Study on Landscape Recognition that Uses Image Processing Technology
by Local Inhabitants in Kamakura

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This paper studies landscape recognition of the Kamakura historical area by inhabitants. In a regional environment, the sharing of mental spaces is considered to be a necessary precondition for regional coexistence. This study focused on landscape recognition as a shared mental space. A cognitive region map is drawn using the results of a questionnaire, and this map reveals the inhabitants’ recognition of the landscape. A visualization model was used to analyze the area’s environment and the relationships with the inhabitants’ recognition of the landscape. This paper quantifies the urban forms of the regional environment using fractal dimensional analyses of aerial photographs and considers their relationships to the inhabitant’s cognizance of the landscape. Therefore, the objective area of the fractal analysis is extended to include the region of “a landscape, which has the identity of Kamakura,” and “a place that has changed (recognition),” In this paper, the above analysis was used to quantify complex urban forms. The paper evaluates landscape recognition and the relationships of the urban forms in terms of the continuity of the fractal dimensions.