

A trend of landscape appreciation studies from the view point of understanding of landscape phenomenon until 2015

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1. Introduction

Landscape evaluation using psychometrical methods was pioneered by Peterson (1967). Such studies were popularized during 1970-1990's, but recently such research has tended to decrease. Figure 1 shows that the number of survey papers follows a similar tendency. Various technical developments of measurements and analysis were tried, and the first predictive model to explain the preference of landscapes was proposed by Shafer, Hamilton and Schmidt (1969). On the other hand, this approach was criticized by Carlson (1977), although this criticism never proposed a way to resolve these problems. The background of this decline lies in the deadlock faced in the study of landscape evaluation study throughout the world (Fig.1).

2. Understandings in Japan

At the beginning of research on this subject, Japan and the United States were leading technical developments of in this area in the 1970s. Japanese researchers were interested in the application of the results of experiments based on the assumption of universality and everlasting truth of their results. This assumption was formed by the easy use of the results in Japan, which were obtained at the beginning by the respondents who are studying in the university. They are graduated from an uniform, nation-wide, and effective education system.

3. Understandings in western countries

On the other hand, researchers in the United States were interested in the effects of diverse ethnic and cultural backgrounds because of their society's diversity in racial and cultural backgrounds provided by the large immigrant population. They interested in the variety of stakeholders in their society and required consensus in the community, and planners needed more consideration to apply their data in their planning. As a consequence, they accumulated numerous studies in their scientific journals (Fig. 2).

4. Evolution of understanding

According to landscape evaluation research that spread from Japan and the United States to Europe and the world, the different results obtained arose due to ethnic and cultural backgrounds similar to those of the United States. Researchers have run into the problem of what the results they obtained meant, i.e. what landscape evaluation was. We now know that the phenomenon of landscape evaluation is part of the mental aspects humans realize through their experience at the site and at the time, and human understanding of landscape appreciation has evolved through historical age (Appleton 1986, Bourassa 1991, Aoki and Kitamura 2001).

5. Faced to wall

This problem brought us new questions to consider, namely universality and immutability in transition between eras, as well as regional landscape evaluation. Planners who shaped the landscape by physical planning began to feel anxious about their results and wanted to understand how landscape evaluation results obtained at a certain point in time could be proven to be true and keep their usefulness in planning. Here, landscape evaluation study faced a big wall (Aoki 2014, Aoki 2015).

6. Recent trends

However, in recent years landscape is actively researched in developing countries, and the number of papers has increased again since 2011. This research from developing countries may break through the wall currently faced by the field of landscape evaluation. Based on the discussion in JpGU2013 and

JpGU2014, we hope that the outcome of this year 's workshop can supports these efforts.

Acknowledgement

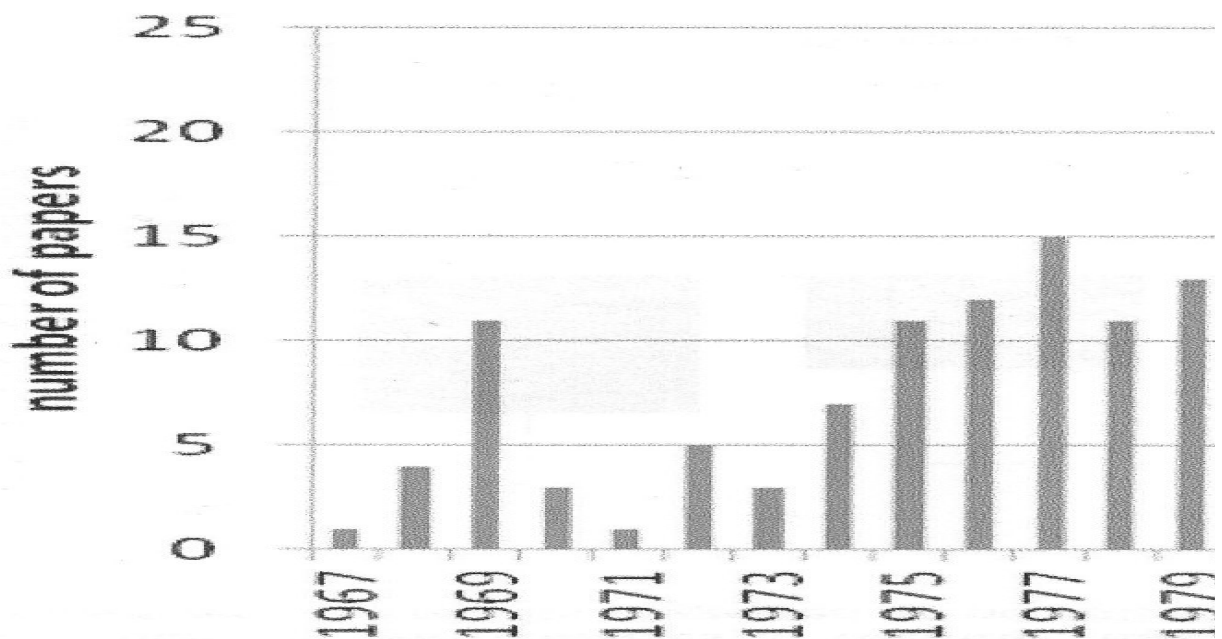
Study of landscape appreciation was initiated by Professor Jay Appleton of Hull University. Also, I learned a lot through the global literatures reported in this paper for which I am grateful to the authors of these papers. English text was checked by Prof. Associate Tom Jones of Meiji University, was thanked.

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Keywords: understanding of landscape phenomena, trend of landscape study, until 2015

Fig. 1 Trends



Cross-cultural culinary mapping —How locals and tourists navigate the foodscape of Chiang Mai, Thailand

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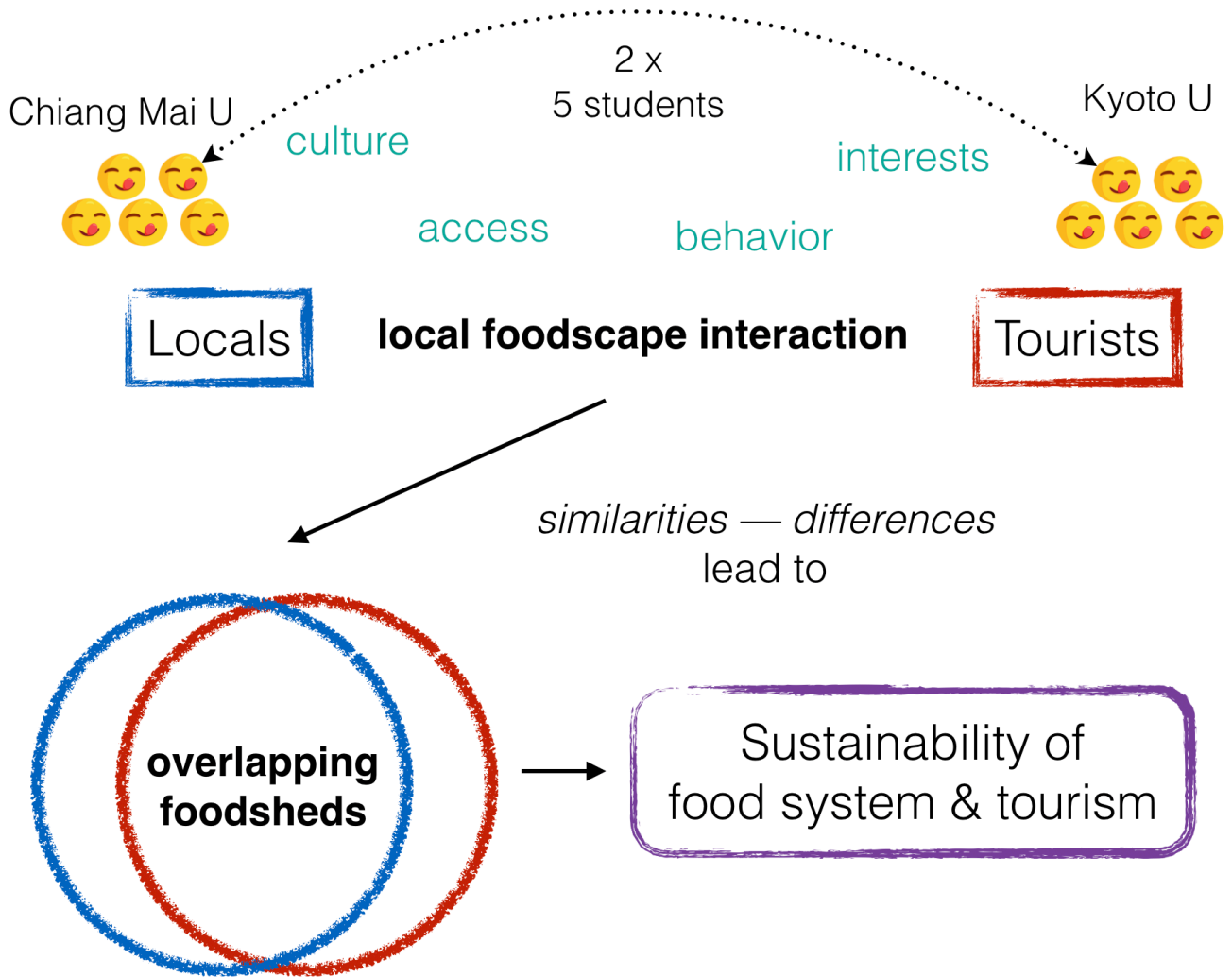
1. FEAST Project, Research Institute for Humanity and Nature

Local food and food culture is integral to residents' everyday lives, but also an important driver of tourism. Whether we explore as visitors, or know exactly where to find our favourite treats, shapes how we experience the local foodscape and interact with it. These diverging roles may also result in radically different personal foodsheds, including different social and environmental impacts associated with our food consumption behaviour. Understanding these differences may help to inform not only tourism and environmental planning, but also provide a glimpse into how we as individuals navigate the local foodscape and how food connects us with other people, animals, plants.

This study reports preliminary results from a case study comparing how the local foodscape of Chiang Mai, Thailand, is navigated by locals and tourists. Drawing upon theoretical work by Cohen and Avieli (2004) on food in tourism, the central questions were: How do locals and tourists look for, find, and eat local food? Why do they chose one food over another? What do they eat? Where do they eat? How does their food connect them with the environment? In a three day joint workshop with Japanese students (tourists) and Thai students (local), they took turns as participant observers and observation subjects in the food and drink on offer, then shared their observations and attempted to conceptually and spatially map the results together. These results are then further discussed to probe whether this approach allows to map the differences in local and tourists foodshed, with implications for future research.

Keywords: foodscape, foodshed, tourism, participant observation, cross-cultural comparison, geography

Participant observation Conceptual/spatial mapping



The Effect of Forest Management of Secondary Coniferous Forests on User's Landscape Appreciation and Psychological Restorativeness.

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-INTRODUCTION: We investigated the influence of forest management on landscape appreciation and the psychological restorative effect in an on-site setting by exposing respondents to an unmanaged coniferous forest (U.F.), and a managed coniferous forest (M.F.) for a particular period. The both forests, which consisted of Japanese larch and Japanese red pine (a second-growth forest), were fairly similar in the land cover type and vegetation one another.

-METHODS: We considered the experiment in late July. We set the two experimental plots (0.25 ha) in the both forests of Fuji Iyashinomoroi Woodland Study Center as U.F. setting and M.F. setting. Here, the mean temperature, relative humidity and sound pressure were almost the same during the experiment except illuminance. The respondents were eighteen individuals (eighteen males; aged twenties to fifties) for the experiment. As for eliminating an order effect, the respondents were divided into the two groups (Group A and Group B) in every nine-person. The respondents of Group A were exposed to U.F. setting at first and then were done to M.F. setting. However, the respondents of Group B were exposed to each setting by the opposite order. They were individually exposed to the both settings while sitting for 15 min. In the both settings, the respondents were required to answer the three questionnaires to investigate the psychological restorative effect at before and after the experiment (mood; POMS, affect; PANAS, subjective restorativeness; ROS). For comparison of landscape appreciation, the respondents were required to answer other two questionnaires at after the experiment (scene appreciation (SD), a restorative property of environment (PRS)).

-RESULTS: As a comparison result by the statistical test, regarding a restorative property of environment (PRS), M.F. setting had statistically higher property in "Being away" and "Coherence", "Compatibility" than U.F. setting ($p < .05$). About scene appreciation (SD), M.F. were appreciated statistically higher in "brightness," "openness," "comfort," "beauty," "safeness" and "healthiness" ($p < .05$), and "order" and "thin" ($p < .01$). On the other hands, by the result of two-way repeated ANOVA (difference of setting (U.F. -M.F.) \times presence of experience (before exposure -after exposure)), there were no statistical relationship with the mutual interaction between difference of setting and presence of experience in "mood" (POMS), "affect" (PANAS) and "subjective restorativeness" (ROS).

Then, as a result of having checked both the main effects, the difference of setting did not seem to raise a psychological restorativeness. Otherwise, the presence of experience could give a statistical influence negative "affect" (PANAS; $p < .05$) and "tension and anxiety" (POMS; $p < .05$). The difference of setting also reduced numerical values for them in M.F. setting. In contrast, before and after exposure could give a statistical influence and raise "vigor" in U.F. setting (POMS; $p < .05$).

-CONSIDERATION: Consequently, negative affect, tension, and anxiety might come to decrease because the managed forest setting had a sufficient restorative property of the environment and the better scenic environment. Conclusively, respondents would obtain a psychological restorativeness to some extent by being exposed to M.F. setting. On the other hand, even though vigor rose in U.F. setting, we would consider the reason for it by these three hypotheses as follows;

1) all the respondents were men. 2) the sample group had a tendency toward a relatively low neuroticism and a high extroversion by the personality traits test which we also conducted as one of the optional tests. 3) if we referred to the Kaplan's landscape preference theory, we could think of the possibility that U.F.

setting would bring a sense of mystery and exploration to the respondents who had the trait mentioned above.

Keywords: Landscape appreciation, restorativeness, Thinning, Secondary Coniferous Forests, Forest Management

table 1. summary of questionnaires using the experiment and the result of analysis.

category	Landscape appreciation			Psychological restorativeness		
	SD	PRS	POMS	PANAS	ROS	
abbreviated form						
official name	Semantic differential method	Perceived restorativeness Scale	Profile of mood states	Positive and negative affect schedule	Restorative outcome scale	
contents	scene appreciation	restorative property of environment	mood	affect	subjective restorativeness	
number of subscales	25	5	6	2	1	
timing of the measurement	after exposure			before and after exposure		
wilcoxon signed rank test	M.F. was statistically higher in "brightness", "openness", "comfort", "beauty", "safeness", "healthiness", "order" and "thin" than U.F. ($p < .01$ to $p < .05$).	M.F. was statistically higher in "Being away", "Coherence" and "Compatibility" than U.F. ($p < .05$).				
two-way repeated ANOVA	mutual interaction		n.s.	n.s.	n.s.	
	main effect		U.F.: vigor ($p < .05$) ↑ M.F.: tension and anxiety ($p < .05$) ↓	M.F.: negative affect (PANAS; $p < .05$) ↓	n.s.	



Photo. Unmanaged Forest (U.F.)



Photo. Managed Forest (M.F.)

U. F.: unmanaged forest, M. F.: managed forest, ↑: increased, ↓: decreased

Study About Childhood and Recent Memories of Daily Life Sceneries Among University Students

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1. Introduction

A sustainable society is one that coexists with nature. What is nature which affects our daily life? In this study, sketches of daily life sceneries during childhood and those during young adulthood have been analyzed, and individual memories towards surrounding nature have been revealed.

2. Study Methods

Research on “Familiar Sceneries in Daily Life” was conducted from November until December, 2016. The survey was conducted with Japanese university students at Chiba University, and 200 responses were collected. In this survey, respondents were asked to draw sketches of daily life sceneries during their childhood and young adulthood. In addition, the following items were studied: structural elements of the sketches, areas where they have experienced nature, and the distance between people and the scenery. The current address and the address during childhood were collected, and each of impression of green space in those addresses was also evaluated by respondents.

3. Results

During childhood, respondent's places of residence spreads across 35 prefectures. During their young adulthood, they become concentrated in Chiba Prefecture, Tokyo and three other surrounding prefectures. Over 60% lived in residential areas in the suburbs during both childhood and young adulthood; however, the proportion of respondents who feel that green space around residency was plentiful varied at 78.5% in childhood versus 40.5% in young adulthood. They recognized surrounding green space lesser during young adulthood than during childhood.

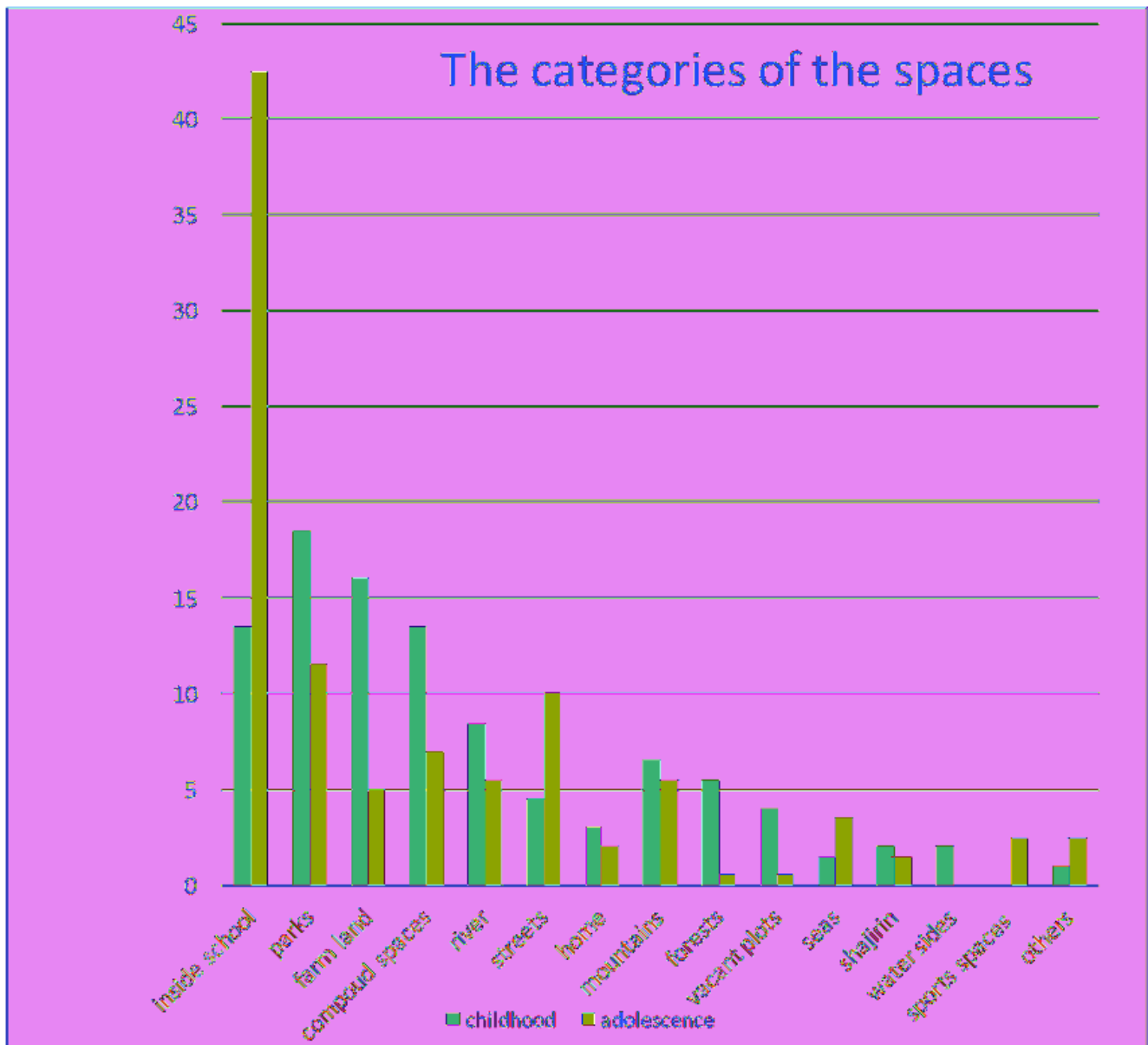
The categories of the spaces drawn were: inside school, parks, farm land, compound spaces, river/water side, a way home, mountains, and forests. Parks were drawn most often (18.5%) for childhood, and inside school (42.5%) for young adulthood. Those strong tendencies were observed in young adulthood sketches compared to the childhood sketches. The distance to the scenery drawn was as follows: within 10 meters counted 67.0% for childhood, and 55.0% for young adulthood. Sceneries drawn were both in short distances.

Their own actions and geographic landscape/geography left stronger impressions during childhood than young adulthood ($p < .01$).

4. Considerations

It has been confirmed that “surrounding nature” is influenced by the space where one usually spends time, rather than influenced by the distance to the scenery. This study showed that there was a difference of impressions of “surrounding nature” between childhood and young adulthood.

Keywords: Landscape Sketch, Childhood, young adulthood, Daily Life



Visual Characteristics of Landforms in the Seeable Near Area Surrounding Hon-do Hall at Zenko-ji Temple and its Approach Road

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A town that develops in the vicinity of a temple or shrine is called “Monzen-machi” in Japan, and the unique atmosphere of these towns attracts tourists. A “Monzen-machi” town in Japan challenges practical sustainable use while conserving the value of its unique atmosphere. The central section of Nagano city (Nagano Prefecture, Japan) is a “Monzen-machi” town in the vicinity of Zenko-ji temple. The locals believe that Zenkoji temple brings value to the town. However, the value has not been assessed to define the environment surrounding Zenkoji. Determining an evaluation method for Zenkoji will be helpful when considering the harmony between development and conserving other “Monzen-machi” towns in Japan. Discussing the setting is a way to harmonize the relationship between land use as the figure and landform as the ground. One previous study has focused on the approach road, whereas another study investigated the Zenko-ji-daira basin. The purpose of this study was to target the landforms in the seeable near area surrounding Hon-do hall at Zenko-ji temple and its approach road to clarify the visual and landscape characteristics.

The target area was a mountainous hill area within 2.4 km of Hon-do hall at Zenko-ji temple and its approach road. The ground precincts of the temple were formed due to erosion and deposition by the Yubuku-gawa River. San-mon and Nioh-mon gates were built on the approach road to the temple. Nioh-mon gate can be seen from Shinden-cho cross-point outside the Zenko-ji temple precinct.

This study defined the landscape as the space with visual meaning and structure. A survey was conducted to grasp the composition and display characteristics from a number of perspectives. Eight survey points, including objects on the approach road, buildings, the historic site, a culvert, and a cross-point were chosen. The perspective was set at a height of 1.5 m from the ground. A digital elevation model (DEM) with 5-m mesh intervals was provided by the Geospatial Information Authority of Japan. These data were last updated on November 25, 2015. Just for information, before this survey, features of the target area in the middle of early modern times are also arranged. The material used the map "Shinano-minochigamiwakejinjya-isekinozu".

We summarized the significance of the characteristics of the three visual perspectives of the landforms in the seeable near area surrounding Hon-do hall at Zenko-ji temple and its approach road. The Zenko-ji temple precinct is surrounded by mountains and hills, which formed a visual boundary. The Zenko-ji temple precinct is a visual “focus, center, and goal” because of these visual boundaries. The approach road to Zenko-ji temple generated a variety of views using the landform and buildings. The approach road to Zenko-ji temple is extended in the north-south direction where there are three buildings has a dynamic feeling. The outside of the approach road has landmark and vista feelings due to the landforms. Nioh-mon gate can be seen from Shinden-cho cross-point outside the Zenko-ji temple precinct. The visual “Domain” in this area can be divided into two visual types by the different perspectives of seeing Nioh-mon gate. The three perspectives summarized above suggest that the visual characteristics of the landform in the seeable near area surrounding Hon-doh hall at Zenko-ji temple and its approach road are composed of four elements: Boundary; Focus, Center, and Goal; Direction; and Domain. These four

elements describe the meaning of the space featured by the three perspectives. Our concept of four components based on a survey is consistent with previous studies.

Keywords: Visual Characteristics, Surrounding Environment, Zenko-ji Temple

Current Situation of and Improvement Ideas for Sukiyabashi Park in Ginza, Tokyo

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Sukiyabashi Park was renovated in 2016; however, visitors are still scarce even as of now. Before the renovation, “Fountain of Meguriai” was placed in the park; and this park was historically admired as a space surrounded by an outer moat and Yanagi-dori. After the renovation, “Young Clock Tower” by Taro Okamoto remains in the park; however, a space to touch water has vanished. The following study methods were applied to clarify the issues: 1) understanding the current situation by field survey, and 2) understanding the historical transitions through literature search. Furthermore, improvement ideas to address the issues have been presented with a ground plan, a cross section, and a model.

The idea was thus presented to preserve a historical meaning through designs which are associated with water scenery. It was accomplished, as this research and suggestions focused on parks and historical elements of its location and the neighboring area. Finally, the park also allows workers in the area and visitors who came for shopping to casually rest, as this place offers plants and water in the space surrounded by buildings.

Keywords: design and planning, Water, Sukiyabashi Park

