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4. 研究課題の概要

The construction of this database aims to contribute to the time-spatial analysis of urban and rural areas using spatialised data from different sources and formats. This database will be prepared in order to receive in the future data from urban-rural areas from different world regions, that could allow comparative analyses, starting with the collection of data about Kyoto city and Kyoto prefecture. The database construction started with the preparation of a mosaic of georeferenced aerial photos of Kyoto city from two different periods (first period: 1947-1948; second period: 1961-1963). By using these mosaics as a working base, data about the infrastructure, built area density and socio-economic-demographic aspects will be analysed. The results of these analyses will be displayed through an analytical cartography that will show, for example, how urban expansion is related to the changes in population profile and how the infrastructural evolution impacts rural areas.

5. 研究成果の概要

Since June 2018, we have received data about population distribution, neighborhood divisions, infrastructure, altogether with historical maps of Kyoto held by the Arts Research Center of Ritsumeikan University. With the use of these materials it was possible to analyse the land-use change in peripheral areas of Kyoto city between the decades of 1950s and 1960s. The analysis resulted in the production of analytical maps that show the variation of use of land in terms of built areas, open exposed soil, plantation, sparse and dense forests and water covered land. The analysis of land use change integrated to the populational distribution and the installation of infrastructure during the studied period and other historical maps, allowed to clarify the factors and mechanisms of land use

change in the period. It was possible to identify that the installed infrastructure and the specific geographical features of the studied areas have crucially determined the urban expansion in Kyoto's Western area and the reforestation of Southeastern mountainous areas. These results were presented and discussed in seminars in collaboration with Japanese and International scholars. An article with the resulting analysis is now under preparation. The results of this analysis generated an amount of data sufficient to begin the construction of a database.