

Reconstruction of Historical Landscape

-- In the context of Ancient Shrines and their Surrounding Features --

Shoichiro HARA, National Institute of Japanese Literature, Japan, hara@nijl.ac.jp

Ikuo OKETANI, Osaka International University, Japan, oketani@hus.oiu.ac.jp

Japan is a mountainous country and the topography has had a greater significance in the spatial structure of landscapes and Japanese mentalities. Thus landscape is the expression of the culture, and analyzing the structure of the landscape will reveal the context of social intentions. It is said that people “could” feel faith and find various meanings in the views of the land, but as time goes by, people “have lost” sensitivity toward them. Fortunately, there remain a large variety of spaces in Japan that have been in beautiful harmony with nature and landscapes since ancient times.

As an application of GIS to humanities informatics, this paper is intended to examine macro landscape structure of the sacred Japanese places based on locations of Shikinai-sha in Nara Basin. Nara Basin had been seats of Japanese ancient capitols. Shikinai-sha are Japanese Shinto-shrines recorded on Engishiki. Engishiki was originally compiled from 907 to 915 during the mid-Heian period (794-1185) to codify detailed rules for court ceremonies and protocol, and is considered as an extremely valuable source of historical materials. Parts of Engishiki, called "Engishiki-Jimmeicho," lists Shikinai-sha as Japanese deities of that time. That is, locations of Shikinai-sha in Nara Basin indicate sacred places in ancient times, and they are considered as appropriate samples for the analysis.

In this paper, geographical features (e.g., altitude and topography (flat area, foothill area, or mountain area) of a shrine, and numbers of mountain peaks, rivers and slopes around a shrine) were read from maps. These features were converted into quantitative data, and statistical analysis such as clustering analysis and principal component analysis were done to identify the spatial constituent elements that explain the location of shrines. Using these elements, Shikinai-sha were typified and characteristic of each type are identified.