

Before Words: Reading Western Astronomical Texts in Early 19th Century Japan

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In 1803, the most prominent Japanese astronomer of his time, Takahashi Yoshitoki, received a newly imported Dutch translation of J. J. Lalande's 'Astronomie'. He could not read Dutch, yet he dedicated almost a year to a close examination of this massive work, taking notes and contemplating his own astronomical practices. How did he read a book he could not read? Following the clues Yoshitoki left in his notes, we discover that he found meanings not only in words, but also in what are often taken for granted or considered to be auxiliary tools for data manipulation, such as symbols, units, tables, and diagrams. His rendering of these non-verbal textual elements into a familiar format was crucial for Yoshitoki's reading, and constituted the initial step in the process of integrating Lalande's astronomy into Japanese astronomical practices, and the subsequent translation of the text into Japanese.