

Emending and Databasing All Historical Earthquake Documents in the Ancient and Medieval Ages in Japan

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In Japan, ‘*Zotei Dai-Nihon Jishin Shiryo (Collection of Historical Documents on Earthquakes in Japan, Enlarged and Revised Edition)*’ edited by Musha (1941, 1943a, b, 1951) and ‘*Shinshu Nihon Jishin Shiryo (Historical Documents on Earthquakes in Japan, New Collection)*’ edited by Usami and his colleagues (1981-1994), 25 volumes in all, have comprised invaluable fundamental data for historical seismology, as collections of all Japan’s known historical earthquake records clipped from various historical sources since around the 6th century (e.g., Ishibashi, 2004). However, they contain rather many low-quality materials that produce errors and fictitious (fake) earthquakes, and are too huge volumes, just in printed format, to be thoroughly utilized. In order to improve this situation fundamentally, we have started a research project of constructing a full-text digital database of all historical earthquake documents in the Ancient and Medieval ages (up to ca. A.D. 1600) under the Grants-in-Aid for Scientific Research by the Government. Although the project term is limited in four years from 2003 through 2006 JFY, we plan to critically examine all the historical documents in the existing collections, select them, carefully emend every text and compose a re-edited collection in digital form. We also aim at interdisciplinary collaboration among earth scientists, historians and information scientists. Furthermore, we intend to compose a seismic intensity database compatible with the Intensity Data Points (IDP) prevailing in Europe. So far, about a half of the target contents has been digitized. The XML (eXtensible Markup Language) has been introduced for markapping documents, and the alpha-version of a full-text database of historical earthquake documents has been constructed. At the same time, careful emendation of all texts is being carried out by historians. Owing to the alpha-version database, various problems have been clarified concerning existing collections of historical earthquake documents.

Keywords: historical seismology, historical records, historical earthquake, Japan, digitization, database, interdisciplinary collaboration, historian, emendation.

References

- [1] K. Ishibashi, *Annals of Geophysics*, **47**, 339-368 (2004).
- [2] K. Ishibashi, *AOGS 2nd Annual Meeting*, IWG05 (2005).