Mapping the Sense of Place in Insa-dong, Korea

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Abstract

This study intends to investigate the strength of the sense of place at various spots in Insa-dong, one of the most famous traditional and cultural sites in Seoul, Korea, and to find the factors related to the distribution. The Kriging interpolation mapping method, which generates an estimated surface from a scattered set of points with z-values, was adopted to map the sense of place. Thirty subjects at each chosen location were randomly selected to respond to the following question using a 10-point Likert scale: "To what extent does this locale represent the characteristics of the Insa-dong area?" For the investigation of the variables related to the degree of the sense of place, types of building uses on the ground floor and behaviors at each locale in Insa-dong were surveyed. The following nine types of building uses were identified: folk shop (art, craft, and costume), gallery, traditional food restaurant, common food restaurant, small store (convenience store, etc.), cultural assets, public, residential, and other use. Behavior types were observed and recorded at 31 survey spots on Insa-dong streets. The following seven types of behaviors were identified: exercising/playing, relaxing/walking, meeting, performing/watching (festivals, events), shopping, dining, and viewing/appreciation (scenery, attraction).

The results of this study are as follows:

(1) The levels of sense of place are generally higher along the major and central street in Insa-dong area. The farther locales reside from the major street, the lower the levels of sense of place. (2) Through the analysis of overlapping, the two distribution patterns of sense of place and building use, folk shops were found to be the most frequent type of building use in the locales with higher scores of sense of place. The type of building use appears to be one of the major variables in determining the degree of sense of place in Insa-dong area. (3) Through the analysis of overlapping the two distribution patterns of sense of place and behavior type, diverse types of behaviors are generally observed at locales with higher scores of sense of place and vice versa. Therefore, diversity of human activities can be considered as one of the major variables in determining the levels of sense of place in Insa-dong area.

Accumulation of this line of evidence will eventually lead to a better understanding of sense of place and will contribute to the provision of meaningful and livable urban spaces.

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1 Introduction

Since the 1990s, the most important theme of urban design in Korea has been ecological sustainability. However, the theories and practices related to the sense of belonging and experience of a place aimed to attract citizens have recently received increased attention from design professionals. In addition, providing and reproducing the sense of place is becoming more important in the field of urban planning and design. Many planners and designers have mentioned the importance of the sense of place to increase comfort and meaning in places. Preservation of the sense of place has recently been introduced as one of the main goals of the awarded entries in landscape and urban design competitions in Korea. Constructing a city, filled with memories integrating historical and cultural foundations, is currently one of the major goals of urban design and planning. Furthermore, the environmental planning and design efforts to strengthen the competitiveness of a city (i.e., city marketing strategies) have received considerable attention (KWON 2010). In order to provide the sense of place in landscape and urban design, existing places where citizens feel a high sense of place need to be investigated, and the components and characteristics of such places need to be studied.

Seoul has implemented various policies for creating a pedestrian-oriented city under the banners of Human City and Worldwide City. After Seoul was designated as the 2010 World Design Capital, the Seoul Metropolitan Government assigned Insa-dong as one of the Seoul Design Streets, in which the city government invests to improve the street design and pedestrian environment. Although there have been several upgrade projects in Insa-dong, they do not adequately convey the important inherent characteristics of the locale.

This study intends to identify the levels of the sense of place within the area of Insa-dong using mapping analysis to investigate the relationship between the sense of place and the types of building uses and behaviors.

2 Theoretical Considerations

Since Yi-Fu TUAN (1979) studied the concepts of place and sense of place, many researchers have studied theoretical definitions and principles of these ideas (NORBERG-SCHULZ 1980, E. RELPH 1976, F. STEELE 1981). Most of these early studies are related to understanding the essence of a place through a phenomenological approach, which adopts a mostly qualitative method. Since the 1990s, quantitative approaches to the sense of place (employing scientific and empirical methods) have appeared in the field of planning and design (THORNQUIST 1992, PATTERSON 1992, BROWN & RAYMOND 2007, CHOI & KIM 2001, SHIM & LEE 2008, HONG 2009, KWON 2010). Using these quantitative approaches, several studies since the turn of the 21st century have attempted to map the sense of place or place attachment distribution patterns through the GIS method (BROWN & RAYMOND 2007, JANG 2004, LEE 2005). JANG (2004) pointed out the loss of sense of place as a problem in modern urban landscapes and proposed the Public Participatory GIS (PPGIS) to map the sense of place that can be utilized for environmental planning and design. LEE (2005) produced a map of the sense of place by surveying students about "how Lexington was recognized as a part of Kentucky," and the survey results and locations were converted into weighted distances. BROWN & RAYMOND (2007) mapped the place attachment and scenic

value of the Otways region of Victoria, Australia using GIS Kernel Density. However, studies on sense of place mapping have not attempted to determine the cause of the relative degrees of sense of place at each location in one area.

This study adopts a quantitative approach to measure the sense of place in numerous locations on Insa-dong streets and to identify the distribution and strength of sense of place. Furthermore, the spatial characteristics and behaviors at each surveyed locale on the Insa-dong streets are analyzed to determine the cause of the strength variations in the sense of place.

3 Materials and Methods

3.1 Site Description

The Insa-dong area is one of the most memorable attractions in Seoul and represents the focal point of Korean traditional culture and crafts. During the Joseon Dynasty (1392-1910), the street was dominated by Dohwawon, a place of study for painters. The area is

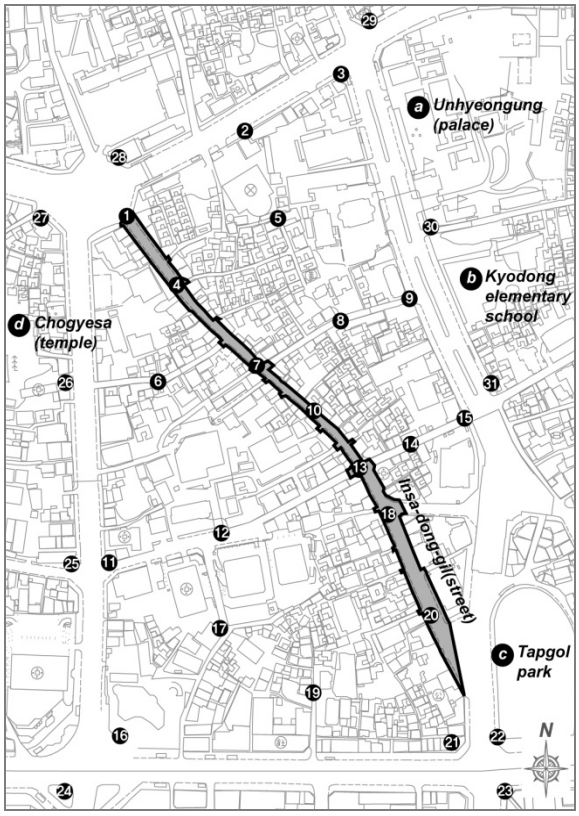
Fig. 1: General views of Insa-dong, Seoul Korea

still a center for the arts, and painters, craftsmen, and art lovers continue to set up shops along the narrow alleys. Insa-dong offers rich opportunities for visitors to experience Korean traditional and modern culture. Insa-dong-gil, the major street in Insa-dong, is over 700 meters long and 16 meters wide and is linked to more than 20 alleys on either side.

In order to preserve traditional culture, Insa-dong is designated as an Urban Design District, which permits the construction of on low-rise, one- to three-story buildings.

Insa-dong was also recently designated as the first Cultural District in the nation. However, the Insa-dong area has been criticized for loss of traditional characteristics and sense of place due to the considerable number of resident citizens and professionals.

3.2 Selection of Spots for Measuring the Level of Sense of Place



The study site was limited to the Cultural District of Insa-dong, designated by the Culture and Arts Promotion act since 2005. Five criteria were applied to the selection of 31 locales: within the boundary of the Insa-dong area; 2) contains major internal nodes; 3) four major external nodes are present adjacent to the boundary; 4) approximately 100 m between locations; and 5) nearby landmarks (see Figure 2).

Fig. 2:
31 locales for measuring the sense of place in Insa-dong

3.3 Questionnaire and Subjects

Thirty subjects at each chosen location were randomly selected to respond to the question: "To what extent does this locale represent the characteristics of the Insa-dong area?" Subjects chosen during the week of June 15-22, 2010 answered on a 10-point Likert scale. The average person is not usually familiar with the term "sense of place," and thus difficulty was expected when rating the term. Therefore, the characteristics of a place was adopted as

a surrogate. The sense of place in each spot of the Insa-dong area was assumed to be well represented by the characteristics of the locale. The concept of "sense of place" is generally related to such diverse ideas as place attachment, identity, sense of belonging, etc. The term "characteristics" of place was assumed to represent the integration of the diverse ideas implied by "sense of place."

The total number of subjects was 930 (see Table 1). As shown in Table 2, females (n = 489, 52.6 %) had higher representation than males (n = 441, 47.4 %). In addition, 89.2 % of subjects were in their 20 s ~ 30 s (n = 830), and 38.1 % visited the area more than once a week (n = 354).

Table 1: Demographic analysis of subjects

Division		**Frequency (%)**
Gender	Male	441 (47.4)
	Female	489 (52.6)
Age	20 s ~ 30 s	830 (89.2)
	30 s ~ 40 s	95 (10.2)
	60 s ~	5 (0.5)
Frequency of visit	More than once a week	354 (38.1)
	More than once in two weeks	124 (13.3)
	More than once a month	209 (22.5)
	Other	243 (26.1)

3.4 Mapping Methods

The Kriging interpolation mapping method was used in this study to map the sense of place.[1] Kriging is an advanced geostatistical procedure that generates an estimated surface from a scattered set of points with z-values. Unlike other interpolation methods supported by ArcGIS Spatial Analyst, Kriging involves an interactive investigation of the spatial behavior of a phenomenon represented by the z-values before the selection of the best estimation method for generating the output surface (ESRI 2008).

[1] Kriging is based on the assumption that the parameter being interpolated can be treated as a regionalized variable. A regionalized variable is intermediate between a truly random variable and a completely deterministic variable in that it varies in a continuous manner from one location to the next. Therefore, points that are near to one other have a certain degree of spatial correlation, while points that are widely separated are statistically independent (DAVIS, 1986). Kriging is a set of linear regression routines that minimizes estimation variance from a predefined covariance model.

3.5 Types of Building Uses and Behavior Analysis

In order to investigate the variables related to the degree of sense of place, types of building uses on the ground floor and behaviors at each locale were surveyed. The following ten types of building use were identified: cultural, cultural business, cultural assets, gallery, traditional food, common food, commercial business, public, residential, and other related use. Behavior types were observed and recorded at the 31 survey spots.[2] Types of behaviors were derived from the preliminary study, including the following: exercising and playing, relaxing and walking, meeting, performing and watching (festivals, events), shopping, dining, and viewing and appreciation (scenery, attraction).

4 Results and Discussion

4.1 Mapping the Sense of Place in Insa-dong

As shown in Table A-1 (See Appendix), locale-13 (mean = 6.90, SD. = 1.77) produced the highest level of sense of place in Insa-dong. The values on Insa-dong-gil, a major and central street in Insa-dong, are generally higher than the values in other locations.

The values of the sense of place were used to map the sense of place distribution with the Kriging interpolation mapping method. Consequently, eight zones were identified. The distribution pattern shows a peak near locale-13 and a sharp downward slope toward the outside (see Figures 3 and 4). The value at locale-30 is higher despite the distance from the Insa-dong-gil. One of the reasons for the high score seems to be the character of the landmark building (Unheungung) located in sight of the study location. Unheungung is the small palace of the Joseon Dynasty, constructed using traditional Korean architecture. Thus, people seem to experience a sense of tradition in this spot similar to that associated with the Insa-dong-gil.

4.2 Analysis of Types of Building Uses and Behaviors

4.2.1 Types of Building Uses

Types of building uses and the map of the sense of place were overlaid for the analysis of relationship in Insa-dong (see Appendix Table A-2, and Figure 5, 6).

Traditional shops (folk arts, pottery, paintings, costumes, etc.) are the most common building uses in areas that received a higher sense of place score. Although galleries and restaurants are also found in the areas, traditional shops seem to be the major contributors to the sense of place or characteristics of the Insa-dong area (see Figure 7, 8).

Building type can be considered one of the major variables determining the degree of sense of place in Insa-dong area (see Figure 9).

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[2] In a preliminary survey, 54 residents in Seoul were asked to answer the open-ended questionnaire in order to determine the activities performed in meaningful places.

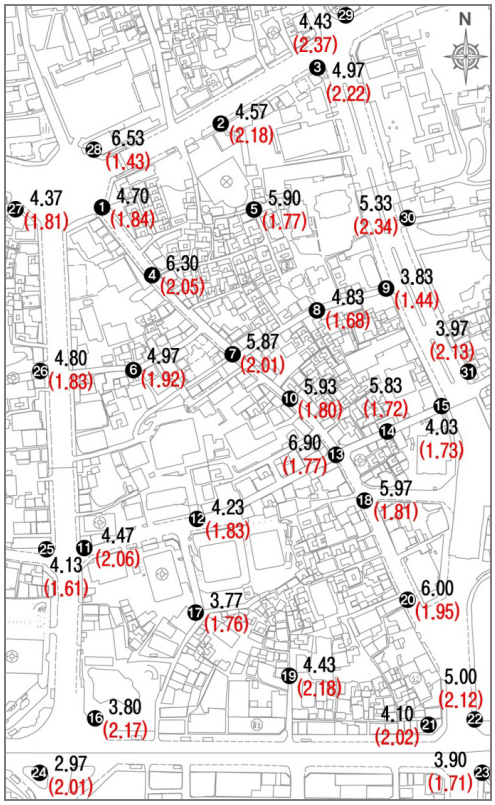

Fig. 3: Mean (SD.) of the sense of place

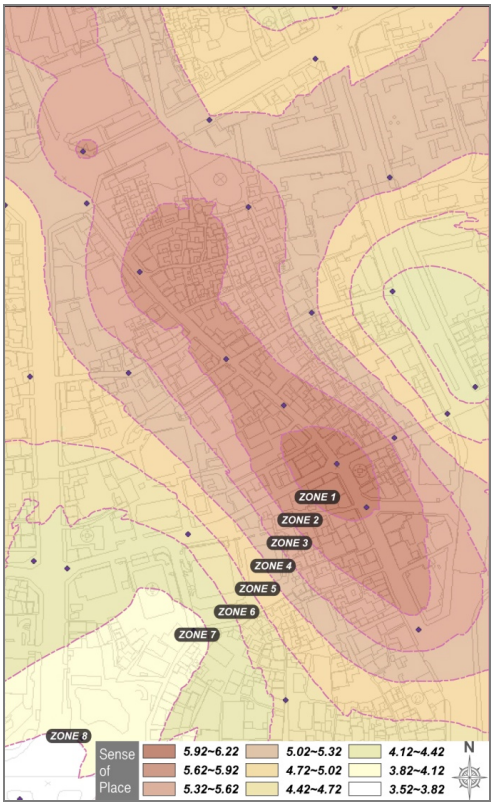

Fig. 4: Map of the sense of place

Fig. 5: Distributing of building used in Insa-dong

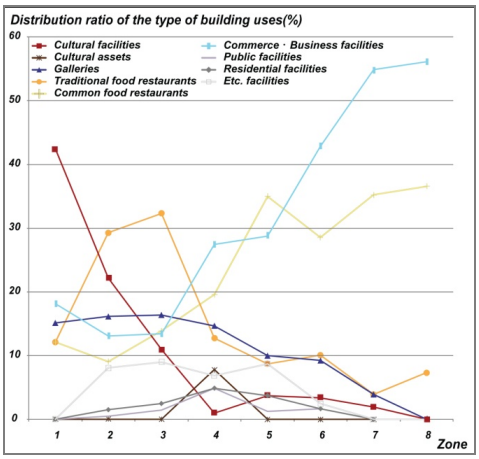

Fig. 6: Distributing ratio of the type of building uses in Insa-dong

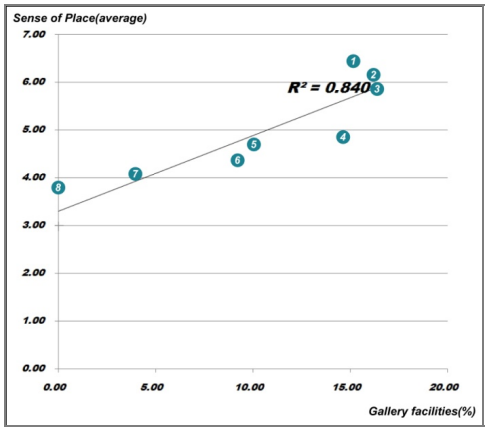

Fig. 7: Scatter plot analysis with trend line (Cultural facilities of place)

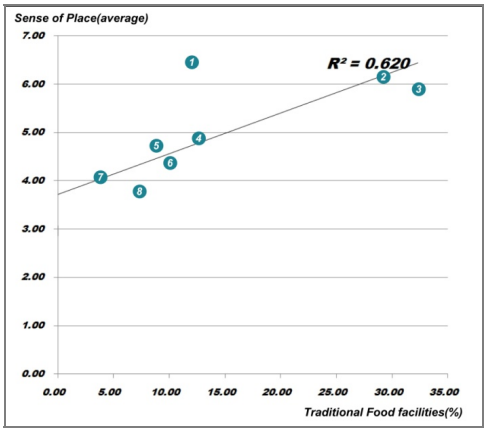

Fig. 8: Scatter plot analysis with trend line (Gallery facilities-sense of place)

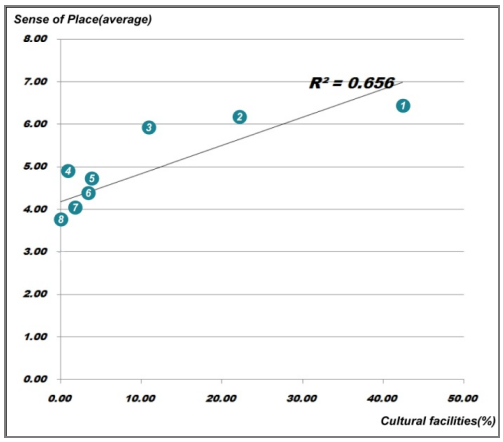

Fig. 9:
Scatter plot analysis with trend line
(Traditional facilities-sense of place)

4.2.2 Types of Behaviors

Diverse types of behaviors were generally observed at locations with higher scores of sense of place, and fewer types of behaviors were found at locations with lower scores (See Appendix Table A-3).

At locales 1, 4, 7, 10, 13, and 18, which are located on Insa-dong-gil, almost all types of behaviors were observed. Fewer types of behaviors were observed in other spots with lower strength. Therefore, diversity of human activities in the street can also be considered a major positive variable in creating the sense of place in Insa-dong.

5 Summary and Conclusions

This study identified the levels of the sense of place in various locations in Insa-dong and investigated the variables that contribute to those levels by mapping the scores of the sense of place and the building uses. Mapping the sense of place and types of building uses proved to be useful tools for interpreting the variables of the level of the sense of place.

The results of this study can be summarized as follows:

1) The levels of sense of place are generally higher along the Insa-dong-gil, which is a major and central street in the Insa-dong area. Locales farther from the Insa-dong-gil have lower levels of sense of place.
2) Traditional shops are the most frequent type of building uses in the areas that received higher scores of sense of place. The type of building use is one of the major variables in determining the degree of sense of place in the Insa-dong area.
3) Diverse types of behaviors are generally observed at locales with higher scores of sense of place, and fewer types of behaviors are found at locales with lower scores. Therefore, diversity of human activities is one of the major variables in determining the sense of place in the Insa-dong area.

For future design improvements to the Insa-dong area, one of the most famous tourist sites in Seoul, the traditional shops (crafts, pottery, brush painting, costume, etc.) need to be extended, and diverse activity programs should be introduced to the areas with low scores of

sense of place. Accumulation of this type of evidence will eventually lead to better understanding of sense of place and will contribute to the provision of a meaningful and livable human environment.

Acknowledgements

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Appendix

Table A-1: Mean and standard deviation (SD.) of the sense of place at each locale

Locale	Mean	SD.	Locale	Mean	SD.	Locale	Mean	SD.
1	4.70	1.84	12	4.23	1.83	23	3.90	1.71
2	4.57	2.18	13	6.90	1.77	24	2.97	2.01
3	4.97	2.22	14	5.83	1.72	25	4.13	1.61
4	6.30	2.05	15	4.03	1.73	26	4.80	1.83
5	5.90	1.77	16	3.80	2.17	27	4.37	1.81
6	4.97	1.92	17	3.77	1.76	28	6.53	1.43
7	5.87	2.01	18	5.97	1.81	29	4.43	2.37
8	4.83	1.68	19	4.43	2.18	30	5.33	2.34
9	3.83	1.44	20	6.00	1.95	31	3.97	2.13
10	5.93	1.80	21	4.10	*2.02*			
11	4.47	2.06	22	5.00	2.12	Average	4.94	1.91

Table A-2: Number and percentage of building uses in each zone (%)

Zone	Cultural	Cultural assets	Gallery	Traditional Food	Common Food	Commerce Business	Public	Residential	Etc.
1	14 (42.42)	–	5 (15.15)	4 (12.12)	4 (12.12)	6 (18.18)	–	–	–
2	44 (22.22)	–	32 (16.16)	58 (29.29)	18 (9.09)	26 (13.13)	1 (0.51)	3 (1.52)	16 (8.08)
3	22 (10.95)	–	33 (16.42)	65 (32.34)	28 (13.93)	27 (13.43)	3 (1.50)	5 (2.49)	18 (8.96)
4	1 (0.98)	8 (7.84)	15 (14.71)	13 (12.75)	20 (19.61)	28 (27.45)	5 (4.90)	5 (4.90)	7 (6.86)
5	3 (3.75)	–	8 (10.00)	7 (8.75)	28 (35.00)	23 (28.75)	1 (1.25)	3 (3.75)	7 (8.75)

Table A-2 (continued)

Zone	Cultural	Cultural assets	Gallery	Traditional Food	Common Food	Commerce Business	Public	Residential	Etc.
6	4 (3.36)	–	11 (9.24)	12 (10.08)	34 (28.57)	51 (42.86)	2 (1.68)	2 (1.68)	3 (2.52)
7	1 (1.96)	–	2 (3.92)	2 (3.92)	18 (35.29)	28 (54.90)	–	–	–
8	–	–	–	3 (7.32)	15 (36.59)	23 (56.10)	–	–	–

Table A-3: Observed behavior types at the 31 surveyed locales

Locale	Type of Behavior								Sense of Place (Average)
	1	2	3	4	5	6	7	Total	
1	○	○	○	○	○	○	○	7	4.70
2	–	–	○	–	–	–	–	1	4.57
3	–	–	–	–	–	–	–	0	4.97
4	○	○	○	○	○	○	○	7	6.30
5	–	○	–	–	–	○	○	3	5.90
6	–	–	○	○	–	–	○	3	4.97
7	○	○	○	○	○	○	○	7	5.87
8	–	–	–	–	○	–	○	2	4.83
9	–	–	–	–	–	○	–	1	3.83
10	○	○	○	○	○	○	○	7	5.93
11	–	–	○	○	–	○	–	3	4.47
12	–	–	○	–	–	○	–	2	4.23
13	○	○	○	○	○	○	○	7	6.90

※ Type of Behaviors ① Exercising and playing ② Relaxing and walking ③ Meeting
④ Performing and watching ⑤ Shopping ⑥ Dinning ⑦ Viewing and appreciation

Table A-3 (continued)

Locale	Type of Behavior								Sense of Place (Average)
	1	2	3	4	5	6	7	Total	
14	–	○	–	○	○	○	○	5	5.83
15	–	–	–	–	–	○	–	1	4.03
16	–	○	–	–	–	–	–	1	3.80
17	–	–	–	–	–	○	–	1	3.77
18	○	○	○	○	○	○	○	7	5.97
19	–	–	–	–	–	○	–	1	4.43
20	○	○	○	○	○	○	○	7	6.00
21	–	–	○	–	○	○	–	3	4.10
22	–	–	○	–	–	–	○	2	5.00
23	–	–	○	–	–	○	–	2	3.90
24	–	–	–	–	–	–	–	0	2.97
25	–	–	–	–	–	–	–	0	4.13
26	–	○	○	○	○	–	○	5	4.80
27	–	–	–	–	–	–	○	1	4.37
28	–	–	○	–	○	○	–	3	6.53
29	–	–	○	–	–	–	–	1	4.43
30	–	–	–	–	–	–	–	0	5.33
31	–	–	–	–	–	–	–	0	3.97

※ Type of Behaviors ① Exercising and playing ② Relaxing and walking ③ Meeting ④ Performing and watching ⑤ Shopping ⑥ Dinning ⑦ Viewing and appreciation

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