

Fulltext Database of Historical Earthquake Documents in Japan

Shoichiro Hara

Center for Integrated Studies, Kyoto University

shara@cias.kyoto-u.ac.jp

The Historical Earthquake Documents in Japan are the collections of all the nation's earthquake records compiled from various historical sources since around 6th Century. They are definitely invaluable fundamental data for historical seismology but have some problems, i.e., they contain low-reliable materials that bring about errors and fake earthquakes, and they are not easy to use because of huge volumes but just in printed formats. In order to improve these problems and to realize available utilities for seismologists, we launched the research project of constructing "Full-text Database of Historical Earthquake Documents in the Ancient and Medieval Ages in Japan " (<http://historical.seismology.jp/erice/>). This project is an interdisciplinary collaboration among earth scientists, historians and information scientists, and aims to critically examine all the documents (up to around A.D. 1600), select reliable sources, emend every text, and to reconstruct a revised full-text database. The beta-version of the full-text database is available on the Web (<http://sakuya.ed.shizuoka.ac.jp/erice/>) that contains 3001 records. This is one of the largest historical earthquake databases in Japan, and is expected to be the guide to constructing other historical earthquake databases.

This project is succeeded to a new project which aims to construct a new full-text database of historical earthquakes around Niigata-Kobe Tectonic Zone. This project intends not only to construct a full-text database but also to compose a seismic intensity database compatible with the Intensity Data Points (IDP) prevailing in Europe. Then, spatiotemporal (time and place) attributes of each terms are estimated and described in standard formats as far as possible. These databases will be integrated with GIS tools to visualize and analyze various data about earthquakes.

Keyword: Historical Earthquakes, Full-text database, XML