# LETTER TO THE EDITOR

**Re: *The Shogun's Silver Telescope: God, Art, and Money in the English Quest for Japan, 1600–1625*, by Timon Screech.**

As an astronomer who is interested in the historical situation in Japan during the early seventeenth century, I'd like to make some comments about Professor Timon Screech's new book. I have not yet had a chance to read *The Shogun's Silver Telescope: God, Art, and Money in the English Quest for Japan, 1600–1625.* However, after reading the review by Christopher M. Graney published in this issue of *JAHH* (pp. 239–241), I feel that his criticism of Screech's understanding of the role of the silver telescope as a gift to the Shogun is reasonable and correct, and I agree with his opinions.

If the table of contents in the book's advertisement is scanned, we understand that what Screech intended exists in the subtitle, namely that this book tells the story of English efforts to sell their wares in Japan in the early seventeenth century. But perhaps the author could not resist the temptation to add some symbolic item (such as a silver telescope) as the eye-catching primary title, and it is this title and his misunderstanding of the historical role of the telescope that has invited criticism from reviewers of this book with any knowledge of astronomy.

After Japan first encountered the Portuguese in 1543, the Spanish and Jesuit missionaries soon came to Japan with the intention of propagating Christianity. They established a few colleges and seminaries in Japan to nurture domestic Christian priests, and in order to impress the Japanese with the superiority of European culture and civilization they also taught Western astronomy in their schools. Through such education the Japanese learned about the spherical nature of the Earth, which they never encountered in traditional Chinese astronomy. But the cosmic vision that the Jesuits taught the Japanese was a geocentric, not a heliocentric, Universe.

The Spanish were followed by the Dutch and the British, but their primary interests were in the export and import business, and not the promotion of Western culture and religion. Nevertheless, the shogunal government eventually worried that the Christian missionaries might be the vanguard of armed forces that would occupy Japan. As a result, Japan closed its doors to the West in 1639, beginning a period of seclusion when initially only the Dutch East India Company was allowed to stay, confined to tiny Dejima Island in Nagasaki Bay; all other Western nationals were expelled.

To encourage the Japanese to expand their overseas trade, visiting Europeans brought various novel Western gadgets to Japan as gifts for the Shogun and high-ranking warlords. Telescopes were among these gifts, as represented by the silver telescope that was given to the first Shogun, Tokugawa Iyeyasu, in 1613.

In his review of *The Shogun's Silver Telescope* Graney cites from the book:

> … telescopes allowed any careful observer to see that Copernicus was correct. The instrument made it possible to detect with one's own eyes that the earth does revolve around the sun.

Screech's view may have been affected by the following anecdote relating to Galileo Galilei's discovery of four small satellites orbiting Jupiter: Galileo considered that this satellite system demonstrated that heliocentrism was correct.

However, it would have been impossible to actually see Jupiter's four small satellites with a Galilean-type telescope made in the 1610s that had a magnifying power of less than 10. This inference is supported by a description in the diary that a Dejima captain of the Dutch East India Company kept. It says that in 1647 at the request of the Christianity regulation officer in Nagasaki he imported a special kind of telescope that enabled one to observe Galilean satellites. Probably the officer ordered the telescope not for any scientific interest but out of layman's curiosity.

This is the only story connecting telescopes with astronomy before the Japanese astronomer Harumi Shibukawa first started using a telescope for astronomical observations in about the 1680s. Otherwise telescopes were generally used for keeping watch on foreign ships and distant signals, for catching whales, for sightseeing, and by 'peeping Toms'. Moreover, for the ordinary people at that time, whether the geocentric view of the Universe was correct or not was not important.

Therefore, Screech's claim that the main reason telescopes were imported into Japan in the 1610s was to discredit the geocentric view of the Universe taught to the Japanese by the Jesuits is groundless speculation and irrelevant.

Finally, let me speculate about the current status of the silver telescope of 1613. At present its whereabouts is unknown. However, it may be possible to recover it in the future. Toku-

gawa Yoshinao, the eighth son of the first shogun, was a scholar, and he inherited most of valuable books and other property—likely including the silver telescope—from the first shogun, Iyeyasu, who died in 1616.

Yoshinao's collection, including the Iyeyasu inheritance, is now preserved at the Tokugawa Art Museum in Nagoya city, where the collections have survived wars, natural disasters and fires for about 400 years. Hence, it is possible that the silver telescope is still there, in an unexplored corner of one of the storage rooms, lost and long forgotten. In fact, it was in this same museum that one of the world's earliest-known Schyrlean telescopes (with four convex lenses) was discovered back in the 1960s (see Nakamura, 2008).

## Reference

Nakamura, T., 2008. The earliest telescope preserved in Japan. *Journal of Astronomical History and Heritage*, 11, 203–212.

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