Ignacio Moreira's Cartographical Activities in Japan (1590-2), with Special Reference to Hessel Gerritsz.'s Hemispheric World Map

By Ryôichi AIHARA

1. The Map of Japan of the Dourado-type.

The celebrated navigator Captain William Adams, the first Englishman to come to Japan, wrote in his letter dated 22 October 1611 that when, in the spring of 1600, he approached Japan from the east across the Pacific Ocean on board the Dutch ship Liefde, he sought the North cape of Japan in the height of thirty degrees, north latitude only to find out that it lieth false in all chartes, and Globes, and Maps.[1]

From his letter, what sort of maps he meant is not clear, but the chart which is said to have been carried with him has been preserved in the National Museum in Tokyo since 1868, when, with the downfall of the Shogunate regime, it was confiscated, together with two world maps, by the new government from the Tokugawa family. Judging from the inscription in the chart, the chart was compiled by Cornelis Doetsz. and the date of its compilation (Anno 1598 den 18 February stilo novo[2]) is four months before the departure of the Dutch fleet of five sail under J. Mahu from Holland to the East Indies through the strait of Magellan.[3]

The delineation of Japan in this chart is what is called of Dourado type.[4] (Fig. 2) One of the salient features of this type of charts is the erroneous delineation of the eastern part of Japan, with its coastline bending slowly downwards in hook shape instead of stretching as it should be to the north-east, and its southern end reaches almost the latitude of 30 degrees. This southern cape named C[abo] Dos Cestos must be what Adams called "The North cape." Then, why did Adams seek it in the height of thirty degrees? This curious remark can only be understood by examining the so called tortois- or worm-shaped Japan[5] in the chart originally drawn by Fernão Vaz Dourado in 1568. In this type of charts the Macao-Nagasaki route followed by the Portuguese carracks were drawn accurately and highly esteemed by Dutch and English navigators of those days. For instance, in 1596 the charts of the same type drawn by Hendrick van Langren were inserted in the famous Linschoten's *Itinerario*,[6] of which John Saris who visited Japan in 1613 remarked, "We

found Jan Huijghen van Linschotens booke very true, for thereby we directed ourselves from our setting forth from Firando".[7] But the delineation of the eastern part of Japan is inexact and misleading, because the Portuguese vessels never visited the eastern coast of Japan in those days and the Portuguese cartographer, being unable to obtain necessary information, was obliged to rely on second hand materials probably from Chinese sources. In this connection, Dr. Nakamura says in his *East Asia in old Maps*[8] (p. 54) as follows,

> In some of the Gyōgi maps copied by the Chinese, such as the "Map of Japan" in *Jih-pên-kuo ch'iao-lüeh* 日本國攷略 (*Concise Treaties on Japan*) by Hsüeh Chün 薛俊, the Tōhoku District is drawn bending to the south.... The original Chinese version was lost, but two copies of its Korean edition (1565) are now preserved in Japan. It is not clear whether the Portuguese at that time drew their maps of East Asia on the basis of this map or not, but it cannot be denied that this map has close resemblance to the maps of Dourado type, so far as the delineation of Japan is concerned.

Adams who joined the Mahu fleet in the capacity of pilot major must always be careful about nautical matters, so that it is inconceivable that he took the Cabo Dos Cestos for the North cape from carelessness. Adams probably sought the North cape, as Wieder points out, to avoid Portuguese carracks coming from Macao to Nagasaki.[9] After the abortive search for the North cape, Adams soon came in sight of the land at 32°½ and reached Bungo on the east coast of Kyûshû. Then, he was summoned by Ieyasu to his castle at Ôsaka and, after being examined about his nationality, the aim of his visit and so on, he was told to go to the bay of Edo, where the Liefde perished and Adams with his Dutch colleagues remained in the eastern capital of Edo under the patronage of Ieyasu. After eleven years of stay in Japan, he says in his above mentioned letter, "The north cape lyeth in thirty five degrees ½."[10] Here the North cape evidently means the Cabo Dos Cestos in the map of the Dourado type, where the Spanish galleon San Francisco was wrecked in 1609. On this occasion, Adams escorted the ex-governor of the Philippines, Don Rodrigo de Vivero y Velasco and others from Kazusa to Edo and, as he gave him information about the latitude of the northern end of Japan, he must have had a considerable geographical knowledge of these areas by this time It must also be noted that Sebastian Viscaino, coming from Acapulco across the Pacific, reached the same cape in June, 1611 and surveyed the northeastern coast of Japan as far north as 40 degrees.[11]

2. Luis Teixeira's map of Japan.

While the charts of the Dourado type were still widely used, Abraham Ortelius, a Flemish cartographer, obtained a new advanced map of Japan

Fig. 1. Lopo Homen, 1554.

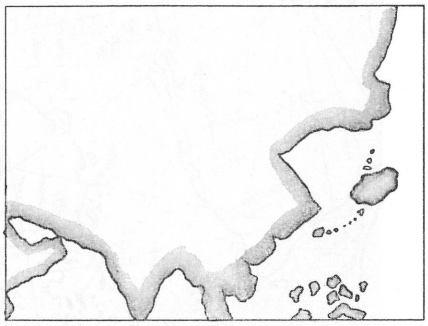

Fig. 3. Gerard Mercator, 1569.

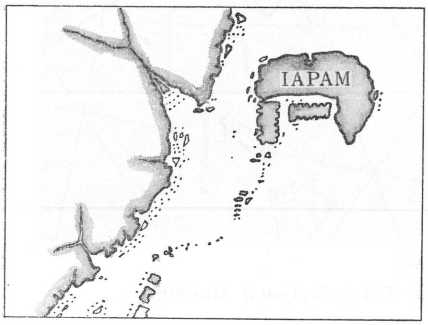

Fig. 2. Fernão Vaz Dourado, 1568.

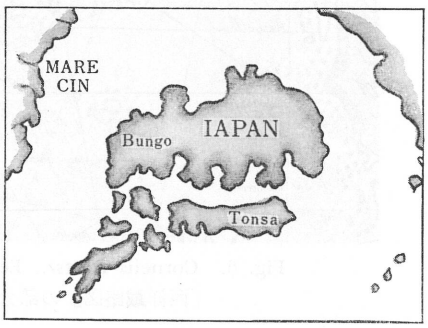

Fig. 4. Abraham Ortelius, 1570.

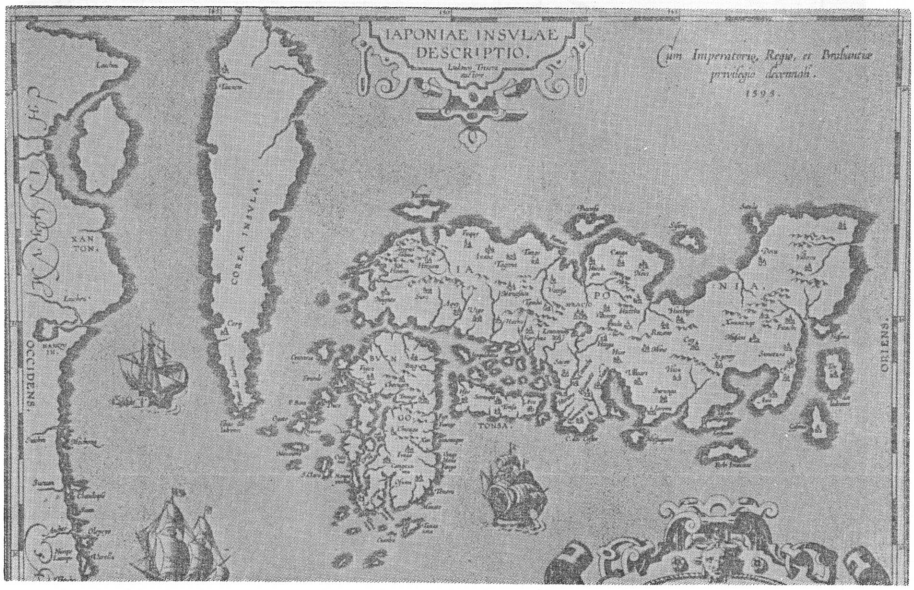

Fig. 5. Luiz Teixeira's map of Japan, published by Abraham Ortelius, 1595.
(Portugaliae Monumenta Cartographica, 362)

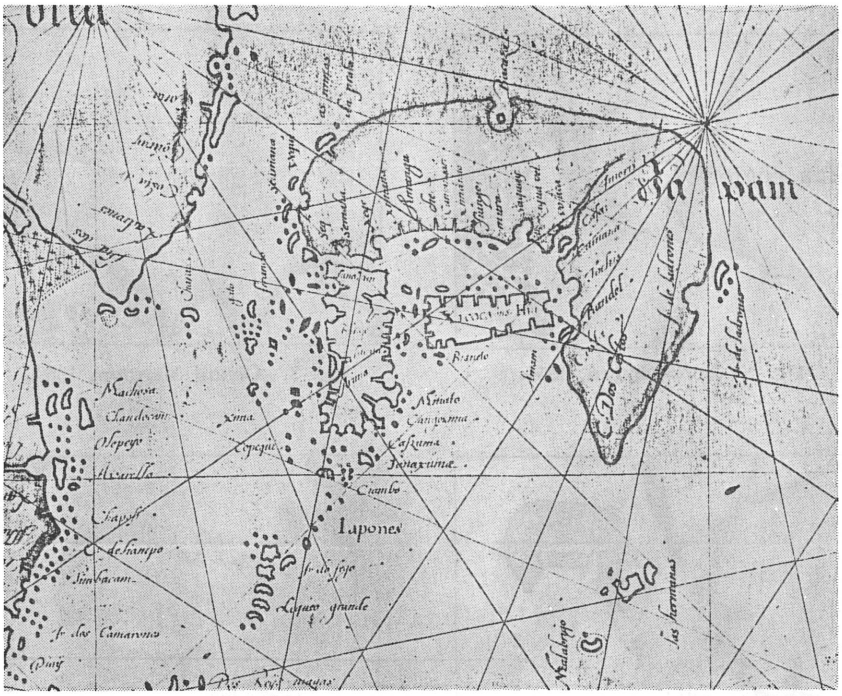

Fig. 6. Cornelis Doetsz., Eedam, 1598
「西洋鍼路図」の部分図 (The Tokyo National Museum)

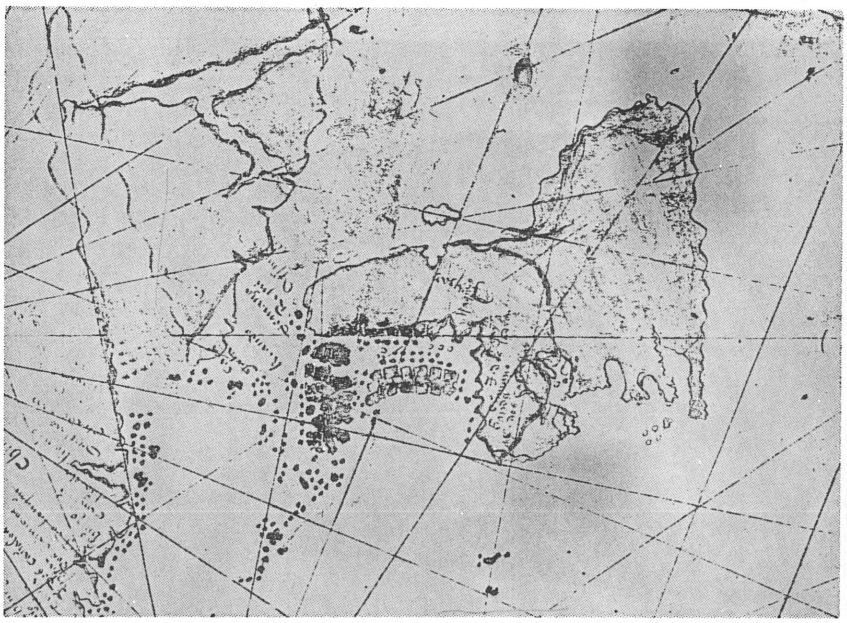

Fig. 7. Japan of the Dourado-type with emendation in its northeastern part
「南洋鍼路図」の部分図 (The Tokyo National Museum)

from Luis Teixeira in 1592 and published it in 1595.[12] The delineation of Japan in this map is drawn far better than the map of the Dourado style. If you compare it with Dourado's chart, you will see a marked difference in the delineation of the northeastern part of Japan. Concerning this map, Dr. Nakamura advanced a very remarkable view that its delineation of Japan is composed by the combination of the Dourado type with the Sengoku-zu or an advanced map of Japan produced in the Age of Civil Wars.[13] He assumes that when a fresh material was supplied from some Japanese source, the Portuguese cartographer was not bold enough to adopt it as a whole, but that he retained the western portion of Japan as he saw in Dourado's chart and replaced the eastern part with a fresh material he obtained from Japan. Based on this assumption he concluded that Luis Teixeira's map of Japan was composed by combining the Dourado-type map with what he calls Sengoku-zu.[14]

Ten years before the publication of Luis Teixeria's map, a special map of Japan was made in Florence on the model of the Gyôgi map brought from Japan and left there by the famous Japanese juvenile emboy when they visited Rome in 1585.[15] This map is drawn upside down, with a western style castle in each province as we often see in mediaeval maps of Europe, but it is a mere copy of the Gyôgi-type map, and the island of Kyûshû retains the inaccurate shape of its original, while it was drawn with precision in Dourado's chart already in 1568, employing the Portuguese information from Japan. If these two maps are compared with each other, it will be easily understood that emendation is indispensable on the part of the Florence map in the delineation of the island of Kyûshû, while Dourado's Japan needs drastic revision in the eastern part of Honshû. In order to meet this demand, I believe, the Japan maps of Luis Teixeira's type were composed in the 1590s. Moreover, it may be in consideration of this cartographical problem, I presume, that Ignacio Moreira came to Japan in 1590. It must be noted, however, that although in Luis Teixeira's map the north-eastern part of Japan is delineated as it should be, its northern end lies in 37°, and not in 39° as in Moreira's map.[16]

3. Ignacio Moreira's arrival in Japan.

When Father Alexandro Valignano returned to Japan escorting the Japanese juvenile emboy returning home from Rome, Ignacio Morreira joined the retinue with fellow Jesuits, and arrived at Nagasaki in July, 1590. The aim of his visit was professedly to draw an accurate map of Japan with astronomical instruments. He is said to have made very careful investigations by personal measurement, observation, and constant enquiries in order to prepare a correct geographical description of Japan.[17] Some seventy years ago, the director of the Archive of Ajuda Jordão de Freitas discovered a manuscript in which Valignano's account of Moreira's cartographical activities in Japan was

given, but at that time no one knew anything about Moreira.[18] When, however, the celebrated Portuguese scholar Dr. Armando Cortesão referred to it again thirty years later, Prof. Yoshitomo Okamoto, the author of the *Jûroku-seiki Nichi-ô Kôtsûshi no Kenkyû* 十六世紀日歐交通史の研究 (*History of the Japanese Intercourse with Europe in the 16th Century*) (1936) and the *Jûroku-seiki Sekai-chizu jô no Nippon* 十六世紀世界地圖上の日本 (*Japan in the 16th-century World Maps*) (1938) expressed his firm conviction that if he could prove the existence of Moreira's map of Japan, he would be able to determine the model map on the basis of which the early Namban map-screens and what is called Goshuinsen charts were made, and repeatedly emphasized the cartographical value of Moreira's map in his later articles. Against this argument, Dr. Nakamura, in his *Sengoku-jidai no Nipponzu* (*Map of Japan produced in the Age of Civil Wars*) called Okamoto's argument a mere groundless conjecture and absolutely denied any influence of Moreira on European cartography.[19]

Recently, a monumental work written by Professor Okamoto was published posthumously under the title of *Jûroku-seiki ni okeru Nipponchizu no Hattatsu* (*The development of the map of Japan in the 16th century*[20]). The aim of this book is, as the tile shows, to explain the evolution of the cartography of 16th-century Japan, but at the same time, it is, as a whole, a counter argument against Dr. Nakamura's criticism.

4. "Orankai" mentioned in a report from the Korean front.

The name of Orankai mentioned in an India-ink copy of the chart carried by the pilot of the Spanish galleon San Felipe stranded at Urado on the coast of Tosa in 1596,[21] also appears in most of the Namban world-map screens. When Katô Kiyomasa invaded the northeastern part of Korea in 1592, he mentioned the name of Orankai in his report and sent it to the Japanese headquarters at Nagoya in Hizen. The Jesuit priests obtained information about it and put the name of Orankai in their maps then in the making at Nagasaki.[22]

In 1964, Prof. Okamoto gave a speech on this subject in Lisbon, in which he explained in detail how the report of Katō, together with other misleading information, caused confusion about the relative position of Orankai and Ezo, not only among the Japanese in the headquarters, but in the mind of those Jesuits who had heard about it, and on this misconception, their maps of Japan and of the world were produced. Okamoto's speech was printed by the Centro de Estudos Historicos Ultramarinos Lisbon, under the title of *Desenvolmimento Cartográfico da parte Extrema Oriente da Asia pelos Jesuitas Portugueses em Fins do seculo XVI.*

In the same year, Dr. Nakamura published an exhaustive study on the Namban world-map screens in *Kirishitan Kenkyū* (series IX), in which he

supported the theory that the date of production of the map-screens belonging to the Jôtokuji temple earlier than the death of Kanô Eitoku in 1590, as they bear his seal.[23] He also asserted that the sixfold world-map screen called the Yamamoto map is the earliest extant map screen probably produced before the death of Nobunaga in 1582, because the Strait of Anian is missing and the two continents of Asia and America are connected.[24] Moreover, here again, he assumes that, in addition to the hitherto existing Gyôgi-type maps, there must have been some advanced general map of Japan composed by some Japanese in the Age of Civil Wars, namely, before 1576, from which the delineation of Japan in the early Namban map-screens must have been copied.

In refuting these arguments, Okamoto gave attention to Orankai and maintains that these were produced on the basis of some advanced maps newly produced in the Jesuit art classes at Nagasaki in 1593–4, which owes their great improvement to material supplied by Ignacio Moreira.[25]

5. The Goshuin-sen charts and the Japanese charts of the Namban-style.

Dr. Nakamura states in his *Tôa no Kochizu* (*East Asia in Old Maps*) that the portolan charts carried by the pilots of Japanese junks sailing across the China Seas to the south can be divided into two groups.[26] One is a group of charts used by Japanese trading junks called "Goshuinsen". Concerning these charts he states as follows;

> They are drawn on parchment and are of purely European style . . . they are based on some Portuguese maps produced in 1582–87, namely in the last stage of production of the Dourado-type maps. The earliest one bearing the name Sebastião seems to have been used in 1585, so that the date of its production is probably a short time before that year. The only noticeable difference between these charts and Portuguese originals is that the delineation of Japan, Korea, and Formosa was adjusted to Japanese sources to be far more accurate than the Portuguese model. Judging from the fact that the chart drawn by Bartolomeu Lasso in 1590 is the only instance existing in Europe which has any similarity to them, their priceless cartographical value can easily be understood. These charts were in use until Japan was closed and the red seal ships ceased to go abroad, but strange to say, their topographical features remained essentially the same except for some partial modifications based on Japanese sources. This is presumably because no European map was obtainable in Japan in this period. Their delineation of Japan and Korea was introduced into Europe and continually left its traces in European cartography for a long time. It is surprising that even in the second half of the 19th century we can still find its traces in their maps.

Another category is a group of charts called by Dr. Nakamura "Japanese

Charts of Namban style". He says;[27]

> Only five of them are extant now. Some of them were produced in the 1620's and others were their later copies. Unlike Goshuinsen charts, they were never introduced into Europe. These charts, whether Goshuin-sen charts or the Japan charts of Namban style, are all drawn with surprising precision equal to that of those famous maps drawn by Inô Chûkei (Tadataka). Every one knows of Chûkei (Tadataka), but nobody knows that such excellent charts were produced 200 years before him by unknown seamen.

Okamoto rejects this argument once and for all, and holds very strongly that these charts were all produced after 1614.[28] As mentioned above, Dr. Nakamura says that their topographical features are strangely the same and that this is because no map could be obtained from Europe to make any ardjustment.[29] Okamoto points out that this very uniformity is one of the evidences for his conclusion.[30] In all of these charts the northern end of Japan is in 41–42 degrees north latitude unlike the previous maps in which it was placed in and around 38 degrees. The pilots of Japanese trading junks called Goshu-in-sen were Portuguese, and when it was decided by Portuguese navigators that the northern tip of Japan should be in 41–42 degrees north latitude in 1614, these charts were adjusted to that effect.[31] Okamoto quotes several documents in which this modification is recorded and attributes this adjustment to the hydrographical survey made by the Spanish navigator Sebastian Viscaino, English pilot William Adams, and others who were engaged in hydrographical survey in the early years of the 17th century.[32]

In short, as has been explained above, Dr. Nakamura maintains that the amelioration of the shape of Japan in the Namban world-map screens, and in the Goshuin-sen charts as well as in the Japan map of Luis Teixeira was possible, because some advanced general map of Japan was produced in the Age of Civil Wars, while Prof. Okamoto holds that the shape of Japan was amended because some advanced maps of Japan and of the world were composed at the Jesuit art classes at Nagasaki, using Ignacio Moreira's map as their model.

Both these arguments are based on ample circumstantial evidence and seem quite convincing. Dr. Nakamura founded his opinion on abundant geographical materials he collected in Europe, as well as in Japan and Korea, while Prof. Okamoto's arguments are chiefly based on abundant historical materials. Okamoto came to have a strong conviction that the delineation of Japan and its adacent areas was amended under the influence of Moreira when he acquired the atlas *Portugaliae Monumenta cartographica*[33] and also by reading the articles contributed by Father Josef Schütte S.J. to the *Imago Mundi*[34] (VI and XXIII).

6. The hemispheric world-map of 1619.

In spite of Dr. Nakamura's absolute denial, there exists a hemispheric world-map which positively proves Ignacio Moreira's influence on European cartography. This map appears in *De Newe und Warhaffte Relation van Eliud Nicolai* published in München, 1619.[35] Already, in 1930, Dr. C. P. Burger, in his *De Deurvaert by Noorden om naar Cathay ende China* pointed out[36] that this map is a reproduced copy of a hemispheric world-map originally drawn by Hessel Gerritsz. and inserted in his *Detectio Freti Hudsoni* compiled by him in 1612–3.[37] In the map of 1619, however, several important modifications were made. One of the most important modifications is that the Strait of Anian is replaced by the land called Rebuncur, with the result that the two continents of Asia and America are connected. Moreover, the island of Ezo is newly added beneath the land of Rebuncur. These modifications are said to be based on the information from some reliable person living in Rome who, having spent many years in Japan, obtained those information from natives.[38] Other modifications in the map are as follows,

1. many place names are added such as Macao, Malacca, Goa, Aden, Mozanbique, Sofala, Acapulco, S. Mary, Mocha and so on. Especially, Iezo, Rebuncur, Cape Mendocino, Tenduc, Ainomoxoti, Loxa, etc. are marked with alphabetical letters respectiely. There are also places represented by double letters whose names are given in the text with notes.
2. Quivira in the northern part of America is omitted.
3. Nova Zembla is delineated as an island.
4. The southern side of the strait of Magellan is a little changed, although the imaginary "Gigantic South Continent" still remains.
5. The northern part of Korea is ameliorated in its shape, etc.

The connection of the two continents of Asia and America and the consequent disappearance of the strait of Anian is, indeed, a surpring innovation to the Dutch people, but Dr. Nakamura, somehow, utterly neglected this important geographical material, and simply said that there were some imperfect, old-fashioned maps even in the seventeenth century, in which the continents of Asia and America are connected, although they were very few in number.[39] Burger, however, attached great importance to this map of 1619, because it was a matter of serious concern of the Dutch people whether the strait of Anian really exists or not. As is well known, the Dutch endeavoured to discover the the northern passage at the cost of life and enormous expenditure, since the discovery of it was a matter of urgent necessity to them. Following the English abortive attempts, the Dutch sent their ships to discover the passage, hoping to reach Cathay and Japan by following the northern route. Petrus Plancius as a cartographer and advisor and Jan Huijgen van Linschoten as an explorer

played an important part in this national enterprise. When Linschoten returned home from his first expedition in October, 1594, the Dutch government invited him to the Hague to hear the account of it from him in person, and sent another fleet of seven sail to seek the passage again.[40] Even after the tragic death of Barentsz., they continued their attempt with equal astonishing zeal. After the famous Hudson's expedition failed in discovering the North-west passage, Jan Cornelisz. May explored the North-east passage in 1611–2,[41] but he was obliged to return from Nova Zembla, and the eastern part of Siberia beyond the river Obi still remianed unknown, so that further spot reports from Siberia were needed. The *Detectio Freti Hudsoni* was compiled by Hessel Gerritsz. to meet this demand.[42]. In the hemispheric world-map inserted in this book, however, Japan and Korea and other adjacent areas are depicted as in Abraham Ortelius' *Typus Orbis Terrarum* (1570).

On the other hand, in the hemispheric world-map of 1619, a radical change was made, as mentioned above, and it must be remembered that, when Eliud Nicolai published *De Newe und Warhaffte Relation* in 1619, Hessel Gerritsz. was already in the service of the Dutch East India Company.[43] As he occupied an important post of official cartographer, he must have been seriously concerned with any geographical emendation. He is said to have declared that those who would attempt to discover the northern passage should be called inexperienced idiots.[44] Judging from this remark, he must have considered that there should be no northern passage to India.

Prof. Okamoto, in his posthumously published work,[45] referred to the map of 1619 and states (p. 115) that Japan is divided into two parts with its right hand half spread over the western hemisphere, but he is mistaken. The island devided and laid across the two hemisphere is Iezo. If he were not mistaken in this point and knew that the map is a reproduced copy of Hessel Gerritsz.'s hemispheric world map of 1612, he might have asserted Moreira's influence more positively, in defiance of Dr. Nakamura's absolute denial of such influence. So far as Moreira's influence on European cartography is concerned, Okamoto's opinion seems more convincing. However, Dr. Nakamura contends that the amelioration in the topographical features of Japan and its adjacent countries are made on the basis of an advanced general map of Japan produced in the Age of Civil Wars. He gives the following reasons for his contention,

1. It is rather unuatural to think that there was no such map in the age when war lords were incessantly fighting with one another for supremacy.[46]
2. Copies of such a map of Japan are extant in Korea and China.[47]
3. Topographical features of Japan delineated in the early Namban map screens indicate that they are copied from the said map of Japan in the Age of Civil Wars.[48]

These reasons are really worthy of attention, but, at the same time, it is conceivable that, if such a map was produced many years before the arrival of Moreira in Japan, it might be consulted by him in drawing his map. Anyway, so long as original maps are lost, it is, as Prof. Boxer points out, essentially guess work.[49] In my opinion, their arguments are not contradictory to each other, but it may rather be said that Okamoto's argument has advanced Nakamura's argument a step ahead.

NOTES

1) William Adams to "his unknown friend and countrymen", Firando, October 23, 1611. *Letters received by the East India Company from its Servants in the East.* London, 1896, Vol. 1, p.142.
2) Photograph copy of the chart (VIII) included in *De Tweede Schipvaart der Nederlanders naar Oost-Indië onder Jacob Cornelisz. van Neck en Wybrant Warwijck, 1598–1600,* compiled by J. Keuning, The Linschoten Society Series, XLIV (1940). See Fig. 6
3) C. R. Boxer, *Jan Compagnie in Japan,* The Hague: Martinus Nijhoff, 1950, p. 1.
4) H. Nakamura, *East Asia in Old Maps,* p. 51 (The Centre for the East Asian Cultural Studies Series No. 3). This book is an abridged version in English of Dr. Nakamura's *Tôa no Kochizu* 東亜の古地圖, The *Journal of Yokohama Municipal University,* Series A-19, No. 88, 1958. See Fig. 4
5) *Ibid.* pp. 53–54. (Original Japanese edition, p. 142.)
6) Itinerario, *Voyage ofte Schipvaert van Jan Huijgen van Linschoten naar Oost ofte Portugaels Indien, 1579–1592.* Kaarten. The Linschoten Society, Series XLIII. The Hague, 1939.
7) John Saris, *The Voyage of Captain John Saris to Japan,* ed. Ernest Satow, The Hakluyt Society, London, 1900, p. 188.
8) N. Nakamura, *East Asia in Old Maps,* pp. 54–55.
9) F. C. Wieder, *De reis van Mahu en De Cordes door de Straat van Magalhaes naar Zuid-America en Japan, 1598–1600,* The Linschoten Society, Series XXIV. The Hague, 1925, In the Dourado-type map, the North Cape (Cabo Dos Cestos in Langren's chart) really lies in the east of Japan.
10) The letter of William Adams quoted in Note 1.
11) *Relación y Noticias de el Reino del Japon . . . de D. Rodrigo de Vivero y Velasco,* translated into Japanese by Naojirô Murakami. 村上直次郎譯註 「ドンロドリゴ日本見聞錄」, p. 2. 同,「ビスカイノ金銀島探検報告」, p. 25.
12) H. Nakamura, *Sengoku-jidai no Nippon-zu* 戰國時代の日本圖 (*An advanced general map of Japan produced in the Age of Civil Wars*), *The Journal of the Yokohama Municipal University,* Series A-11, No. 58, Yokohama, 1957, p. 45.
13) *Ibid.,* p. 65.
14) *Ibid.,* p. 68.
15) Yoshitomo Okamoto, *Jûroku-seiki ni okeru Nippon chizu no Hattatsu* 十六世紀における日本地圖の發達 (*Development of the map of Japan in the 16th century*), Tôkyô: Yagi-shoten, 1973: Cortesão and Teixeira da Mota, *Portugaliae Monumenta Cartographica,* 239.
16) *Ibid.,* p. 47. / *Portugaliae Monumenta Cartographica,* 362.
17) Fr. J. F. Schütte, S. J., *Ignacio Moreira of Lisbon, cartographer in Japan,* 1590–1592, 11-1, *Imago Mundi,* VI, p. 121.
18) H. Nakamura, *Sengoku-jidai no Nippon-zu, op. cit.,* p. 34.

19) H. Nakamura, *Ô-Bei-jin ni shiraretaru Edo-jidai no Jissoku Nippon-zu* 歐米人に知られたる江戸時代の實測日本圖 (*Map of Japan from original survey in the Edo period known in Europe and America),* Reprint of the *Chigaku Zasshi* 地學雜誌 Vol. 78, No. 1 (768), 1967, p. 6.
20) Yoshitomo Okamoto, *Juroku-seiki ni okeru Nippon Chizu no Hattatsu, op. cit.* This book was posthumouly published by Yagishoten in Tokyo, 1973.
21) *Ibid.,* p. 137.
22) Y. Okamoto, *Desenvolwimento Cartográfico da parte Extrema Oriente da Asia pelos Jesuitas Portugueses em Fins do século XVI.* Separata de *Studia—Revista Semestral*— Nos. 13–14—Jan.–Jul., 1964. Centro de Estudos Históricos Ultramarinos, Portugal, Lisbon, 1964.
23) See Y. Okamoto's *"A Counter Argument"* (Appendix II). This problem was vigorously discussed by Japanese students of Namban map screens. See also H. Nakamura, *Namban Byōbu Sekaizu no Kenkyū.* 南蠻屏風世界圖の研究, *Kirishitan Kenkyu,* Series IX, Tokyo, 1964.
24) H. Nakamura, *Sengoku-jidai no Nipponzu, op. cit.,* p. 47. Concerning the date of production of the Yamamoto map and the Itoya map, see Carlos Quirino, *Philippine Cartography,* 1320–1899. Second revised edition with an introduction by R. A. Skeleton. Amsterdam: N. Israel, 1963, p. 35.
25) Y. Okamoto, *Kirishitan Yôgashi Josetsu* 吉利支丹洋畫史序說 (*An introduction to the history of Christian painting*), Tokyo: Shôshinsha, 1953, pp. 40–43.
26) H. Nakamura, *East Asia in Old Maps,* pp. 73–75: *Tôa no Kochizu* 東亞の古地圖, p. 182 and p. 193.
27) *Ibid.,* p. 76: *Tōa no Kochizu* 東亞の古地圖, p. 193.
28) Y. Okamoto, "A Counter Argument". See Appendix II.
29) H. Nakamura, *Tōa no Kochizu, op. cit.,* p. 193.
30) Y. Okamoto, "A Counter Argument". See Appendix II.
31) *Ibid.*
32) *Ibid.*
33) Armando Cortesão and Avelino Teixeira da Mota, *Portugaliae Monumenta Cartographica.* Lisbon, 1964.
34) Fr. Josef Franz Schütte, S. J., *Japanese Cartography at the Court of Florence: Robert Dudley's Maps of Japan, 1606–1636, Imago Mundi,* XXIII, Amsterdam: N. Israel, 1969.
35) C. P. Burger Jr., *De Deurvaert by Noorden om naar Cathay ende China,* The Hague: Martinus Nijhoff, 1930, p. 155. See Fig. 9
36) *Ibid.*
37) *Detectio Freti Hudsoni or Hessel Gerritsz's Collection of Tracts by Himself, Massa and De Quir on the N.E. and W. Passage, Siberia and Australia. Reproduced with the Maps, in Photolithography in Dutch and Latin after the editions of 1612 and 1613. Augmented with a new English translation by Fred. John Millard, English translator at Amsterdam, and an essay on the origin and design of this collection by S. Muller FZ. Keeper of the records at Utrecht.* Amsterdam, 1878. See Fig. 8
38) *De Newe und Warhaffte Relation van Eliud Nicolai,* in C. P. Burger's *De Deurvaert by Noorden om naar Cathay ende China, op. cit.,* p. 155: Fr. Hubert Cieslik S. J., *Hoppō Tankenki* 北方探檢記, Tokyo: Yoshikawa-Kôbunkan, 1962, p. 43.
39) H. Nakamura, *Namban Byóbu Sekaizu no Kenkyû* (*Study on the Namban world-map screens*), *Kirishitan Kenkyû,* Series IX, p. 51.
40) *The Voyage of Linschoten to the East India,* The reproduced copy of the Hakluyt Society publications. New York: Burt Franklin, 1970, Introduction, XXXV.
41) S. Muller Fz., *De Reis van Jan Cornelisz. May Naar de Ijszee en de Americansche Kust, 1611–1612.* Linschoten Society Series I, vol. I.
42) Frederik Muller, *Description of the Land of the Samoyeds in Tartary, recently brought under the Dominion of the Muscovites, translated from the Russian Language in the year 1609,* in *Detectio Freti Hudsoni, op. cit.,*

43) H. Nakamura, *Sengoku-jidai no Nipponzu, op. cit.,* pp. 74–75.
44) C. P. Burger, *De Deurvaert by Noorden om naar Cathay ende China, op. cit.,* p. 64.
45) Y. Okamoto, *Jûroku-seiki ni okeru Nippon Chizu no Hattatsu, op. cit.,* p. 115.
46) H. Nakamura, *Sengoku-jidai no Nipponzu, op. cit.,* Preface.
47) *Ibid.*
48) *Ibid.,* p. 60.
49) C. R. Boxer, *The Christian Century in Japan 1549–1650,* Berkeley and Los Angeles: California University Press and London: Cambridge University Press, The University of California Press, 1951, pp. 132–136. Professor Boxer says,

"... the cadastral surveys and sketch maps known as Gyogi-type maps formed the basis of Japanese cartography. The oldest original map of this kind is dated A.D. 1305, but copies of an earlier one, dated A.D. 805 are in existence. A comparison of these Gyogi-type maps with sixteenth-century European maps of Japan derived from Fernao Vaz Dourado, Luis Teixeira, and other Portuguese cartographers leaves no doubt that the latter type were derived from the former. This assumption, which was formerly contested by European authorities such as Dahlgren and Crino, has recently been proved conclusively by Professor H. Hakamura. The Japanese savant identified a sketch map of Japan, dated 1585, in the archives at Florence, as being a Portuguese transcription or draft of a Gyogi-type map, as evidenced by the original circuit designations of Tôkaido, Tôsando, Sanyodo, and so on, which do not occur again in European maps of Japan until the middle of the eighteenth century. Professor Nakamura likewise examined at Madrid an original report on Japan drawn up by the Archbishop of Manila, Fr. Domingo de Salazar, O. P., in July-September, 1987, with the aid of eleven Japanese Christians. This curious survey is accompanied by the draft of a Gyogi-type map of Japan, evidently sketched from memory by one of the Japanese. Although so carelessly drawn as to resemble a cluster of eggs or a bunch of balloons at first glance, further examination clearly reveals its origin, which, for the rest, is explained in Archbishop Salazar's covering note.

Also referring to Inacio Moreira's cartographical activities in Japan Professor Boxer says as follows.

Although the earliest European cartographers apparently depended largely on Japanese sketch maps for their basic material, a more systematic and scientific attempt to survey the country was made at the time of Valignano's return to Japan with the Kyushu embassy in 1590. He was accompanied by "an honorable Portuguese, and one very curious in making such descriptions of new-found lands," named Inacio Monteiro (Moreira). This cosmographer, for such he seems to have been, as Valignano implies elsewhere, went to Kyoto with the father-visitor and spent two years in Japan collecting all the cartographical and cosmographical material which he could, whether by personal observation or by diligent interrogation of the natives. Monteiro estimated that Japan extended between 30½° and 39° of latitudd, which was a remarkable improvement on all previous calculations, and one which was not surpassed until the publication of Father Antonio Cardim's map in 1646. This map, as is evident from its accompanying annotations, was originally compiled before 1614, and certainly owed something to Monteiro's observations.

It is likewise possible that the first approximately correct delineation of Japan in European cartography, Luis Teixeira's map published by Ortelius in 1595, owes its great improvement over the monstrous "hair-pin" distortions of the Vaz Dourado type, to material supplied by Monteiro, although this is admittedly pure guesswork.

APPENDICES

The following passages translated and quoted here will help you to understand the gist of the controversy between Dr. Nakamura and Prof. Okamoto and its main points at issue explained in this article. (Chapters 2–4)

APPENDIX I. Extracts from Hiroshi Nakamura, *Sengoku-jidai no Nippon-zu* 戰國時代の日本圖 (See Note 12)

(General map of Japan produced in the Age of Civil Wars)

(A) Preface.

Already in the Keichô period (1596–1614), an advanced general map of Japan existed, but even such an erudite scholar as Kondô Seisai did not know its existence. Taking advantage of being the keeper of the government archives, he made an extensive study in Japanese cartography, and is now regarded as one of the leading scholars of the Edo period in this field, and yet he was utterly ignorant of the existence even of the Keicho general map of Japan. It is no wonder, therefore, that no one else would believe in those days that any advanced map of Japan (Gyôgi map excepted) was ever produced earlier than 1600.

Recently, the study of early cartography in Japan has made a remarkable progress, but so far as the general map of Japan is concerned, many scholars will not admit that any such map existed in the Age of Civil Wars (1467–1576). Among western scholars there are some who declare that Japanese people had no ability to draw any satisfactory map before the European culture was introduced into Japan, since they could not avail themselves of any reliable information from Oriental source materials. However, it is rather unnatural to think that there should be no reliable maps in the Age of Civil Wars when many powerful war-lords were struggling for supremacy and fighting against one another. In fact, as early as in the Muromachi period, a map of Japan was brought into Korea and printed in the *Kaitô Shokoku Ki* 海東諸國記. Also it is recorded that a very detailed map of remarkable size was deposited in the government archives in Korea, and that it was so bulky that it could not easily be handled. On the other hand, here in Japan it is generally believed that no general map of Japan existed except Gyôgi maps in that period. I believe it existed, but we have no means to ascertain what sort of configuration it had. This is indeed a great cultural loss to us.

Towards the end of the Muromachi period, the intercourse between Japan and Southern Barbarians (the Portuguese) began. These Southern Barbarians collected geographical materials wherever they went, and utilized, recorded,

preserved them of which some were brought into civilized European countries. Therefore, I believe that, if we compare the materials preserved in Europe with Oriental sourse materials, we can contribute to the study of old maps produced in the Age of Civil Wars. With this end in view, I have endeavoured to collect necessary materials for a long time, and, as my collections increased, the outline of the general map of Japan produced in the Age of Civil Wars has gradually becomes clear, so I will explain the gist of it here.

(B) Summary of Part I:

A general map of Japan, like the provincial maps called *Kuniezu,* existed as early as the Keichô period (1596–1614), but even Kondô Seisai who was the keeper of the archives of the Tokugawa government and one of the most erudite scholar of the early cartography did not know its existence. It seemed altogether unimaginable to him, indeed, that there should have been any general map of Japan (Gyôgi map excepted). Even today, there are some Japanese scholars, even among specialists, who will not believe that there was any general map of Japan except the Gyôgi-type map, between the Kamakura period, when the Ninnaji map 仁和寺圖 was made, and the Edo period. The aim of the present article is to give positive circumstantial evidences to prove its existence.

Judging from the delineation of Japan in the typical early Namban map-screens such as the Jôtokuji map 淨得寺圖 and the Ikeda map 池田圖, it may be reasonable to assume that these map screens were produced some time between 1586 and 1590. Another map screen called the Kawamura map 河村圖 is, in its configuration, nomenclature, mode, technical skill with which it was made and its refined touch, similar to the above two screens, can be classified as belonging to the same line of descent, namely, a direct off-spring of the same original map. On the other hand, the later map screen called the Kawamori map 河盛圖 which was made in the 1650s, and another small map screen produced after 1644, are valuable, since they retain several cartographical features of the earlier map screens.

Judging from their configurations, we may say that the original map of the first three map-sceens was produced before 1590. Another evidence to prove this fact is the existence of the Kawamori map which, though similar to the above three screens in configuration, contains older place names, which means that the Kawamori map is the copy of some older map different from the original map of the other three. This assumption is further ascertained by the comparatively small size of the screen and also by the existence of another small map screen of the Namba map 南波圖.

The first three map-screens are rather poor in place names. Besides the names of provinces, they have only twenty or so. The Namba map has still

less. The Kawamori map alone contains more than 233, of which 150 are not found in the above three maps. It contains many place names indicating the castles of many war-lords which existed in the middle or towards the end of the Muromachi period, but were destroyed before 1600, A.D. We see such European names as Sta Crara 宇治島 and Pannellas 女島, which refers to the period of free intercourse with the Western people called Namban before the period of national isolation. Santa Crara appears in the charts of the Dourado-type since 1568 and Panellas is described in Linschoten's *Ltinerario* between Nagasaki and Macao in 1584. Most remarkable of all, we see in it the place names which belong to the age of Nobunaga and Hideyoshi (1572–1598). Thanks to these incongruous nomenclatures which are added carelessly in reproducing the original map, we see how the maker of the Kawamori map-screen modified the original.

According to existing records, maps of Japan were brought into Europe in the following three occasions. First, Ortelius obtained a map of Japan from the Portuguese cartographer Luis Teixeira on the 20th of the February 1592, and published it in his atlas "Theatrum orbis Terrarum" three years later. Secondly, in 1622, Girolamo de Angelis copied a map of Japan, and together with his description of Ezo, sent it to Rome. Thirdly, in 1630, Collado submitted to the Vatican authorities a copy of the "Map of the Empire of Japan". After the World War II, a copy of the Japan-map reproduced in Italy was offered for sale. A Japanese diplomat who had long been in Italy purchased it and brought back to Japan. The configuration of Japan in the map closely resembles that of Cardim's or Dudley's maps of Japan, although considerably different in its size, which means that it is not a mere copy of the other two printed maps. This Italian copy has 304 place names, namely, 71 names more than the Kawamori map. Such abundant place names can not be seen in any of the contemporary maps either at home or abroad. Examining these place names I notice that this Italian copy was made at the time very near that of the Kawamori map. The very richness in place names makes it easier to decide the date of its production. It shows the situation before the fall of the Odawara castle, that is to say, the time when Hideyoshi had almost completed the pacification of the whole country.

The discovery of this map further ascertains the conclusion drawn from the Kawamori map. In the Kawamori map there are 20 place names which I can not identify and 50 in the Italian copy, while the place names common to them amount to 132 (60%), including Sta Clara and Panellas, which indicates the close affinity of these two maps.

In case of the two printed maps of Cardim and Dudley the place names were changed at their publication into contemporary nomenclature, while many names remained unchanged since the Muromachi period. Even though 60 or 70% of them are common to these maps, the genealogical relation of

the two printed maps and two manuscript maps is yet unascertainable. And yet, as we find such an old place name as Shidai-hama 次第濱 which has nothing to do with Catholic mission activities in Japan, mixed with other old place names, it is obvious that these two printed maps and two manuscript maps are the offspring of one common ancestor.

From what I have said, you will see that the five early map screens now existing in Japan are not originals but copies of the maps of the previous age, and that the date of production of their original is evidently in the middle or towards the end of the Muromachi period. This can be proved by the Kawamori map and the above mentioned Italian manuscript copies. The geographical representation of a certain small islands like Nu-shima 奴島 and Mo-shima モシマ in the printed maps differs from that of the manuscript maps, so that their original must be plural in number.

Thus, by examining the cartographical source materials existing in Japan and abroad, we can say that a general map of Japan must already have existed in the Age of Civil Wars. There are some scholars in Japan who, in their study of early cartography, utterly neglect the maps produced in Europe, but they will be surprised if they learn that there are, in Europe, scores of successors of Dudley and Cardim whose maps are descended from the maps produced in the Age of Civil Wars. Indeed, these Japan maps were used in Europe for more than a century.

(C) Part II. Introductory remarks:

From the conclusion of the previous chapters, it is now necessary to trace back to the original maps from which the map-screens were produced. I made an extensive search and collected geographical materials which were in use from the end of the Muromachi period to the early part of the Edo period. For the purpose of investigation, they can be divided into two groups. One is what is called "Goshuin-sen charts" 御朱印船航海圖, the other is a group of early world-map screens, which are paired with Japan-map screens. If the conclusion I drew from my investigation of these charts and world-map screens is correct, we can trace them back to their original map of Japan produced in the Muromachi period.

According to my investigation, the world-map screens of Jôtokuji, Ikeda and Kawamori were all produced, like the paired Japan map-screens, some time between 1587 and 1590. The world-map screen owned by Mr. Yamamoto was made earlier, namely in the age of Nobunaga (died in 1958). As for the charts, the Goshuin-sen chart of Itoya Zuiemon 絲屋隨右衞門 and the leather chart owned by the ex-prince Ikeda were made in the age of Nobunaga, while those of Suminoya, Sueyoshi, *Shôkaruta,* and the *Tôyô Shokoku Kôkaizu* "Chart of the Eastern Countries") (Tokyo National Museum), etc., were all produced later, namely, in the age of Hideyoshi or early in the Edo period.

(D) Summary of Part II:

The second part deals with the later materials, namely, the maps composed in Japan in the Edo period and the maps compiled in Europe employing part of the Japan map produced in the Age of Civil Wars as their model. These materials are also related to the earliest original maps, but serve only as indirect circumstantial evidences. In the early world-map screens of the Azuchi-Momoyama period (1573–1598), although in reduced scale and inaccurate in minute points in the delineation of Japan, we see some characteristic features of their original map. Likewise, we see in the Goshuin-sen charts some elements of their originals produced either before the Edo period or in the period preceding the closure of the country in 1639. Because the map-screens and the charts are alike composed on the basis of the same map originally produced at the close of the Muromachi period.

In the delineation of Japan, the world-map screens composed in the Edo period are based on the map of Japan produced in the previous Age of Civil Wars, so that they must have been made before the Keichô general map was completed some time between 1614 and 1623. This fact can be ascertained by the map drawn by Godinho de Eredia in 1613, since he used the world-map screens of the Edo period as its model. Therefore, there is a good reason to believe that the world-map screen, which Ieyasu saw in 1611, had the similar configuration. On the other hand, if we compare the world-map screen known as "Iemitsu Makura Byôbu" 家光枕屏風 (Iemitsu pillow screen) which was formerly owned by Mr. Kitamura with the world-map screens of the same kind which were formerly owned by some *daimyo* and now in possession of Mr. Masuda and Mr. Shimosato, we notice that the configuration of Japan in the world-map screen of the former is much disfigured and drawn out sideways. On the contrary, in the Iemitsu screen, Japan is delineated as it should be, while Japan in the screen formerly owned by *daimyo* is disfigured, extending vertically. This shows that these maps of Japan and the world map were not made simultaneously. If Japan of the Iemitsu screen was delineated soon after the Keichô general map was completed, it is reasonable to assume that it was composed in the 1620s, while the Masuda and Shimosato screens were undoubtedly made about 1650. Then, how can we explain the discrepancy between them concerning the date of their production? It is absolutely impossible that the correct delineation of Japan as seen in the daimyo-owned screens, that is, the world-map screens in possession of Masuda and Shimosato, should be made out of the deformed Japan in the Iemitsu screen. At the same time, it is wrong to think that the so-called "Iemitsu Makura Byôbu" was made about 1650. It should be concluded, therefore, that there should be some model world-map for the Iemitsu screen which is now lost. In the world-maps of the Luis Teixeira-type, the representation of Japan is that of the Japan map produced in the Age of Civil Wars, and other part is of the

Dourado-type, while Godinho adopted the original shape as a whole and, in his delination of Ezo, Tartar, Korea, and some others, he used the World-map screens of the Edo period as its model.

The configuration of Japan in the chart which william Adams used was of the Dourado-type and much different from the real shape of Japan, so that it was amended by some one in the 1610s before it was sent to Holland in 1622. After that, the delineation of the main island of Japan along the southern coast was taken into the maps of the L. Teixeira-type and the Jansonius-type appeared in 1649, which was in use for more than a century, but the delineation of Japan is here thinly related to the earliest original.

Thus, the Japan map originally drawn in the Age of Civil Wars were brought into Europe at different times and at different places, and adopted sometimes partly and sometimes as a whole into their maps and exerted an influence on European cartography. The last reproduction of this type is Father Martini's "Imperii Sinarum nova descriptio" published in 1659 (licenced in 1655). This type of maps were used in Europe nearly two centuries. At first, it was not clear if the original map produced in the Age of Cicil Wars really existed or not, but as my investigation went on, I gradually became confident that it really existed and was far more widely used than I had first imagined.

APPENDIX II. Extract from Yoshitomo Okamoto's *Juroku-seiki ni okeru Nippon Chizu no Hattatsu* 十六世紀における日本地圖の發達 (pp. 260–281) Aru Hanron 或る反論 (A Counter Argument). (See Note 15)

(Extract from *Jûroku-seiki ni okeru Nipponchizu no Hattatsu,* pp. 260–281)

Dr. Nakamura assumes that a general map of Japan other than the Gyôgi type maps was produced in the middle of the Muromachi period, namely in 1470–80. In other words, he holds that an advanced map was newly planned and produced by some Japanese in the Age of Civil Wars. According to him, the Japan map screen owned by Mr. Kawamori is an evidence in favour of this argument. Among a number of place-names given in this map, there are some which can be traced back to the middle of the Muromachi period, and some are even related to the later (sic) strifes. He maintains that when the general map of Japan was copied by screen painters at different times, some new place names were added, for the Kawamori screen contains place-names which came into use in the first half of the 16th century, in the Azuchi period of Nobunaga 1568–1582, and in the Momoyama period of Hideyoshi (1582–1588). "Thanks to the Japan-map screen owned by Mr. Kawamori" says Dr. Nakamura, "I can say with confidence that the early

Japan-map screens, faithfully reproduced, show us the original configuration of the general map of Japan which is supposed to have existed in the Age of Civil Wars". Examining thus the place-names used in the period covering the 15th and the 16th centuries, he went so far as to declare that the delineation of Japan on the map screen is based on the general map of Japan drawn before the end of the 15th century.

This assumption, however, is groundless. I cannot believe that any general map of Japan whose delineation of Japan is similar to that of the early Japan-map screen existed as early as in the Muromachi period. On this point, Dr. Nakamura himself virtually acknowledges that his assumtion is a groundless conjecture. He says, "But it is impossible for us now to know when and by whom these original maps were made".

Moreover, concerning many place-names in the Kawamura map screen including Nagoya in Hizen, which were in current use in the Azuchi-Momoyama period, Dr. Nakamura simply states that they were added sometime after the Muromachi period when the maps were copied, but this statement is quite dogmatic and very unreasonable. I rather believe that it was towards the end of the Momoyama period that these early place-names were taken into the map screens. He is also mistaken when he fixed the date of their production much earlier than it should be only because the Kawamura map screen contains the place-names belonging to earlier ages.

Dr. Nakamura points out that in the Japan map screens, the main island of Japan bends more conspicously to the north than in the Gyôgi map, and that if the Ôu 奥羽 area extends more eastwards, it naturally follows that the main island should bend more sharply. But here a question arises. If it was necessary to extend the eastern part of the main island, why did they stretch out to the northeast, instead of extending it eastwards as in the Japan map of the Gyôgi type. Dr. Nakamura does not answer this question, but simply says, "It is natural". He seems to say as if there were in the 15th century a cartographer who tried to draw a map of Japan, using some Gyôgi-type map as a model, and, when he delineated the eastern half of the main island, he whimsically bent it to the northeast, and a new shape of Japan appeared, but it is a mere groundless conjecture.

As I explained in the 4th chapter, a Portuguese called Ignacio Moreira, having finished his surveyance of the western half of Japan, turned his attention to the eastern half where he had never been. During his stay in Miaco (Kyôto), he endeavoured to obtain information from captains and soldiers coming from the Northeast, and sometime between 1590 and 1591, drew a map of Japan. In this map he placed the southern tip of Kyûshû at 30 degrees north latitude, but when he drew the northeastern half of the main island, he supposed that the northern tip of it should be at 39 degrees. So he bent the eastern half of the main island to the northeast. Dr. Nakamura will not approve this assumption. He would say that so long as the map itself does

not exist, it would be meaningless for him to discuss about it.

The second problem is that, as a result of his assumption that already in the latter half of the 15th century there should be some advanced map of Japan, Dr. Nakamura insists that the world-map screen owned by Mr. Yamamoto was made in the period of Oda Nobunaga, namely, before 1582. Concerning the date of its production, I will explain more in detail later. In short, his assumption is that the world map should be produced already in the age when the Japanese had no geographical knowledge of the the world, nor they had any competent skill in map-making yet. However, it is not difficult to disprove it. There are two counterevidences to it. The first is that the delineation of Japan in this world-map screen is similar to the map of Ignacio Moreira, although Dr. Nakamura absolutely denies that Moreira had ever drawn a map of Japan. The second is that, in most of the early world-map screens, the coastline of eastern Asia stretches northeastwards from Korea and the name "Orankai" is inscribed on it. It was not until November 1592 that the reliable news of the invasion of Kato's forces into Orankai reached Japan. In the following year, the news spread widely among Japanese soldiers in Korea and at home. Judging from the fact that, in those map screens, not only the name Orankai is inscribed, but the coastline of East Asia stretches eastwards from Korea and a large inland sea corresponding to the Japan Sea of today appears south of it, I think I can say with confidence that those map screens cannot have been made before the beginning of the year 1593.

The third problem is on the date of production of the three pairs of early map-screens owned by Mr. Kobayashi, Jôtokuji temple, and Mr. Kawamori. Mr. Ashida once discussed the Jôtokuji map screens in detail. Dr. Nakamura refers to it and says, "Mr. Ashida's argument in his *Study on the World-map Screen* 世界圖屏風考 is the best of all that have hitherto been written on the subject. His argument may be summarized as follows: (1) In 1584, Hideyoshi promised with Kamei Korenori that he would be appointed the lord of Ryûkyû. In the following year, he disclosed his intention of conquering China to Gaspar Coelho. In 1587, he declared in his red-seal licence given to Sagara Kunaidayû that, as he intended to conquer China and Namban, it was necessary to subdue Kyûshû with such ease as he had conquered a small Metropolitan area. In 1591, he demanded the Spanish in the Philippines and the Portuguese at Goa to pay tribute to him. In 1592, Nabeshima Naoshige begged him to be appointed a lord in China. At the time, Saiya Sukezaemon was carrying on vigorous overseas trade. These evidences all point to the conclusion that, when Hideyoshi was so deeply concerned with international problems, it is quite unimaginable that there was no map of the world, although his conception of the world was yet a very vague one. (2) In the Jôtokuji Japan-map screen, we notice the place name Nagoya 名越 and a red line indicating a passage from Nagoya to Korea across the sea. (3) It is clear

from the seal of its painter Eitoku that the screen was made in the days of Hideyoshi. (4) This world map is a copy of some world map produced in Europe, probably that of Abraham Ortelius published in 1587. The first and the fourth are conjectural though convincing, while the second and the third are based on undeniable facts. There were some scholars who had suggested that these were the very important factors to determine the date of production of the Jôtokuji map screen, but it was Mr. Ashida who gave a final conclusive answer to this problem. Against this argument, however, two or three scholars expressed a different view. They held that the place name Nagoya and the red line indicating the passage from Nagoya to Korea are both related to the Korean War, which began in 1592, but Kanô Eitoku who drew the screen had died two years before, namely, 1590. If the seal of Eitoku is genuine, the screen must have been painted before the outbreak of the Korean War. This is incongruous, but can the seal be a positive proof to determine the date of production of the screen? Secondly, the castle of Nagoya was built in 1591, so that the map screens in which Nagoya appears must have been made after 1591. Thirdly, Mr. Hanami pointed out that Hideyoshi rebuilt the town of Hakata in order to make it a base for the military operations in Korea, but actually, he established his headquarters at Nagoya instead of Hakata. Thus, Mr. Hanami suggested that in 1587 it was not decided yet to make Nagoya a base for his military operations when Hakata was chosen as such. On this point Mr. Ashida gave a very satisfactory answer in the second part of his article mentioned before. He says that the first question arises when we doubt the genuineness of Eitoku's seal, but then we are required to prove that the seal is a forged one, otherwise it is out of question. As to the second question, it should be remembered that Hideyoshi disclosed his intention of sending his army abroad as early as in 1587. If so, it is quite possible that he intended to use Nagoya as a base for his expedition even before he built a castle there in 1591. Concerning the third question, Mr. Ashida explained that it is not probable that Hakata was considered more important than Nagoya as a base. He rather considered that both places were equally important. This can be proved by the fact that Hideyoshi gave a red seal letter dated the 4th of August, 1597 to Môri Terumoto, in which he expressed his desire that Môri should stay either at Hakata or Nagoya. This is the reason that these two names were both written in the map screen. In the first part of his article, Mr. Ashida says that the Jôtokuji map screen was produced before the death of Eitoku which took place in 1590, but in the second part of his article he assumed more positively that the map screen was made sometime between the 16th or 17th year of Tensho, namely, after Hideyoshi moved to Jurakudai palace in September, 1587".

Supplementing Ashida's arguments, Dr. Nakamura says, "Now a question arises that, although we see in this map screen the red seal of Kanô Eitoku, he died in 1590, that is, two years before the outbreak of the Korean War, so

that it is utterly impossible that he should paint anything related to the War. However, this seemingly reasonable argument is in reality a superficial opinion as Mr. Ashida explained in detail. As a matter of fact, such a hazardous war which put the whole nation at stake could not be put into execution abruptly. It must have required much time for its preparation. It is practically impossible to prepare an immense quantity of vessels and provisions in a year or two from the death of Eitoku to the outbreak of the Korean War. In fact, Hideyoshi's secretaries such as Shōkei, Reisan, and Eitetsu were appointed one year before their departure to the front (in August, 1591). Hideyoshi had an earnest desire to conquer China and disclosed his intention to Gaspar Coelho. He also wrote about it in a letter he sent to his wife Kitano-mandokoro. These evidences all point to the fact that his plan had evidently been made a few years before the outbreak of the campaign. Accordingly, this map screen must be looked upon as a military map to be used by the stuff officers to work over a plan of operations rather than a map showing the situation of the war. It must be remembered, however, that, although this map screen might be used to make a plan of operations, there must have been much more detailed maps for the purpose, and that this map screen served only as a sort of interior decorations for those who kept them by their side to enjoy seeing them from time to time. This map, therefore, must have been used by Hideyoshi himself, or, as there are two other similar kind of map screens, only a very limited number of the staff officers possessed them. Eitoku's seal on the Jōtokuji screen and the history of the map screen owned by Mr. Ikeda are the ample evidence to prove the above assumption. Eitoku was a favourite painter of Hideyoshi, so that the map screen was probably given to Oda Nobuhide and later came into possession of Ikeda. We see the place names relating to the Korean campaign such as Hakata, Nagoya, Kôrai, Isodake, Ezo, Matsumae, and a line indicating the passage from Nagoya to Korea via Iki and Tsushima islands in all the three map screens owned by Jōtokuji, Ikeda, and Kawamura alike. This proves that they were all made contemporaneously. All the arguments on the map screens have hitherto been concentrated solely on the Jōtokuji map screen, but what has been said about it is also applicable to the other two screens. Finally, Mr. Ashida concluded that these Japan-map screens were made two years after Hideyoshi moved to the Jurakudai. This opinion seems to be commonly accepted as true, but it may be safer to say that they were produced sometime between 1587 and 1590 when Kanô Eitoku died."

Dr. Nakamura declares that these arguments are perfectly convincing and admit of no further discussion. But, is it really so? Ashida insists that the town of Nagoya (Hizen) was constructed as a base of operation a few years before the outbreak of the Korean campaign. He seems to mean that while Kanô Eitoku was still alive, Hideyoshi decided to choose Nagoya as a base of

operation and established his headquarters there. This is obviously a groundless conjecture.

When Hideyoshi subdued Shimazu, daimyo of Satsuma in Kyûshû, he wrote a letter (dated 15th of May, 1587) at Taiheiji in Satsuma, to Kasuya Takenori, in which he expressed his intention that, after concluding a truce with Shimazu, he would go to Hakata in Chikuzen, where he would have a strong castle built and send his army to Korea. Also in his letter to Honganji (dated the 1st of June), he wrote that Hakata was a seaport town where Chinese, Portuguese (Namban), Korean as well as Japanese ships would come, so that he would have a castle built where he would reside and in his absence Kobayakawa Takakage would keep it. In another letter (dated 14th of October) addressed to Sô Yoshinori and his son Yoshitoshi, he informed that local chieftains had revolted against a newly appointed lord Sassa Narimasa in August and he despatched Kobayakawa to suppress it. In the same letter he wrote that he would move to Hakata and send his army to Korea, Namban, and China next spring. Examining these documents, H. Ikeuchi asserted that after subduing Shimazu, Hideyoshi stayed for a while at Hakata to rebuild the town ruined by war in the previous age, because he wished to make Hakata an international port for Chinese, Korean and Namban ships and that he had an intention of building a castle there to make it his headquarters to send his army to China and Korea.

Hideyoshi, however, selected Nagoya as his headquarters instead of Hakata. Luis Frois reported in his annual letter to the Jesuit Society regarding the building of a castle at Nagoya as follows,

> Yakata of Tsushima (Sô Yoshitoshi) offered to his father- in-law Konishi, the lord of Settsu, that he would give information necessary for the intended expedition to Korea and willingly play the role of a vanguard. Don Augustino Konishi told this to a brother of the Society of Jesus. When Augustino told it to Kampakudono, he was so delighted that he determined to give him the honour of a leader of the vanguard. All lords envied him, for everyone of them wished to have the honour of leading a vanguard in a battle. At the same time, they were displeased that, before anybody else, Augustino gave such an important information to Taiko immediately before the outbreak of the war which would be very hazardous and last long.
>
> After that, Kampakudono asked which port in Shimo (Kyûshû) would be most convenient to send his army across the sea. Konishi and Sô answered that there was an excellent port of Nagoya in Hizen province. It is in the territory of a heathen prince called Hata, a younger brother of Don Protazio 有馬鎭純 at the distance of 13 legoa from Hirado where many ships could enter and lie at anchor in safety, and provide easy acess to Korai... Kampakudono at once gave order to leading

> feudal lords around Miaco and those in distant provinces to come to hitherto uninhabited Nagoya and build a castle as magnificent as the Jurakudai which he had built in Miaco with deep moats and grand residences (apozentos) at the expense of those feudal lords. It should be remembered that the site for the castle was in the uninhabitable waistland, quite destitute of materials for castle-building to say nothing of food and provisions. The surrounding area was mountainous, swampy and altogether uncultivated.

The lord of Tsushima, Sô Yoshitomo married Konishi's daughter (Christian name Maria) in 1590. The above report was written by Luis Frois, when Sô Yoshitomo visited Miaco the following spring. It should be remembered that the writer of this report (Frois) says that Sô's proposal mentioned in the first half of the above quoted report was what a brother of the Jesuit Society heard directly from Konishi. If so, it may be inferred that the information concerning the Nagoya castle was also directly given to the Jesuit Society by Konishi and his Christian vassals who were engaged in building the castle. From this Jesuit report, we know that Nagoya was selected as the headquarters after the summer of 1591. And the early map screen with a red line between Nagoya and Korai was no doubt made after the war began in May, 1592. It is absolutely impossible, therefore, that it was produced by Kanô Eitoku in his lifetime and I have to say that the seal of Eitoku is a forgery.

The next problem is on the world-map screen owned by Mr. Yamamoto. unlike the other early map screens which are bright and deep in colour, this map screen is painted in light and quiet colour. This is one of the reasons why Dr. Nakamura assumes that it was produced earlier than the other world-map screens. But it is a matter of taste on the part of the person who requested it to be made or a matter of choice on the part of its painter to decide whether its colour should be gorgeous or sober. It can not be a conclusive proof to determine the date of its production.

Moreover, unlike the other three early world-map screens, there is no Strait of Annian between Asia and America, but the two continents are contiguous in the Yamamoto map screen. The Strait of Anian was introduced into European maps in the 1560s, and appears in later world maps with a few exceptions. For this reason, Dr. Nakamura maintains that the original map from which the Yamamoto map screen was copied must have been made before 1560. However, in the world map of Antonio Salamanca which as Dr. Nakamura pointed out, was reproduced in 1600, and also in the map of Eliud Nicolai which was made in 1619, the two continents are connected as in the Yamamoto map screen. Anyway, we cannot say that such maps were never introduced to Japan after 1560.

In determining the date of its production, however, the connection of the two continents or the absence of the Strait of Anian is not the only deter-

mining factor, but it has a distinctive feature of its own different from any European map of the 16th century on which the continent of Asia is likewise connected with America. As I mentioned before, the staff officers at Nagoya drew a rough draft of the inland sea now called the Japan Sea and its coastal area in 1593 or 1594. The Jesuit Society at Nagasaki soon adopted it and made a new map of the Far East, in which the delineation of Japan was that of Ignacio Moreira's map and Ezo was removed from the peninsula and drawn as a separate island. These new features are seen in the four early map screens alike, but the Yamamoto map screen differs from the other three in that northern coastline of the inland sea runs far eastwards till it joins the northwestern coastline of America.

Before the appearance of the inland sea (the Japan Sea), these northern areas were vaguely represented in those maps in which the two continents of Asia and America were drawn contiguous. The coastline of northeastern China runs northwards far into an unknown region till it reaches the then imaginary northwestern part of the American continent, and the peninsula of Korea, the islands of Japan and Ezo were not drawn yet. In this respect, the Yamamoto map screen is quite different. The original map from which the Yamamoto map was copied must have been made by copying some map in which the delineation of the American continent was already amended, as Alexandro Valignano's report (1601) suggests, by some Jesuit, after a map of the Far East was made at the Jesuit Society in Japan. The Yamamoto map screen is no doubt a copy of one of those maps drawn by the Jesuit Society in Japan, and it is in or after the Bunroku period (1592–95), and not before, that the Yamamoto map screen and its original maps were made. These original maps are indeed the first to show the contiguity of the two continents in a new way. After that, following this example, maps of this kind were occasionally made. The hemispheric world map of Eliud Nicolai (1619) is one of them. (Fig. 22).

In connection with this, let me say a word about the date of production of the chart used by Itoya Zuiemon.

As Dr. Nakamura explains in his *Goshuin-sen Kôkaizu* (p. 68–75), the original chart is lost, but we have a copy of it made by Takami Senseki 鷹見泉石 at the beginning of the 19th century. In the upper righthand corner on the back side of this chart, the name of Itoya Zuiemon is inscribed. He made a voyage to the southeastern countries on board one of the five junks which sailed for the first time from Nagasaki to the Southeast Asia in company with the junks belonging to the merchants of Kyôto and Sakai. According to *Nagasaki Kongenki* 長崎根元記, the red seal licence for this voyage was granted by Hideyoshi in 1592, but *Nagasaki-shi* 長崎志 gives the date of its issue as "from the beginning of Bunroku (1592–95)". In *Nagasaki Yawagusa* 長崎夜話草 no date is given. Dr. Nakamura asserts that Itoya's departure from Nagasaki is in 1592, but the books from which he quoted as his authority were all

compiled more than 100 years after the event. Dr. Nakamura insists that since Itoya obtained his licence and went to the south about the first year of Bunroku (1592), so that the chart used by him must have been made earlier than 1592. But in these works the date is given vaguely as "early in Bunroku." Nagasaki Kongenki writes even more vaguely "about Keichô or Bunroku" (1573–95). It is necessary, therefore, to examine how far they are reliable before we discuss the date of its production. Dr. Nakamura, however, ignored or overlooked this important point, and simply says that the junks sailed to Southeast Asia at the beginning of Bunroku, and that the chart was used since then. Nowadays, every ocean-going vessel uses a chart, but the Japanese junks of the 16th century did not. Here again let me quote two contemporary records to prove it. These accounts were written by Europeans staying at Nagasaki at the close of the 16th century, based on their actual observation and experience.

One of them is an Italian traveller Francesco Carletti. He left Manilla in a Japanese Junk in May, 1597, and arrived at Nagasaki in July. His junk was not equipped with any astrolabe or chart, which means that they were ignorant of latitude. Next year, in March, he left Nagasaki for Macao on board a Japanese junk. The master of the junk was a half blood, though his nationality is Portuguese, and there were some Jesuit priests and Portuguese passengers on board.

The other is Alexandro Valignano. He is also an Italian. He was Viceprovincial of the Society of Jesus, and visited Japan three times. The first visit was from 1579 to 82, the second 1590–92, the third visit, 1598–1603. He knew Japan very well. In 1601 he wrote a report at Nagasaki, in which he mentioned as follows. "Japanese people have little georgraphical knowledge. They are ignorant of latitude and longitude. They have no map of their country except a rudimentary Gyōgi map and have no idea of the shape of their own country". These are very reliable information. From these evidences, it is obvious that at the beginning of the 17th century, the Japanese ocean-going junks did not use any chart.

One of the most salient features of the Itoya chart is that the eastern half of Japan proper bends to the northeast just as it does in the early world-map screens. Needless to say, it was copied from Ignacio Moreira's map. In this chart, the southern tip of Kyûshû is 31 degrees north latitude and the northern end of Japan proper is between 41 and 42 degrees. This is the most important point. Japan in the chart owned by Norimasa Ikeda is delineated between the same latitudes. In later charts, the Sueyoshi chart for instance, on which the date of production is clearly written, the northern end of Japan is 41 degrees.

As I pointed out on p. 232, however, Matteo Ricci, in his world map, printed in Peking 北京 (1602), like Moreira, placed the southern end of Kyûshû approximately in 31 degrees north latitude and the northern end of

Japan proper in 39 degrees. It should be noted that in the world map of Gulio Aleni 艾儒略 in his *Shokuhôgaiki* 職方外記 (printed in 1623), the southern end of Kyûshû is approximately in 31 degrees, but the northern end of Japan proper reaches almost 42 degrees north latitude.

The fact that the latitude of the northern end of Japan was thus modified in these two would maps produced in China by the Jesuits in the first quarter of the 17th century suggests that during the period some one must have modified it, although no map survives to prove it. After 1612, the Jesuit priests staying in China obtained various information about Japan through some of the Jesuit priests who, having been expelled from Japan by the policy of the Tokugawa government to prohibit Christianity, were staying in Macao. The adjustment of the latitude mentioned above also reached their ears through the same channel, and was reflected in the above two world maps. Thus, it is evidently before 1623 that the latitude of the northern end of Japan was changed from 39 degrees given by Moreira to 42 degrees as we see in the world map of Aleni's Shokuhôgaiki. Now, let us examine some documents which recorded this adjustment of latitude before 1623.

So far as I know, the first book to mention in this connection is Pedro Morejón's work printed in 1621. In his *Historia y Relación de los sucedidos en los Reinos de Japon y China, 1615–1619* published in Lisbon, 1621, Morejón gives a topographical explanation of Ezo as an introduction to the account of the first journey of Girolamo de Angelis into Ezo in 1618. He says, "Japan consists of 66 provinces and Ezo is in the extreme northeastern end of that part of Japan, Ôshû which is larger than several other provinces put together. Along its eastern coast there are many good harbours. It borders on the province of Hitachi in the south, the province of Dewa in the west, and to the south lies a sea of Tartar which extends as far as 42 degrees or a little more. Between the southearn coast of Tartar and Japan lies a narrow strait". Concerning the above latitude, Angelis' report tells us nothing, so that the above remark must have been added by Morejón with his own knowledge. Father Morejón came to Japan in 1590 in company with Father Valignano and the young Japanese envoys coming back from Rome. After preaching in Kyûshû and the Metropolitan area, he went to Manila with Takayama Ukon 高山右近 in 1614, and then return to Europe. He wrote this book and published it while he was in Europe. He must have a very accurate knowledge of Japan, for he gave marginal notes and corrected erroneous accounts in a manuscript copy of Avila Giron's voluminous work entitled *Relacion del Reino de Nippon*. Now, when did he learn that the northern end of Ôshû is above 42 degrees? This question is important when we determine the date of production of the chart in which the latitude was thus adjusted. Fortunately a passage from Avila Giron's work mentioned above will give us a clue.

Avila Giron was the first to mention that the main island of Japan lies between 34 and 43 degrees north latitude. Avila Giron said that the northern

end is 43 degrees, while Morejón said "a little more than 42". This discrepancy is due to the fact that in those days the northern end of the main island of Japan had never been measured and still remained uncertain. Both Avila Giron and Morejón gave those figures as they presumed most probable. Moreover, "till now it was not known" means "until recently". Avila Giron finished the first chapter of his book at Nagasaki in 1615. Therefore, the above remark means one or two years before that year. Pedro Morejón's knowledge about the latitude of the northern end of Japan must have been acquired before he left Japan in October, 1614. Thus we can reasonably assume that the latitude had been measured along the coast of the northeastern half of Japan shortly before the latitude of the northern end was adjusted.

At the beginning of the 17th century, the method of astronomical observation was yet unknown in Japan, and people had no skill to make maps, so that it must be some Europeans staying in Japan who adjusted the latitude of the northern end of Japan.

At this time, the Spanish, the Dutch, and the English came to Japan one after another, some for trade and some for preaching Christianity or on a diplomatic mission. Among them two at least were known to have been engaged in astronomical observation along the coast of Japan. One is an Englishman William Adams and the other a Spanish captain Sebastian Viscaino. William Adams wrote in his letter addressed to Augustine Spalding dated January, 1613 that he took observations at sea on board a ship built by him and made a map. In his letter he says, "The city of Edo lieth in 36 degrees....", but his observation seems to have been confined to the coast of Kantô. Since the map he sent home does not exist, it is no longer ascertainable what sort of a map it was, but he says in his letter dated October 1611 as follows, "This island of Japan is a great land, and lieth to the northward in latitude of 48 degrees, in the s. in 35 degrees...." This means that in Adams's map the northeastern part of Japan bends more sharply to the north than in Ignacio Moreira's map. These two maps therefore must be noticeably different from each other in their delineation of Japan.

Sebastian Viscaino was despatched to Japan by Don Rodrigo to express his gratitude for the kind treatment he received from the Tokugawa government, and when he came to Japan, he made a voyage in 1611, accompanied by an expert astronomer Benito Palacio. They made a nautical survey along the Pacific coast of the northeastern half of Japan, and going up northward along the coast of Sanriku, reached as far north as 40 degrees north latitude, where they tried to get information about Nambu and Matsumae (Ezo) lying still further northward. In the following year (1612), while he was staying in Kyôto, he made four maps of the coastal area he surveyed, and gave one of them to Ieyasu, one to Hidetada, and sent another one to the King of Spain. Unfortunately, however, none of them exist today. It may be reasonable to assume that, when Avila Giron wrote that the latitude of the northern end of

Japan was unknown "up to this day", he referred to Viscaino as he sailed as far north as 40 degrees which seemed to him the exact latitude of the northern end of Mutsu.

Concerning Viscaino's nautical survey along the coast of Ôu, Honda Kôzukenosuke, an old vassal of Ieyasu, inquired of W. Adams what might be the aim of it. Adams informed the Dutch at Hirado of this news. The Dutch protested against the government that they had granted such a permission to the Spaniards. Judging from these occurrencies, the news of Viscaino's activities must have speedily reached Hirado and Nagasaki.

It is not known when Avila Giron learned that the northern end of Japan should be in 43 degrees north latitude, but he must have heard of it not long after the Dutch at Hirado was informed of it. The Jesuits at Nagasaki probably heard of it at about the same time. Morejón's statement that the northern end of Japan is above 42 degrees is also due to the fact that by the time of his departure from Japan (October, 1614), not only the Spanish staying in Japan, including friars, but also the Jesuit priests and Portuguese laymen already regarded it as an established cartographical fact. Therefore, it is reasonable to assume that the Portuguese ships coming to Nagasaki every year adopted it as true, and the charts used by them in their Japan voyage was adjusted to that effect, though the exact time of adjustment is not known. It is doubtful whether the two Portuguese ships (sic), São Felipe e Santiago adjusted their charts or not, but, in all likelihood, ever since the Nossa Senhora da Vida came to Nagasaki in 1614, all the Portuguese ships used the charts in which the newly adjusted latitude was adopted. Needless to say, maritime charts are made to be used for the practical purpose of navigation, so that, unlike the screen maps, the existing charts copied in Japan in those days were without ornamental designs. They do not make distinction in colour between land and sea or between different provinces. On the other hand, latitudes, longitudes, rhumb-lines and scales are given in them, for accuracy is essential. As I mentioned before, the delineation of Japan in those charts are similar to that of the early map screens. In all these charts, Japan lies between 31 degrees and 41 or 42 degrees alike, although there are some discrepancies among them in this respect. This similarity means that they retain the original delineation of Japan by Ignacio Moreira in 1591. The only difference is the latitude of the northern end of Japan which is 39 degrees in Moreira's map. In the map screens, especially in the Japan-map screens, there is no distinction of latitude, and the eastern part of Japan is arbitary extended, bending more or less from south to north as their painters thought fit. This is a great fault as a map. But, in the charts, Japan is delineated as it should be. The fact that the northern end of Japan is in 41 or 42 degrees in these charts proves that the original Portuguese charts from which these Japanese charts were copied had been made by adjusting Moreira's map of Japan in or after 1614.

As I mentioned before, the charts used by the Portuguese pilots in the Far Eastern seas were most probably made in 1592 or 1593, based on some new maps, which I consider to be the original of the early map screens containing an epoch-making map of the Far East. These new maps are presumed to have been made by the Jesuits at Nagasaki, assisted probably by the Portuguese pilots coming there. It is not certain whether the new charts were made by adjusting the old charts used by the Portuguese at the end of the 16th century or by copying directly from the world-map screens made by the Jesuit Society at Nagasaki adjusting the latitude in question. Anyway, the new charts came into use since 1614 among the Portuguese ships sailing in the Far Eastern seas. Then, following these new Portuguese charts, the existing Japanese charts were copied to be used by the Japanese ocean-going ships.

Another feature we notice in the Itoya chart is the coastline extending from Korea to the northeast. It should be noted in this respect that the three earliest charts namely, the Itoya chart which is the original of the copy made by Takami Senseki 鷹見泉石, the chart owned by Mr. Ikeda, and the original of the chart copied in 1846 and now in my possession, have the same feature alike. The coastline stretches out to the northeast as far as the upper margin of the chart and the further coastline is not shown. These charts were used by Japanese junks sailing to southern countries, so that it might be considered unnecessary to give the northern part in them. The island of Ezo is, for the same reason, entirely left out, and the coastline is cut off on the upper margin of the chart. But Ezo appears in later charts as we see in the Namba chart. Also in the charts owned by Mr. Sueyoshi and Mr. Suminoya Ezo appears, and a coastline is drawn from Korea to the east, and passing over Ezo, reaches the upper end of the chart. Here also the northern part seems to have been considered unimportant and Ezo and the coastline were added only in a cursory way. The chart called "Shôkaruta-zu" in possenssion of the Tôhoku University, the chart in possession of the Nagasaki Prefectural Library, and the chart owned by the Naikaku Bunko, seem to have been made at different times, and yet these three were no doubt copied from the same original as those of Sueyoshi and Suminoya. In short, the straight coastline extending from Korea to the east is one of the characteristic features of the Japanese charts or their copies existing today. Judging from their close resembrance to the early world-map screens on this point, they are all related to one another and have a common origin.

The most notable feature of those Japanese charts in the delineation of Japan and its adjacent countries is that they resemble the four early map screens in their design. Only exception is that the island of Ezo is drawn comparatively smaller in its size and has a dent in the south. From this you may imagine that those Japanese charts were copied from the original map of the map screens, but, needless to say, they were drawn on the basis of some Portuguese chart which was more ameliorated in the latitude of the northern end

of Japan.

As is well known, Japan was visited, from the end of the 16th century to the beginning of the 17th century, by the Chinese, Spanish, Dutch, and English, in addition to the Portuguese who had already had a close intercourse with Japan for more than half a century. The conflicts among them in trade are also known very well. On the other hand, the Japanese merchants of the Momoyama period enjoyed an unprecedented prosperity, and, accumulating an enormous amount of wealth, went across the sea to the Philippines, Indochina or even to Indonesia for trade. This is what is called "Schuinsen-bôyeki" or the Japanese overseas trade by the red-seal ships. The knowledge of the Japanese people about foreign countries rapidly increased with it. However, as I mentioned before, these Japanese junnks did not use charts. They knew nothing about maritime charts. (cf. the accounts of Carletti and Valignano) The junks they used at the beginning of the 17th century were old junks almost similar to those used at the time of the Wakô 和寇. Latitude and longitude were yet unfamiliar to them and no chart was used in their voyage.

As their voyage to the south became more and more frequent, however, it became necessary for them to learn the European method of shipbuilding and navigation. As to the chart, they seem to have adopted the newly adjusted Portuguese chart of the Far East since 1613 or 1614. About this time they began to build their ships after the Portuguese model and employ Portuguese pilots. One of the earliest example is a Portuguese pilot called Kyûbei whom Arima Harunobu 有馬晴信 employed in a junk he despatched to Champa in 1619. The reason for his employment was that this Portuguese pilot knew Champa very well. Thus the Portuguese pilots were employed to drive the Japanese junks. Moreover, the Chinese or the Southeast Asians were employed as lower class seamen, if they had an experience in navigation in the Southeastern seas and were familiar with the southern countries. At first, the Portuguese living in Nagasaki were chosen as pilots. Some of them were of mixed Japanese and Portuguese extraction who had a frequent experience in a voyage to Macao or Indonesia and good knowledge of the Chinese tongue.

It is quite natural that the Portuguese pilot should use a Portuguese chart, but there must have been Japanese assistants or apprentices. The existing Japanese charts were made for the use of these probational pilots. There are some degrees of difference in their draftsmanship in proportion to the knowledge and skill of those Japanese apprentices. When they did not regard the latitude as an important element of the chart, it was given carelessly in their charts, and sometimes it was misapplied under the restaint of their size. This must be the reason that we see the variation of one degree in the existing copies of these charts, at the southern and the northern ends of Japan.

It is clear that the production of those Japanese charts were not so early as Dr. Nakamura assumes. They were produced later than the map screens. I am of opinion that the earliest copy was made in 1613. Dr. Nakamura insists that the Itoya chart copied by Takami Senseki, the chart owned by Mr. Norimasa Ikeda, and the orignal chart of one in my possession copied in 1846 were all produced before the Tokugawa era (before 1600). I cannot agree with him. Let me explain it more in detail.

Since the three charts have almost the same design and Japan is delineated in the same latitude, it may be reasonable to assume that there were several other charts of the same kind. In the chart copied by Takami Senseki from the chart used by Itoya, we see the inscription of the name Sebastian which is apparently the name of the maker of the original map or chart from which the three charts were copied. The place names written in them are more or less varied, probably because they might be selected arbitrarily by their copyists. The copy in my possession has the following names; the island of Ceylon in the arthest west Grão China or China, De Bengala to the west (sic) of India, Mindanao to the south of the Philippines, and Java Maior for Java. To each of these place names a Japanese phonetic transcript is added. In the chart owned by Ikeda and the Itoya chart, Asia extends westwards as far as the southeastern tip of the Arabian peninsula. In these two charts, China is represented by "CANTAO" and India by "A INDIA". In the Ikeda chart, the names of countries and islands are given both in Latin scripts and Japanese syllabaries. Several names of the harbours along the coast of China, India, and Vietnam are given in Japanese syllabaries. In the Itoya chart, no Japanese letter is given to the name of a country, but the island of Luzon and other large islands in the south were represented by large Japanese syllabaries in stead of European letters. Many small islands along the coasts of China, India, Vietnam, the Malay Archipelago or among the Philippines and Indonesian islands are also represented by small Japanese letters. Thus they represented the place names in three different ways, namely, those written in Portuguese or Latin script, those written in Japanese syllabaries, and those written in Latin and Japanese script. The first was used by Portuguese pilots, but in course of time, Japanese probational pilots learned how to drive their ships after the European method of navigation. These place names sometimes show how much knowledge and concern they had about the places where Japanese traders visited in those days. The place names are mostly correct, but some of them need explanation. For instance, the article *A* is added before the name of India in the Itoya chart, and the preposition *de* is added before Bengala in the Itoya chart, and also in the chart in my possession. These defects suggest that the charts were copied and used by some Japanese who were ignorant of the Portuguese language. China was represented by Camtão, probably because the Japanese who copied the chart neglected the word China which must have been written in it, and put the name of Camtão in its

stead, because Canton or Cantão, the capital city of Kwanton province in which they had their commercial base Macao was so important to them. It seems that the Japanese copyist, in reproducing the charts, chose freely such names as they thought necessary for their specific purposes. In the lower right hand corner of the Itoya chart, we notice a signature inscribed "SEBASTIAO AFEZ". The initial A of the word AFEZ is a feminine, third person, singular pronoun in the objective case. Probably it stands for the customarily used Hydrographia (Carta nautica=航海圖). It may have been taken from a legend or text of the original chart. In those days, the two words were often linked together in writing. The copyist, unaware of this, wrote AFEZ and left out the rest. This is also an instance of incomplete abbreviations. "FEZ" is a third person singular verb in the preterite tense, so that the whole inscription means "Sebastiao made this chart". But, why is it that only the Christian name is given? There must have been the full name in the original chart. Or it may be that the Japanese copyist who was on intimate terms with the original maker of the chart omitted his surname. The verb in the past tense indicates that the chart was copied from some other original map, but at the same time, it may suggest that the original chart of the Itoya chart, the Ikeda chart, and my chart was copied for the first time to be used by Japanese junks.

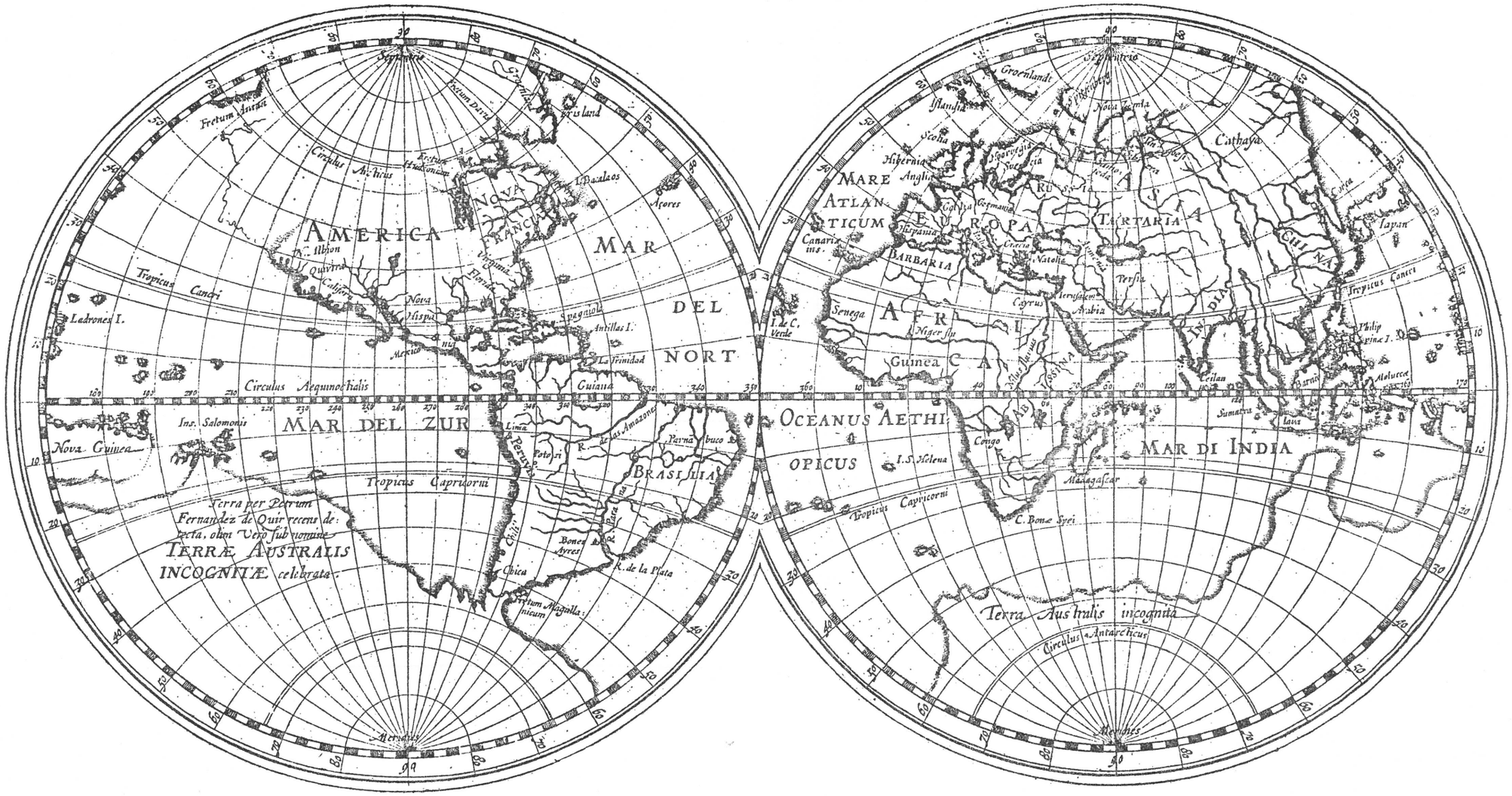

Fig. 8. Hemispheric World Map of Hessel Gerritsz., 1613, inserted in his *Detectio Fretic Hudsoni*.

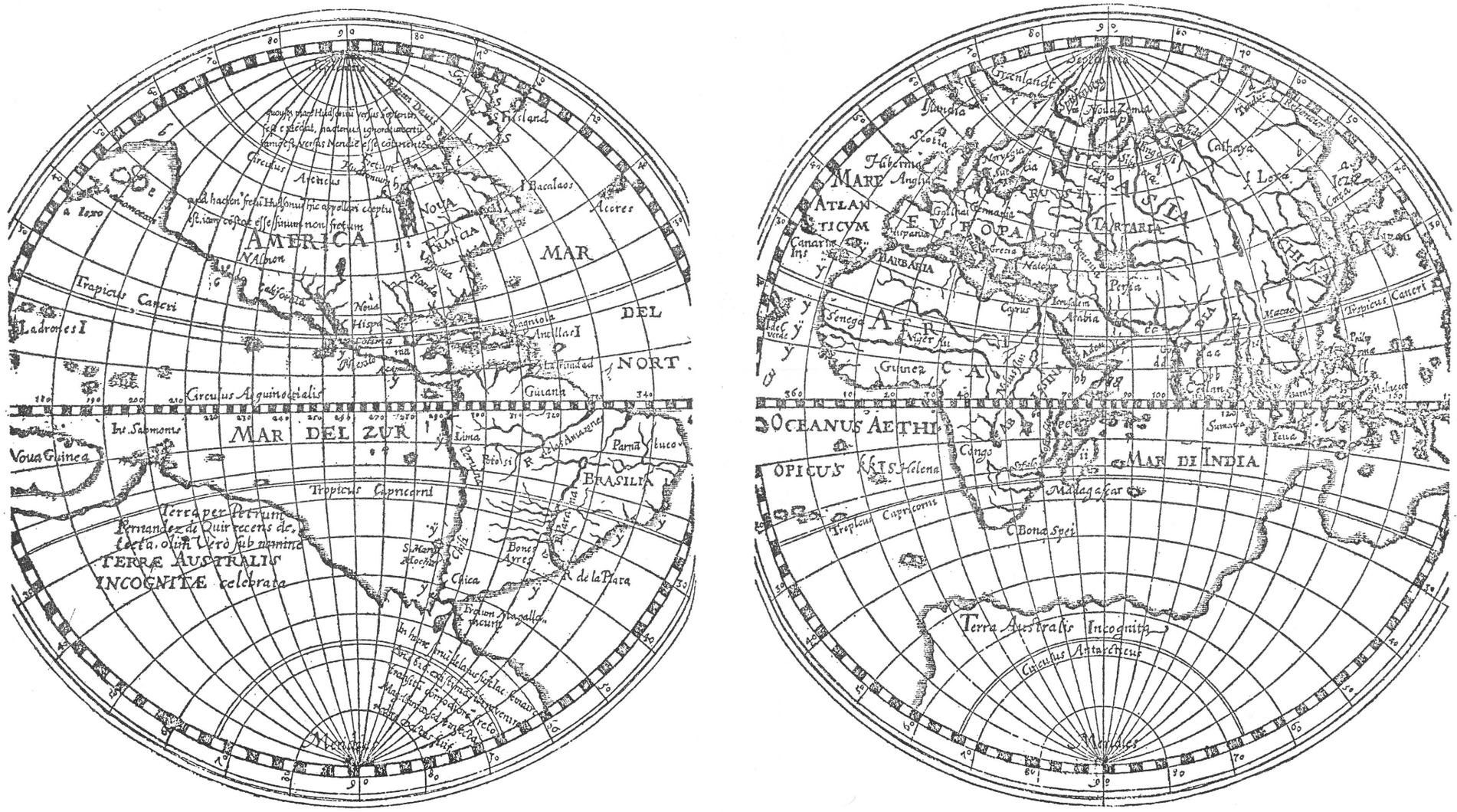

Fig. 9. Hemispheric World Map of Hessel Gerritsz. with modifications inserted in Eliud Nicolai's *De Newe und Warhaffte Relacion*, 1619.