

# **Applications of Spatial-temporal Information System in the Digital Database of Buddhist Tripitaka Catalogs and Biographies of Chinese Buddhist Eminent Monks**

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This presentation attempts to utilize the TimeMap Geographic Information Technology to develop new research methods in the Digital Database of Buddhist Tripitaka Catalogs and the Database of Biographies of Chinese Buddhist Eminent Monks. In the Digital Database of Buddhist Tripitaka Catalogs, we have collected multi-lingual Tripitaka catalogs and constructed the respective metadata in Microsoft Access files. There are 22 editions and about 33,700 catalogs from Chinese Buddhist Tripitaka, including the stone carved "Fangshan Shijing". The Tibetan Buddhist Tripitaka has about 4,569 catalogs, the Pali Tipitaka has 7,003 catalogs of Nikaya and Agama suttas, and there are also Sanskrit catalogs, deriving mainly from the manuscripts found in Central Asia. The project has been concerned not only with digitizing these documents, but also with setting up a search facility on the web for public use.

These catalogs of Buddhist Canons, mainly from Chinese Buddhist Tripitaka sources, provide valuable insights into the potential applications of Spatial-Temporal Information Systems. From the database of Chinese Buddhist catalogs, we construct unique IDs, such as titles, dates, translators, authors, locations etc. These unique IDs conform to the standards established in TimeMap Geographic Information Technology. Their purpose is to provide some kind of retrieval function to supply the data-mining and researching of the temporal and spatial information. This study would make use of Pureland Canons in the Digital Database of Buddhist Tripitaka Catalogs to demonstrate the application of the Spatial-temporal Information System.

Regarding the Biographies of Chinese Buddhist Eminent Monks, this presentation will focus on the Buddhist monks went to India by way of land and sea silk route according to Venerable Yi-Jing's "Da tang xi yu qiou fa gao seng zhuan" (the biography of seeking dharma eminent monks in Tang Dynasty). In order to represent their great facts in the dangerous journey, we try to utilize geography information technology to find the historical tracks of seeking dharma monks and the relationship with the Chinese Buddhist Catalogues. By use of these geography information technologies can help us to organize the travel and peregrinated places of eminent monks into diagrams or dynamic simulation. Simultaneously, we adopt field investigation and digital record technique to understand the locale situation in depth.

Besides TimeMap, the online Geographic Information Systems (GIS) used in this study are Google Earth and Google Map. By using KML files, developers can easily combine Google Earth and Google Map with online information retrieval tools. On the other hand, TimeMap is capable of display various data chronologically in a specific time zoom. The database of Buddhist Tripitaka Catalogs and Biographies of Chinese Buddhist Eminent Monks supports both online GIS applications, and this study demonstrates both methods.