Proposal of Intervention for Urban Green Space Users Based on Evaluation of Behavioral Change for Outdoor Thermal Environment

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［Research Report Abstract］

This study evaluated whether the thermal environment (thermal comfort) for people is improved by greenery in spaces available to people in cities, and whether the improvement is sufficient, and furthermore, after clarifying what spaces people actually use, it examined interventions and methods to promote the use of green spaces. The intervention methods to promote the use of green spaces were examined. The intervention was to evaluate the influence of visualized thermal environment information in the external space on users' use of the space.

This study was implemented in Marunouchi Street Park in Marunouchi, Chiyoda-ku, Tokyo, and in Hotoria Square in Otemachi, Chiyoda-ku, Tokyo. In order to understand the relationship between the evaluation of the thermal environment and people's behavior of moving and staying, we obtained and analyzed data in Marunouchi Street Park. After asking people who spend time in the target site about their basic attributes through a questionnaire, their behavior was recorded. The subjects were divided into two groups: those who were provided with information about the thermal environment and those who were not provided with any information. In addition, the relationship between thermal environment information and space use was verified using a web-based questionnaire, including the motive for moving and staying in Hotoria Square, and the results showed that there were not many variations in the thermal environment for each type of fixture, that the distance from other people affected the choice of location due to the nature of work, and that many people felt cold at the time of day, among other factors. The effectiveness of the thermal environment information varied depending on the factors such as the time of day when people felt cold, the distance to others influenced the choice of location due to the nature of the work.

The above results confirm that the provision of visualized thermal environment information induces comfortable use of external spaces during the summer season, and thus the practicality of this type of information provision can be verified.