## An Analysis on the Shape Changes of the Korean Peninsula on the British Charts of the 19<sup>th</sup> Century and identification of Factors that Influence the Changes

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## **Abstract:**

Modern nautical charts, the result of scientific coastal research and survey, had been made from late 18<sup>th</sup> century, and at the end of 19th century almost of the world had been charted. Different to the neighbouring countries such as China and Japan, Korean peninsula had not been accurately charted until the end of 19<sup>th</sup> century. Moreover, during the 19<sup>th</sup> century, the shape of Korean peninsula had been changed several times in the Western nautical charts. However, in the academic circle of the history of cartography, this case was scantly examined. In this presentation, this author, firstly, analyse the changes in the shape of the Korean Peninsula on the British Charts in the 19<sup>th</sup> Century and, secondly, identifies factors that influence the changes. For this research, British nautical charts, which are the representative and finest charts during the 19<sup>th</sup> century in the world, are selected. Examined charts are 'Map of the Islands of Japan Kurile & C.'(Year of 1811, 1818) of Aaron Arrowsmith(1750-1823), the hydrographer to his majesty, 'The Peninsula of Korea (No.1258)'(year of 1840, 1849) and '(Preliminary Chart of) Japan, Nipon Kiusiu and Sikok and a part of the coast of Korea(No. 2347)' (Year of 1855, 1862, 1873, 1876, 1892, 1898, 1902, 1914) of the British hydrographic office. According to the analysis, major shape changes of the Korean Peninsula were occurred in 1818, 1840, 1849, 1855, 1862, 1873, 1876, 1892, and the shape of the Peninsula became perfect in the chart of the year 1914.

Meanwhile, the factors of the shape changes of the Korean peninsula in these nautical charts were various voyages, expeditions, and military surveys to Korea. For example, the change in the map of 1818 was initiated by the voyage of the captain Basil Hall in 1816 to the west coast of Korea, and the change in the map of 1840 was made by the map of Korea of A.J. von Krusenstern(1770-1846) and the voyage of H.H.Lindsay(1802-1881) to the west coast of Korea in 1832. Moreover, the modification of 1849 was made by the outcome of E. Belcher's scientific survey around Jeju Island and other southern islands of Korea. In 1852, French admiral G. de Roquemaurel(1804-1878) surveyed eastern coast of Korea and drew nautical chart and this chart became the source of the British chart of the year 1855. A Russian admiral, Yevfimy Putyatin(1803-1883), also surveyed east side of the peninsula and triggered the change of nautical chart of eastern part of Korea. During French campaign against Korea in 1866 and United States expedition to Korea in 1871, French and American navy surveyed west-middle part of the peninsula and added detailed coastline of it and British chart also reflected these changes. The Japan-Korea treaty of 1876 enabled coastal survey of the Korean peninsula by the Japanese navy by the article 7, which permitted any Japanese mariner to conduct surveys and mapping operations at will in the seas off the Korean Peninsula's coastline. By virtue of the treaty, Japan could directly surveyed coastline of Korea and could make updated nautical charts of Korea. These Japanese charts were circulated to the Western countries and British hydrographers made the best use of them. Thanks to this situation, the British admiralty could update the chart of Korean peninsula and the perfect one published in 1914.

This analysis contribute not only to understand how and why the shape of Korean peninsula changed in British nautical charts during the 19<sup>th</sup> century, but also to add the historical case of the map trade and geographical knowledge circulation in East Asia.

Year	Shape of Korean Peninsula	Name of Maps and Charts	Map makers
1811		Map of the Islands of Japan Kurile & C.	A. Arrowsmith (Hydrographer to his Majesty)

1818		Map of the Islands of Japan Kurile & C.	A. Arrowsmith (Hydrographer to his Majesty)
1840		The Peninsula of Korea (No. 1258)	Hydrographic office of the British Admiralty
1849	6 × 13	The Peninsula of Korea (No. 1258)	Hydrographic office of the British Admiralty
1855		Preliminary Chart of Japan, Nipon Kiusiu and Sikok and a part of the coast of Korea (No.2347)	Hydrographic office of the British Admiralty
1862		Preliminary Chart of Japan, Nipon Kiusiu and Sikok and a part of the coast of Korea (No.2347)	Hydrographic office of the British Admiralty
1873		Preliminary Chart of Japan, Nipon Kiusiu and Sikok and a part of the coast of Korea (No.2347)	Hydrographic office of the British Admiralty
1876		Japan, Nipon Kiusiu and Sikok and a part of the coast of Korea (No.2347)	Hydrographic office of the British Admiralty
1892		Japan, Nipon Kiusiu and Sikok and a part of the coast of Korea (No.2347)	Hydrographic office of the British Admiralty
1914		Japan, Nipon Kiusiu and Sikok and a part of the coast of Korea (No.2347)	Hydrographic office of the British Admiralty

Table 1. Changes of shape of Korean peninsula on the British Charts in 19<sup>th</sup> century.