

Selections from NDL collections

Shibukawa Shunkai's letters: A life dedicated to the Jokyo calendar

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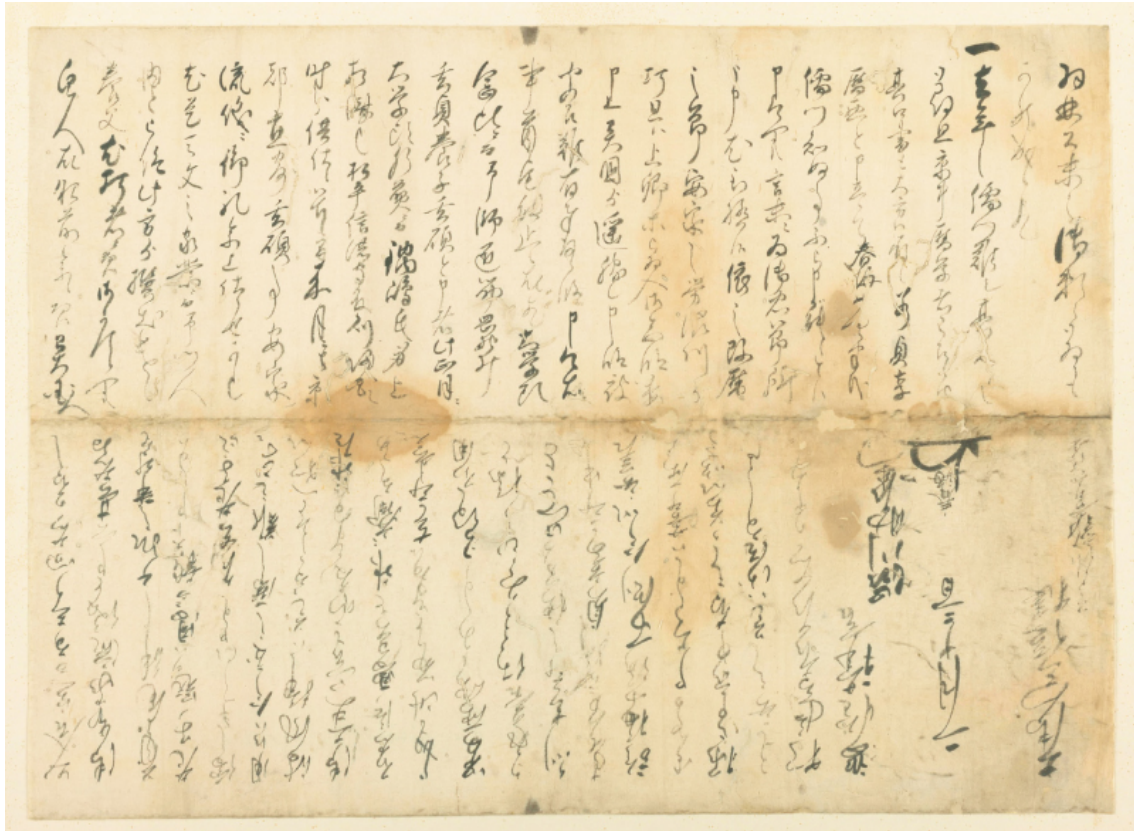
This article is based on the article in Japanese in *NDL Monthly Bulletin No. 656 (December 2015)*.

Image 1: From 24 letters included in “Shibukawa Shunkai jihitsu shokan” Addressed to TSUCHIMIKADO Yasutomi, dated February 13, 1704 [NDL Call No. WA25-84]

*Held at the Rare Books and Old Materials Room

*Available in the [National Diet Library Digital Collections](#)

2015 marked 300 years since the death of Shibukawa Shunkai¹ (1639-1715). Recently, there was a novel² introducing him entitled *Tenchi meisatsu* which also was adapted into a film.³ He was the first Japanese to make a domestic calendar, named *Jokyoreki* (貞享暦, lit. *Jokyo* calendar), and was appointed the Edo shogunate's first official astronomer (*Tenmonkata*, 天文方).

Shown in image 1 is a letter written by Shunkai during his later years, but first we will take a look at his earlier career, before the formation of the *Jokyoreki*.

Shunkai was born in 1639, in the early years of the Edo period. Although born to the Yasui family, a leading family of the game of *go* (碁), he was strongly attracted to astronomy from youth. At that time in Japan, a calendar called *Senmyoreki* (宣明暦), which was invented during the Tang dynasty in China, had been used for more than 800 years. Thus, problems had arisen—for instance, the summer and winter solstices differed as much as two days from the expected dates. This was why Shunkai started working on the reformation of this calendar.

¹ His surname was first Yasui (安井) and later changed to Yasui (保井). His true name was Tsutsuji (都翁), courtesy names were Nobumasa (順正) and Shunkai (春海), and the common name was Santetsu II (算哲 (2世)) and Sukezaemon (助左衛門). It was after 1702 that he changed his surname to SHIBUKAWA, but throughout this article, we will call him Shibukawa Shunkai. Harumi is another way of reading the name Shunkai (春海).

² Ubukata To, *Tenchi meisatsu*, Kadokawa shoten, 2009

³ *Tenchi: The Samurai Astronomer*, Dir. Takita Yojiro, Kadokawa eiga and Shochiku, 2012

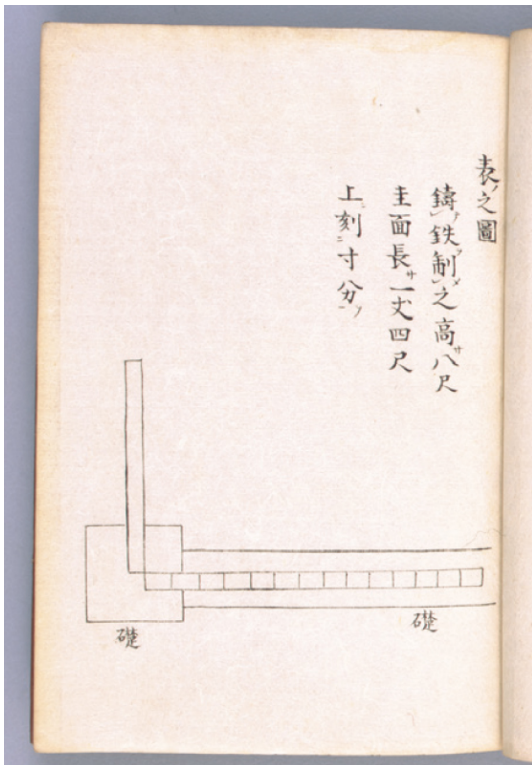


Image 2: A *hasshaku no hyo* (八尺表)⁴ which was used to measure the length of shadows to see the highest point reached by the light of the sun.

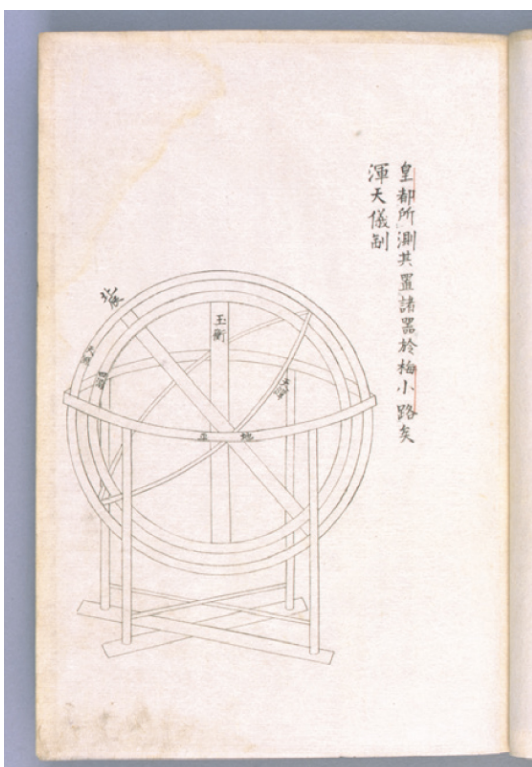


Image 3: A *kontengi* (渾天儀, lit. armillary sphere)⁵ used to find out the positions of celestial bodies.

Shunkai revised the Chinese traditional *kontengi* and reduced the number of loops compared to common ones. When the second petition was rejected, Shunkai and Tsuchimikado Yasutomi observed stars at Yasutomi's mansion in Ume-koji, Kyoto, to demonstrate the correctness of the *Jokyoreki*.

It was not easy to achieve the calendar reformation. First, Shunkai examined the *Jujireki* (授時曆) calendar used in the Yuan dynasty China. At age 35 in 1673, he presented a petition to the shogunate suggesting the use of the *Jujireki* calendar. However, he failed to predict a solar eclipse, and the reformation plan met with a hitch. Nevertheless, this is where Shunkai starts to prove his talent. He intensifies his research, and finds out that China and Japan differ in longitude. He refines the *Jujireki* into Japan's own calendar. Even when the petition he filed at age 45 in 1683 was once again rejected and the *Daitoreki* (大統曆) calendar of Ming dynasty China was adopted, Shunkai did not lose his spirit. He presented his third petition in 1684. At last, Shunkai fulfilled his long-awaited desire of reforming the calendar to his own calendar, named *Jokyoreki*.



Image 4: *Isegoyomi*⁶ (伊勢曆, the first calendar based on the *Jokyoreki*) for year 1685

The National Diet Library (NDL) holds Shunkai's letters addressed to TSUCHIMIKADO Yasutomi (1655-1717)

⁴ From the copy of "Jokyoreki" written by Yasui Santetsu, revised by Abe Yasutomi. [NDL Call No. 206-11]

⁵ From the copy of "Tenmonkeito" edited by Shibukawa Shunkai. [NDL Call No. 139-41]

⁶ From "Korekijo" [NDL Call No. 本別 15-21] *Available in the [National Diet Library Digital Collections](#)

