rice stipend and never held any official position in his lifetime. Rintarō himself led a typical poor hatamoto life of Confucian studies, swordsmanship, and most importantly, side jobs. He began to study Rangaku (Dutch studies) in 1845, and he worked very hard at it for the next five years. By 1850 (Kaei 3) he had studied enough to open his own private school for the Dutch language and Western military science.

On the occasion of Commodore Perry's visit in 1853, a chance came to young Katsu. After receiving a letter sent by the President of the United States from Perry, the agonized rōjū Abe, breaking with common practice, sought opinions concerning the future Bakufu foreign and domestic policies from high-ranking Bakufu officials and local daimyo. At this time, besides these members of the elite, many low-ranking Bakufu officials, Bakufu samurai without any official positions, rōnin (masterless samurai) and even commoners submitted their opinions to the Bakufu executives.¹³ And among a great number of memorials, Katsu's was one of the best.

The basic proposals that Katsu made in his memorial were all later realized in the administrative and military reforms initiated by Abe. For example, two of the most significant proposals were the creation of a modern navy and the reform of the military system, including the opening of a military training school. Katsu's plan was very concrete and practical and demonstrated great conviction. His opinions were well supported by his extensive knowledge of Western general and military affairs. It is difficult to say whether the Bakufu executives adopted Katsu's ideas as they were. But it is certain that Katsu was able to foresee what the Bakufu would soon need.¹⁴

Early in the spring of 1855, Katsu was appointed to a Bakufu position at

the Office of Foreign Affairs. His first achievement there was to draft a basic plan to establish a Bakufu research institute for Western studies (Yōgaku-sho). After this, he spent a few months inspecting the important coastal areas along the Pacific Ocean. Then in September he was chosen for naval training at Nagasaki.

For the selection of other students, the Bakufu turned to the Uraga Magistrate's Office, Egawa Tarōzaemon (Hidetatsu) of Izu (today Shizuoka-ken), and the Funate. The Uraga Office was probably requested to help because it had directed the construction of the first large Bakufu ship, the Hō'ō Maru, in 1853 and 1854.¹⁵ The Bakufu was very astute in asking Egawa to send some of his men, since this Governor of Izu commanded some of the most experienced men in artillery, metal work, and shipbuilding. The Nirayama reverberatory furnace was under his jurisdiction. Furthermore, Egawa and his men had just finished assisting in the building of the schooner Heda, the Russian-designed ship built for Admiral Putiatin after his ship Diana had been badly damaged by a tsunami in the previous year and eventually sank off the Izu Peninsula. Putiatin asked the Bakufu to help the Russians build their own ship to return to their home country. With the Bakufu's financial assistance and many shipwrights directed by Egawa, the Russians completed the construction of the first modern Western-style ship in Japan, leaving invaluable shipbuilding experience with the Japanese.¹⁶ Eventually, a total of nine, excluding non-samurai such as shipwrights, were sent to Nagasaki from Egawa's jurisdiction. The Funate, on the other hand, sent only two dōshin (petty officers) and ten sailors to Nagasaki. The traditional Bakufu "water force" had deteriorated so badly that it could not find many adequate men to pursue modern naval training.

According to Katsu's Kaigun Rekishi, at least 48 Bakufu samurai were enrolled in the first-term naval training program. The positions of these 48 men before joining the Nagasaki Naval Training School:

Artillerists*	19 (39.6%)
From the Uruga Magistrate's Office	9 (18.8%)
Bakufu Astronomers	3 (6.3%)
A. Shōheikō College Student	1 (2.1%)
From the Nagasaki Magistrate's Office	1 (2.1%)
From the Foreign Affairs Office	1 (2.1%)
Unknown	14 (29.2%)

*Five men were from Egawa of Izu, and the others were from two different schools of the Bakufu artillery masters. (Total percentage is more than 100 because of rounding.)¹⁷

Judging from their origins, very few students could have known the Dutch language. Most of the artillerists knew only traditional artillery and had studied neither Western affairs nor languages. The Egawa men, like the Bakufu astronomers and Nagamochi Kyōjirō from the Nagasaki Magistrate's Office, must have had a certain knowledge of the language. But generally speaking, their level of competence seems to have been very low. Katsu could read and write to a certain extent but could not speak the language. Aside from the lack of a basic knowledge of science, the language would later turn out to be the most serious barrier in naval training directed by non-Japanese-speaking Dutch instructors.

As the first modern military school, the Nagasaki Naval Training School accommodated at least 86 Bakufu samurai students during its operation. On the other hand, it also admitted 129 students known to have come from local han during the same period. To our surprise, 124 non-Bakufu students (96.1%) out of the 129 were from the han of tozama (non-hereditary vassals of the Tokugawa) daimyo, those of the provinces to the west with the exception of Tsu han in Ise Province (today Mie-ken). The remaining five students (3.9%) were from the fudai (daimyo in hereditary vassalage to the Tokugawa before 1600) han of Fukuyama and Kakegawa.¹⁸

As is well known, one of the serious concerns of the Tokugawa Bakufu in its 250-year reign was the activities of the tozama daimyo, particularly in the southwestern provinces of the Kyūshū, Chūgoku and Shikoku regions. They were often considered to be a possible menace to the Tokugawa regime. The attitude of the Bakufu was typically shown in a letter to Tokugawa Nariaki from Mizuno Tadakuni in 1843 after the former had requested the suspension of the prohibition against building large warships. Mizuno rejected this request because he considered that it would be very harmful to the Bakufu if the tozama daimyo could freely build large warships.¹⁹ Then what were the reasons for the change of attitude of the Bakufu towards the tozama daimyo? Undoubtedly the biggest reason for this was the drastic change in Japan's international affairs in the late 1840's and early 1850's. The Bakufu was still able to manage minor incidents without military threats, such as the visits of Dutch missions in 1844 and 1852, the visit of Commodore James Biddle in 1846, and other appearances of Western ships. However, it revealed its total inadequacy when Perry militarily threatened the Bakufu in demanding the opening of the country. For the first time in its history, the Bakufu openly sought opinions and proposals for countermeasures not only from Bakufu men but also from local daimyo, including tozama. Without securing cooperation from local han, especially powerful southwestern daimyo such as Shimazu (Satsuma han), Nabeshima (Saga han), Kuroda (Hizen han), and Mōri (Chōshū han), who had been accumulating relatively high standards of military knowledge and equipment in their own domains, the Bakufu had little independent power to deal with aggressive Westerners. The more Bakufu executives knew about Western affairs and the Western presence in Asia, the more they realized that the Bakufu did not have the necessary power to deal with the changing international situation. In fact, the southwestern daimyo had been much more seriously concerned with external affairs than the Bakufu itself. This resulted in the main from the geographical fact that they

were more directly exposed to the foreign approach than anybody else in Japan. In addition, these han had lords who initiated many progressive measures in defense and foreign affairs based on successful economic reforms.²⁰ Abe Masahiro, understanding the international situation fairly well²¹, had little choice other than to foster cooperation between the southwestern tozama daimyo and the Bakufu.

Among the tozama han mentioned, Satsuma and Saga were particularly important. Later, in the Meiji period, men from these two han would form the most influential factions in the Imperial Navy. Sixteen Satsuma and forty-eight Saga samurai, a total of 64 students, went to Nagasaki during the operation of the School.²² Therefore, we should glance at the naval affairs of Satsuma and Saga han briefly in order to see how the activities of the Bakufu and these two domains were related to each other.

Satsuma, as the southernmost province in Japan, kept a special relationship with neighbouring Okinawa and China. Okinawa was a kind of colony of Satsuma, and brought a great amount of trade to Satsuma proper, mainly in the form of sugar.²³ Okinawa was also very important for Satsuma as a trading post with China and other countries. This important island colony, however, extended far into the southern sea where in the early 19th century an increasing number of Westerners passed, often threatening the security of the Okinawa area and the sea routes. In the late 1840's, Satsuma seriously began working on the development of its own naval force to secure the sea routes in the south. This policy was strongly led by Shimazu Nariakira, one of the most progressive and enlightened lords in the matter of defense preparations.

Satsuma's endeavour in naval development was first seen in the building of a steamer. In 1848 (Kaei 1), Mitsukuri Genpo, a Rangaku-sha, was requested by Shimazu to translate a Dutch book on steam engines for ships. The translation

was completed in the following year and Satsuma engineers started the building of the first steamer in Japan.²⁴ The building of the Western-style sailing ship Iroha Maru was also begun in the autumn of 1851 (Kaei 5). As this was well before the Bakufu permitted the construction of Western-style ships, Satsuma carefully designed and disguised the Iroha Maru as a Japanese-style ship on the outside with a completely Western structure inside. Next year in 1852 (Kaei 5, 12/27), Shimazu sought permission from the Bakufu to build a warship called the Shohei Maru. In its application, the southernmost province argued that large warships were absolutely necessary for the defense of the southern sea routes and Okinawa. The Bakufu understood Satsuma's special situation in the south, but it did not officially give its approval to Satsuma because of the ancestral law which prohibited the construction or possession of warships larger than 500 koku. Instead, the Bakufu simply told Satsuma that it acknowledged the application. It was a tacit approval of the plan by the Bakufu.²⁵ This case indicates to us that the Bakufu adopted the policy of utilizing Satsuma to secure the defense in the south rather than causing a conflict with it as well as jeopardizing the Satsuma rule of Okinawa. On July 5, 1853 (Kaei 6, 5/29), slightly before Perry's visit, Satsuma began constructing the Shohei Maru, the first truly Western-style warship in Japan. In the autumn of the same year, the Bakufu at last suspended the ancestral law against building large warships. After this, Shimazu Nariakira became more ambitious and planned to build fifteen large warships including three steamers. The Bakufu not only approved this scheme but also asked Satsuma to spare a few ships for the Bakufu.²⁶ In the summer of 1854 (Ansei 1), Satsuma began building four of its planned ships on Sakura-jima Island, two for Satsuma and two for the Bakufu at the same time. Two of them were about 36 meters long and the other two were about 44 meters long. The structure of these ships was totally Western. This shows that Satsuma had obtained a relatively high standard of

shipbuilding technology and already employed many men with considerable knowledge and experience. It is natural for us to assume that Satsuma surpassed the Bakufu in shipbuilding if we take note of the scale of operations in 1854 and 1855. Prior to the aforementioned four ships, the Iroha Maru was finished and the Shōhei Maru was launched in the spring of 1854.

While Satsuma leaders endeavoured to build Western-style ships by themselves, they fully utilized every opportunity to obtain more advanced technology and information. For example, in 1851, Satsuma officials invited Nakahama Manjiro (John), a castaway to the United States who had come back to Okinawa, to instruct them in the building of Western-style ships and other matters.²⁷ And in 1854, several Satsuma men were sent to Nagasaki along with Saga, Fukuoka and Bakufu men to learn about steam engines, shipbuilding, and ship operations from the crew of the Soembing.

The Shōhei Maru was finally completed on January 29, 1855 (Ansei 1, 12/12). This ship was then successfully tried out on a voyage to Edo in April, taking 26 days. On September 23 (8/13), the ship was duly presented to the Bakufu. In the same month, the Bakufu had decided to accept the Dutch Soembing, so the Shōhei Maru became the third Western-style ship for the Shogun together with the Hō'ō Maru. Satsuma's effort to build a steamer was realized when the Unkō Maru was given trials on a river in Edo on October 3 (8/23). These two consecutive achievements by Satsuma were reviewed by high-ranking Bakufu officials and must have strongly impressed them with the advanced Satsuma shipbuilding technology. To the eyes of Bakufu officials such as Abe Masahiro and Hotta Masayoshi, another rōjū, Satsuma han, though a tozama, appeared to be one of the most reliable han with which the Bakufu dealt in a situation of immeasurable difficulties in defense affairs. On the other hand, of course, some Bakufu people must have feared that Satsuma han would eventually obtain an extremely strong position in Japan.

Similarly, Saga han had been exposed to Western influence, as it was one of the two major han that were responsible for the defense of Nagasaki. Until the early 1840's, however, Saga han did not really take this task seriously. Warriors from Saga han were not able to put up any defense at all when the Phaeton invaded Nagasaki harbour in 1825. This tendency was reversed by Nabeshima Naomasa after he succeeded to the lordship in 1830 (Tempō 1). In addition to traditional endeavours in military affairs such as the training of warriors and the acquisition of firearms, Nabeshima improved various aspects of his domain's defense facilities. His concern was already directed to the creation of a modern navy when the Dutch Palembang visited Nagasaki and Nabeshima himself had an opportunity to see the ship and its equipment.²⁸ Many of his Saga followers with a knowledge of Western studies who visited the ship later formed the core around which Saga han developed its military industries. Geographically-favoured Saga men repeatedly studied the basic operation of Western ships, artillery, engineering and other features as they watched Dutch ships in Nagasaki harbour. Their experience was very limited, yet few others had been inspired to take advantage of the opportunity before. Even during the summer of 1855, before the Bakufu officially opened the Nagasaki Naval Training School, Saga men were already learning naval affairs from Dutch officers and sailors. In other words, the Saga men had already been initiated into naval training at Nagasaki well before the School started.²⁹

Following Saga's contingent to the Nagasaki Naval Training School, Fukuoka han of the Province of Chikuzen (today Fukuoka-ken) in Kyūshū sent twenty-eight students, the second biggest number among the local han students. But the contribution of Fukuoka han students was not very noteworthy. Their number seems simply to have reflected Fukuoka's role as the other major han in charge of the defense of Nagasaki.

Only five students from non-tozama han studied at Nagasaki. Four of them

were from Fukuyama han, of which the chief rōjū of the time, Abe Masahiro, was the lord. While he carried out military reforms at the Bakufu level, he did not ignore the defense of his own domain and encouraged his men to take naval training at Nagasaki.

As we have seen, most of the southwestern han which had been alerted by the foreign presence around Japan sent their men to Nagasaki. However, there was one han which had been very active in military affairs but did not send any students to the School. It was Tokugawa Nariaki's Mito han.

Opinions and suggestions made by Nariaki were very influential in the decision-making process concerning the initiation of naval defense preparations, including naval training at Nagasaki. Nariaki was particularly eager to obtain naval training under Dutch instructors. He first suggested it in 1853, soon after the visit of Perry, when he wrote a memorial to the Bakufu.³⁰ Since then he had been involved in various aspects of the naval training affairs of the Bakufu. When he heard of the temporary naval training at Nagasaki in 1854, he dispatched three samurai and some sailors from his domain.³¹ When the Russian crew of the Diana stayed at Shimoda in Izu, Nariaki asked permission from the Bakufu to send some of his men to receive naval training there, but the tsunami that destroyed the Russian ship frustrated the scheme. Later, however, when the Heda was being built, Nariaki sent some of his men to Izu to "help" in (actually, to observe) the construction. While he was busy with the construction of his own ship, the Asahi Maru, in Edo in the summer of 1854, he expressed his wish to the Bakufu to send some Mito sailors to Nagasaki if naval training were to be carried out at Nagasaki under Dutch instructors.³²

Despite these facts, Mito han did not send any students to the Nagasaki Naval Training School during its entire period. It is probable that some sailors, carpenters and other non-samurai people visited the School, but no samurai names from Mito han could be found among personnel lists.³³ Therefore,

it is perhaps correct to say that Nariaki wanted to send some of his men to Nagasaki, but something prevented him. The most plausible reason is that Mito han was fully utilizing those of its men familiar with shipbuilding technology for the construction of the Asahi Maru, Nariaki's longtime dream. The construction of the ship started in January, 1854, and ended in June, 1856. The ship underwent its sea trial in June, 1857.³⁴ All through these years, Mito men may have had to spend their full time with the Asahi Maru, without having any time to go to Nagasaki.

The Bakufu, moreover, opened the Kōbu-sho (Military Academy) in Edo in April, 1856, and, as a part of the Military Academy, the Gunkan Kyōju-sho (Naval Training Institute) was opened in the spring of 1857. Almost all the instructors and assistants were graduates of the Nagasaki Naval Training School. The institute used the Soembing (then the Kankō Maru) for regular training. Mito men no longer had much reason to go all the way to Nagasaki for naval training.

After the Bakufu selected all its own students, early in October, it gave final directions to them before their departure for Nagasaki. First, the Bakufu ordered the chosen men to work very hard so that they would form an integral part of a Bakufu navy as soon as possible, and then repeatedly exhorted them to behave as men of integrity. The Bakufu gave directions concerning the students' relationship with various men of local han. The Bakufu students were a chosen elite who could be expected to obtain influential positions in the Bakufu military system later. Therefore, some people from local han, both samurai and merchants, might treat them favourably in various ways or offer them bribes so that they would benefit some day. This was what the Bakufu feared most as a possible result of the schooling. Further, the Bakufu, although it allowed the students from local han to take the same course at

Nagasaki, disliked the idea of having its own men involved too closely in relations with local han.³⁵

So instructed, the Bakufu students left Edo for Nagasaki. About half of them went by land, and the other half sailed from Edo on the Shōhei Maru on October 13 (9/3). More than 110 men were on board including the students, their servants, and sailors from Uraga and Shiwaku-jima, an island on the Inland Sea where the people had been seamen for centuries. The ship was operated by Satsuma men and these sailors.³⁶ Due to storms along the route, the ship sustained serious damage and almost all the crew was said to have suffered from seasickness. Despite the hardships on this voyage, Katsu in his Kaigun Rekishi simply recorded that "the ship sailed very slowly for days, and finally arrived at Nagasaki harbour on November 29 (10/20)."³⁷ Nevertheless, Katsu and the Bakufu students were probably very relieved to settle into the more stable accommodation of the Nishi Official Residence of the Nagasaki Magistrate's Office after perceiving the might of the sea.

The Nishi Official Residence was used as the Nagasaki Naval Training School. It was an extra residence for the Nagasaki Magistrate; inspectors dispatched [from Edo] to this place used to live there. In those days, Mr. Nagai was using it as his dwelling. The Nishi Official Residence was partly converted into the School and no special building [for naval training] was built. After landing at Nagasaki, I myself [Katsu] also lived in this residence.³⁸

Like Katsu, most of the Bakufu students were given accommodation in the Nishi Official Residence. Four days after the landing from the Shōhei Maru, on December 3 (10/24), Nagai gave special directions to the three leading students, Yatabori, Nagamochi and Katsu, saying that they should devote themselves to naval training and work very hard. He also emphasized the need for cooperation among the students and required each Bakufu student to write a pledge to the Bakufu, stating that he would do his best at the School.³⁹

A written pledge was also required from each student from local han. However, the purpose of asking written pledges from the local han students was quite different from that for the Bakufu students. The diary of Nakamuda Kuranosuke, one of the leading students from Saga han, includes the contents of the written pledge he sent to the Bakufu.⁴⁰ It tells us what the Bakufu expected of the local han students. According to this diary, we can see that one of the Bakufu's intentions was to segregate the local han students from the Dutch instructors. The non-Bakufu students were ordered not to talk to Dutch instructors except in the presence of Bakufu officials. They were also told that they should leave immediately when they finished talking about certain subjects with Dutch instructors. In other words, no friendly chat between the local han students and Dutch instructors was allowed. It was strictly forbidden for them to act as go-betweens with the Dutch for their relatives and acquaintances. The Bakufu executives were well aware of the necessity for cooperation with local han in defense affairs, yet this did not mean that the Nagasaki Naval Training School students were all treated equally. Rather, a clear distinction between the two groups was made so that the Bakufu could demonstrate its superiority over local han.

Unfortunately, the exact date of the nyumon-shiki (entrance ceremony) or the formal opening day of the Nagasaki Naval Training School is not known. Katsu also does not remember exactly when the School started; he simply wrote in his Kaigun Rekishi that "five or six days after the landing, Mr. Nagai took everybody to the Dutch Dejima Post and had an entrance ceremony."⁴¹ This was probably the fourth or fifth of December (10/25 or 26), as the Shōhei Maru arrived at Nagasaki on November 29 (10/20). The site of the Nishi Residence was at a wharf next to Dejima.

As it was the first school of its kind, the Bakufu took great care to insure success by allocating quite a few officials for its management. While

at the beginning the School accommodated about one hundred students, it also employed a total of forty-one administrative officials in full service besides Nagai, the School director, twenty-two Dutch instructors and fourteen interpreters.⁴² Details of the schooling under Pels Rijken are not clear today, since he and the other Dutch instructors left very few written records. We must, therefore, rely heavily on Katsu's Kaigun Rekishi and Mizuno Nobutoshi's Bakumatsu ni Okeru Waga Kaigun to Oranda (Japan's Navy and Holland in the Late Tokugawa Period)⁴³ to review the first-term naval training.

Almost everything was new to the students at the School. The classes were held on a weekly basis and there was a timetable. Everybody was required to take all the basic subjects before he was allowed to concentrate on his own subject. These features are too common to be noteworthy today, but were not at all so for 19th century Japanese students. Usually instruction started at eight o'clock in the morning and lasted till noon, mainly in the classroom. From one to four in the afternoon, the students were taught in various drills outdoors. There were actual practices on the Soeming, limited at first, and then more frequent. Only Sundays were free from school lessons. Katsu wrote to his friend in Edo: "We have naval training day after day. We are very busy and could take only one day off even at New Year's."⁴⁴

The subjects taught during the first-term naval training under Pels Rijken were navigation, ship operation, shipbuilding, artillery, ship's fittings, surveying, mathematics and steam engineering. As the head instructor, Pels Rijken was in charge of teaching navigation, ship operation and shipbuilding. The course in shipbuilding was assisted by 'sGraeuwen, who also taught artillery. Eeg concentrated on surveying and ship's fittings. De Yonge instructed in mathematics. Doornickx and Everaars were responsible for engineering, especially steam engines. Besides the theoretical teaching by these officers, petty officers, sailors and stokers taught and supervised actual drills.⁴⁵

Soon after the School started, every Bakufu student was assigned to a certain field of special training besides basic studies. The Dutch instructors had not expected the students to be assigned to a specific field of study from the very beginning of training, but this had been planned before the students left for Nagasaki. The Bakufu considered that many of the students at Nagasaki would have to become instructors for military schools in the future. According to Katsu, the Bakufu students were assigned to ten different fields:

Captain Candidates	3 (6.3%)
General Officers	4 (8.3%)
Shipbuilding	5 (10.4%)
Steam Engineering	5 (10.4%)
Sail Operation	5 (10.4%)
Artillery	17 (35.4%)
Astronomy, Geography and Surveying	4 (8.3%)
Sail Sewing, Rope Tying	1 (2.1%)
Accountant	1 (2.1%)
Drumming	3 (6.3%)

These were all samurai students and were to become either officers or petty officers. Sailors were recruited among ordinary seamen who were not samurai. ⁴⁶

The allotment of different kinds of training reflects the urgent needs of the Bakufu at the time. About a third of the students were assigned to study artillery. Without doubt they would be very important on Bakufu warships, but highly-trained artillerists were also seriously needed at that very moment at various shore batteries, especially along Edo Bay. In this sense, the Nagasaki Naval Training School performed the role of a military academy, the first school to introduce the Japanese systematically to Western military science. For other significant fields, students were evenly distributed. In order to master the operation of modern Western-style warships, the studies of shipbuilding, steam engineering, sail operation, astronomy, geography and surveying were all equally important.

A traditional Japanese custom sent three men to learn Western drumming.

Those who were chosen to study drumming considered that they were highly honoured because in Japan drumming was traditionally a specially classified task for high-ranking officers. As a result, the Dutch petty officer who taught drumming was said to have been highly respected by the students throughout.⁴⁷

Everything was new and difficult at the School in Nagasaki. It was filled with agony for the students who had to face serious problems one after another. Among them, the most serious problem in class was language. Virtually none of the students at first understood what the instructors were teaching in Dutch. In the previous year, 1854, when Captain Fabius was asked his opinion about the creation of a modern navy and a naval training school for Japan, he repeatedly urged the Bakufu to open a Dutch language school first so that candidates for naval training could obtain a knowledge of Dutch. Yet the Bakufu did not adopt his suggestion, saying that time was very limited. When the School started, it was quite apparent that the Bakufu had made a grave mistake. All the lectures had to be translated into Japanese by interpreters. And, to make matters worse, quite often the interpreters could not understand the naval and scientific terminology used in lectures. The only way that an instructor could teach was to explain the meaning of various terms to his interpreter before beginning a lecture to the students. Katsu reminisces about the language problem as follows:

As the language could not be understood by the students, several interpreters translated the lectures. Therefore, both instructors and students felt like 'having an itch that one could not scratch.' The instructors struggled in teaching, and the students had to make great efforts in learning. Even Yatabori, Tsukamoto and Nagamochi, who had studied classical Chinese at the Shōheikō [college] and were famous for acuteness, were totally perplexed studying [in Dutch]. No wonder those who were less talented suffered from serious problems at the School.⁴⁸

The students, especially the Bakufu ones, were not chosen on the basis of mathematical and scientific talents needed for naval training. Basic require-

ments that the Bakufu imposed were either achievements in Confucian studies, experience in shipbuilding and artillery, or a knowledge of the Dutch language.⁴⁹ The Bakufu standard for the selection of its students for the School was insufficiently high and often irrelevant. Most of the students had little idea about Western mathematics and science. Some students who were Bakufu astronomers seem to have been quite talented in Japanese mathematics, but even they had to struggle in its Western counterpart for studies like navigation and surveying. Katsu was also one of those who suffered in the study of Western mathematics:

I am studying navigation now; this subject is impossible to understand without a knowledge of mathematics. As you know, however, I am not at all talented in it, so I have really a tough time these days. Still, having studied a lot, I feel I am learning it gradually....⁵⁰

The Dutch instructors often found other kinds of serious problems in teaching besides problems caused by the lack of knowledge in language and science. One was the strong class consciousness of the students; although every formal student was a samurai, each of them could be classified into a certain group according to his family standing in the Bakufu system. When a student felt his family standing was too high to expect him to participate in a certain task at the School, he simply did not attend that part of the training. And some military skills were traditionally classified as too important for low-ranking samurai to participate in. For instance, the skill of artillery was only for high-ranking samurai in Japan. So, volley firing by all the students was impossible.⁵¹

A kind of conflict between Bakufu and local han students was another problem. Although the School accepted not only Bakufu but also local han samurai, it was a Bakufu school intended mainly for Bakufu samurai. The two groups of students were given totally different treatment at the School. The case of the

written pledge was one example. Treatment in the classroom was another. Usually two Japanese-style rooms were combined into one by removing sliding doors between them for ordinary lectures. In the first room were a Dutch instructor, his interpreter and Bakufu students. The blackboard was of course in this room. Whether there was enough space left in the first room or not, the local han students had to audit the lecture in the second room. It was much easier, therefore, for the Bakufu students to approach the instructor to ask various questions, whereas the local han students were very restricted in doing so.

Nevertheless, generally speaking, local han students were superior to most of the Bakufu students in various subjects. This was so because local han students were carefully selected by han which were much keener in defense affairs than the Bakufu itself. Among the local han, Saga was outstanding; the students from Saga han had studied science and other related subjects before the School started. Furthermore, many of them had participated in the preliminary naval training in the summer of 1854 and 1855. Katsu himself was deeply impressed by the Saga han students and wrote:

As the lord of Saga han was very knowledgeable and farseeing, Dutch studies in his han were very popular in those days. There had already been a reverberatory furnace in Saga. It was built based on Dutch books. Even the Bakufu asked Saga han to found several cannons. Therefore, there were many well-educated men. As the leader, Sano Eijumon arranged all affairs such as the selection of students and ships for Saga han. The students from Saga han were the quickest to learn in naval training among those who were from local han.⁵²

Some of the students from Saga han were said to have shown their talents in the field of medicine and chemistry, so the Dutch instructors provided them with a special series of lectures on such subjects as the production of gunpowder.⁵³ At the end of 1856 (Ansei 3), after one year of schooling, Nabeshima Naomasa even sought unsuccessfully for permission from the Bakufu to have separate

naval training for Saga han students under some Dutch instructors. He felt that it was inefficient and inconvenient for his advanced students to study with the Bakufu and other local han students.⁵⁴

It was very difficult for the Dutch instructors to carry out proper naval training under these circumstances. There was no way for them to prevent friction between the Bakufu and local han students, but they tried to eliminate errors and inconvenience caused by the translation of their lectures. For example, they prepared miniature ship models and sketches for teaching, and the idea worked very well. Yet teaching with mere models and sketches was quite unsatisfactory for the difficult and complicated study of naval affairs. As one of the means to improve the quality of teaching, the students and instructors found that the building of a small ship at Nagasaki would be helpful. So they asked School director Nagai to obtain an extra fund from the Bakufu to build a cutter. Nagai agreed to this proposal and wrote a letter to Abe in February, 1856, requesting permission and a fund of 2,000 ryo. Nagai added in his letter that the building of a cutter would be quite beneficial not only to the ordinary students but also to the shipwrights and blacksmiths who had come all the way from Edo to Nagasaki.⁵⁵

In March, the Bakufu approved the plan. The directive from the Bakufu admitted the merit of building an actual ship and training on it. It also said that the Bakufu did not want to see naval training baffled at the start by saving a mere 2,000 ryo when both the instructors and students were very eager to pursue successful training.⁵⁶ A cutter was later completed by the hands of Bakufu students, shipwrights and blacksmiths, with the assistance of Dutch instructors. Details concerning the cutter will be discussed later.⁵⁷

For the sake of training, another important facility was prepared at the School. The students and non-samurai sailors needed intensive operational training on actual masts and yards, but it was dangerous for them to do so on

the Soembing at first. So a set of model masts and yards for a frigate was built in the School yard for practical training with sails and ropes.⁵⁸ Although most of the sailors were recruited among the very experienced people of Shiwaku-jima Island on the Inland Sea in the Province of Sanuki (now Kagawa-ken), they still needed a great deal of training to work efficiently on Western-style ships. As mentioned in a previous chapter, after the prohibition of the building of large warships and the imposition of structural restrictions on ships in the 17th century, all the Japanese ships were equipped with only one mast and a large rectangular sail. Naturally Japanese sailors were totally at a loss when they first came aboard a modern Western-style ship with tall masts and many sails.

As the naval training was well on its way, in the late summer of 1856 the Bakufu sent a total of twelve new students to Nagasaki including a few who later would perform very important roles in Japan's naval and political affairs. The leader of this group was Izawa Kingo, a son of former Nagasaki Magistrate Izawa Masayoshi. He was dispatched as another captain candidate. Apart from this son of a high-ranking Bakufu official, four students came from Egawa of Izu, two from Bakufu offices in Edo, and four from various local magistrate's offices.⁵⁹ They were the formal members of this group. Enomoto Kamajirō (Takeaki, Buyō), who would later lead the Bakufu fleet and fight against the troops of the new Meiji government until the very end of the resistance, came to Nagasaki at this time. Interestingly, he was not a formal student. He was an attendant to Izawa Kingo, a classmate at the Shōheikō. Enomoto himself also applied for the Nagasaki Naval Training School, but he is said to have been turned down because of his poor achievement at the Bakufu college for Confucian studies. Though rejected, Enomoto did not give up this opportunity to study naval affairs under Dutch instructors. He inquired through various connections

and finally obtained a permit to go with Izawa. It was an arrangement made by Izawa's father Masayoshi.⁶⁰ Egawa of Izu dispatched an important man, Hida Hamagorō, at this time. He would emerge as one of the most prominent ship engineers in the late Tokugawa and early Meiji periods.⁶¹

Katsu failed to record when these students arrived at Nagasaki. As Hida, who had been in Edo for study, left the city soon after he received the order to take naval training on July 14 (6/13), he must have arrived at Nagasaki sometime in late August or early September.⁶² We can assume that the other students also joined the School around the same time. These students were usually regarded as second-term students, although apparently no special arrangement was made for them at the School. The newly arrived students just joined the others at lectures which had already been under way for more than ten months. We can imagine from this fact how inadequately the Bakufu or the Japanese understood the Western schooling system at Nagasaki. The Dutch instructors at the School may have shown their displeasure at this kind of irregularity perpetrated by the Bakufu, but it is not on record.

As time passed, many academic problems arose one after another. Together with the language problem, they caused the Dutch instructors much confusion and frustration. But some of the students gradually overcame the difficulties and showed some progress. Pels Rijken vividly recorded the situation in his report to the Dutch government. He noted that the most serious academic problem the Dutch instructors perceived was the lack of basic scientific knowledge of most of the students. As the instructor who was in charge of navigation, Pels Rijken seriously regreted that he "had no way to teach the rudiments of geometry and ship operations as the students totally lacked a basic knowledge."⁶³ He had been told that most of the students had a certain knowledge of science before the School started. He found, however, that their knowledge was very fragmentary

and not at all systematic. Pels Rijken admitted that there were some students who were quite knowledgeable, still he was sure that all the students seriously needed a systematic knowledge of basic science and other related subjects. So, for the first time in Japan's history, systematic Western science education from the very fundamentals was offered to students at the Nagasaki Naval Training School.⁶⁴

Despite many barriers in study, students gradually became accustomed to the language and then came to understand various subjects. "After one year, many students were able to calculate figures such as square root and cube root quickly and correctly. They were able to solve very difficult questions in mathematics, too."⁶⁵ Pels Rijken thus reported the improvement of the students with satisfaction.

Besides the lectures in the classroom, training cruises were also tried many times. But it seems that the Bakufu hesitated to give permission for the instructors and students to set out on long-distance cruises. Probably the Nagasaki Magistrate was not fully assured of the progress of the students and was reluctant to take the responsibility in case the School lost a Bakufu ship in training. Training cruises were, therefore, limited to the seas not far from Nagasaki. Pels Rijken explains the situation as follows:

In 1855, only fourteen training cruises could be made; the longest one lasted only three days. The commander of the detachment [Pels Rijken himself], under these circumstances, called this to the attention of Japan's naval magistrate [perhaps Nagasaki Magistrate or the School director] in a report on naval training submitted to him. However, training cruises beyond Nomo Peninsula and the Goto Islands were not permitted.⁶⁶

In practical fields such as engineering and shipbuilding, the students showed great improvement in one year. Pels Rijken praised them as follows:

All the students showed impressive improvement in knowledge of steam engineering. Generally, they showed great enthusiasm in the study of steam engines and had the ability to master it. In

shipbuilding, when the students learned the structure of ships and the names of various parts, they studied further and tried to build a ship by themselves.⁶⁷

The building of the cutter was, in fact, one of the most recognizable fruits of the first-term naval training. As mentioned before, the School obtained approval and a fund to build a cutter from the Bakufu in the spring of 1856. Very little is known about this cutter. The construction itself began perhaps in the late spring or summer of the same year. It was successfully launched on November 18 (10/21) in the presence of most of the important members from the Nagasaki Magistrate's Office and the School. About a half year after this, sometime in the summer of 1857 (Ansei 4), it was finally completed. As most of the first-term Bakufu students had left for Edo in the spring of 1857, it was brought to completion mainly by several remaining Bakufu students including Katsu and the Dutch instructors.⁶⁸

The Saga han students were stimulated by the construction of this cutter and they also built a similar one in 1858. The Saga han cutter was about 24 meters long and 6.3 meters wide and the tonnage was about 50 tons.⁶⁹ Most probably the Bakufu cutter measured very close to this Saga han cutter. No name of the Bakufu cutter is recorded. Sappan Kaigun-shi (The History of the Satsuma Han Navy) simply calls it the Nagasaki-style cutter. The home-built cutter was not ready for training cruises by the first-term students, yet its construction provided them with invaluable opportunities to design, prepare, build and fit out a Western-style ship under the strict supervision of the Dutch instructors. This cutter was to be frequently utilized for training after 1857.

Neither Japanese nor Dutch accounts of those days tell much about how well the Dutch instructors taught at Nagasaki. One of the rare accounts was given by School director Nagai in the autumn of 1856, about a year after the

School started. He expressed his opinion in a short memorial to the Bakufu concerning the military education of Bakufu samurai. Though he was the director of the Bakufu naval training school, he recommended that the Edo executives send samurai abroad in order to have them study naval affairs rather than asking for the expansion and upgrading of his school. Why did Nagai do so? According to his memorial, the biggest concern was the cost of operation of the School. As the School director, he was not yet convinced of the success of training when he wrote the memorial. His worry over the expense was further amplified when he thought of the quality of education. For Nagai, the quality of the instructors seemed to be unsatisfactory; he thought that not all of the Dutch instructors were really capable of teaching and providing the students with reasonable education.⁷⁰ It is difficult for us to know to what extent Nagai's assumption was correct. In fact the School had great difficulties as the first one of its kind in Japan. Both the Japanese and Dutch sides were responsible for the difficulties. While many Japanese students revealed their incompetence in naval affairs, the Dutch instructors also showed that they were not always capable of teaching well. Although Captain Fabius carefully chose them, they were by no means perfect. No instructors understood the Japanese language. Many of them may have been arrogant towards the Japanese who did not understand either the Dutch language or basic science and other subjects. Many instructors may have behaved poorly at Nagasaki, missing their native country at the other end of the world. However, the result of the first-term naval training under Pels Rijken should be judged by what prowess the Japanese students showed later.⁷¹

On January 31, 1857 (Ansei 4, 1/6), Nagai Iwanojō met Donker Curtius and G.C.C. Pels Rijken and discussed affairs of the School and its future plans. At this meeting, Nagai told the Dutch that the Bakufu would soon call back all the Bakufu students to Edo. He said that all the first-term Bakufu students

would be operating the Kankō Maru (Soembing)⁷² by themselves on the return to Edo. Pels Rijken was amazed at this plan. He acknowledged the achievements of the students, still he hesitated to say that they were fully capable of operating the Kankō Maru all the way to Edo. He asked Nagai to make arrangements with the Bakufu in Edo to postpone the students' departure in order to allow them to study further. The Bakufu did not accept the suggestion by Pels Rijken. Instead, it confirmed its order to the students, commanding them to return to Edo in April.

The Bakufu had been operating the Military Academy (Kōbu-sho) since the spring of 1856 at Tsukiji in Edo. The main subjects taught at the academy were traditional martial arts such as swordsmanship and archery and relatively modern artillery.⁷³ The Bakufu originally planned to have a naval training school as a part of the academy, but its opening was delayed as no Japanese instructors could be found. As the Bakufu executives heard of the progress of naval training at Nagasaki, they became convinced that it was time to open a naval training school as a part of the Military Academy.

On March 26 (3/1), before leaving Nagasaki, all the Bakufu students led by School director Nagai visited the Dutch Nagasaki Post on Dejima to pay their respects to the Dutch instructors. It was a sort of graduation ceremony for the first-term students. Three days later, on March 29 (3/4), the Kankō Maru, under acting Admiral Nagai and Captain Yatabori Keizō, with most of the Bakufu students on board, set out for Edo.⁷⁴

The Bakufu students safely operated the ship and arrived at Kanagawa (now Yokohama) on April 20 (3/26). Although ships built in Japan on obsolete Western models had made such voyages before, this was the first operation of a modern Western ship by a purely Japanese crew. The Bakufu was satisfied with the fact that the Japanese students successfully operated the ship without the help of Dutch instructors. It immediately dispatched a special messenger to

Nagasaki to inform the Dutch instructors of the safe arrival of the ship. In addition, a great number of gifts followed the messenger as tokens of appreciation. Perhaps this successful voyage was the most significant achievement of the Bakufu students in their one and a half years of naval training. And this may have convinced Nagai of his school's success.

While most of the first-term Bakufu students left Nagasaki for Edo and worked as instructors and assistants at the newly opened Gunkan Kyōju-sho (Naval Training Institute)⁷⁵, Katsu Rintarō and several other students remained at Nagasaki. When the Dutch instructors heard that all the students were to return to Edo, they requested Nagai to choose at least one student who would work to facilitate future naval training. As the two-year contract with the instructors under Pels Rijken came closer to the end, the Bakufu had made a new agreement with the Dutch government concerning a new group of instructors. At the same time, it also began choosing the next group of Bakufu students to send to Nagasaki. Under such circumstances, Pels Rijken was worrying about possible problems and difficulties similar to the ones he and his instructors had experienced in case all the experienced students left Nagasaki. Nagai and Katsu discussed this matter and the latter, who was about to leave Nagasaki by land, decided to stay at the School to work as a liaison man between the new students and instructors.⁷⁶

Although most of the Bakufu students left Nagasaki, the lectures and naval training continued for the remaining students, but they found life dull at the School. Now the Nagasaki Naval Training School had neither a director nor the Kankō Maru. Discipline lapsed without strong leadership, and lectures and training made little sense without a training ship. The Nagasaki-style cutter had not yet been completed. In June, Kimura Yoshitake, who would later become the leader of the voyage of the Kanrin Maru to the United States in 1860, came to Nagasaki and took office as School director. Under Kimura, the School

was gradually brought back to life. In particular, he clamped down on the students, who had been playing truant by going to the red-light and other districts in Nagasaki.⁷⁷

In the early summer of 1857 (Ansei 4, 6/3, 4 and 5), three regular Dutch trading ships, the Jan Daniel, the Anna Digna, and the Catharine Theresia, arrived consecutively at Nagasaki from Batavia. Besides ordinary trade items, the ships brought various machines and other equipment for a planned naval facility at Nagasaki. They also brought news that a steamer the Bakufu ordered from the Netherlands was coming to Japan within a few months.⁷⁸

The Dutch merchants on these ships enjoyed very successful business with the Japanese this year. Apart from the items that had been ordered, they sold two of the three ships to the Japanese. The Catharine Theresia was purchased by the Bakufu and the Jan Daniel by Saga han. Although both of them were relatively small sailing vessels, the Japanese bought them because they were said to be very useful not only for transportation but also for training seamen.⁷⁹

The steamer, long awaited by the Bakufu, finally showed up in Nagasaki harbour on September 22 (8/5). This ship, named the Japan by the Dutch, was one of the ships the Bakufu had ordered in 1854 in the aftermath of Perry's visit. The original plans called for construction at Batavia due to the international situation in Europe, but the Dutch government later changed its policy and had a Dutch shipbuilder in Rotterdam build these ships. In the early spring of 1857, the first ship was finished. It was a three-masted steamer with a screw propeller. The size and tonnage of the ship were recorded to be 55 meters long, 8 meters wide and 625 tons.⁸⁰ It was the Japan that would later be used for a trans-Pacific voyage by a Japanese crew in 1860 (Man'en 1) with the new name of the Kanrin Maru.

The Japan was brought by a new group of Dutch instructors for the Nagasaki

Naval Training School. It left the Netherlands on March 26 (3/1) and arrived at Nagasaki about half a year later on September 22. According to Captain van Kattendyke, the ship was tested on its way to Japan and proved to be excellent.⁸¹ The new instructors of the second detachment were specially organized by the Dutch government in response to the request by the Bakufu. The instructors, led by W.J.C. Ridder Huyssen van Kattendyke, numbered thirty-seven, fifteen more than in the first detachment. Most significant was the addition of instructors in the fields of practical mechanical engineering. Besides ordinary seamen, it brought several skilled artisans such as lathe operators, a metal caster, blacksmith, printer and others.⁸² Two highly professionalized men were also included in this detachment; Pompe van Meerdervoort, the medical doctor, and H. Hardes, the engineer officer who would be responsible for the construction of a naval facility at Nagasaki.

The Nagasaki Seitetsu-sho would become an important facility for the Bakufu navy. Although the Japanese name of this works means "Nagasaki Iron Mill," in fact it was a large-scale machine shop for naval repairs. Katsu tells in detail in his Kaigun Rekishi about this first Western-style naval facility in Japan.⁸³ Based on advice by the first group of Dutch instructors, the Bakufu ordered a set of machines and other necessary equipment to build a repair facility in December, 1855.⁸⁴ According to an outline plan that appears in Katsu's Kaigun Rekishi, we can tell that the Bakufu had a quite ambitious plan to build a large-scale naval facility at Nagasaki.⁸⁵

The duties of G.C.C. Pels Rijken and his instructors at the Nagasaki Naval Training School were duly taken over by the second detachment in October. The Bakufu rewarded the instructors of the first detachment who had served in Japan for more than two years with generous amounts of special bonuses. Besides typical gifts such as Japanese swords and clothes, all the instructors including

sailors received special allowances equivalent to at least two years' salary. The head instructor, Pels Rijken, was given a bonus equal to five times his annual salary.⁸⁶ This shows not only how the Bakufu evaluated the contribution of the Dutch instructors at the School but also how anxious it was for a good reputation among Westerners regarding the treatment of foreign instructors in Japan. Bakufu executives must have based their evaluation of the Dutch services on what they saw at the Naval Training Institute at Tsukiji, all fruits of the training at Nagasaki. The first detachment left Nagasaki on the Anna Digna on November 2 (9/16). The Bakufu and local han students and new instructors were all on board the Japan and tugged the sailing ship to the outside of Nagasaki harbour to see it off.⁸⁷

Huyssen van Kattendyke, 41 years old when he took command of the second detachment to Japan, was an excellent seaman who had experience in about half a dozen warships on the Atlantic and Indian Oceans.⁸⁸ Like his predecessor Pels Rijken, van Kattendyke also received a monthly wage equivalent to 450 guilders, while other members received wages according to their job descriptions based on the pay schedule for the first detachment. The artisans were very well paid compared to ordinary sailors. Except for the printer who received the relatively small amount of 75 guilders, all of them earned 180 guilders a month. Dr. Pompe van Meerdervoort was paid 225 guilders. The exception to the established pay scale was the engineer officer, H. Harde, who was assigned to be in charge of the construction of the machine shop. His monthly pay was the equivalent of 600 guilders. According to Katsu, the payment for the instructors totalled 447 kanme (1,676.25 kilograms or about 3,700 pounds) of silver annually.⁸⁹

During the months of October and November, new Bakufu and local han students gradually arrived at Nagasaki. The number of the students was less this time, and only a total of twenty-six new Bakufu students came to Nagasaki. Their positions in the Bakufu before joining the School were as follows:

Men from the Barbarian Books Research Institute*	6 (23.1%)
Men from an Edo Office of the Hakodate Magistrate's Office	4 (15.4%)
Men from the Uruga Magistrate's Office	3 (11.5%)
Bakufu Astronomers	2 (7.7%)
Bakufu Medical Doctor	1 (3.8%)
Others**	10 (38.5%)

*Bansho Shirabe-sho

**These included some people without any permanent Bakufu positions.⁹⁰

While there were nineteen students (39.6%) whose original major occupation was artillery among the first-term students, there was none in this group. Instead, a total of ten students had been studying foreign books at offices like the Barbarian Books Research Institute and the Hakodate Magistrate's Edo office. They had been working with Western books covering various fields of study. Matsumoto Ryojun, a Bakufu medical doctor, came to Nagasaki as one of the formal Bakufu students. But his main concern at Nagasaki was not naval training but medical study under Dr. van Meerdervoort. The Nagasaki Naval Training School was about to change itself into something more than a military school with the addition of medical courses and the machine shop.

Four students, including Katsu, remained at Nagasaki from among the first-term Bakufu students. All the students from the second-term group, except for one who had died in the previous year due to illness, continued at the School. When van Kattendyke started the school program sometime in November, therefore, a total of forty-one Bakufu students was studying. Very little is known about local han students. Saga Han Kaigun-shi (The History of the Saga Han Navy)

tells us that twenty-one of its students participated in the naval training under van Kattendyke.⁹¹ Further detailed research is necessary to learn about students from other local han, although their role was relatively minor.

Commander van Kattendyke and his instructors offered courses very similar to the ones given by Pels Rijken. But, as had been planned, he fully utilized various instructors he had brought to make his courses more diversified than before, including more detailed courses for basic science and more applied technology. Dr. van Meerdervoort mainly taught medicine at Dejima, but he also taught a basic medical course and demonstrated practical techniques such as bandaging as part of naval training. The courses of physics and chemistry were also taught by this active young doctor. All the artisans were busy in the construction of the machine shop at Akunoura in Nagasaki harbour, but, whenever time permitted, they also taught the students their own trade at the School. One of the Japanese interpreters was said to be always with the Dutch printer and learned Dutch printing methods.⁹²

Under the direction of van Kattendyke, the students experienced more training cruises than before. Being convinced by the success of the first-term students, the Bakufu executives first purchased a sailing vessel for the School and then allowed the School to use the Bakufu ships for training voyages of varying duration. During the autumn and winter of 1857, the instructors and students made frequent short-distance cruises on these ships. The Bakufu's acquisition of the Catharine Theresia (re-named the Hoshō Maru), a sailing vessel, was found to be very efficacious, as the ship was useful for training the Japanese students in the operation of sails. Sailing vessels were much more difficult than steamers to operate, thus providing novice Japanese students with more opportunities to practice the general operation of ships. Even today, this is regarded as true and training on sailing vessels is very common

practice all over the world.

Full-scale training cruises began in the spring of 1858 (Ansei 5) after the winter storm season was over. Numerous trips were carried out mainly around the northwestern part of Kyūshū, the major southwestern island of Japan. Among these cruises in 1858, the most significant one was a circumnavigation of Kyūshū in April.⁹³ Early in April, the Japan sailed out of Nagasaki harbour to the north. On board the ship were more than 120 Japanese students and sailors and nineteen Dutch instructors. Katsu Rintarō was the captain and Izawa Kingo performed the role of vice-captain. Enomoto Kamajirō had already become an important member of the ship as an engineer officer. There were only four students from local han; one each from Saga and Fukuoka and two from Satsuma. The Dutch instructors included the commander van Kattendyke, engineer officer H. Hardes and Dr. Pompe van Meerdervoort. The Japan first visited Hirado where a Dutch trading factory once existed in the 17th century. And then it proceeded to Shimonoseki, an important port town on the western tip of Honshū, Japan's largest island. Van Kattendyke wrote in his diary that "Katsu proposed a plan to circumnavigate Kyūshū Island and visit Kagoshima, capital of Satsuma han, when the Japan was at Shimonoseki."⁹⁴ This statement sounds as if Katsu and other Japanese hit upon the plan to visit Kagoshima while at Shimonoseki. The truth was, however, that the plan had been carefully made before the Nagasaki departure of the ship. The Dutch instructors were not told of the plan at all. Shimazu Nariakira of Satsuma han was, as mentioned before, one of the most knowledgeable lords about Western affairs, especially military technology. He had written to School director Kimura Yoshitake asking that the Japan be sent to Kagoshima so that the militarily enlightened lord of Satsuma could personally observe a Western-style warship.⁹⁵ Two Satsuma men on the Japan were to pilot the ship when they arrived in Kagoshima Bay. It is probably not correct to say that the Japanese deceived the Dutch instructors. Rather, it is appropriate

for us to assume that the Japanese regarded the Dutch instructors purely as technical advisors and instructors.

On April 9 (3/15), the Japan arrived at Yamagawa, a port town about 55 kilometers south of Kagoshima at the mouth of Kagoshima Bay. Shimazu Nariakira, who had been at nearby hot springs, visited the ship on the following day. At Yamagawa the lord formally gave an invitation to the crew to sail up the bay to Kagoshima. Early in the evening of April 10 (3/16), the ship anchored in Kagoshima harbour where the crew was greeted by Satsuma han samurai and hundreds of curious townspeople who had never seen Europeans before.⁹⁶

For the next few days, the Dutch instructors and Japanese crew were personally guided to various places in Kagoshima by Shimazu. His intention was to obtain technological and strategic advice about his industrial facilities and cannon batteries from the Dutch experts. He openly showed them many important military facilities, and the Dutch instructors earnestly made valuable comments and suggestions.⁹⁷ All the Dutch instructors seem to have been very impressed by the numerous industrial facilities at Kagoshima. According to van Kattendyke's diary, they were especially impressed by the Shusei-kan factory, where Satsuma men worked with various metals, glass, machines and so on. Thomas C. Smith describes in his book, Political Change and Industrial Development in Japan, how busy the factory was in the late 1850's.⁹⁸

Van Kattendyke also observed a tiny ship right next to the Japan in the harbour. It was the Unkō Maru, the first steamer built by the Japanese. He found the steam engine of the ship could yield only 10 to 20 per cent of its theoretical maximum power due to several mechanical defects and poor workmanship. However, he was really amazed at seeing the tiny steamer at Kagoshima:

I was very much surprised at the extraordinary talent of the people who had built this sort of engine based on a very brief blueprint. They had never actually seen a single steam engine before. It requires a lot of effort even for us Dutch to fully

understand the function of a steam engine!⁹⁹

Later the Dutch instructors advised Satsuma men to send the steamer to Nagasaki so that the former would be able to repair and improve the function of the engine. Indeed, the steam engine was repaired in the summer of the same year at Nagasaki and used until the end of the Tokugawa period.¹⁰⁰

Satsuma han samurai were very eager to seek opinions about their batteries and their cannons around Kagoshima harbour. The Dutch instructors were taken to many construction sites of new batteries. They were also shown various cannons that Satsuma han was founding, including those made of both bronze and iron. Van Kattendyke recorded that the bronze cannons were very well made, while the iron cannons were not yet skillfully done.¹⁰¹

On April 12 (3/18), the Japan left Kagoshima and stayed for a day at Yamagawa before it sailed off to Nagasaki. Shimazu invited the ship there again because he really wanted to see it once more. This time the lord held a party on board the Japan and invited the Dutch instructors, Katsu and Izawa. There should be no need to mention that Shimazu enjoyed seeing various parts of the ship's equipment as well as the party itself at which he even listened to violin music played by van Kattendyke.¹⁰²

Van Kattendyke says that he was impressed by two of the people whom he met at Kagoshima: the lord Shimazu Nariakira and a man named Matsuki Koan. Shimazu was described by van Kattendyke as one of the most powerful lords in Japan who was promoting social reforms and the development of industrial technology. Van Kattendyke thought Shimazu very affable, though he looked much older than his actual age.¹⁰³ Matsuki Koan, later known as Terashima Munenori, became one of the most important diplomats in the early Meiji period.¹⁰⁴ He was a teacher of the Dutch language and often translated Dutch writings into Japanese. Van Kattendyke wrote that "this man did not speak Dutch but wrote it

faultlessly."¹⁰⁵ He was also amazed that Matsuki's curiosity was so broad that often Dutch instructors were not able to satisfy him.

Dr. van Meerdervoort also noted his impression of the visit to Satsuma in his diary. It tells us how he saw Shimazu:

What we felt very strange [when meeting the lord Shimazu] was the extremely frugal clothes of the lord and his servants. The lord hated extravagance. He looked very friendly, but, at the same time, he seemed to be stiff. I thought he was older than 55 years of age, but, in actuality, I overcounted by about ten years. Perhaps he was the most important man in Japan in those days.¹⁰⁶

After observing various facilities and meeting many people at Kagoshima, the young Dutch doctor concluded that "this domain will be the most prosperous and strongest one in Japan if it is allowed to have intercourse with Europeans more frequently."¹⁰⁷

The officers and Dutch instructors promised Shimazu that they would be visiting Kagoshima again in the near future and left Yamagawa on April 13 (3/19). The Japan arrived safely at Nagasaki on the following day.

The visit of the Japan to Kagoshima created an opportunity for Katsu Rintarō to meet several important figures in one of the most influential han. It is not inappropriate to say that after this time Katsu began to realize a new role for himself as a man to work between local han lords and the Tokugawa Bakufu in Edo. Several letters written by Shimazu Nariakira after the visit of the Japan show us how frankly Shimazu and Katsu discussed various affairs such as military development, domestic politics and the international situation. For example, in a letter to Matsudaira Shungaku (Keiei, Yoshinaga) of Echizen han (today Fukui-ken), Shimazu mentioned the development of the naval training at Nagasaki. He said that Katsu confessed to him that the Japanese students were then capable of operating the Japan, a steamer, quite well but were not really proficient in the operation of the Hōshō Maru, a sailing vessel.¹⁰⁸

(In fact, the Japanese students had never tried a long-distance cruise on a modern Western-style sailing vessel before by themselves. The only previous long-distance cruise was that of the Kankō Maru, the steamer, to Edo the year before.) A letter to one of Shimazu's subjects indicates that Katsu personally made arrangements with Shimazu to discuss many military affairs.¹⁰⁹ The most important letter was written on May 24 (4/12) by Shimazu to Katsu in Nagasaki. Besides naval training affairs, Shimazu candidly expressed his opinion about the proposed commercial treaties.¹¹⁰ Judging from this letter, Katsu and Shimazu seem to have become quite intimate with each other through the meeting at Kagoshima. It is possible for us to assume that Shimazu and other Satsuma officials after that time expected Katsu to achieve prominence in the future Bakufu system.

In February, 1858, before the circumnavigation of Kyūshū, the Bakufu had ordered School director Kimura to send the Hōshō Maru with a Japanese crew to Edo as soon as possible. Kimura chose Katsu as the captain of the ship and prepared for the voyage. This scheme was, however, postponed because of the opposition by van Kattendyke who claimed that the operation of the Hōshō Maru would still be too difficult for a Japanese crew at that time. On June 15 (5/5), the School again heard from Edo that the Hōshō Maru was needed in the capital region so that the ship must be brought to Edo immediately. Nobody opposed the Bakufu decision this time and Kimura ordered Izawa Kingo to direct the operation of the ship. Katsu was very unhappy about Kimura's decision as he was being replaced as captain of the Hōshō Maru. But he had no choice but to obey the decision and stay at Nagasaki. Katsu was sorry for the decision not only because he missed an opportunity to operate the Hōshō Maru but also because he lost a chance to return to Edo. He had become much more interested in political affairs in Edo and Kyoto than naval training in those days.

Although van Kattendyke did not oppose the voyage of the Hōshō Maru under Izawa, he was still doubtful about the ability of a Japanese crew to sail the ship. So he proposed a plan to use the Japan to tug the Hōshō Maru to the south of Kyūshū where Edo-bound ships could catch the right wind.¹¹¹

The two ships left Nagasaki on June 21 (5/11) in stormy weather and somehow managed to reach Yamagawa. While the Hōshō Maru was waiting for the storm to calm down, the Japan again visited Kagoshima. The crew of the ship was led this time by Kimura Yoshitake. At Kagoshima harbour, the Bakufu crew and Dutch instructors were warmly greeted by Shimazu on the Mannen Maru, one of the four ships Satsuma had built in 1854.¹¹² Shimazu expected to hear comments from the Dutch instructors about the Satsuma-built ship. Two months before, the ship had been under repair and could not be examined by the professionals from Europe. Van Kattendyke wrote what he told Shimazu about the Mannen Maru in his diary:

I saw a three-masted ship with a tonnage of about 1,000 in the harbour. It was a ship built at Satsuma four years ago. Because the blueprint they used was from a very old book on shipbuilding, the ship looked very inadequate. The appearance and the construction were, if I may be allowed a little exaggeration, like a ship of the old East India Company.....The ship was named the Mannen Maru.¹¹³

This must have been a sad comment to Shimazu who had been bravely promoting the building of Western-style ships in his own domain. Soon Satsuma han would cease to build ships and begin buying them from Western countries.

The Dutch instructors were again asked to give their opinions concerning the defense facilities of Kagoshima. To their surprise, Shimazu even showed them a classified map which detailed defense facilities of the harbour. On their tour, they were again astonished when they found some of the suggestions they had made in April had already materialized. The Dutch had never seen the Japanese carrying out any plans or suggestions so quickly.¹¹⁴

The Japan weighed anchor on June 27 (5/17) and proceeded to Yamagawa where

it found the Hōshō Maru had already left for Edo. After one day's stay, the Japan left Yamagawa in a heavy storm and arrived at Nagasaki. Both the Japanese and Dutch at Nagasaki worried about Captain Izawa and other members on the Hōshō Maru until they finally heard from Edo of their safe arrival. The ship sailed through stormy weather for six days to reach Edo and proved the capability of the crew in the operation of a sailing vessel.¹¹⁵ The Hōshō Maru was henceforth kept at the Naval Training Institute at Tsukiji and used for naval training and patrolling Edo Bay. Most of the officers worked at the institute as instructors and teaching assistants.

From about that time on, the traffic between Edo, Osaka and Nagasaki increased and often the Kankō Maru and the Japan were used to make up a shortage of other transportation means. The Japan went to Edo for the first time in July, soon after it returned from Kagoshima. It travelled a few times between Nagasaki and Edo during 1858. The Bakufu needed a quick and trustworthy means of transportation, especially between Kyoto/Osaka and Edo, as the negotiations between the Bakufu and the Imperial Court became intense in relation to the commercial treaty bargaining with the United States in the spring and summer. The Nagasaki Naval Training School suffered from the lack of training ships because the Japan was often pressed into service for transportation between Edo and the Kyoto/Osaka area.

The second ship from the Netherlands for the Bakufu arrived at Nagasaki on October 9 (9/3). The new ship Edo was later renamed the Chōyō Maru and used mainly for naval training at Nagasaki. The Japan and this new ship were sister ships. After a month, on November 10 (10/5), Saga han finally obtained a steamer from the Netherlands. The Nagasaki, a three-hundred ton screw propelled ship, was slightly smaller but very similar to the Japan and the Edo. It was later renamed the Denryū Maru.¹¹⁶ The Nagasaki Naval Training School was best served by training ships at the end of 1858 with such ships available

as the Kanrin Maru (Japan)¹¹⁷, the Chōyō Maru, the Denryū Maru, the Hiun Maru (Jan Daniel), and two Nagasaki-style cutters. A trip to Fukuoka han in late November was perhaps the final and most impressive training cruise the Dutch instructors and students made during the entire period of the School. Two of the newest and most advanced steamers, the Kanrin Maru and the Chōyō Maru, visited Hakata, capital of the domain, at the request of lord Kuroda Narihiro. The crew and the Dutch instructors on the two ships enjoyed the stay at Hakata, and on their way back to Nagasaki, the Japanese crew demonstrated their well-trained ability to operate the ships.¹¹⁸

Although both lectures and training cruises went on continuously in the second half of 1858, the attention of the students was shifted from naval training to political affairs in Edo and Kyoto. In this year, the commercial treaty with the United States was concluded on July 29 (6/19) and then it was followed by similar treaties with the Netherlands, Russia, Great Britain and France. On the other hand, more and more anti-foreign feeling spread all over Japan, backed by the Imperial Court in Kyoto, causing a serious conflict between the pro-and anti-treaty factions.

This situation was further complicated by the problem of succession; the thirteenth Shogun Iesada was ailing and expected to die soon without an heir. In fact, the matter of the succession may have been the bigger reason for the contemporary political confusion. The selection of the successor to Iesada was urgent, and two candidates were considered. One was Tokugawa Yoshitomi of Kii Province (now Wakayama-ken), nearest to the Shogun by descent but still only thirteen years old. The other was Hitotsubashi Keiki, seventh son of Tokugawa Nariaki of Mito han. He was adopted into the Hitotsubashi house and was regarded as a promising young figure. The supporters of Keiki were people who had been advocating various administrative and military reforms to cope with

changing international and domestic situations. They were so-called reforming lords, including Keiki's own father, and a number of Bakufu officials, especially among those of middle rank. On the other hand, Yoshitomi's claim was strongly based on descent. Most of the Bakufu senior officials and fudai¹¹⁹ daimyo found their own power in the principle of heredity and considered that Keiki might bring a drastic change in their privileges. They needed a figure-head rather than an able, active shogun in order to carry out their own conservative policies. After Ii Naosuke, the lord of Hikone han (now Shiga-ken) and later the leader of the Kii faction, was appointed by the Shogun to the position of tairo (grand councillor), the most powerful position among the Bakufu officials, on June 4 (4/23), pro-Hitotsubashi lords and officials were ignored and gradually ousted from important Bakufu positions. Under these circumstances, the so-called Ansei no Taigoku (the Purge of the Ansei Period) began under the direction of Ii in October and sent many anti-Ii men to prison. Political resentment towards Ii Naosuke spread among the students at the Nagasaki Naval Training School and naval training seems to have become a minor issue compared to politics.

Katsu himself decided to leave Nagasaki for Edo as he heard of political changes and new developments in treaty affairs. At this time, however, he was much more interested in visiting Europe and the United States than in domestic politics. And he considered that he would be able to create an opportunity to do so by proposing a plan to send a Japanese diplomatic mission abroad on a Japanese ship.

The Chōyō Maru commanded by Captain Katsu left Nagasaki on February 7, 1859 (Ansei 6, 1/5). The ship proceeded through a severe winter storm and managed to reach Edo Bay on February 17 (1/15).¹²⁰ Katsu had been away from Edo for nearly three and a half years. He was no longer a mere samurai with a knowledge of Dutch studies. He had experienced extensive naval training,

learned many Western subjects, obtained the most recent news of Western countries, and, most importantly, got acquainted with various lords and their men in the southwestern provinces which were about to emerge on to the stage in the main stream of Japan's modern history.

Upon his return, Katsu was appointed to be the head instructor at the Naval Training Institute at Tsukiji. Katsu was certainly a pro-Hitotsubashi man, and he was favoured by Bakufu middle-ranking officials such as Mizuno Tadanori and Nagai Naomune (Iwanojō), who were being purged by Ii Naosuke. But Katsu did not hold an important Bakufu position and had been away from Edo for the last three years during which the political conflict between the Kii and Hitotsubashi factions had become most fierce. Therefore, despite his pro-Hitotsubashi inclinations, he could obtain the position of head instructor at the Institute and was chosen to be the captain of the Kanrin Maru on its voyage to the United States in the following year of 1860.

The Dutch instructors were informed by the Nagasaki Magistrate's Office on March 10, 1859 (Ansei 6, 2/6), that the Bakufu in Edo had decided to discontinue the operation of the Nagasaki Naval Training School. Van Kattendyke wrote in his diary that the notice was unexpected by all the Dutch instructors:

This strange notice that nobody anticipated gave us a very unpleasant feeling. Because many of us suspected that the Japanese government decided to discharge us as soon as possible since it was not satisfied with our training. However, I myself do not think that way. Rather, as some students explained, the government must have reached the conclusion that no further assistance and education by Dutch instructors is necessary because the Japanese students were successful in the operation of steamers and proved that they could make voyages safely. It is the character of the Japanese people to try to do everything all by themselves. The students who were angry at the government [decision] accused the newly appointed tairō of responsibility for the closure of the School. The tairō belongs to a conservative party.¹²¹

In April, most of the Bakufu and local han students other than those from Saga han left Nagasaki. And on the 18th of the same month, regular operation of the School was terminated. After that, the instructors continued only a few courses for Saga han samurai, and they spent most of their time on the repair of the Kankō Maru. The ship had been used for more than eight years and its engine needed a complete overhaul. Some students from Saga han were always at the site of the overhaul since they were ordered by their lord to learn every detail of the Kankō Maru. Special arrangements had been made between the Bakufu and Nabeshima Naomasa concerning the use of the Kankō Maru after the School was closed. As the first steamer he had seen, Nabeshima never gave up his dream of possessing the Kankō Maru and finally obtained permission to borrow it for the use of his domain.¹²² The trial of the refurbished Kankō Maru was completed in October and the Dutch instructors finished their duty in Japan.

After more than two years' stay in Japan, van Kattendyke and other leading members of the second detachment to Japan made their farewells to the Nagasaki Naval Training School, the town of Nagasaki, Japan and its people. The Kanrin Maru, which was at Nagasaki then, flew the Dutch national emblem and fired a seven-gun salute to the Dutch instructors outward bound for Batavia. It was November 4, 1859 (Ansei 6, 10/10). Thus, in amity yet with some disappointment, ended the activities of the Nagasaki Naval Training School.

CHAPTER 5 Conclusion: Reasons for the Closure and the Significance of the Nagasaki Naval Training School

In the midst of Japan's international and domestic confusion in the late 1850's, the Nagasaki Naval Training School was formally operated for about three years. But instruction continued almost four years because informal schooling started in the summer of 1855 and ended in 1859, also in the summer. The School trained a total of about 200 samurai students and an unknown number of non-samurai students from various parts of the country. It differed from traditional schools in Japan. Although the Bakufu established it, many samurai from local domains were allowed to attend. The School was the first one in Japan to employ a systematic Western method in teaching. Tokugawa teachers did not customarily devise teaching plans, curricula and timetables. The many private schools for Western studies (Dutch studies) in the early 1800's utilized traditional Japanese methods, in which students studied all by themselves with little methodical assistance from their masters. The Nagasaki Naval Training School was one of the last large-scale endeavours of the ailing Tokugawa Bakufu. We have dealt in the previous chapter with the operation of the School, and now we will examine the reasons for its termination and the legacy left after its closure in 1859.

Several authors in different books have presented various reasons for the closure of the School. Those reasons can be categorized into two groups, one from the Japanese side and the other from the Dutch side.

Fumikura Heijirō, the author of Bakumatsu Gunkan Kanrin Maru (The Kanrin Maru, Warship in the Late Tokugawa Period), considers that the School was closed as a result of the installation of Ii Naosuke as tairo. He says that Ii, the strong conservative politician, decided to end the operation of the School at

Nagasaki because the Hikone lord disliked anything Western.¹ He quoted one of Ii's short poems (waka):

Why should we learn foreign ways
When we have inherited our traditional way of the samurai.²

Fumikura thus accuses Ii of a conservative military policy in closing the Nagasaki Naval Training School.

Despite Fumikura's assumption, however, it is not right to conclude that Ii's conservatism brought the School to an end, since he maintained the Naval Training Institute at Tsukiji, which offered naval training courses based on the system of the Dutch navy. Although he was the lord of Hikone han, an inland domain without direct access to the ocean, his knowledge of international affairs and technological development in Western countries was far superior to that of many other lords. This is proven by his memorial submitted to the Bakufu in relation to the visit of Perry in 1853.³ If his conservatism could abide continuation of the Naval Training Institute at Tsukiji, it was hardly strong enough to be the main reason for the closure of the Nagasaki School.

In Nihon no Gunkoku-shugi (Japanese Militarism), Inoue Kiyoshi also says that Ii was a very conservative, even reactionary figure who suspended many reforms initiated by his predecessors such as Abe Masahiro and Hotta Masayoshi.⁴ But he attributes the cessation of the training program of the School rather to recognition of the anti-Bakufu feeling among tozama han samurai in the southwestern provinces than to Ii's conservatism.⁵ Detecting the rising anti-Bakufu mood among the samurai from the historically anti-Tokugawa domains in Chūgoku, Shikoku and Kyūshū, Inoue considers that Ii Naosuke felt it would be harmful for the Bakufu to let them continue studying modern naval affairs. This political astuteness of Ii is a much more persuasive reason than his conservatism. One piece of evidence for this is the fact that the Naval Training Institute at

Tsukiji was open only to Bakufu and fudai han samurai, not to tozama han samurai at all.⁶

Inoue points out another reason for the closure of the School. He says that the Bakufu was quite content with the success achieved by the Japanese students at Nagasaki. The steamer Kankō Maru was brought to Edo by a Japanese crew in 1857, and another Japanese crew successfully sailed the Hōshō Maru in 1858. So it is not amiss for us to think that the Bakufu was satisfied with the training at Nagasaki. Furthermore, it is natural to assume that Bakufu executives came to entertain the idea of carrying out all naval training under the direction of Japanese alone.⁷ In addition, we must not overlook the activities of the Naval Training Institute at Tsukiji.

The Bakufu opened the Naval Training Institute as a part of the Military Academy (Kōbu-sho) on May 4 (4/11). Almost all the instructors and assistants at the institute were graduates of the Nagasaki Naval Training School.⁸ The actual operation of the institute began on September 7 (7/19), and the contents of the training were naturally very similar to those of the earlier counterpart at Nagasaki. When it started operations, the Kankō Maru was the only training ship. But by the time Katsu Rintarō was appointed head instructor in 1859, the institute directly controlled the Kanrin Maru, the Chōyō Maru, the Hōshō Maru, and the Banryū Maru.⁹ Activities at the Naval Training Institute were expanding rapidly. After training at the institute, the graduates served on various Bakufu missions such as patrolling important coast lines, especially Edo Bay. At the same time, they were often utilized to take ships transporting men and cargo between Edo and the Kyoto/Osaka area, although this was not what they had been trained for. The services provided by graduates of the institute at Tsukiji could have persuaded Bakufu executives that the Nagasaki Naval Training School under Dutch instructors was no longer necessary.

Following van Kattendyke, some authors such as Ikeda Kiyoshi and Kurihara Ryūichi say that the financial predicament of the Bakufu was one of the main reasons that brought about the closure of the School. The School was a financial burden. As mentioned in a previous chapter, the annual wages for the instructors of the first detachment totalled 197.25 kanme (739.69 kilograms) of silver and the figure was more than doubled to 447 kanme (1,676.25 kilograms) for the instructors of the second detachment. Besides the wages to Dutch instructors, the management cost of the School rose year after year as the instructors and students advanced in training. The most expensive part was the price paid for the purchase of ships from the Netherlands. The Kanrin Maru and the Chōyō Maru, for instance, cost the Bakufu 100,000 silver dollars (720 kanme or 2,700 kilograms of silver)¹⁰ each. Moreover, the Bakufu had to prepare a repair facility for the maintenance of the ships. The construction of the repair facility and the purchase of its equipment were of course very costly.¹¹ All in all, the wages for the Dutch instructors were less significant compared to the other costs for the operation of the School and its fleet. When the first detachment completed its mission and left Nagasaki, the Bakufu rewarded the Dutch instructors for their efforts by giving special bonuses which equalled two to five times their annual salaries. For two years' service, Pels Rijcken received a bonus equal to five years' salary! The Bakufu could afford it. Even after the closure of the Nagasaki Naval Training School, naval training itself was continued at Tsukiji, and the repair facility at Akunoura was being utilized for repair of ships and machine manufacturing. The only saving the Bakufu attained by abolishing naval training at Nagasaki was the wages needed for the Dutch instructors.

According to van Kattendyke's diary, he understood that the cost involved in the operation of the School was one of the main reasons for the closure. He knew how much money the Bakufu had spent for the training. Yet it was ^{at} the

cost of a modern navy, not that of a school alone. The cost of the School cannot be said to have been the determining reason for its closure. An episode involving Nabeshima Naomasa and Ii Naosuke is quoted in Fumikura's book. The author says that Ii told Nabeshima that the Bakufu would close the Nagasaki Naval Training School due to its high cost.¹² Still we should not conclude that Ii's concern was the cost of the School just because of this statement. He was reluctant to spend enormous amounts of money for an enterprise which he believed to be harmful to the Bakufu because of the potential for political conspiracy among its students.

Whereas some people place the responsibility for the closure of the Nagasaki Naval Training School on the Bakufu, others believe that the Dutch side was responsible. According to Mizuta Nobutoshi and Numata Jirō, the Dutch side suggested to the Bakufu that some changes in the naval training at Nagasaki were necessary in relation to the negotiations in 1858 concerning a commercial treaty. The Netherlands Commissioner in Japan, Donker Curtius, travelled to Edo and stayed there between April and July of the year for this purpose. There he repeatedly met the American consul, Townsend Harris, and his interpreter/factotum Henry Heusken, a Dutch-born American, and obtained information about the contents of the U.S.-Japanese commercial treaty. At the same time, he seems to have learned the treaty proposals of the British and Russian delegates, too.¹³

During the negotiations, Curtius was obliged to reconsider the naval training under Dutch instructors at Nagasaki. Unlike the early 1850's when the Dutch still enjoyed superiority in relations with the Japanese over the other Western countries, it was now very difficult for the Dutch to insist on their own policies without considering the relationship with powerful countries such as the United States, Great Britain and Russia. It is very probable that

Curtius, in his discussion with his American counterpart, was put under pressure to change the system of naval training from governmental to private sponsorship. The U.S.-Japanese commercial treaty said in its article 10 that "it [the Japanese government] shall have the right to engage in the United States scientific, naval and military men, artisans of all kinds, and mariners to enter into its service."¹⁴ According to Ishii Takashi, this article was a very unusual one in this kind of treaty. No other commercial treaties in 1858 have a similar article. Indeed, it was not at all necessary to have an article like this, since the content of the article was a part of diplomatic courtesy which did not require any provision in a treaty.¹⁵ Ishii thinks that Harris knew the article was unnecessary but put it in the treaty to impress the 'friendliness' of the Americans upon the Japanese.¹⁶ Perhaps, besides Ishii's assumption, Harris purposely inserted this article to restrain the others, particularly the Dutch, from preempting any privileges in Japan by providing special services. In other words, the militarily more powerful Americans wanted to check the activities of the Dutch in Japan. This tendency was seen even during the visit of Perry, too.¹⁷ The Dutch instructors at Nagasaki were not merely Dutch citizens but also members of the Royal Dutch Navy. The dispatch of the instructors was directly organized by the Dutch government. The presence of the detachment in Japan of course ensured the Dutch a great advantage, especially in deals involving military equipment such as warships and cannons. As the naval training went on, in fact, Dutch business with Japan flourished and showed more promise than ever.

Further pressure came upon Curtius from a different quarter. As the negotiations over treaties with Western countries advanced, the anti-foreign feeling among pro-Imperial Court groups of Japanese became more and more fierce. Under such circumstances, Curtius feared that the other Western powers would suspect the Netherlands of helping the Japanese arm themselves to repulse the

further advance of Western powers. This fear among the Dutch had existed since they began working for the improvement of diplomatic relations with Japan in the 1840's. Curtius was worrying about possible misunderstanding among the other Western countries with regard to the Dutch-organized naval training at Nagasaki. If the Dutch government continued helping the Japanese directly in naval training, Curtius feared, it could be dangerous for both the Netherlands and Japan. However, the complete suspension of assistance in Japan's naval development would not be beneficial for the two countries, especially for the Dutch when they were enjoying good sales of warships, machinery and firearms.¹⁸

In such a dilemma, Curtius proposed an alternative idea to the Bakufu; the Dutch government would discontinue the dispatch of any military instructors, but it would allow the Japanese to hire Dutch instructors freely among those who volunteered.¹⁹ The Bakufu was perplexed by the proposal of Curtius, but it was obliged to accept it. When Curtius mentioned his proposal, in the early summer of 1858, the Bakufu apparently had no plan to discontinue naval training at Nagasaki for soon after it asked Curtius to secure some Dutch naval instructors who would be able to stay in Japan as private citizens.²⁰ Curtius was happy to accept the request by the Bakufu. If the Nagasaki Naval Training School could be continued even with private Dutch instructors, a special tie between the two countries could be maintained.

Ikeda Kiyoshi's Nihon no Kaigun (Japan's Navy) and Kurihara Ryuichi's Bakumatsu Nihon no Gunsei (The Military System of Late Tokugawa Japan) both tell us that the unilateral withdrawal of the detachment from Japan as well as the Bakufu's financial problems brought an end to the Nagasaki Naval Training School.²¹ But as has been mentioned, what the Dutch side expected to do was to change the status of the Dutch instructors from that of an official detachment to that of a group of private citizens. Curtius wanted to keep as many Dutch instructors as possible at Nagasaki. Later, from Nagasaki, he made

arrangements with the Governor-general at Batavia concerning instructors. Batavia replied to Curtius that those who would volunteer to stay in Japan could do so, and Curtius was ready to make new arrangements with the Bakufu for those who volunteered.²² Instead, Curtius was informed on March 10, 1859, of the Bakufu's decision to abolish the Nagasaki Naval Training School.

Judging from the information we have examined, it seems that the Bakufu policy over naval training at Nagasaki changed greatly in the second half of 1858. Actually, the proposal by Curtius and the installation of Ii Naosuke as tairō coincided in the early summer of 1858. When Curtius discussed naval training affairs, fundamental Bakufu policies were not yet strongly influenced by Ii Naosuke. With some continuity of purpose, the Bakufu requested Curtius to make sure to keep some volunteer instructors for further naval training. However, within a few months after Ii became tairō, his political ideas came to be reflected in all aspects of Bakufu policies. Naval Training was no exception. During the summer and autumn, Ii Naosuke must have informed himself of the conditions and other aspects of the Naval Training School at Nagasaki. Undoubtedly, he must have considered all the merits and demerits of having the School at Nagasaki. And as a result, he took the proposal by Curtius as a good opportunity to terminate the four-year-old Nagasaki Naval Training School which he considered useful but potentially harmful for the Bakufu because it was open even to anti-Bakufu samurai.

Thus, in the early summer of 1858, Curtius made his proposal to the Bakufu that the Dutch government send private citizens rather than government men for the naval training at Nagasaki due to the changing international situation. The Bakufu at that time was still led by the so-called reformists such as Hotta Masayoshi, Mizuno Tadanori and Nagai Naomune. They wanted to continue the Nagasaki Naval Training School under Dutch instructors. The Bakufu there-

fore asked Curtius to spare some volunteer instructors for the School. Just around this time, however, the Shogun elevated Ii Naosuke, the leading figure of the Ki faction, to the most powerful position in Bakufu officialdom. This meant the purge of most of the reformists from the Bakufu as they were mostly members of the Hitotsubashi faction. Gradually Ii's influence spread to all the projects and policies of the Bakufu including naval training at Nagasaki. After considering various aspects of the training, he made his decision to close the School. He found that the naval training at Nagasaki had already brought satisfactory results for the Bakufu. And this success was demonstrated in the activities at the Naval Training Institute at Tsukiji. On the other hand, Ii judged that the School, which was open to samurai from all over the country, might be harmful to the Bakufu in the future, because it was providing samurai from traditionally anti-Bakufu han with opportunities to learn advanced Western military technology. There was little reason for Ii to preserve the Nagasaki Naval Training School.

Despite its relatively short period of operation, the Nagasaki Naval Training School contributed greatly to the rapidly changing industrial and social aspects of Japan in the late Tokugawa and early Meiji periods. The contributions of the School, direct or indirect, were roughly divided into two major fields: the academic, industrial and military field, and the School's impact on social and political affairs through its students.

As a school for modern naval training, of course, the most important role of the Nagasaki Naval Training School was to train naval experts for Japan's modern navy. As we have seen, the achievements of the students at the School were later demonstrated in various ways. The successful operation of the Naval Training Institute at Tsukiji was one such example. Most of its courses were independently organized and taught by graduates of the Nagasaki Naval

Training School. Moreover, the Bakufu later allowed Katsu Rintarō to organize another naval training school. In 1863 (Bun'kyū 3), Katsu, who was the Gunkan Bugyō (Naval Magistrate) at that time, opened this school at Kobe and inaugurated instruction there. Although the life of the school at Kobe was very short, it extended the experience of the Nagasaki Naval Training School; the Kobe school was open to all samurai in Japan regardless of their origin. Sakamoto Ryōma, who worked hard to bring about the Meiji Restoration, was one of those who studied at the Kobe school.²³ While the Kobe school was ordered closed in 1864 due to its politically volatile nature, the Naval Training Institute at Tsukiji continued to offer more modern and advanced naval training with newer ships.

After the Meiji Restoration in 1868, the new government reopened the Naval Training Institute on the same site at Tsukiji. In 1870, it was renamed the Kaigun Heigaku-ryō, the predecessor of the Kaigun Heigakkō (Naval Academy), which was established in 1876 and existed until the end of World War II in 1945. One of the graduates of the Nagasaki Naval Training School, Kawamura Sumiyoshi (Jungi) of Satsuma, who would draw up shipbuilding plans looking towards the Sino- and Russo-Japanese Wars, headed the Naval Training Institute for a while until he was succeeded by Nakamuda Kuranosuke of Saga, another graduate of the School.²⁴ Nakamuda presided over the academy after 1871 for five years and greatly contributed to the establishment of its training systems. This Naval Academy would rear many naval officers who later became the core of the Imperial Japanese Navy.

Through naval training, the School provided a place where the Japanese received for the first time in their history systematic education based on modern science. Quite novel in comparison with the traditional knowledge of the Japanese, the education given at the School was, though imperfect in a contemporary sense, advanced and methodical. The Japanese had usually

obtained very fragmentary education in the way of practical training through most of the Tokugawa period. The science education given by the first European instructors at the School was really epoch-making.

One of the best examples of a naval engineer educated at the School is Hida Hamagorō of Izu. He was one of the few students praised as a promising naval engineer by van Kattendyke.²⁵ After graduating from the School, he served at the Naval Training Institute at Tsukiji as an instructor in engineering in 1859 and then was chosen for the crew of the Kanrin Maru dispatched to the United States in 1860. His most significant achievement was the building of a steam engine for the Chiyoda-gata, the first steamer warship built by the Japanese.²⁶ The construction of the ship itself was directed by Ono Tomogorō and Haruyama Benzō, both graduates of the Nagasaki Naval Training School.²⁷ After the Meiji Restoration, Hida worked at the Yokosuka shipyard and eventually took over the entire responsibility of the shipyard from French engineers. He assumed the highest engineering position in the Imperial Japanese Navy in the early Meiji period.

As a part of the School curriculum, the second detachment provided some Japanese students with an opportunity to study systematic Western medicine. Prior to the instruction by Dr. van Meerdervoort of this detachment, some medical doctors such as von Siebold taught Western medicine in Japan. While von Siebold spent his time in the practice of medicine and research on Japanese affairs, van Meerdervoort devoted himself not only to medical treatment but also to full-scale medical education for the Japanese students. He continued his service at Nagasaki until 1862, even after most of the members of the second detachment under van Kattendyke had left Japan in 1859. During his stay, he opened the Nagasaki Yojo-sho (Nagasaki Hospital). His medical school and hospital were taken over by other Dutch doctors and became the most advanced medical complex in Japan at the time.²⁸ It was the predecessor of the

present-day medical school of the University of Nagasaki.

Godai Tomoatsu of Satsuma also studied at the Nagasaki Naval Training School. He is an example of a man who applied scientific knowledge learned at the School to business ventures in the Meiji period. Besides the shipbuilding business which was directly related to his School studies, he carried on business on a large scale, including mining, metal refining, spinning and the production of indigo.²⁹ While Godai utilized his School training for business purposes, Sano Tsunetami (Jōmin) of Saga went into philanthropic work as the founder of the Japanese Red Cross Society. In the early Meiji period, he worked for the building of the Japanese Imperial Navy on the basis of his experience at the School, but later his interest shifted to fostering the spirit of international benevolence exemplified by the Red Cross Society.³⁰ It was perhaps as a result of his background at Nagasaki, where he learned general Western affairs as well as naval subjects, that he nourished an international spirit.

The Nagasaki Naval Training School successfully educated many students who would be able to work not only in Tokugawa society but also in a new society about to be born. In fact their talent was fully utilized because the society was transformed into a centralized and relatively democratic one from the decentralized feudal one of the Tokugawa period. It may be true to say also that these people contributed much to change the old society.

The Nagasaki Naval Training left an invaluable legacy in the field of modern industry, particularly in shipbuilding. The opening of the Nagasaki Naval Training School was the advent of Japan's modern navy, and inevitably the navy needed repair facilities for its ships. Soon after the School started, therefore, the Japanese ordered equipment necessary to build a repair factory. The second detachment under van Kattendyke brought this set of machinery, as well as an engineer officer and several artisans. The site for the factory

was chosen in Nagasaki harbour with a view to further expansion. It was not an easy task for the Dutch to build a naval facility with the Japanese artisans and labourers who had little idea about what they were trying to accomplish. This first modern factory in Japan, with sophisticated machines including steam engines, lathes, a steam hammer and others, was completed in 1861. Then the Bakufu built a full-scale shipyard near the factory in 1864. But these modern facilities at Nagasaki were not fully utilized under the Bakufu, for it built larger naval facilities at Yokohama and Yokosuka, both near Edo. The Bakufu had experienced difficulty in controlling the western part of the country where Nagasaki was located, so it decided to build naval facilities near Edo where the central authority could exercise more direct control than in Nagasaki. This is evidenced that after all the Tokugawa Bakufu in these days was losing control over territories other than those around Edo, Osaka, and a few other places. Because of this situation, in the late 1860's the Nagasaki facilities built only a few small steamers and repaired some Japanese and foreign ships.

These historical Nagasaki naval facilities were, however, revived under a private company in 1884 when the Meiji government sold them to the rising Mitsubishi. No longer destined to be a minor repair facility, the Nagasaki shipyard grew rapidly. Like the Yokosuka shipyard, it later developed into one of the most important shipyards in Japan before World War II. The Musashi, one of the two largest battleships ever built in the world, was launched on the very site where van Kattendyke and his men repaired the Kankō Maru. Nagasaki, like Yokosuka, is one of the prominent centres of the shipbuilding industry in today's Japan.

With regard to the creation of a modern navy, Eto Jun says in his Umi wa Yomigaeru (The Ocean Resurgent):

A modern navy must be a modern industrial organization with know-how related to shipbuilding and engineering technologies as

its core. Therefore, the creation of a modern navy implies that a society chooses to adopt a modern industrial organization into its system; in addition, it also signifies that the society is involving itself in an experiment, whether or not it can bear the burden of its choice.³¹

Etō means that the creation of a modern navy is possible only when a society has advanced industrial organizations with sufficient capital to support such a complicated and large-scale venture. He also suggests that the society must be a centralized one with social mobility among classes. The Tokugawa society met none of these conditions, but the Bakufu determinedly launched a plan to build a modern navy and eagerly continued its expansion until the very end of its regime in 1867. This was the Bakufu's response to the upsurge of debate over the defense needs of the country as a result of closer Western contacts after the opening of the country in 1853. The traditional Bakufu-han system was badly shaken by foreign intervention and trade. While in almost all military fields the Bakufu trailed the southwestern provinces, it took the leadership in naval development with a new training system and advanced equipment. Unlike reforms of land forces, which could incur tremendous resistance from Bakufu traditionalists, the building of a modern navy was generally regarded as a new scheme which would disturb nobody except for the no longer significant Funate water force. Although it was financially ailing, the Bakufu, with one third of the entire land holdings of Japan under its authority, could afford the enormous expenses for warships and various naval facilities, at least at the early stages of the plan. For the construction of the Yokosuka shipyard, however, the Bakufu had to obtain financial assistance from French sources. The financial requirements for a large shipyard like that of Yokosuka exceeded the financial resources of the Bakufu. Tokugawa society could not 'bear the burden of its choice.' Although Tokugawa society could not sustain a modern navy, the Bakufu successfully introduced it to Japan. A part of the

'modern industrial organization' could be purchased from Western countries but could not be fruitfully adopted into Tokugawa society." A truly modern navy system would be achieved in the Meiji period when economic and political modernization were being attained under the guidance of the centralized government. Yet the legacy of the Bakufu navy was inherited almost in its entirety by the Meiji government. The standard of naval training, warships, and naval facilities brought to Japan by the Bakufu was high enough that it could be duly taken over with great benefit by the new government.

The social and political impact of the Nagasaki Naval Training School in the late Tokugawa period was also important. This is particularly obvious when we consider that the School was open to samurai from all over the country and provided them with opportunities to become real professionals in a modern sense. In the Tokugawa system, where almost all the important positions were held by people of high rank by birth, modern education was especially necessary for those born in low-ranking families to enable them to seek some avenue to success. There was a tendency in the 1850's under Abe Masahiro for talented people to be picked up for important Bakufu positions. It was so in some local han as well. But it could not become permanent because the full-scale adoption of this system meant the destruction of the traditional class system in Tokugawa Japan. In a modern navy, neither seniority nor family status serve officers well unless they possess a true ability to carry out various complicated duties on ships. Katsu Rintarō and Enomoto Kamajirō were two of those who benefited from the so-called "merit system (jitsuryoku-shugi)" in those days. Both of them were sons of very poor hatamoto families with rice stipends of less than 100 koku, yet Katsu attained a position equivalent to prime minister and Enomoto held the position of vice-admiral of the Bakufu fleet in the days when the rigid Tokugawa system was about to collapse. Although the merit

system could not be universally implemented in the Bakufu, the Nagasaki Naval Training School made some people realize that its day must come soon to Japan.

Furthermore, the School provided students from different parts of the country with opportunities to get to know each other. All through the Tokugawa period, all samurai, except for ronin (masterless samurai), belonged either to the Bakufu or to a local domain, and their mobility was extremely limited. In other words, the samurai had virtually no place to communicate freely with each other outside their own domains. This fact had long prevented the Japanese from acquiring the concept of a united country. Naturally, most of the students at the School merely considered themselves as Bakufu or local han samurai at first. However, the School gradually must have brought a sense of national unity to all the students regardless of their origin.

Admitting the importance of having a single emblem to symbolize the entire country, the Bakufu had adopted the rising sun flag (Hinomaru) as Japan's national flag in 1854.³² When the School started, however, every Bakufu and local han ship still flew its own banner, just as every single Western ship coming to Nagasaki showed the national emblem of its country. As long as the students were preoccupied with their origins either in the Bakufu or local han, it was hardly possible for them to realize the meaning of national unity. Yet, as rising sun flags began to be flown on their training ships, they were gradually obliged to admit the existence of a Japan above the Bakufu and local han.

A man like Katsu developed from being a Bakufu man to a man of Japan through his experience at the Nagasaki Naval Training School. As one of the captain candidates of a Bakufu fleet, he held an important position at the School and often worked as a liaison man between the students and the Dutch instructors. Through these experiences he strengthened his sense of being Japanese rather than a man of the Bakufu. He was trusted by all the students

of the School, and the Dutch instructors also considered him as the representative of the students.³³ The role performed by Katsu in mediating between the Bakufu and anti-Bakufu forces during the last days of the Tokugawa is imbedded in the minds of Japanese people. Actually, Katsu was then one of the very few people who could work with the two forces. He knew many influential people in the southwestern provinces through naval training. Before Nagasaki, Katsu was merely one of the low-ranking Bakufu officials who excelled in Western affairs. Politically speaking, his influence was nil in the Bakufu. But he slowly but steadily accumulated political power first in the field of naval affairs and then in national affairs. Visits to Kagoshima, capital of Satsuma han, on the Japan (Kanrin Maru) greatly changed his outlook. As a leader of the Bakufu fleet, Katsu was able to get acquainted with Shimazu Nariakira, one of the most influential lords in those days. Katsu must have learned various important aspects of political affairs, both domestic and international, from the brilliant Shimazu. After study and service at the naval training schools, Katsu entered the world of politics. He fully utilized his power base in the navy and his relationship with people in domains in the southwestern provinces. We can see in Katsu's experience the elements of a surge towards modern Japan in the last days of the Tokugawa period.

After all, the significance of the Nagasaki Naval Training School lies in the fact that the School educated some modern men for new Japan. Because of the nature of the School, its influence would survive even after the sponsor, the Bakufu itself, died out and was succeeded by the Meiji government. It was a school in a modern sense, so we can recognize that it did what it should have done for the future of a rapidly changing country.

FOOTNOTES

CHAPTER 1

1. "Shogunate: the term used to describe the de facto central government of Japan under a Shogun. The Shogun's officials (collectively the Bakufu) carried out the actual duties of administration and the Imperial Court retained only a nominal authority." W.G. Beasley, Select Documents on Japanese Foreign Policy 1853-1868, Oxford Univ. Press, 1955, p. 321.
2. Iwao Seiichi, Sakoku (National Isolation), Nihon no Rekishi (A History of Japan) series, vol. 14, Chūō Koron-sha, 1966, pp. 195-208.
3. Sugimoto Isao (ed.), Kagaku-shi (History of Science), Taiki Nihon-shi Soshō (An Outline History of Japan) series, vol. 19, Yamakawa Shuppan-sha, 1967, p. 132.
4. The lord was Date Masamune and the retainer was Hasekura Tsunenaga.
5. Iwao, op.cit., pp. 187-188.
6. Ibid., pp. 208-209.
7. It was Genna Kokai-ki (Navigation Manual of Genna) compiled by Ikeda Kōun, a navigator of Nagasaki. Sugimoto (ed.), op.cit., pp. 132-133.
8. Kasama Yoshihiko, Edo Bakufu Yakushoku Shūsei (A Compilation of Official Posts in the Tokugawa Bakufu), Yūzankaku, 1974, pp. 339-341.
9. Kaigun Yūshū-kai (ed.), Kinsei Teikoku Kaigun Shiyō (A History of the Imperial Navy in Modern Times), Kaigun Yūshū-kai, 1938, pp. 7-8.
10. G.B. Sansom, The Western World and Japan, New York, 1950, p. 177.
11. Nakamura Tadashi, "Shimabara no Ran to Sakoku (The Shimabara Rebellion and National Isolation Policy)," in Iwanami Koza Nihon Rekishi (Iwanami History of Japan) series, vol. 9, Iwanami Shoten, 1975, pp. 228-262.
12. The Koreans did not stay in Japan but informally continued trade with the lord of Tsushima han, So, regularly. See, Asao Naohiro, Sakoku (National Isolation), Nihon no Rekishi (The Great History of Japan) series, vol. 17, Shōgakkan, 1975, pp. 242-257.
13. Shimonaka Yasaburō (ed.), Sekai Rekishi Jiten (Encyclopedia of World History), Heibon-sha, 1955, vol. 22, p. 321.
14. Kaigun Yūshū-kai (ed.), op.cit., p. 8.
15. Kawai Hikomitsu, Nihon-jin Hyōryū-ki (Records of Japanese Castaways), Sekai Shiso-sha, 1967, p. 264.
16. Ibid., pp. 289-293. For the structural problems of traditional Japanese ships, see pp. 293-294.
17. Kasama, op.cit., pp. 272-275. There were two Nagasaki Magistrates; one

at Nagasaki and the other at Edo (now Tokyo). They served at the two places in one-year alternating shifts.

18. Ibid., pp. 278-279, 281.
19. Ishii Kenji, "Suetsugu Heizō no Kara-bune (The Chinese-style Ship of Suetsugu Heizō)," in Nihon Rekishi Gakkai (ed.), Nihon Rekishi (Japanese History), Yoshikawa Kōbun-kan, No. 180, 1963, pp. 30-33, and "Sakoku Jidai no Koyo-sen Kenzo (The Construction of Ocean-going Ships during the Period of National Isolation)," in Miyamoto Joichi (ed.), Nihon no Kaiyō-min (Oceanic People of Japan), Mirai-sha, 1974, pp. 194-197.
20. Ogasawara Chōsei, Nihon Teikoku Kaijō Kenryoku-shi Kōgi (Lectures on the Naval Power of the Japanese Empire), quoted in Ōito Toshio, Bakumatsu Heisei Kaikaku-shi (A History of Military Reforms in the Late Tokugawa Period), Hakuyō-sha, 1939, pp. 51-53.
21. Loc.cit.
22. With regard to the allocation of defense duties during the Tokugawa period, see Kitajima Masamoto, Edo Bakufu no Kenryoku Kōzō (The Power Structure of the Tokugawa Bakufu), Iwanami Shoten, 1964, and Fujino Tamotsu, Bakuhān Taisei-shi no Kenkyū (A Study of the History of the Bakufu-Han System), Yoshikawa Kōbun-kan, 1961.
23. Sugimoto (ed.), op.cit., p. 296, and George Alexander Lensen, The Russian Push Toward Japan, Princeton Univ. Press, 1959, pp. 50-60.
24. Sugimoto (ed.), op.cit., p. 297.
25. Loc.cit., and Donald Keene, The Japanese Discovery of Europe, 1720-1830, Stanford Univ. Press, 1969, pp. 31-35.
26. Keene, ibid., p. 34.
27. Oishi Shinzaburō, Bakuhān-sei no Tenkan (Changes in the Bakufu-Han System), Nihon no Rekishi (The Great History of Japan) series, vol. 20, p. 355. Almost all through the Tokugawa period, the international balance of payments was unfavourable to Japan. Only during Tanuma's days did it change in favour of Japan. The main commodities of trade were the so-called tawara-monō (straw-bag products), namely dried seafood from Nambu (now Iwate-ken), Tsugaru (Aomori) and Matsumae in straw-bags. Ibid.
28. Keene, op.cit., p. 37.
29. Such scholars as Ōtsuki Gentaku and Katsuragawa Hoshū helped Kudō Heisuke. Sugimoto (ed.), op.cit., p. 298.
30. Keene, op.cit., p. 38, and Kudō Heisuke, Akaezo Fūsetsu-kō (A Study of Red Ainu [Russians] Reports) in Ōtomo Kisaku (ed.), Hokumon Soshō (Books about the North) series, vol. 1, Hokkō Shobo, 1943, p. 217.
31. According to Ōishi Shinzaburō, the book was written at the request of one of Tanuma's men. See op.cit., p. 358.

32. The report was called Ezo Shūi (Ezo Miscellany). See ibid., p. 359.
33. Sugimoto (ed.), op.cit., pp. 298-300.
34. Keene, op.cit., p. 39.
35. Yamamoto Yutaka (ed.), Hayashi Shihei Zenshū (Complete Works of Hayashi Shihei), Seikatsu-sha, 1943, vol. 1, pp. 397-408.
36. Keene, op.cit., pp. 39-40.
37. Ibid., p. 43.
38. Ibid., p. 42. However, the translation after "My suggestion.." is by the writer, from Hayashi Shihei Zenshū, vol. 1, p. 126.
39. Ibid., pp. 126-127.
40. Matsudaira Sadanobu, Bashin-roku (Records of Advice), quoted in Inoue Kiyoshi, Nihon no Gunkoku-shugi (Japanese Militarism), revised edition, Gendai Hyōron-sha, 1975, vol. 1, p. 20.
41. Keene, op.cit., pp. 53-54.
42. Inoue, op.cit., p. 20.
43. For instance, Oranda Chikujo-sho (Treatise on the Dutch Art of Fortification) was translated by Maeno Ryōtaku in 1790, and Ensei Gunki-kō (On Weapons of the Far West) was translated and edited by Ishii Shōsuke in 1799. These translations were two of the earliest examples in this field. See ibid., p. 21.
44. Ōtomo Kisaku, Hokumon Sōsho, vol. 3, p. 15.
45. Ōhara Sakingo, Hokuchi Kigen (Warning about the North Land) in ibid., pp. 407-408.
46. Ōtomo, op.cit., pp. 41-44.
47. W.G. Beasley, Great Britain and the Opening of Japan, 1834-1858, London, 1951, p. 8.
48. The college was started as a private school for the study of Confucian theories by Hayashi Razan who directed the educational and cultural policies of the early Tokugawa Bakufu. In 1790, when Matsudaira Sadanobu was the chief roju, it was re-established as a Bakufu college. It was partly open to non-Bakufu samurai, too. Besides, special courses were available not only for samurai but also for commoners. Main subjects taught at the college were Chinese classics. Nihon Rekishi Dai-jiten (Encyclopedia of Japanese History), Kawade Shōbō, 1968, vol. 5, p. 590.
49. Inoue, op.cit., p. 22.
50. For the story of Captain Golownin, see his Narrative of My Captivity in

Japan, London, 1818 and Recollections of Japan, London, 1819. With regard to the Japanese castaways returned from Russia at this time, see Kamei Takayoshi, Daikokuya Kōdayū, Yoshikawa Kōbun-kan, 1964.

51. Tabohashi Kiyoshi, Kindai Nihon Gaikoku Kankei-shi (A History of Japanese Foreign Relations in the Tokugawa Period), revised and enlarged edition, Tokō Shoin, 1943, pp. 281-284.
52. Ibid., pp. 377-392, and Inoue, op.cit., p. 22.
53. Inoue, ibid., p. 23.
54. Loc.cit.
55. For one of the best pieces of research about the Bansha no Goku, see Satō Shosuke, Yogaku-shi Kenkyū Josetsu (Introduction to Research in the History of Western Studies), Iwanami Shoten, 1964.
56. Tokugawa Kōshaku-ke (ed.), Mito Han Shiryō (Historical Documents of Mito Han), Tokugawa-ke, 1915, vol. 4, pp. 393-396, vol. 5, p. 228.
57. Ibid., vol. 5, pp. 225-226.
58. Ibid., vol. 5, pp. 227-228.
59. Ibid., vol. 5, pp. 231-232. The model ship was called the Hitachi Maru.
60. Ibid., vol. 4, pp. 172-182.
61. Ibid., vol. 4, pp. 182-183. Concerning correspondence between Tokugawa Nariaki and the Bakufu, see Conrad Totman, "Political Reconciliation in the Tokugawa Bakufu: Abe Masahiro and Tokugawa Nariaki, 1844-1852," in Albert M. Craig et al. (eds.), Personalities in Japanese History, Univ. of California Press, 1970.
62. Inoue, op.cit., p. 27.
63. Ōhira Kimata, Sakuma Shōzan (Sakuma Shōzan), Yoshikawa Kōbun-kan, 1959, pp. 62-68, and Miyamoto Chū, Sakuma Shōzan, Iwanami Shoten, 1932, pp. 96-101. For an English translation of the Eight Measures, see Sansom, The Western World and Japan, pp. 253-254.
64. Inoue, op.cit., p. 31.

CHAPTER 2

1. Katsu Kaishū, Kaigun Rekishi, vol. 12 of Katsu Kaishū Zenshū (Complete Works of Katsu Kaishū), Keisō Shobo, 1971, p. 15. Katsu Kaishū Zenshū is hereafter cited as KKZ.
2. T.S. Raffles, History of Java, London, 1830, pp. xx-xxv, xxviii-xxix, xxxii-xxxv.

3. Ibid., p. xxvii.
4. Tabohashi, Kindai Nihon Gaikoku Kankei-shi, p. 261.
5. Loc.cit.
6. Shōji Mitsuo, "Bakumatsu Nichi-Ran Gaikō no Ichi Kōsatsu (A Consideration of the Diplomatic History of the Relation Between Japan and Holland in the Last Days of the Shogunate)," in Nihon Gaikō-shi Kenkyū, Bakumatsu Ishin Jidai (Studies on the Diplomatic History of Japan, Late Tokugawa and Early Meiji Periods), Yuhikaku, 1960, pp. 59-60.
7. Sansom, The Western World and Japan, p. 246.
8. See page 14 of this thesis.
9. Tabohashi, op.cit., p. 379.
10. Ibid., pp. 319-320.
11. Suzuki Seisetsu (ed.), Kazan Zenshū (Complete Works of Watanabe Kazan), Kazan-kai, 1940, pp. 8-9.
12. Sato, Yōgaku-shi Kenkyū Josetsu, pp. 303, 319-320. With regard to the fusetsu-gaki in general, see Itagaki Takeo, "Oranda Fusetsu-gaki no Kenkyū (A Study of the Dutch News Reports)," in Nichi-Ran Bunka Kosho-shi no Kenkyū (Studies on Cultural Exchanges between Japan and the Netherlands), Yoshikawa Kōbun-kan, 1959, pp. 178-200.
13. Tabohashi, op.cit., p. 388.
14. The Superintendent at this time was Edward Grandison.
15. Shōji, op.cit., p. 59.
16. Ibid., pp. 59-60.
17. Ibid., p. 60.
18. The entire name of the book is Nippon. Archiv zur Beschreibeung sūddlichen Kurilen, Sachalin, Korea und den Liukiu-Inselen. An English translation is Manners and Customs of the Japanese in the Nineteenth Century, Harper, New York, 1841. See Itazawa Takeo Shīboruto (Siebold), Yoshikawa Kōbun-kan, 1960, pp. 157-175 for the contents of the book in Japanese.
19. Itazawa, ibid., pp. 181-182.
20. Shōji, op.cit., p. 61.
21. During the Napoleonic Wars, the Dutch national emblem flew only at Nagasaki. After the wars, Hendrik Doeff, the Superintendent of the Dutch Nagasaki Post, was specially decorated by King William I for his extraordinary service at Nagasaki during the hardship. Because of this, the Dutch had a special feeling towards Japan and the Japanese.

22. Shōji, op.cit., p. 61.
23. Tabohashi, op.cit., pp. 275-281.
24. He was re-appointed to the position on August 4, 1844 (Kōka 1, 6/21). Perhaps the Bakufu needed Mizuno for the special occasion of the Dutch Royal letter affair. See Kitajima Masamoto, Mizuno Tadakuni (Mizuno Tadakuni), Yoshikawa Kōbun-kan, 1969, pp. 492-497.
25. Tabohashi, ibid., pp. 350-351.
26. D.C. Green, "Correspondence Between William II of Holland and the Shogun of Japan, A.D. 1844," in Transactions of the Asiatic Society of Japan, first series, Vol. XXXIV (1907), pp. 99-132.
27. For a brief introduction to the Tempō Reforms, see Sansom, op.cit., pp. 242-243. In Japanese, see Kitajima, op.cit.
28. Tokutomi Iichirō, Yoshida Shōin (Yoshida Shōin), Minyū-sha, 1908, pp. 281-283, and Kudo Takeshige, Mizuno Chikuzen (Mizuno Tadakuni), 1897, pp. 128-130.
29. Green, op.cit., pp. 128-130.
30. Tabohashi, op.cit., pp. 334-342. In addition, an incident in 1828 (Bunsei 11) that involved the Post and von Siebold made the impression of the Dutch among Bakufu officials even worse. See Itazawa, Shiboruto, pp. 97-149.
31. Tokutomi Iichirō, Kinsei Nihon Kokumin-shi (A National History of Modern Japan), Jiji Tsushin-sha, vol. 29, p. 74.
32. Nakano Reishirō (ed.), Nabeshima Naomasa Kō Den (The Biography of Lord Nabeshima Naomasa), Kōshaku Nabeshima-ke Hensan-jo, 1920, vol. 3, p. 173.
33. "Those feudal lords of daimyo status whose ancestors had not submitted to Tokugawa rule until after Ieyasu's victory at Sekigahara [in 1600]. They were always regarded by the Tokugawa as possible rivals and were permanently excluded from all Bakufu offices. Sometimes referred to in English as the 'outside feudatories'." Beasley, Select Documents on Japanese Foreign Policy, p. 329.
34. Saga-ken-shi Hensan-kai (ed.), Saga-ken-shi (A History of Saga-ken), Saga-ken, 1972, vol. 3, pp. 328-337, 338-344.
35. Nakano (ed.), op.cit., pp. 174-178.
36. See page 11 of this thesis.
37. Hideshima Naritada (ed.), Saga Han Kaigun-shi (The History of the Saga Han Navy), Chishin-kai, 1917, pp. 27-28.
38. Satō, op.cit., p. 312. Until recently, Haneda, as Japan's main international airport, was the main port of entry for foreigners in the last few decades.
39. Ibid., pp. 332-333.

40. Tabohashi, op.cit., pp. 325-328, and Tanji Kenzō, "Kōka-ki ni Okeru Edo-wan Bobi Mondai to Ikoku-sen Toriatsukai-rei (The Problem of the Defense of Edo Bay and Bakufu Regulations Concerning Foreign Ships in the Kōka Period)," in Shigaku Ronshu, Taigai Kankei to Seiji Bunka, #3, Seiji Bunka (Papers on History Studies: International Relations and Domestic Politics and Culture, #3, Politics and Culture), Yoshikawa Kōbun-kan, 1974, p. 225.
41. Tabohashi, op.cit., pp. 327-328, and Tanji, op.cit., pp. 224-227.
42. Tabohashi, op.cit., pp. 409-416.
43. Tanji, op.cit., pp. 228-229.
44. For example, while the Columbus alone had 83 cannons (loading 37.5 kilograms or heavier shells), all of the Japanese cannons around Edo Bay totalled only 70 (loading 0.375 kilograms or heavier shells) and nearly all of them were old-fashioned. Ibid., pp. 229-230.
45. Ibid., pp. 230-232.
46. Ibid., pp. 234-239.
47. Watanabe Shūjiro, Abe Masahiro Jiseki (A Biography of Abe Masahiro), private edition, 1910, vol. 2, pp. 649-652.
48. See pages 65-67, 69-70 of this thesis.
49. Sato, op.cit., pp. 353-354.
50. Ibid., p. 354.

CHAPTER 3

1. Tabohashi, Kindai Nihon Gaikoku Kankei-shi, pp. 450-453.
2. Loc.cit.
3. Ibid., pp. 450-451.
4. Ibid., p. 451.
5. Shōji, "Bakumatsu Nichi-Ran Gaikō no Ichi Kōsatsu," p. 61.
6. Tabohashi, op.cit., p. 451.
7. Loc.cit.
8. Ibid., pp. 451-452.
9. Ibid., p. 453.
10. Ibid., pp. 453-454.

11. Ibid., p. 454.
12. Loc.cit.
13. Shōji, op.cit., pp. 61-62.
14. Ibid., pp. 62-63.
15. Tabohashi, op.cit., p. 469.
16. Ibid., pp. 542-544, Shōji, op.cit., p. 63, and Itazawa, Shīboruto, pp. 213-214.
17. Watanabe Shujiro, Abe Masahiro Jiseki, vol. 1, p. 368.
18. Mizuta Nobutoshi, Bakumatsu ni Okeru Waga Kaigun to Oranda (Japan's Navy and Holland in the Late Tokugawa Period), Kaigun Yūshū-kai, 1929, pp. 8-9.
19. Ibid., pp. 9-15.
20. Ibid., pp. 41-47.
21. Ibid., p. 48.
22. The date here is based on Katsu's Kaigun Rekishi and Katagiri Kazuo, Sakoku Jidai Taigai Ōsetsu Kankei Shiryō (Historical Documents Concerning the Reception of Foreigners During the Years of National Isolation), Kondo Shuppan-sha, 1972, p. 205, although Mizuta Nobutoshi merely says it was the 21st day of the 7th month.
23. Katsu, KKZ, vol. 12, p. 71, and Mizuta, op.cit., p. 62.
24. Mizuta, ibid., pp. 64-65.
25. Ibid., pp. 66-67.
26. Ibid., p. 67.
27. Tokutomi, Kinsei Nihon Kokumin-shi, vol. 33, pp. 319-320. This and the following information is taken from documents quoted in Tokutomi's work.
28. Ibid., pp. 320-333.
29. Katsu, KKZ, vol. 12, p. 69.
30. Tokutomi, op.cit., p. 80.
31. Ibid., pp. 332-333.
32. Ibid., p. 334.
33. Ibid., pp. 340-341.
34. Ibid., p. 349.

35. Ibid., pp. 350-351.
36. Ibid., pp. 353-354.
37. Ibid., pp. 359-361.
38. Ibid., pp. 360-361.
39. Ibid., pp. 365-368.
40. Ibid., pp. 371-372.
41. Tokugawa Kōshaku-ke (ed.), Mito Han Shiryō, vol. 1, pp. 459-460.
42. Ibid., p. 460.
43. Ibid., p. 468.
44. Ibid., pp. 469-471.
45. Mizuta, op.cit., p. 94.
46. Ibid., p. 95.
47. Tokutomi, op.cit., vol. 33, pp. 381-382.
48. Shōji, op.cit., p. 64.
49. Ibid., pp. 64-65.
50. Fumikura Heijirō, Bakumatsu Gunkan Kanrin Maru (The Kanrin Maru, Warship in the Late Tokugawa Period), Meicho Kankō-kai, 1969, p. 753. The Soembing later became the Kankō Maru. See footnote 72 of Chapter 4.
51. Shōji, op.cit., p. 65.
52. Loc.cit.
53. Tokutomi, op.cit., vol. 33, p. 421.

CHAPTER 4

1. Mizuta, Bakumatsu ni Okeru Waga Kaigun to Oranda, pp. 102-106.
2. Katsu, KKZ, vol. 12, pp. 84-87, 94-112.
3. Ibid., p. 86.
4. Ibid., pp. 88-91.
5. Mizuta, op.cit., pp. 109-110. The sentence "The mission of the detachment is to instruct the Japanese in the operation of the steamer Soembing" in this quotation, is not consistent with Fabius' recommendations. Fabius planned to instruct the Japanese in all aspects of modern naval training,

but the above-mentioned sentence suggests that the Dutch instructors were to teach only the operation of the Soembing. Most probably, this attenuation occurred when the original Dutch sentence was translated into the Japanese on which the writer's English sentence relied.

6. Ibid., p. 110.
7. Ibid., pp. 111-112, and Katsu, KKZ, vol. 12, pp. 117-119.
8. Suzuki Naoji, Edo Jidai ni Okeru Kome Torihiki no Kenkyū (A Study of the Rice Market in the Tokugawa Period), revised and enlarged edition, Kashiwa Shobo, 1965, p. 174.
9. Kasama, Edo Bakufu Yakushoku Shūsei, p. 44.
10. Katsu, KKZ, vol. 12, p. 89.
11. Some people in the Bakufu insisted on having a naval training school near Edo. They thought the Bakufu could control the school easily if it was located at a place like Uraga. But most of the Bakufu executives at that time were not fond of the idea of a school which employed Westerners near Edo. Further, a man like Arao Narimasa strongly insisted that the school be at Nagasaki. He feared direct interference from top Bakufu executives in naval training in case the school was set up near Edo.
Tsuchiya Shigeaki, Kindai Nihon Zosen Kotohajime, Hida Hamagorō no Shōgai (The Birth of Shipbuilding in Modern Japan, the Life of Hida Hamagorō), Shin Jinbutsu Ōrai-sha, 1975, p. 83.
12. For the life of Katsu Kaishū, the writer mainly referred to Ishii Takashi, Katsu Kaishū (Katsu Kaishū), Yoshikawa Kōbun-kan, 1974.
13. General opinions by various lords are found in Beasley, Select Documents on Japanese Foreign Policy 1853-1868, pp. 112-119, and Hugh Borton, Japan's Modern Century, second edition, New York, 1970, pp. 34-38. A suggestion made by an Edo merchant is introduced by Konishi Shiro, Kaikoku to Joi (The Opening of the Country and Exclusionism), Nihon no Rekishi (A History of Japan) series, vol. 19, Chuo Kōron-sha, 1966, pp. 48-49.
14. Ishii, op.cit., pp. 5-6. For the full text of the memorial, see KKZ, vol. 14, pp. 413-420.
15. For the history of the ship, see Fumikura, Bakumatsu Gunkan Kanrin Maru, p. 786.
16. Katsu, KKZ, vol. 12, pp. 36-53.
17. Ibid., pp. 115, 127-128, 134-138.
18. Ibid., pp. 122-126.
19. See pages 16-17 of this thesis.
20. Westerners, especially Russians frequently visited Ezo, but Matsumae han had neither strong han leadership nor the reliable economic basis for drastic military reforms.

21. While some interested people depended on the translation of Dutch books, most people including Bakufu bureaucrats were said to have obtained current information through Chinese books. One of the most important Chinese books of this kind in those days was Haiguo Tuzhi (or Hai-kuo T'u-chih) compiled by Wei Yuan in 1847. For more details, see Ayuzawa Shintaro and Okubo Toshiaki, Sakoku Jidai Nihon-jin no Kaigai Chishiki (Japanese Knowledge of Foreign Countries during the Years of National Isolation), Kangen-sha, 1953, pp. 130-153.
22. Katsu, KKZ, vol. 12, pp. 122-126.
23. Miyagi Eisho, Okinawa no Rekishi (A History of Okinawa), Nihon Hōso Shuppan Kyokai, 1968, pp. 86-98.
24. Kōshaku Shimazu-ke Hensan-jo (ed.), Sappan Kaigun-shi (The History of the Satsuma Han Navy), Shimazu Kōshaku-ke, 1929, pp. 603-621. See page 609 for the main engineers of the steamer.
25. Ibid., pp. 679-681.
26. Ibid., pp. 749-753.
27. Nakahama Toichirō, Nakahama Manjiro Den (A Biography of Nakahama Manjiro), Fuzanbō, 1936, pp. 151-155.
28. See pages 30-31 of this thesis.
29. Kurihara Ryūichi, Bakumatsu Nihon no Gunsei (Military Systems of Late Tokugawa Japan), Shin Jinbutsu Ōrai-sha, 1972, pp. 114-115.
30. Tokugawa Kōshaku-ke (ed.), Mito Han Shiryo, vol. 1, p. 54.
31. Ibid., pp. 125, 464-466. However, by the time they arrived at Nagasaki, the Dutch ship had already left. Therefore, the only thing they could do was to collect information about the ship and its operation at the Dutch Nagasaki Post.
32. Ibid., pp. 125-126, 459, 471-472.
33. Katsu, KKZ, vol. 12, pp. 122-126.
34. Tokugawa Kōshaku-ke (ed.), op.cit., pp. 126-127.
35. Katsu, KKZ, vol. 12, pp. 114-115, and Tokutomi, Kinsei Nihon Kokumin-shi, vol. 33, pp. 424-428.
36. Katsu, KKZ, vol. 12, p. 117.
37. Loc.cit., and Tokutomi, op.cit., vol. 33, p. 431.
38. Katsu, op.cit.
39. Ibid., pp. 128-129.
40. Hideshima Naritada (ed.), Saga Han Kaigun-shi, pp. 98-99.

41. Katsu, KKZ, vol. 12, p. 117.
42. Ibid., pp. 117-122.
43. The author of the 1929 book was a career diplomat who served in the Netherlands and other European countries. The book is said to have been written based on various Dutch documents, but no source is indicated in it.
44. Katsu, KKZ, vol. 14, p. 347.
45. Katsu, KKZ, vol. 12, pp. 119-120.
46. Ibid., pp. 134-138.
47. Mizuta, op.cit., pp. 124-125.
48. Katsu, KKZ, vol. 12, p. 126.
49. Tokutomi, op.cit., vol. 33, pp. 424-425.
50. Katsu, KKZ, vol. 14, p. 347.
51. Mizuta, op.cit., p. 117.
52. Katsu, KKZ, vol. 12, p. 126.
53. Numata Jirō, Bakumatsu Yōgaku-shi (A History of Western Studies in the Late Tokugawa Period), Tōkō Shoin, 1952, p. 95.
54. Loc.cit.
55. Katsu, KKZ, vol. 12, pp. 138-139.
56. Ibid., pp. 139-140.
57. See page 82 of this thesis.
58. Mizuta Nobutoshi (tr.), Nagasaki Kaigun Denshū-jo no Hibi (Days at the Nagasaki Naval Training School), Heibon-sha, 1964, p. 11. This is a Japanese translation of Huyssen van Kattendyke, Uittreksel uit het dagboek van W.J.C. Ridder H.v. Kattendyke gedurende zijn verblijf in Japan in 1857, 1858 en 1859, The Hague, 1860.
59. Katsu, KKZ, vol. 12, pp. 127-128.
60. For the life of Enomoto Takeaki, see Iguro Yatarō, Enomoto Takeaki, Shin Jinbutsu Ōrai-sha, 1975.
61. For the life of Hida Hamagorō, see Tsuchiya, op.cit.
62. Ibid., pp. 82-83.
63. Numata, op.cit., p. 90.
64. Loc.cit.

65. Ibid., p. 93. Some interesting experiences of Bakufu astronomer Ono Tomogorō in lectures are introduced in Numajiri Gen'ichiro (ed.), Mito no Yogaku (Western Studies in Mito), Kashiwa Shobo, 1977, pp. 260-262.
66. Numata, op.cit., p. 92.
67. Ibid., p. 94.
68. The information about the Bakufu cutter is obtained from Saga Han Kaigun-shi, Kaigun Rekishi, Sappan Kaigun-shi, and Bakumatsu ni Okeru Waga Kaigun to Oranda, as none of them satisfactorily explains the cutter building in its entirety.
69. Fumikura, op.cit., p. 790.
70. Katsu, KKZ, vol. 12, pp. 140-411.
71. See the following.
72. The Soembing was renamed the Kankō Maru in May, 1856. The name "Kankō" comes from the I-ching, a Chinese classic. Fumikura, op.cit., p. 31.
73. Katsu, Rikugun Rekishi (The History of the Army) in KKZ, vol. 16, pp. 445-454.
74. Katsu, KKZ, vol. 12, pp. 152-153.
75. Ibid., pp. 153-162.
76. Ibid., p. 153.
77. Fumikura, op.cit., pp. 44, 48-51.
78. Katagiri, Sakoku Jidai Taigai Ōsetsu Shiryō, pp. 221-223.
79. According to Katagiri, the Catharine Theresia was 170 tons and the Jan Daniel, 338 tons. Ibid., pp. 221-222.
80. Katagiri Kazuo, "Kanrin Maru--Japan--ni kansuru Shin Shiryō (New Material Concerning the Kanrin Maru--Japan)," in Geppō (Monthly News), no. 2, of KKZ, vol. 12, pp. 1-10.
81. Mizuta (tr.), op.cit., p. 7.
82. Katsu, KKZ, vol. 12, pp. 162-165.
83. Ibid., pp. 172-222.
84. Ibid., pp. 177-179.
85. Ibid., pp. 195-200.
86. Ibid., pp. 167-168.
87. The commanders of the Dutch detachments seem to have been excellent naval

officers. Pels Rijken rose to vice-admiral and served as a naval minister of the Dutch government. Van Kattendyke retired from the Navy as a commander and went into politics. He also served as a naval minister and for a while held the portfolio for Foreign Affairs concurrently. Mizuta (tr.), op.cit., pp. 230-231.

88. Takahashi Kunitarō, Gunji (Military Affairs), Oyatoi Gaikoku-jin (Foreigners in Government Services) series, vol. 9, Kashima Kenkyu-jo Shuppan-kai, 1968, p. 45.
89. Katsu, KKZ, vol. 12, p. 165.
90. Ibid., pp. 168-172.
91. Hideshima (ed.), Saga Han Kaigun-shi, pp. 145-146.
92. Nihon Rekishi Dai-jiten, vol. 9, pp. 266-267.
93. With regard to the dates of this circumnavigation, I used the ones in Sappan Kaigun-shi which I understand to be most reliable.
94. Mizuta (tr.), op.cit., p. 90.
95. Fumikura, op.cit., p. 68.
96. Details here are based on Mizuta (tr.), op.cit., and Sappan Kaigun-shi.
97. Mizuta (tr.), op.cit., pp. 96-98.
98. T.C. Smith, Political Change and Industrial Development in Japan: Government Enterprise, 1868-1880, Stanford Univ. Press. 1955, p. 5. It is mentioned in this book that "twelve hundred workers were being employed at the Shusei-kan in 1858."
99. Mizuta (tr.), op.cit., p. 96.
100. Kōshaku Shimazu-ke Hensan-jo (ed.), Sappan Kaigun-shi, pp. 617-619. According to the same book, the steam engine of the ship was preserved at the Kaigun Heigakkō at Tsukiji, Kaigun Kikan Gakkō (Naval Academy of Engineering) at Yokosuka, and then at Kaigun Heigakkō at Etajima, Hiroshima, until 1891 or 1892 when it was scrapped there.
101. Mizuta (tr.), op.cit., p. 97.
102. Ibid., pp. 99-100.
103. Ibid., pp. 92-93.
104. Nihon Rekishi Dai-jiten, vol. 7, p. 93.
105. Mizuta (tr.), op.cit., p. 93.
106. Numata Jirō and Arase Susumu (trs.), Pompe Nihon Taizai Kenbun-ki (Pompe's Records in Japan), Yusho-dō Shoten, 1968, p. 258. This is a Japanese

translation of Jhr. Johannes Lijdius Catharinus Pompe van Meerdervoort, Vijf Jaren in Japan (1857-1863): Bij dragen tot de kennis van het Japansche keizerrijk en zijne bevolking, 2 vols., Leiden, 1867-1868.

107. Numata and Arase (trs.), op.cit., p. 261.
108. Kōshaku Shimazu-ke Hensan-jo (ed.), op.cit., pp. 1019-1020.
109. Ibid., pp. 1021-1024.
110. Ibid., pp. 1024-1026.
111. Mizuta (tr.), op.cit., p. 109.
112. See page 66 of this thesis.
113. Ibid., p. 110.
114. Ibid., pp. 111-112.
115. Ibid., pp. 118-119.
116. Hideshima Naritada (ed.) Saga Han Kaigun-shi, p. 163, and Fumikura, op.cit., p. 81.
117. Katagiri, Geppō, p. 10.
118. Mizuta (tr.), op.cit., pp. 134-141.
119. Daimyo whose ancestors had supported Tokugawa Ieyasu before 1600.
120. Katsu, KKZ, vol. 12, p. 175.
121. Mizuta (tr.), op.cit., p. 162.
122. Fumikura, op.cit., p. 82.

CHAPTER 5

1. Fumikura, Bakumatsu Gunkan Kanrin Maru, p. 84.
2. Loc.cit. The waka in Japanese is "Imasara ni Totsukuni buri o Narawame ya, Koko ni Tsutauru Mononofu no Michi."
3. Tabohashi, Kindai Nihon Gaikoku Kankei-shi, p. 524, and Okudaira Shōji, Hinawa-ju kara Kuro-fune made (From the Matchlock to the Black Ships), Iwanami Shoten, 1970, pp. 114-117.
4. Inoue, Nihon no Gunkoku-shugi, p. 39.
5. Loc.cit.
6. Ibid., p. 89.

7. Ibid., p. 39.
8. Katsu, KKZ, vol. 12, pp. 153-154. The only exception here was Nakahama Manjirō, the American-educated castaway.
9. The Banryū Maru was presented to the Bakufu in 1858 by Queen Victoria. Its original name was the Emperōr. Fumikura, op.cit., pp. 755-758. The Kankō Maru was then on loan to Saga han after 1860.
10. One silver (or Mexican) dollar weighed approximately 7.2 monme. Hora Tomio, Bakumatsu Ishin-ki no Gaiatsu to Teikō (Foreign Pressure and Japan's Resistance in the Late Tokugawa and Early Meiji Periods), Azekura Shobō, 1977, p. 149.
11. There is no document about the financial aspects of the early Tokugawa Bakufu navy today. One of the few monographs in this field is Oyama Shikitarō, Bakumatsu Zaisei Kinyu Shiron (Historical Essays on the Late Bakufu Finance), Mineruba Shobō, 1969.
12. Fumikura, op.cit., p. 82.
13. Ishii Takashi, Nihon Kaikoku-shi, (A History of the Opening of Japan), Yoshikawa Kobun-kan, 1972, pp. 356-361.
14. Beasley, Select Documents on Japanese Foreign Policy 1853-1868, p. 188.
15. Ishii, op.cit., pp. 352-353.
16. Loc.cit.
17. Although the United States government seems to have intended to ask for help from the Dutch Nagasaki Post in negotiation with the Japanese, Commodore Perry totally ignored the Post.
18. Mizuta, Bakumatsu ni Okeru Waga Kaigun to Oranda, pp. 154-155.
19. Loc.cit.
20. Ibid., pp. 155-156.
21. Ikeda Kiyoshi, Nihon no Kaigun (Japan's Navy), Shisei-dō, 1963, vol. 1, pp. 19-20, and Kurihara Ryūichi, Bakumatsu Nihon no Gunsei, p. 131.
22. Mizuta, op.cit., p. 156.
23. For the life of Sakamoto Ryōma, see Marius Jansen, Sakamoto Ryoma and the Meiji Restoration, Princeton Univ. Press, 1961.
24. For the life of Nakamura Kuranosuke, as well as Kawamura Sumiyoshi, see Tamura Eitarō, Meiji Kaigun Sōshi-sha, Kawamura Sumiyoshi, Nakamura Kuranosuke Den (Biographies of Kawamura Sumiyoshi and Nakamura Kuranosuke, Founders of the Meiji Navy), Nihon Gunji Tosho, 1944.
25. Mizuta (tr.), Nagasaki Kaigun Denshū-jo no Hibi, p. 85.

26. Fumikura, op.cit., pp. 766-777.
27. Numajiri (ed.), Mito no Yōgaku, pp. 265-268.
28. About the medical school, see Ishibashi Chōei, et al., Igaku (Medicine), in Oyatoi Gaikoku-jin (Foreigners in Government Service) series, vol. 9, Kashima Kenkyū-jo Shuppan-kai, 1969, pp. 54-63.
29. About the life of Godai Tomoatsu, see Godai Ryūsaku, Godai Tomoatsu Den (A Biography of Godai Tomoatsu), private edition, 1933.
30. About the life of Sano Tsunetami, see Honma Gakukan, Sano Tsunetami Den (A Biography of Sano Tsunetami), Jidai-sha, 1943.
31. Eto Jun, Umi wa Yomigaeru (The Ocean Resurgent), Bungei Shunjū Shin-sha, 1973, vol. 1, p. 236.
32. Watanabe Shūjiro, Abe Masahiro Jiseki, vol. 1, p. 377.
33. Mizuta (tr.), op.cit., p. 84.

LIST OF WORKS CONSULTED

English Books

- Alcock, Sir Rutherford, The Capital of the Tycoon: A Narrative of a Three Years' Residence in Japan, 2 vols., London, 1863.
- Beasley, W.G., Great Britain and the Opening of Japan, 1834-1858, London, 1951.
- _____, The Meiji Restoration, Stanford, 1972.
- _____, Select Documents on Japanese Foreign Policy 1853-1868, London, 1955.
- Consenza, M.E. (ed.), The Complete Journal of Townsend Harris, First American Consul General and Minister to Japan, New York, 1930.
- Craig, Albert M. and Donald H. Shively (eds.), Personality in Japanese History, Berkeley, 1970.
- Dore, R.P., Education in Tokugawa Japan, Berkeley, 1964.
- Dennett, Tyler, Americans in Eastern Asia, A Critical Study of United States Policy in the Far East in the Nineteenth Century, New York, 1941.
- Harris, Townsend. See M.E. Consenza (ed.)
- Hawks, F.L. (ed.), Narrative of the Expedition of an American Squadron to the China Seas and Japan, Performed in the Years 1852, 1853, and 1854, under the Command of Commodore M.C. Perry, 3 vols., New York, 1856.
- Jansen, Marius, Sakamoto Ryoma and the Meiji Restoration, Princeton, 1961.
- Keene, Donald, The Japanese Discovery of Europe, 1720-1830, revised edition, Stanford, 1969.
- Norman, E.H., Japan's Emergence as a Modern State, New York, 1940.
- Raffles, Thomas Stamford, History of Java, London, 1830.
- Sansom, G.B., The Western World and Japan, New York, 1950.
- Siebold, Philipp Franz von, Manners and Customs of the Japanese in the Nineteenth Century, New York, 1841. This is an English translation of his Nippon in German.
- Smith, Thomas C., Political Change and Industrial Development in Japan: Government Enterprise, 1868-1880, Stanford, 1955.

English Article

- Green, D.C., "Correspondence Between William II of Holland and the Shogun of Japan, A.D. 1844," in Transactions of the Asiatic Society of Japan, 1st series, XXXIV (1907), pp. 99-132.

Japanese Books

Asao Naohiro, Sakoku (National Isolation), in Nihon No Rekishi (The Great History of Japan) series, Shōgakkan, 1975.

Ayuzawa Shintarō et al., Sakoku Jidai Nihon-jin no Kaigai Chishiki (Japanese Knowledge of Foreign Countries During the Years of National Isolation), Kangeisha, 1955.

Eto Jun, Umi wa Yomigaeru (The Ocean Resurgent), Bungei Shunjū Shin-sha, 1976.

Fujino Tamotsu, Baku-Han Taisei-shi no Kenkyū (A Study of the Tokugawa Bakufu-Han System), Yoshikawa Kōbun-kan, 1961.

Fumikura Heijirō, Bakumatsu Gunkan Kanrin Maru (The Kanrin Maru, Warship in the Late Tokugawa Period), Meicho Kankō-kai, 1969.

Gaimu-shō (ed.), Kindai In-Yō Reki Taishō-hyō (Conversion Tables of Japanese and Gregorian Calendars for Modern Times), Gaimu-shō, 1951.

Hideshima Naritada (ed.), Saga Han Kaigun-shi (The History of the Saga Han Navy), Chishin-kai, 1917.

Hora Tomio, Bakumatsu Ishin-ki no Gaiatsu to Teikō (Foreign Pressure and Japanese Resistance in the Late Tokugawa and Early Meiji Periods), Azekura Shōbō, 1977.

Iguro Yatarō, Enomoto Takeaki (Enomoto Takeaki), Shin Jinbutsu Ōrai-sha, 1975.

Ikeda Kiyoshi, Nihon no Kaigun (Japan's Navy), 2 vols., Shisei-dō, 1963.

Inoue Kiyoshi, Nihon no Gunkoku-shugi (Japanese Militarism), 3 vols., Gendai Hyoron-sha, 1975.

Ishibashi Chōei et al., Igaku (Medicine), in Oyatoi Gaikoku-jin (Foreigners in Government Service) series, vol. 9, Kashima Kenkyū-jo Shuppan-kai, 1969.

Ishii Takashi, Bakumatsu Bōeki-shi no Kenkyū (A Study of the History of Trade in the Late Tokugawa Period), Yoshikawa Kōbun-kan, 1942.

_____, Katsu Kaishū (Katsu Kaishū), Yoshikawa Kōbun-kan, 1974.

_____, Nihon Kaikoku-shi (A History of the Opening of Japan), Yoshikawa Kōbun-kan, 1972.

Itazawa Takeo, Nichi-Ran Bunka Kōshō-shi no Kenkyū (Studies on Cultural Exchanges Between Japan and the Netherlands), Yoshikawa Kōbun-kan, 1959.

_____, Shīboruto (Siebold), Yoshikawa Kōbun-kan, 1960.

Izu Kimio et al., Nihon Gunji Hattatsu-shi (A History of the Military Development of Japan), Mikasa Shōbō, 1938.

- Kaigun Yūshū-kai (ed.), Kinsei Teikoku Kaigun Shiyō (A History of the Imperial Navy in Modern Times), Kaigun Yūshū-kai, 1938.
- Kamei Takayoshi, Daikoku-ya Kōdayu (Daikoku-ya Kōdayu), Yoshikawa Kōbun-kan, 1964.
- Kamo Giichi, Enomoto Takeaki (Enomoto Takeaki), Chuō Kōron-sha, 1960.
- Kaneko Haruji, Bakumatsu no Nihon (Japan in the Late Tokugawa Period), Hayakawa Shobō, 1968.
- Kasama Yoshihiko, Edo Bakufu Yakushoku Shūsei (A Compilation of Official Posts in the Tokugawa Bakufu), revised and enlarged edition, Yūzankaku Shuppan, 1974.
- Katagiri Kazuo (ed.), Sakoku Jidai Taigai Ōsetsu Kankei Shiryō (Historical Documents Concerning the Reception of Foreigners During the Years of National Isolation), Kondō Shuppan-sha, 1972.
- Katsube Mitake and Etō Jun (eds.), Katsu Kaishū Zenshū (Complete Works of Katsu Kaishū), Keisō Shobō, 1971-.
- Kattendyke, W.J.C. Ridder van, see Mizuta (tr.)
- Kawai Hikomitsu, Nihon-jin Hyōryū-ki (Records of Japanese Castaways), Shakai Shiso-sha, 1967.
- Kitajima Masamoto, Edo Bakufu no Kenryoku Kōzō (The Power Structure of the Tokugawa Bakufu), Iwanami Shoten, 1964.
- _____, Mizuno Tadakuni (Mizuno Tadakuni), Yoshikawa Kōbun-kan, 1969.
- Konishi Shirō, Kaikoku to Jōi (The Opening of the Country and Exclusionism), in Nihon no Rekishi (A History of Japan) series, vol. 19, Chuō Kōron-sha, 1966.
- Kōshaku Shimazu-ke Hensan-jo (ed.), Sappan Kaigun-shi (The History of the Satsuma Han Navy), 3 vols., Shimazu Kōshaku-ke, 1929.
- Koyama Hirotake, Kindai Nihon Gunji-shi Gaisetsu (An Outline History of Military Affairs in Modern Japan), Itō Shoten, 1944
- _____, Nihon Gunji Kōgyo no Shiteki Bunseki (Historical Analysis of Japan's Military Industries), Ochanomizu Shobō, 1972.
- Kudō Takeshige, Mizuno Chikuzen (Mizuno Tadakuni), 1897.
- Kurihara Ryūichi, Bakumatsu Nihon no Gunsei (Military Systems of Late Tokugawa Japan), Shin Jinbutsu Ōrai-sha, 1972.
- Meerdervoort, Jhr. J.L.C. Pompe van, see Numata and Arase (trs.)
- Miyagi Eishō, Okinawa no Rekishi (A History of Okinawa), Nihon Hōsō Shuppan Kyōkai, 1968.
- Miyamoto Chū, Sakuma Shōzan (Sakuma Shōzan), Iwanami Shoten, 1932.

Mizuta Nobutoshi, Bakumatsu ni Okeru Waga Kaigun to Oranda (Japan's Navy and Holland in the Late Tokugawa Period), Yūshū-kai, 1929.

Mizuta Nobutoshi (tr.), Nagasaki Kaigun Denshū-jo no Hibi (The Days of the Nagasaki Naval Training School), Heibon-sha, 1964. This is a Japanese translation of Willem Johan Cornelis Ridder van Kattendyke, Uittreksel uit het Dagboek van W.J.C. Ridder H. v. Kattendyke Gedurende zijn Verblijf in Japan in 1857, 1858 en 1859, The Hague, 1860.

Nakahama Tōichirō, Nakahama Manjiro Den (A Biography of Nakahama Manjiro), Fuzanbō, 1936.

Nakano Reishirō (ed.), Nabeshima Naomasa Kō Den (A Biography of Lord Nabeshima Naomasa), Koshaku Nabeshima-ke Hensan-jo, 1920.

Nihon Rekishi Dai-jiten Hensan-kai (ed.), Nihon Rekishi Dai-jiten (Encyclopedia of Japanese History), Kawade Shobō, 1968.

Numajiri Gen'ichirō (ed.), Mito no Yōgaku (Western Studies in Mito), Kashiwa Shobō, 1977.

Numata Jirō, Bakumatsu Yōgaku-shi (A History of Western Studies in the Late Tokugawa Period), Tōkō Shoin, 1952.

Numata Jirō et al. (trs.), Pompe Nihon Taizai Kenbun-ki (Pompe's Records in Japan), Yūshō-dō Shoten, 1968. This is a Japanese translation of Jhr. Johannes Lijdius Catharinus Pompe van Meerdervoort, Vijf Jaren in Japan (1857-1863: Bij dragen tot de kennis van het Japansche keizerrijk en zijne bevolking, 2 vols., Leiden, 1867-1868.

Ogasawara Chōsei, Nihon Teikoku Kaijō Kenryoku-shi Kōgi (Lectures on the Naval Power of the Japanese Empire), date unknown.

Ogata Tomio (ed.), Rangaku to Nihon Bunka (Dutch Studies and Japanese Culture), Tokyo University Press, 1971.

Ōhara Sakingo, Hokuchi Kigen (Warning about the North Land), in Hokumon Sōsho (Books about the North) series edited by Ōtomo Kisaku, Hokkō Shobō, 1943.

Ōhira Kimata, Sakuma Shōzan (Sakuma Shōzan), Yoshikawa Kōbun-kan, 1959.

Ōishi Shinzaburō, Bakuhan-sei no Tenkan (Changes in the Tokugawa Bakufu-Han System), in Nihon no Rekishi (The Great History of Japan) series, vol. 20, Shōgakkan, 1975.

Ōito Toshio, Bakumatsu Heisei Kaikaku-shi (A History of Military Reforms in the Late Tokugawa Period), Hakuyō-sha, 1939.

Okumura Shōji, Hinawa-ju kara Kuro-fune Made (From the Matchlock to the Black Ships), Iwanami Shoten, 1970.

Ōtomo Kisaku (ed.), Hokumon Sōsho (Books about the North), Hokkō Shobō, 1943.

Ōyama Shikitarō, Bakumatsu Zaisei Kinyū Shiron (Historical Essays on Finance in the Late Tokugawa Period), Mineruba Shobō, 1969.

- Saga-ken-shi Hensan-kai (ed.), Saga-ken-shi (A History of Saga-ken), Saga-ken, 1972.
- Sakanoue Nobuo, Nihon Kaibō-shi (A History of Maritime Defense of Japan), Taikō-dō, 1942.
- Satō Shōsuke, Yōgaku-shi Kenkyū Josetsu (Introduction to Research in the History of Western Studies), Iwanami Shoten, 1964.
- Shimonaka Yasaburō et al. (eds.), Sekai Rekishi Jiten (Encyclopedia of World History), Heibon-sha, 1955.
- Sugimoto Isao (ed.), Kagaku-shi (History of Science), in Taikei Nihon-shi Sōsho (An Outline History of Japan), Yamakawa Shuppan-sha, 1964.
- Suzuki Naoji, Edo Jidai ni Okeru Kome Torihiki no Kenkyū (A Study of the Rice Market in the Tokugawa Period), enlarged edition, Kashiwa Shobo, 1965.
- Suzuki Seisetsu (ed.), Kazan Zenshū (Complete Works of Watanabe Kazan), Kazan-kai, 1910.
- Tabohashi Kiyoshi, Kindai Nihon Gaikoku Kankei-shi (A History of Japanese Foreign Relations in the Tokugawa Period), Tōkō Shoin, 1943.
- Takahashi Kunitarō, Gunji (Military Affairs), in Oyatoi Gaikoku-jin (Foreigners in Government Service) series, vol. 6, Kashima Kenkyū-jo Shuppan-kai, 1968.
- Takimoto Seiichi (ed.), Satō Nobuhiro Kagaku Zenshū (Complete Works of Satō Nobuhiro), 3 vols., Iwanami Shoten, 1925.
- Tamura Eitarō, Meiji Kaigun Sōshi-sha, Kawamura Sumiyoshi Nakamuda Kuranosuke Den (Biographies of Kawamura Sumiyoshi and Nakamuda Kuranosuke, Founders of the Meiji Navy), Nihon Gunji Toshō, 1944.
- Tokita Ekichi, Satō Nobuhiro (Satō Nobuhiro), Daikan-dō, 1941.
- Tokugawa Kōshaku-ke (ed.), Mito Han Shiryō (Historical Documents of Mito Han), Tokugawa-ke, 1915.
- Tokutomi Iichirō, Kinsei Nihon Kokumin-shi (A National History of Modern Japan), Jiji Tsushin-sha, 1960.
- _____, Yoshida Shōin (Yoshida Shōin), Minyū-sha, 1908.
- Tsuchiya Shigeaki, Kindai Nihon Zōsen Kotohajime, Hida Hamagorō no Shōgai (The Birth of Shipbuilding in Modern Japan and the life of Hida Hamagorō), Shin Jinbutsu Ōrai-sha, 1975.
- Tsuda Hideo, Tempō Kaikaku (The Tempō Reforms), in Nihon no Rekishi (The Great History of Japan) series, vol. 22, Shogakkan, 1975.
- Watanabe Shūjiro, Abe Masahiro Jiseki (A Biography of Abe Masahiro), 2 vols., private edition, 1910.

Yamamoto Yutaka (ed.), Hayashi Shihei Zenshū (Complete Works of Hayashi Shihei), Seikatsu-sha, 1943.

Zōsen Kyōkai (ed.), Nihon Kinsei Zōsen-shi (A History of Shipbuilding in Modern Japan), Kodo-kan, 1911.

Japanese Articles

Gotō Yoichi, "Abe Masahiro (Abe Masahiro)" in Daimyō Retsuden (Biographies of Daimyo), vol. 8, Jinbutsu Ōrai-sha, 1966.

Ishii Kenji, "Sakoku-jidai no Kōyō-sen Kenzō (The Construction of Ocean-going Ships During the Period of National Isolation)," in Miyamoto Joichi et al. (eds.), Nihon no Kaiyō-min (Oceanic People of Japan), Mirai-sha, 1974.

_____, "Suetsugu Heizō no Kara-bune (The Chinese-style Ship of Suetsugu Heizō)," in Nihon Rekishi Gakkai (ed.), Nihon Rekishi (Japanese History), Yoshikawa Kōbun-kan, No. 180, 1963.

Katagiri Kazuo, "Kanrin Maru--Japan--ni Kansuru Shin Shiryō (New Historical Material Concerning the Kanrin Maru, Japan)," in Geppō (Monthly News), no. 2 of Katsu Kaishū Zenshū, vol. 12. Keisō Shobō, 1971-.

Nakamura Tadashi, "Shimabara no Ran to Sakoku (The Shimabara Rebellion and National Isolation Policy)" in Iwanami Kōza Nihon Rekishi (Iwanami History of Japan), vol. 9, Iwanami Shoten, 1975.

Shōji Mitsuo, "Bakumatsu Nichi-Ran Gaikō-shi no Ichi Kōsatsu (A Consideration of the Diplomatic History of the Relation Between Japan and Holland in the Last Days of the Shogunate)" in Nihon Gaikō-shi Kenkyū, Bakumatsu Ishin-jidai (Studies on the Diplomatic History of Japan, Late Tokugawa and Early Meiji Periods),

Tanji Kenzō, "Kōka-ki ni Okeru Edo-wan Bōbi Mondai to Ikoku-sen Toriatsukai-rei (The Problems of the Defense of Edo Bay and Bakufu Regulations Concerning Foreign Ships in the Kōka Period)" in Shigaku Ronshū Taigai Kankei to Seiji Bunka, #3, Seiji to Bunka (Papers on History Studies: International Relations and Domestic Politics and Culture, #3, Politics and Culture), Yoshikawa Kōbun-kan, 1974.