



# A Unique 18th-Century Korean Map

Gari Keith Ledyard


2013.6

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*From the late Koryo dynasty to the last years of the Chosŏn dynasty, Korea had a rich cartographic history, producing thousands of beautiful national maps using a wide range of cartographic methods and styles. For their abundant notes and the indication of place-names, the mapmakers used only Classical Chinese (Hanmun). That was the cultural standard of those times. But sometime during the 18th century, an anonymous and probably self-trained cartographer decided to produce a map on which all the notes and place-names would be written exclusively in Hangul. As far as this author can determine, the anonymous mapmaker's map of Korea is the only example from the Chosŏn dynasty on which notes and district names appear only in Hangul. In this article the author examines his style and methods.*

IN THE EARLY SUMMER OF 2011, AN OBVIOUSLY VERY OLD map was brought to the attention of the author by its owner, Dr. Gabor Lukacs, who had purchased it on a whim at an auction in Europe. It had been advertised as a map of Korea with names written in Chinese, but Dr. Lukacs, experienced in Japanese, could recognize Chinese characters when he saw them. Had the map for sale been in Chinese he would not have purchased it. Ironically, for an old map of Korea in its traditional style to have had place-names and notes in Korean was unheard of. The author's inquiries in Korea confirmed this.<sup>1)</sup> In Korea before the last quarter of the 19th century, classical Chinese played the role that Latin had done in Europe prior to the En-

lightenment and the general promotion of the major European vernaculars. Until that time, serious Korean writing concerning governance, history, religion, and high culture in general was written in classical Chinese. That a Korean map in Korean and made no later than during the 18th century should now come to light has been a real surprise.

## General Description of the Gabor Map

Unfortunately, the Gabor map bears neither title nor date, nor is there any indication of the identity of its maker. But its cartographic type is well known and researched, being of the so-called

Chǒng Ch'òk style, named after an official of many talents, Chǒng Ch'òk (정척/鄭陟, 1390–1475), who during the 15th century was a favorite of five kings, all of whom promoted geographical research and mapmaking. The defining feature of maps in this style is the problematic depiction of Korea's northern border with northeastern China. In Chǒng's lifetime and for nearly three centuries afterward, Korea's border in the north was seen as an almost flat but gently curving west-to-east line only slightly lifted toward the north on its eastern end. Some maps of this type even have it drooping southward in the east.<sup>2)</sup> But in fact, Korea's northern border in the 15th century, and still today, began in the west at the mouth of the Yalu River (the Chinese name; in Korean, 압록강/鴨綠江 [Amnokkang]) at about 39°55' N latitude, and rose steadily northeastward to its northernmost point close to 43°N, a latitudinal difference of approximately 340 km. It was not until the middle of the 18th century, when Western concepts of latitude and longitude in relation to distances on the ground came to be understood in Korea, that this distortion was questioned and Korea's maps began to present a more realistic outline of its only land border. Even then, versions of the Chǒng Ch'òk maps continued on in the popular culture, lasting to the end of the 19th century with little change.

Apart from that issue, the most common style feature of the Chǒng Ch'òk maps was the distinctive way in which the eight Korean provinces and the nation's 330-odd districts were displayed. The district names, by tradition and institutional design always of two syllables, were written within uniformly sized circles placed in their respective locations on the map. In the background of the name in each of the circles, the provincial color was tinted. In this way the general area of each of

the eight provinces was immediately clear to the eye, while the overall impression was of a colorful display of bubbles floating over the landscape. This made it unnecessary to delineate the provinces by border lines, which would have interfered with depiction of the rivers and mountain ranges that generally marked provincial and local borders. The only other indications given circle status were military bases, which all had an aqua color of their own. River names in smaller writing are found along their course or where they flow into a bigger river or the sea. Mountain ranges appear as tooth-like chains of peaks, with famous peaks given an imaginative sketch of their respective outlines. On Korea's long peninsular shoreline are names for twenty anchorages, generally in rectangular cartouches, and twenty-five named islands either in cartouches or in curvy drawings suggesting island outlines. Islands, even distant ones, are usually shown near the mainland, close to the district responsible for their administration.

## Information on the Margins of the Map

Statements on the north, east, south, and west margins of the map are of interest. On the north (N) margin: (1) The Chinese/Manchu territory on the north bank of the Yalu and Tumen rivers is used as a space to indicate the names of a few mountains and one major tributary that flows into the Yalu from the north. The placing of the names and statements has little to do with actual locations, which could be either along the north bank or actually far off the top edge of the map. Some names identify Ming dynasty (1368–1644) military garrisons charged with the oversight of China's Jurchen/Manchu frontier concerns. Still others



indicate ancient tribal states that were once Korea's neighbors, some of them going back to the 6th century. Two of the four ancient Chinese commanderies, Lelang (樂浪) and Zhenfan (真番) (Korean, hereafter, K. 락랑 [Nangnang], and 진번 [Chinbön]) established in the course of Chinese interventions in the Korean areas in 108 BCE through 313 CE. (2) Two sites of famous battles are mentioned: Koguryō's successful defense against Tang China's army in 645, and "General Kim's" exploits in the battle of Sarhū (Chinese, hereafter, Ch. 深河 [Shenhe]; K. 심하 [Simha]) against the Jurchen forces in Manchuria in 1619.<sup>3)</sup> (3) At the far left corner there is the statement: "From Seoul to Beijing 北京, 3,200 li" (1,376 km).<sup>4)</sup>

On the east margin: (E-1) The eight provinces are listed with their number of districts: Kyōnggi (경기/京畿, 71), Ch'ungch'ōng (충청/忠淸, 54), Hwanghae (황해/黃海, 23), Kang'wōn (강원/江原, 26), Chōlla (전라/全羅, 57), Kyōngsang (경상/慶尙, 71), P'yōng'an (평안/平安, 41), and Hamgyōng 함경/咸鏡, 23).<sup>5)</sup>

Below this list are three general statements: (E-2a), "Our country's alignment extends from 'Boar' (*Hae* 亥, NNW $\frac{3}{4}$ W) to 'Serpent' (*Sa* 巳, SSE $\frac{3}{4}$ E)." (Imagine the line as extending across a clock face from 11 o'clock to 5 o'clock.) This is a reading based on the traditional geomancer's twelve-point compass, used for the siting of buildings and graves but also for general geographic purposes. Drawn on a modern-scale map of Korea,<sup>6)</sup> and driven through Seoul, the capital during the Chosŏn dynasty and of South Korea today, that line would enter Korea crossing the Yalu River about 75 km from its mouth in the West Sea and exit the peninsula about 17 km west of Pusan. On that modern map this imaginary line would generally parallel the angle of the East Sea shore-

line from latitude 39° to latitude 37°. There is a similar but much shorter congruence on the West Sea coast from Yŏn'an (연안/延安) in North Korea to Asan (아산/牙山) in South Korea. Both observations, in the approximate north-south center of the peninsula, may have been in the background of a geomancer's calculations in originally deciding upon this particular alignment centuries ago. It is ironic that this congruence is noticed on a modern map but not on the traditional one. (2b) The second statement concerns east-west and south-north dimensions. In the southwest corner of the peninsula is a prominent syllable "남" (*Nam*, "South") written just below the farthest reach of the Korean mainland; in the very northeastern corner of the map there is a corresponding syllable "북" (*Puk*, "North"). Off the central eastern coast near the district of Kangnūng (강릉/江陵) we see "동" (*Tong*, "East"), and on the west coast on the northern half of the map there is a corresponding "서" (*Syŏ*/西, nowadays written as "서" *Sŏ*, "West"). Two statements follow: "From East to West, 1,073 *li* (461 km)," and "From South to North, 3,373 *li* (1,450 km)."<sup>7)</sup> The improbability of both *li* figures ending in "73" is troubling, but at least the more important digits are the preceding ones in the number. Comparing these figures by measuring the east-west and south-north distances in kilometers on a modern-scale map, and by centimeters on the Gabor map itself, we can establish relative ratios that will help us evaluate the degree of accuracy in the general structure of the map. The data from the modern map show us that the faulty northeast treatment of the traditional Chōng Ch'ök style of the 15th century continued to deny a reasonable understanding of the true dimensions of Korea.

	Stated Distances	Gabor Map	Modern-Scale Map
<b>East → West</b>	1,073 <i>li</i> (461 km)	438cm	381 km (886 <i>li</i> )
<b>South → North</b>	3373 <i>li</i> (1,450 km)	940cm	1,013 km (2,356 <i>li</i> )
<b>E-W to S-N ratio</b>	3.14	2.15	2.67

Statement (2c) gives the distances from the “Capital” (경/京, Seoul) to the farthest shore of the Kangnŭng district; to the southern shore of Haenam (해남/海南, south), and to the western shore at Changsan Point (장산곶/長山串) in Changyŏn (장연/長淵) district in Hwanghae Province. From Seoul to farthest east at the district of Kangnŭng, 600 *li* (258 km); to farthest south at the district of Haenam (해남/海南), 1,007 *li* (433 km); and to farthest Changsan Point (장산곶/長山串), 562 *li* (242 km). Given the problems concerning the south-north distance in (2b) above, it is not surprising that we find no figure on the map for the distance from Seoul to the farthest northeastern point.

On the southern margin: (3a) The two large islands just below the southeast and southwest corners of the peninsula are a standard feature of the Chŏng Ch’ŏk style, going back to the earliest known maps in the genre. They give the appearance of twin pedestals supporting the nation. At the SW corner is Cheju (제주/濟州) Island, which is Korea’s largest. The magistrate of Cheju district also supervised the officials of the island’s two other districts. Cheju’s northern coast is 82 km south of the southernmost corner of the Korean mainland, and its southern coast is another 30 km (as the crow flies) farther south. That Cheju appears so close to the mainland on the map speaks to the fact that to indicate its true position would have required a much longer sheet of paper. The

eastern “pedestal” is the Japanese island of Tsushima (對馬島; K. 대마도 [Taemado]), which is located SSE of its map position, but at a closer 56 km from mainland Korea’s nearest district. Many Koreans believe that this major island was once Korean. That is doubtful, but if true the Korean ownership would have to have been before or early in the 3rd century CE, when Chinese historical texts show it to have been a well-settled territory with a fully Japanese administration appearing similar to the governance then current in the main islands of Japan.<sup>8)</sup> Still, as the connection for commerce and diplomacy with Japan, Tsushima has always had an importance for Korea, whether as the focal point for Japanese trade and diplomacy or as Japan’s historical base for pirate raids or all-out invasions of Korea. (3b) A statement on the distance between Seoul and the SE mainland point, already discussed above, and (3c) a statement on maritime travel to China: “To go from here (the district of Naju, 나주/羅州), to the ‘Central Plain’ (Zhongyuan 中原, the Chinese heartland), Zhejiang Province (浙江省), Mingzhou (明州), and Dinghai (定海) (both prefectures of Zhejiang) takes ten days.”

The western margin presents very little: the figures for the distance from Seoul to the farthest western land point, which has already been discussed. (4) But there is one interesting curiosity — an island with a pure Korean name. The other names on the map are in Sino-Korean, that is, the





distinctive Korean readings for Chinese characters. But an island off the coast of the district of T'a'e'an (태안/泰安) bears the name Ch'ülksyöm (출섬), "Arrowroot Island" in the vernacular. Vernacular names for lower units of administration in the districts are often seen; and many islands and mountains have vernacular names in addition to their formal Sino-Korean names. On this map, Ch'ülksyöm will have to represent them all.

## Place-Name Changes Useful for General Dating Purposes

A careful look at the complete list of district names on the Gabor map shows that it broadly reflects the list in the *General Overview of Korean Administrative Geography*.<sup>9)</sup> Although this important reference work, published in 1531, was never updated during the years that remained to the Chosŏn dynasty (lasting to 1910), the basic structure of the district administration system changed little. Such changes as did occur are registered in the official Korean institutional encyclopedia *Munhŏn pigo* (문헌비고/文獻備考), begun in 1790 and published in 1907. Its geographical section details the administrative history of the eight provinces and their respective districts, providing datable changes over time in the ranking and names of the districts. Summaries of such notices are given below, using their data to analyze place-name changes in order to ascertain the general historical period reflected in the Gabor map.

Up until the wars of the 1590s, when over a period of six years Japanese armies twice ravaged the Korean peninsula, and during more than a decade of rebuilding, there had been remarkable order and continuity in the district administration

system. Though the recovery from war destruction and social disruption was slow, the need for change and reorganization of its institutions was recognized. Throughout the 17th and 18th centuries we see a series of changes in district ranking and naming. The earliest and latest of these will frame the period with which the Gabor map was current. A list of district name changes follows, headed by the name of the province in which they occur. The Korean transcriptions that precede the Chinese characters are in the modern orthography. The premodern spellings of names appearing on the map will be discussed later, when we consider the spelling issues on the map.

## Korean District Name Changes, 1605–1800

- **1605. N. Hamgyŏng Province** (함경/咸鏡): **Kilsŏng** (길성/吉城), is renamed **Kilchu** (길주/吉州).
- **1619.** Though not involving a Korean place-name, the Battle of Sarhū (K. 심하/深河), mentioned earlier, is a datable item that can be listed here.
- **1632. S. Chŏlla Province** (전라/全羅): **Nŭngsŏng** (능성/綾城) renamed **Nŭngju** (능주/綾州).
- **1637. N. Kyŏngsang Province** (경상/慶尙): **Cha'in** (자인/慈仁), a community in the district of **Kyŏngsan** (경산/慶山), is removed from Kyŏngsan district administration and made a full district by itself.
- **1652. N. Hwanghae Province** (황해/黃海): **Kŭmch'ŏn** (금천/金川), a subordinate part of the earlier Koryŏ dynasty capital **Kaesŏng** (개성/開城), is severed from Kaesŏng administration and made a district by itself. At the same time,

**Kŭmch'ŏn** absorbs the two neighboring districts **Ubong** (우봉/牛峯) and **Kang'ŭm** (강음/江陰), uniting the three district units under the new name **Kŭmch'ŏn**. The district names **Ubong** and **Kang'ŭm** disappear from the district list and are not registered on the Gabor map.

- **1684. N. Hamgyŏng Province:** A military command on the Tuman (두만/豆滿) River is upgraded as the new civil district of **Musan** (무산/茂山).
- **1728. S. Kyŏngsang Province:** The district of **An'ŭm** (안음/安陰) is split in two, the northern part absorbed into **Kŏch'ang** (거창/居昌), the southern part into **Ham'yang** (함양/咸陽). This had to do with a rebellion that started in **An'ŭm**. Eight years later, in 1736, this split was undone, and all three districts were reconstituted as before.
- **1767. S. Kyŏngsang Province:** The district of **An'ŭm** (as above) is renamed **An'ŭi** (안의/安義), and its neighbor to the south, **San'ŭm** (산음/山陰), is renamed **Sanch'ŏng** (산청/山淸). The **San'ŭm** → **Sanch'ŏng** change was duly made on the map, but the **An'ŭm** → **An'ŭi** change was not. This is the only such case among all these names changes. It is possible that the owner might have hesitated to do so because the **An'ŭm** (안음) name was on a crease in the map and part of the name (the ㅇ element in the syllable 음) had been worn away. That suggests an unstable surface upon which to rewrite the new name. If so, that in turn could possibly indicate long use of the map prior to 1767.
- **1787. S. Hamgyŏng Province:** A military base on the upper Changjin River is upgraded as the new civil district of **Changjin** (장진/長津).
- **1800. S. Hamgyŏng Province:** The name of the district of **Risŏng** (리성/利城), is changed to **Riwŏn** (리원/利原) in the 8th lunar month of

1800 in order to avoid a taboo on a personal name of King Chŏngjo (r. 1776–1800), who had died suddenly a few weeks earlier. This district being today in North Korea, the spellings **Risŏng** and **Riwŏn** conform to its official pronunciation. It would be read as **Isŏng** and **Iwŏn** in the Republic of Korea in the south.

After 1800, no name changes of any kind are seen until 1895, when King Kojong (r. 1864–1907) reformed the entire system in an era when maps of the Gabor type were no longer made and the modern Western map style was already in vogue. Apart from the changes of 1605 through 1800, all the expected names except the already discussed **An'ŭm** → **An'ŭi** case are duly registered on the Gabor map. The datable name changes after 1605 extend the length of the period during which the Gabor map could have been made to nearly two centuries. One would like to be able to reduce the length of that period. There are two approaches that we might take to this problem. One is to estimate a general date based on the physical state of the map; another is based on an analysis of the Korean orthography represented in the place names.

## The Physical State of the Gabor Map

The Gabor map measures 103 × 63 cm, height to width. It is of about the same proportions as the much larger and untitled “Naikaku Map” (151.5 × 90.9 cm) of Korea held by the Japanese government’s Cabinet Library (Naikaku Bunko/內閣文庫), which is considered the oldest known map in the Chŏng Ch'ŏk style, dating to the last quarter of the 15th century or copied from a map of that period. Prior to the Gabor map’s cleaning and resto-



ration, the surfaces both front and back had rough spots and a number of holes left by worms. Its frayed edges leave the impression of a long period of handling and aging. Although some of the provincial colors in the district name circles remain, many have faded away or changed. The map had been folded over the years, leaving one vertical and three horizontal creases. Twenty-two of the district names have suffered from these. One such case on the lower horizontal crease, involving the district of An'um, has already been discussed. A more extreme case is Taegu, in the 18th century, which was already an important economic and administrative center. Its name, written in Korean as 대구 (大邱), looks as if it had exploded, distorting its circle as well. The same crease affects the names Hüngdök and T'ae'in in Chölla Province, and Kyöngsan, Cha'in, Kyöngju, and Changgi in Kyöngsang Province, all of which can be only partly read. Similar cases exist on the other creases, especially the verticle one, with ten distortions or worse. Fortunately, such damaged names can be easily deduced by knowing what district should be in or near a given spot in relation to its neighboring districts, and confirmed by the fragments of the Korean letters still visible.

The original white paper on which the map had been drawn has darkened considerably, and the surface was not very clean when purchased. When Dr. Lukacs had the map cleaned by a professional expert with experience in handling premodern Chinese works, high-quality photographs taken of the map revealed several pasted-on corrections, some small but a few fairly extensive, one even correcting a river course. These appear to have been carefully done a long time ago, perhaps even at the time of its original making, since the handwriting on the over-pastings is the

same as on the map in general. Korean paper, made solely using native organic plant materials, gets darker with age. Korean curators keep photographic samples of paper of known date. Comparing a clear color photograph with the samples owned by such an expert, it was determined that the Gabor map was a product of a time no later than the 18th century.<sup>10)</sup>

### **Analysis of the Korean Orthography in the Names of Districts**

The Korean orthography displayed in the place-names on the Gabor map is typical of the 18th century, in general agreement with the evidence of the place-name changes and the physical state of the map. Since the cartographic merits of the map are limited compared to earlier and well-known examples of the Chöng Ch'ök genre, which are all in Chinese, the chief and unique feature of the Gabor map, that is, its exclusive use of Korean for district names and marginal comments, deserves analysis and comment.

Until the middle of the 15th century, there was no system for writing the spoken Korean language, which is linguistically unrelated to Chinese.<sup>11)</sup> However, as mentioned earlier, classical written Chinese was widely known and used among the educated classes of Korea. It was not a spoken language, even in China itself. There were Korean methods for parsing a written Chinese text using special symbols for grammatical elements in such a way that a subject could be distinguished from an object, or verbal distinctions could be made that would clarify whether a clause was conditional or causative, or a statement, question, or command, etc. The symbols for these cues were

simple or abbreviated Chinese characters, which when read in their Korean pronunciation guided the reader concerning syntax and other grammatical elements in the Chinese text. Of course, the reader still had to know the *meanings* of the Chinese characters in the text so edited in order for it to make sense. In the 15th century, enlightened people, led by the fourth king of the Chosŏn dynasty, Sejong (세종/世宗, b. 1397, r. 1418–1450), saw the need for a wider literacy that would include the nation’s spoken language and vernacular culture while keeping Chinese as the written language of government and high culture.

The Korean alphabet, invented around the end of the year 1443 by King Sejong, experimented with and tested by himself and a select group of young researchers for almost three years and officially promulgated in 1446, is a genuine alphabet written in syllabic units. Rather than lining up single alphabetic letters on a line (or in a column as with the Uighur script), it clusters them together as a syllable in a two-dimensional block, just slightly smaller than the amount of space allowed for a Chinese character (as shown in the citation of Sino-Korean names in this article). This enabled the alphabet to be written or printed in either Chinese format—vertically in a column, or horizontally. These facts may have played a role in the Gabor map’s former owner having considered the map as being Chinese when he put it up for auction a few years ago.

In its origin the script, now called Hangŭl (한글, “Korean writing”), had twenty-eight letters — seventeen consonants and eleven vowels. By the early 17th century, the language had evolved in such a way that three of the consonants had become obsolete, while a rich repertoire of consonantal clusters had disappeared or taken simpler forms

and many other phonological changes had occurred. One of the vowels was discarded in the 1930s, leaving the present alphabet with twenty-four letters, with which thousands of distinct syllables now current in the Korean language can be written with great efficiency and accuracy. One can characterize it as an alphabet providing the graphic units for a virtually infinite syllabary.

A good part of modern Korean vocabulary, estimated at around 60 percent, consists of words and terms from Chinese, much as the vocabularies of modern European languages include vast numbers of Latin and Greek terms. The style of Korea’s traditional naming system for major administrative units derives from Chinese historical practice, and all but one of the names on the Gabor map are of a Chinese type. The Korean pronunciation of Chinese characters, called Sino-Korean, was originally based on the pronunciation of the Tang Chinese capital, Chang’an (now Xi’an), in the 7th and 8th centuries. Modern Chinese dialects and the Sino-Xenic pronunciations (in addition to Sino-Korean, Sino-Vietnamese, and Sino-Japanese) have all separately evolved since then. Today’s Sino-Korean still reflects many features of Tang-time Chinese phonology, some of which modern Mandarin has lost.

By the early 17th century, the Korean language as King Sejong had known it had undergone considerable change, a good part of it due to the major social dislocations and population movements caused by the Japanese invasions of 1592–1598, when many phonological features had disappeared or merged with others, creating orthographical confusion. This is reflected on the Gabor map, where a degree of spelling confusion is evident. Moreover, it would seem that the mapmaker was a person of only modest education and writ-



ing skills. His brushwork in writing the two-syllable district names in the circles suggests a slow, cautious writing, not the hand of a person who has done a lot of writing in Hangŭl, as is clear in the marginal statements discussed above, and also in several jottings written in Korean on the back of the map, some of which seem to be comments of an astrological nature. One occasionally sees on the map a badly aimed stroke overwritten, making the syllable look even worse. The execution of the sawtooth patterns for the mountain ranges or the bluish outlining along the coasts is also less expert than the refined touch typically encountered on surviving Korean maps of the 17th and 18th centuries.

While the written district names are in accord with the spelling that we would expect for the 18th century, there are outright errors: two districts close to Seoul, Pup'yŏng (부평/富平) and Kŭmch'yŏn (금천/衿川), are misspelled as Puryŏng (부령) and Kŏmch'yŏn (검천); in two southern coastal districts, the names Ungch'yŏn (웅천) and Ulchin (울진/蔚珍) are wrongly written Ungch'yŏng (웅청) and Ujin (우진). Trifling lapses, perhaps, but not the kind of mistakes commonly seen, suggesting uncertainty or carelessness.

There is another kind of issue in the district names that is systemic. It relates to known phonological changes involving the initial consonants *t*- (Korean letter ㄷ) and *t'*- (ㅌ) and their evolution into the palatal spirants *ch*- (ㅊ) and *ch'*- (ㅌ) during the period from the 16th to the early 19th centuries. There are a number of examples of such changes in the district place-names on the Gabor map. It is interesting because the changes occurred before, during, and after the very period covered by the place-name changes registered on the map.

From the birth of Sino-Korean in the 8th century, when Korean diplomats, monks, and traders were practicing the local language in Chang'an and various port cities on the coast, there was no lack of Chinese dictionaries and glossaries, some of which have survived. Thanks to them, modern scholars have been able to reconstruct what we now call Middle Chinese, and we have detailed knowledge of its rich phonology. There were many characters with a variety of initial consonants of the *ch*- and *ch'*- type, and they have come down in Sino-Korean unchanged until today. Examples: 井, Mandarin *jing*, Korean *chŏng* (정), “well, cistern”; 春, Ma. *chun*, K. *ch'un* (춘), “spring.”

From around the beginning of the 17th century, character readings with the dental initials *t*- (Korean letter ㄷ) and *t'*- (ㅌ) followed by any of the weakly yodized vocalic elements *-ya* (ㅑ), *-yŏ* (ㅓ), *-yo* (ㅛ), *-yu* (ㅠ), or *-yi* (ㅣ) caused the *t*- and *t'*- initials to respectively palatalize into the spirants *ch*- and *ch'*-. Examples: 仗, “weapon,” *tyang* (당) → *chyang* (장); 楮, “mulberry tree,” *tyŏ* (더) → *chyŏ* (저); 朝, “morning,” *tyo* (도) → *chyŏ* (조); 忠, “loyalty,” *t'yung* (똥) → *ch'yung* (충); and 直, “straight,” *tyik* (딕) → *chyik* (직).

During the late 17th and the 18th centuries, a more strongly yodized group of vocalic elements was able to prevent the dental initials *t*- (ㄷ) and *t'*- (ㅌ) from palatalizing into spirants. These elements we will romanize as *-ia* (ㅑ), *-iŏ* (ㅓ), *-io* (ㅛ), *-iu* (ㅠ), and *-i* (ㅣ). This stronger *-i*- element functioned almost as a full vowel just like *-a*-, *-o*-, and *-u*-, before all of which the dental initials *t*- and *t'*- had never palatalized. Examples are 定 *tiŏng* (뎡), “fix, settle”; 天 *t'iŏn* (뎡), “heaven, sky”; 鳥 *tio* (도), “bird”; 甜 *t'iŏm* (뎡), “sweet”; 鐵 *t'iŏl* (뎡), “iron”; 體 *t'ie* (뎡), “body.” These forms lasted throughout the 18th and into the early 19th

centuries. But perhaps by the last half of the 19th century, even those strong holdouts had yielded to palatalization, and once established, the *-i-* semi-vowels disappeared from the orthography (in any case, there had never been any such recognition of such a distinction in the Hangŭl spelling). After a thoroughgoing Korean language reform in 1933, the palatalized readings of the characters just above respectively simplified to *chŏng* (정), *ch'ŏn* (천), *cho* (조), *ch'ŏm* (침), *ch'ŏl* (철), and *ch'e* (체), and remain so today in both halves of Korea.

The complicated linguistic changes detailed above had not proceeded in any clear fashion. They had occurred over several centuries, and had generally come earlier in the south and later in the north, and it was not easy for the broad population of literate people to absorb them in any unified fashion. Nor did people in different dialect zones process them in the same way. There was clearly a long and disruptive period when Hangŭl spelling was in a very confused state. And it did not help that many other changes in the language were occurring at the same time. A separate low *a* vowel was merging with a broader *a* vowel. Consonant clusters were breaking down into simpler forms, etc., etc.

The place names on the Gabor map, based on Chinese forms as they were, were simpler phonologically than the much more complex phonology of the Korean vernacular. Even so, there is a noticeable element of confusion here and there. The name of the district of Ch'ŏn'an (천안/天安), in Ch'ungch'ŏng Province, should have been spelled T'yŏn'an in the 18th century, but it appears on the Gabor map as Ch'yŏn'an. To the east, in Kyŏngsang Province, the name of a certain district is spelled Yŏngt'yŏn when it should have been written as Yŏngch'yŏn (영천/永川). In the north-

ern provinces, in Korea, we see place-names on the east and west sea coasts written as Chyŏngjyu (정주/定州) and Ch'yŏlsan (철산/鐵山). Yet these names in the 18th century would have been written as Tyŏngjyu (팅주) and T'yŏlsan (털산), respectively. The dialect in this part of Korea is famous for its long resistance to the palatalization of such forms down to our own times. However, we can consider this a likely indication that the maker of the Gabor map was a southerner who generally wrote the name as it would be written on his own turf, even if there are occasional anomalies, as shown above.

All in all, a review of the orthographic patterns found on the Gabor map strongly agree with the evidence from place-name changes and the physical evidence of its having been made no later than the 18th century.

In spite of the various issues just noted, the fact remains that this map is absolutely unique in being the only premodern Korean map to display its place-names and express its marginal comments exclusively in the Korean script. There are two strange exceptions — Paektusan (백두산/白頭山) in the northeast and Nokto (녹도/鹿島, “Deer Island” off the southern coast — both written in their Chinese form. Paektusan is Korea's most famous mountain and might seem more dignified when written in Chinese, but the island of Nokto bears no special fame.

Nowadays in Korean publications and certainly on maps, whether from the North or the South, one sees few or no Chinese characters at all, a fact that has virtually the universal approval of Koreans. The talents of its maker as a cartographer did have their limits, but in his wish to avoid Chinese characters he unwittingly anticipated today's Korean nationalist modernity. ■



## Notes

1) A map of Korea giving place names only in Korean was produced in 1845 by Kim Taegön (김대건/金大建, 1821–1846), a Catholic convert and martyr who took religious training in Catholic seminaries in Macao and was involved in French naval activities in the Chinese and Korean areas during the early 1840s. However, his map, drawn in 1845 using Western cartographic conventions, is today in the Bibliothèque Nationale in Paris. It has never been displayed in Korea, and seldom even in Paris. My thanks to Dr. Lee Kibong, of the National Library of Korea, and his cartographic colleagues generally, for confirming that they know of no maps in the *premodern traditional* style employing the Korean alphabet exclusively for the display of place-names and other information.

2) See my article, “Cartography in Korea” in J. B. Harley and David Woodward, eds., *The History of Cartography*, v. 2, bk. 2, *Cartography in the Traditional East and Southeast Asian Societies*, University of Chicago Press, Chicago and London, 1994, p. 282, Fig. 10.23, and a few pages on, Figs. 10.26 and 10.30 for early 16th- and 17th-century examples. The discussion of the Korean vernacular and the features of Sino-Korean at the end of this paper are based on my 1966 PhD dissertation, *The Korean Language Reform of 1446*, and my book of the same title published in English in Seoul by Sin’gu Munhwasa Publishers, 1998.

3) There were two generals Kim in this battle, in which Korea participated as a Ming ally, but it is probably Kim Ŭngha (김응하/金應河, 1580–1619), more politically popular in the capital at Seoul, who is meant here.

4) Hong Taeyong (홍대용/洪大容, 1731–1783), who made the trip in 1765–1766 by way of Shenyang (the usual route during the 18th century), recorded the trip at 3,111 *li*, or 1,338 km. See the detailed itinerary in his diary of the trip in *Yŏnhaengnok sŏnjip* (연행록선집/燕行錄選集 (Anthology of Beijing Travel Diaries), Seoul, vol. 1 (1960), pp. 362b–367a.

5) Since the provincial colors in the district name circles have faded or changed due to the aging of the paper, it will

not be easy for non-Korean readers to identify their general outlines. The colors were as follows, starting at the top of Korea’s west coast: P’yŏng’an (gray), Hwanghae (white), Kyŏnggi (deep yellow), Ch’ungch’ŏng (light yellow), Chŏlla (red); from bottom to top on the east coast: Kyŏngsang (pink), Kangwŏn (green), Hamgyŏng (blue-gray).

6) The modern map used for this paper is World Aeronautical Charts F-9 and G-10, scale 1:1,000,000, published by the Coast and Geodetic Survey of the United States Department of Commerce, 1966.

7) The Korean *li* is equal to 0.43 km, not to be confused with the traditional Chinese *li* at 0.57 km.

8) See *Sanguo zhi* (Zhonghua shuju ed., Peking, 1959), section *Weizhi*, j.30, p. 854. Tsushima is now two islands as the result of a cutting through of what had been a narrow isthmus linking its northern and southern halves by the Japanese navy early in the 20th century.

9) A functional translation of the title *Tongguk yŏji sŭngnam* (신증동국여지승람/東國輿地勝覽), compiled in the 1470s and finally published in 1531 after a half-century of revisions and supplements.

10) The expert is Prof. Lee Seung-chul (Yi Sŭngch’ŏl/이승철 in the romanization used in this paper), a specialist in materials used in the traditional Korean arts, who visited New York in June 2012. The writer showed him a high-quality photograph of the Gabor map, nearly as large as the map itself, and he kindly gave me his informed opinion as to the age of its paper, based on its coloration. He is the author of a book on the history of Korean paper, titled *Hanji* (“Korean Paper”), Hyeonamsa Publishers, Seoul, 2012, (English translation by Sohn Da-yeon and S. I. Gale).

11) The most common theories are that Korean is related either to the Tungusic branch of the Ural-Altaic family (which also has more prominent and agreed-upon Mongolic and Turkic branches) or to Japanese, which a few scholars believe is also Ural-Altaic. The argument for both theories is chiefly grammatical similarity. A convincing argument for overall vocabulary similarities is still problematic in this writer’s view.



Appendix. The Old Korean Map (Gabor Map)

[\[The Original Image of Higher Definition\]](#)





\* Permission to release the digital map was received from Dr. Gabor Lukacs, Paris, owner of the map; Courtesy of C.V. Starr East Asian Library, Columbia University.

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**Gari Keith Ledyard**, King Sejong Professor Emeritus of Korean Studies at Columbia University, is mainly focused on Korean history of all periods, but also publishes generally on Korean literature, culture, and current affairs. While in U.S. military service he studied Korean at the U.S. Army Language School. On duty in Korea (1954-1955) he served as a translator. His B.A, M.A. and Ph.D. degrees are all from the University of California (Berkeley), and all in classical Chinese language and literature. He has specialized in Korean Studies, mainly in the field of history but also in general literature, culture, and current affairs. He served as the Director of Korean Studies at Columbia University in the Department of East Asian Languages and Cultures. He is the author of many articles and several books relating mainly to pre-modern Korean history. Among his longer articles is his “Cartography in Korea”, published in 1994, and translated into Korean as a book titled *Hanguk ko chidoŭi yŏksa* (한국 고지도의 역사), published by Sonamu (소나무) Publishers in 2011. Though he retired from Columbia thirteen years ago, he continues his research and publication projects in a variety of different fields.

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