

Damage in the Chiba Prefecture from the 1855 Ansei Edo earthquake

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The Ansei Edo earthquake occurred on November 11 1855 and caused severe damage in and around Edo City (former Tokyo). Kitahara (2013, Social History of Earthquakes) discussed damage and rescue in Edo City after the Ansei Edo earthquake. Nakamura et al. (2011, Historical Earthquakes) estimated seismic intensity distribution in and around Edo City from damage description in historical literature. The main target for both studies was Edo City and the damage in Chiba Prefecture has not been fully revealed except for a part of Chiba Prefecture such as Sakura and Kisarazu. To reveal the damage in Chiba Prefecture, we conducted survey of historical literature at the Chiba Prefectural Archives, Funabashi Hometown Museum, and department of literature at the Keio University.

For damage in the northwest Chiba, there is a historical document *Watanabe-Toen-Zatsuroku* printed in *History of Narashino City volume 3*. Toen Watanabe, a doctor of Saginuma Village compiled the document which describes events in the vicinity of the village during the period of 1824 – 1859. The document recorded a ground fissure due to the earthquake in Saginuma Village. The casualties and damage of houses are not described and unknown, while the ground shaking was strong enough to cause fissures.

In Funabashi City, *Jishin-Hendo-Hikae* printed in *History in Funabashi City volume 10* described that “there was a large earthquakes in four (former) countries, Musashi, Shimousa, Kazusa, and Hitachi and many houses were collapsed” , while there were no descriptions on damage in Funabashi area. We found a description of earthquake in *Daifuku-cho* of *Muto-ke Monjo* from the survey at the Funabashi Hometown Museum. The house of Muto family was located in the present Miyamoto district, Funabashi City. This document suggests that there was not severe damage such as collapsed houses and injured persons in this area.

While the above one was an only document written in Funabashi City, there is a diary of Maejima Jisuke, a mayor of Daikata Village in Togane City. He left that village toward Edo City on 11th because he was called from a feudal lord. The diary recorded that he started to see collapsed houses around Gyotoku on the way to Edo City. Another document *Edo-Kaicho-Shoyo-Dome* printed in *Archives of Narita-San Shinsho-ji volume 5*, recorded that accommodation place was asked to change in Senju post station due to severe damage, while the accommodation place was not changed in Funabashi post station. This suggests that the damage in Funabashi area was minor compared to that in Edo City.

In the southern part of Chiba, we found a diary of *Hoju-in* temple from replicated documents at the Chiba Prefectural Archives. The diary recorded that the stone monuments, stone lanterns, and Hokyoin-to Pagoda fell over and that the gate *Nio-mon* moved toward west. The diary also recorded that there was damage in surrounding temples. The diary *Nikki-Oboe* in *Kato-Ke Monjo* in Moto-Ori Village next to the village of Hoju-in recorded the Ansei Edo earthquake as “an extremely large earthquake” . These descriptions suggest that the ground shaking was strong in not only Edo City but also the southern part of Chiba Prefecture.

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