

Frumer, Yulia**Before words: reading western astronomical texts in early nineteenth-century Japan.** (English) [Zbl 1352.01006](#)

Ann. Sci. 73, No. 2, 170-194 (2016).

Beyond the local and very particular aspects of the history of astronomy in early nineteenth-century Japan (here the transmission of Lalande's *Astronomie* to Japan on the basis of its Dutch version), the present article proposes to approach the general problem of the transmission and translation of scientific texts between widely different cultures, particularly when the public aimed at has only a meager knowledge – or even no knowledge at all – of foreign languages, in other words, how a translator construct meaning out of a text he is unable to read. Quite judiciously and convincingly, the author of the present article rightly emphasizes the fundamental role of often overlooked non-verbal elements contained in astronomical texts, namely, tables, diagrams, letters used as indicators in diagrams, the layout of printed pages and even typographical peculiarities of the source text, such as words in italics for instance, mainly. From this, it appears than the process of transmission of knowledge is much more complex than usually surmised, and that, in particular, an unknown text is in no way a monolith but rather 'a mass of layered and interconnected fragments of information' (p. 193) not isolated, but dependent of all sorts of already available texts, such as former translations and, of course, more ancient native texts. Not less importantly, it happens that this method leads to an approximation of Lalande's text and even sometimes arrived at grasping its main objective (p. 190). This being said, one important point would deserve being reexamined, namely the problem of the translation of the term reki. Here, as many other historians of Chinese astronomy, the author limits the meaning of this term to 'calendar' (Footnote 30, p. 177) whereas, in fact, it has a much wider meaning in an astronomical context, akin to 'astronomical tables' of, more generally, 'positional astronomy' and even astronomy in general, as the reviewer has shown in his book [Astronomy and calendars – the other Chinese mathematics. 104 BC – AD 1644. Translated from the French. Berlin: Springer (2016; [Zbl 1354.01004](#)), pp. 16–24]. To sum up, when the distinction between computistics and astronomy is not made, the consequence is a detrimental limitation of Japanese (and Chinese) astronomy to calenderics (or computistics).

Reviewer: [Jean-Claude Martzloff \(Paris\)](#)**MSC:**

- [01A27](#) History of mathematics in Japan
- [01A50](#) History of mathematics in the 18th century
- [01A55](#) History of mathematics in the 19th century
- [01A99](#) History of mathematics and mathematicians

Keywords:[Lalande's *Astronomie*](#); [astronomy](#); [calendar](#); [Takahashi Yoshitoki](#); [Dutch language](#); [translation of astronomical texts](#); [diagrams](#); [non-verbal elements](#)**Biographic references:**[de Lalande, Jerome](#)**Full Text:** [DOI](#)