

## Landscape transition in Takamatsu, Sanuki

TAKAHASHI, Yoshinao<sup>1\*</sup> ; YOSHIKAWA, Shin<sup>2</sup> ; TANAKA, Kazunari<sup>2</sup>

<sup>1</sup>Graduate School of Engineering,Osaka Institute of Technology, <sup>2</sup>Faculty of Eng.,OIT

Recently, Japanese cities have lost the characteristic culture and historical landscape with urban development. Takamatsu is a port town spatially formed and developed by the sea for a long time. It used to be centered on the Takamatsu castle. Changing into the modern city, however, the urban structure has transformed into the traffic base called as the gateway to Shikoku from the castle town.

Therefore, in this study, the authors try to analyze and understand the historical transition in Takamatsu by utilizing historical records and spatial information technology, and constructing the database about historical environment. Finally they try to find the relationship between the changes in the urban structure and the transportation. Actually, by using GIS based on collected books and maps, they are constructing the spatial database to clarify the transition of the city and understanding the historical changes in a plan view from the early modern times to the present day. And, they are trying to express the typical cityscape of each age through the cityscape simulation by using the three-dimensional urban model modeled by CAD/CG.

When the three-dimensional urban model is constructed, it is important to reproduce exactly the terrain such as coastline and rivers in those days. Therefore, the authors have reproduced the terrain based on the current elevation data. As the result of the comparison between now and then, the cityscape has been changed dramatically on each viewpoint. In particular, there was the major change on the west side of the castle, and the symbol of the early modern times was lost. But there is a place where history and culture are inherited even though the highway is still lined with modern shops.

In this study, the cityscape transition of Takamatsu is grasped by the comparison between now and then on various viewpoints.

Keywords: three-dimensional urban model, landscape simulation, castle town