

A STUDY ON COMMUNITY REVITALIZATION
BASED ON BIG DATA ANALYSIS OF RESIDENTS
BEHAVIOR IN SUBURBAN AREAS DEVELOPED BY
DIFFERENT CONCEPTS

C h. Takashi YOKOTA (Professor, Osaka University)

m e m. Emiko ITAMI (Associate Professor, Osaka University)

m e m. Takashi AOKI (Assistant Professor, Osaka University)

[S Y N O P S I S]

This study aimed to explore measures to revitalize the suburban residential areas with aging and declining populations through behavioral analysis using big data and GIS.

The research method contains classification of suburban residential areas based on literature review, field survey to grasp the actual conditions in the areas, and human flow survey using big data.

In Chapter 2, we classified suburban residential areas into new town developments and privately developed suburban residential areas, resulting in 11 categories through classification of development concepts from the various literature.

In Chapter 3, we conducted field surveys of suburban residential areas far from Kansai to understand the status of community facilities and to inspect the surrounding residential areas, resulting in clarify some issues that are difficult to understand by the literature.

In Chapter 4, no distinctive results in terms of the types of development concepts were obtained from the analysis of human flow during daily life. On the other hand, the analysis of human flow during emergency time, such as when a major typhoon was approaching and the northern Osaka earthquake occurred, revealed the characteristics of people behavior in residential areas on the mountain side and the sea side.

In Chapter 5, the transition of neighborhood centers was clarified through literature review and field survey, and the usage of neighborhood centers was analyzed in terms of human flow. As a result, the increase in the number of vacant stores and conversions to shops for elderly were found in Senboku New Town.

In Chapter 6, we summarize these findings and make recommendations for the restructuring of suburban residential areas with big data analysis as a useful tool for understanding human flow.