

**A STUDY ON THE FALL YEAR OF THE SASAGASE
METEORITE.**

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Introduction: The Sasagase chondrite [1] was found in 1950 by S. Kanda [2] and reported by S. Murayama in 1953 [3]. It had long been preserved as an object of worship at the Zohukuji temple in Hamamatsu city in central Japan. The fall year was recorded in several documents which were preserved together with the meteorite. However, those records indicate different fall years of 1688, 1690 and 1704. One of those records titled “Tama-yakushinyorai Shusshouki” [4] had been regarded to be the most reliable one, because it gives details of the Sasagase meteorite fall and it seems that the author, a chief priest of the temple, really watched the fall. Then, Kanda had judged the fall year to be 1688 as written in this document.

Recent studies: Since then, studies about the fall year of this meteorite have been made for many years by several amateur astronomers including us, searching for other documents describing this meteorite fall. As a result, out of hundreds of old documents inspected so far, at least three independent documents have been found other than those preserved at the Zohukuji temple. The documents are titled “Hatagomachi Heiuemon Kiroku” [5], “Oumu Rouchuuki” [6], and “Miyata Nikki” [7]. All of those three documents were written as diaries by different authors at different places independently.

Results and discussion: Studies on those documents revealed that descriptions of them are correct and quite reliable. And the fall date of the Sasagase recorded on those documents is perfectly the same: Feb. 16th 1704 on Gregorian calendar, unlike the conventional date of Feb. 13th 1688.

However, there still remains a question why the author of “Tama-yakushinyorai Shusshouki” wrote that the fall year was 1688. We suspect that the document was written only as a history not as a real record, because there are several descriptions which indicate dramatizations to raise the value of the meteorite. For example, there is a description “the meteorite fell pulling a purple cloud”. Purple is a color having the highest order in the Buddhism. The year 1688 is the first year of Genroku era, which was the time of prosperity and glory, but 1704 is the first year of Houei era, which was the time of disaster and society uneasiness. Thus the author could have replaced the fall year intentionally. Most important fact is that there exist no records which indicate the 1688 fall except for the “Tama-yakushinyorai Shusshouki”.

Numakai meteorite fall date: We also found that the local record of the Numakai meteorite fall date was different from that of the Catalogue of Meteorites [8]. The fall date, September 4, 1925, one day before that in the Catalogue, is confirmed by an article of September 6 of the newspaper “Hokkai Times”, which is now a local daily newspaper “Hokkaido Shinbun”.

References: [1] *Meteoritical Bulletin* No.8, 1958. Moscow. [2] Kanda S. 1950. *Tenmon Soho* (in Japanese), 4(4). [3] Murayama S. 1953. *Natural Science and Museum (Tokyo)*, 20(10-12): 1-26. [4] Ekijun (-1748). Tama-yakushinyorai Shusshouki (a born story of the Sasagase). [5] Heiuemon -1752. Hatagomachi Heiuemon Kiroku (a document written by a wholesale merchant). [6] Asahi S. 1684-1717. Oumu Rouchuuki (a diary written by a local warrior). [7] Miyata family 1692-1759. Miyata Nikki (a diary written by a local magistrate family). [8] Catalogue of Meteorites, 5th Edition. 2000.