Visual Preference and Image of Landscape in Cheju Island

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Recently worldwide realization of the importance of scenic resources and their value has been increased. In Korea some progress has been made for conserving scenic resources by social movements such as the Nature Conservation Movement has begun from 1970's. However, more effective policies and comprehensive regulations are still needed to insure conservation of scenic resources and promotion of their value. Up to date, few landscape assessment researches which could provide empirical data for the policy making, have been carried out in Korea. Therefore, this study was designed to develop effective methods of assessing scenic resources and to find out the factors that affect their value.

In March and April of 1987, 679 subjects of 16 subgroups participated in this study. These subjects were devied into two groups, Cheju residents and visitors according to the popurse of landscape use. At the same time they were also classified into professionals and non-professionals by their job.

36 views representing landscapes of Cheju island were selected and color wideangle photographs (5"×7") were employed to present the views to the subjects. Subjects' visual preference and images on selected views are measured by Q-sort technique and SD method. 40 landscape dimensions were measured which have been identified in the research literature as being highly correlated with scenic resource value.

The extent of agreement among subgroups' visual preference and image of the studied landscapes were examined by correlation, ANOVA, and t-test. Simple correlation and multiple regression were used to find out the landscape dimensions and individual background variables of subjects that affect visual preference for landscapes.

Major findings obtained from this study were as follows.

1. The shoreline views were assessed as the most valuable landscape type when the 36 views were classified into 5 landscape types.

2. Shoreline views were perceived to be beautiful, good, wide and low. Pasture views were perceived to be monotonous, wide and natural while cultivated land views had familiar and not-mysterious images. Forest views did not form the common image. The case of village views is the same as the forest views. The landscapes of high visual preference were perceived to be beautiful, good, soft, legible, mysterious, coherent and inviting, while the landscapes of low visual preference were perceived to be ugly, dislike, dark, hard, illegible, narrow, not-mysterious, not-coherent, man-made and uninviting.

3. Generally, there were good agreement among 16 subgroups on the visual preferences and images of the studied landscapes. Between professionals and non-professionals, there was high agreement on visual preference and image. However, the extent of agreement on visual preference and images between Cheju residents and visitors was relatively low. These differences between Cheju residents and visitors on visual preference and images seem to be due to familiarity on Cheju island landscape.

4. The value of scenic resources tend to increased with naturalism index, uniqueness index, water area, sand beach area, middle ground area and viewshed etc. On the other hand, the value of landscape tend to decrease with the area of weeds and bushes, man-made structures and improved houses etc. However, the
topography of the landscape appeared to be unrelated to the value of scenic resources.

5. Naturalism index had by far the greatest predicative strength of any landscape dimension in explaining the visual preference and evaluative images. Eight other landscape dimensions combined with naturalism index in multiple regression analysis to explain 88 percent of the visual preference at the 90 percent confidence level.

6. Individual background variables such as residence until age 18, sex, age, education level etc. did not explained significantly the visual preference of landscapes.

7. There were high correlations between the landscape dimensions which were objectively evaluated and the image dimensions that were based on subjective judgment of the subjects.

**Evaluating Spatial Structure Effects in Recreation Travel Using Gravity-Type Model**

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The purpose of this study is to examine the effects of spatial structure of recreation opportunity on recreation travel. The spatial structure is operationally defined and measured as the number of alternative recreation opportunities within predefined travel distance intervals (i.e., twenty-five miles) from an origin county or a specific destination park. The spatial structure effects are explored in terms of three specific effects: trip generation, competition/agglomeration, and contextual effects.

The results indicate that there is a recreation trip generation effect due to the recreation opportunities within a short travel distance range from an origin. The results also indicate that both competition and agglomeration effects exist between recreation opportunities. These effects are, however, better observed in a contextual situation. That is, within a short travel distance from an origin, the number of parks near an alternative park is negatively related to the volume of travel for the specific park. In contrast, when travel distance becomes great, the relationship becomes positive. When the spatial structure variables are included in a recreation travel model, the results of this study indicate that the model improves not only in terms of goodness-of-fit but also stability.

**Radial Growth Patterns of Tree Species in Relation to Environmental Factors**

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To develop a more sensitive model of tree diameter growth, this study compared time series