

1. Background and purpose

The purpose of this study is to reveal the environmental awareness of street performers, focusing especially on visual information, based on measurement and analysis using an eye-tracking device, and to verify how experience improves the ability to recognize the environment through intergenerational comparisons. Street performances are characterized by their ability to flexibly change their performances in response to changes in the street environment. In this research, after analyzing the eye-gaze measurement, I will discuss the results in relation to the participant observation and interviews.

2. Fieldwork

2.1 Research object

Four members of "Chindon-Tsushinsha", a *chidon-ya* based in Osaka city, were the subjects of this research. A *chidon-ya* is an advertising agency that advertises on the streets, wearing flashy clothes and using gongs, drums, wind instruments, and so on. In this research, I gained cooperation with *Aoki Pharmacy* in Minato Ward, Osaka City, and the advertising of the shop was the object.

The performance that was the subject differed from a stage performance in that the main purpose of the performance was to advertise and the audience did not expect the performer to come to the stage.

2.2 Subject and date of the research

Four members were selected as subjects according to their experience and age. The list is as follows;

Subjects (sex)	Age (year)	Career (year)	Date of the research
①Kojiro Hayashi (Leader), male	66	42	8 November 2022
②U: male	47	22	8 January 2023
③F: female	32	16	16 December 2022
④J: female	31	4	6 December 2022
			9 March 2023

Table 1: Subjects and their age, career, and the date of the research



Figure 1: Hayashi kojiro wearing an eye tracker

2.3 Course, time, and eye-tracking device

The measurement course started from Aoki pharmacy and proceeded eastward through a residential area and a shopping district, then north to the main street, and then west. The start time was set at 10:00 a.m. The course was about 1 kilometer long and took about 35-45 minutes (normally it takes about 15 minutes to walk). The eye movements during the advertising were recorded using “*Tobii Pro Grass 3*” by Tobii Technology, Inc. as the eye movement measurement device.



Figure 2: Course of the measurement (Google map)

3. Results

3.1 Characteristics common to all subjects

- (1) Not only the audience in the immediate vicinity but also the upper floors of residences and apartments in the distance were watching. Interviews revealed that the performers were imagining that residents indoors and on the upper floors of their apartments were watching them as they performed.
- (2) They tried not to burden the audience by not staring at them. The reasons for not staring were cited by the interviewees: "the other person will be put off", and "when advertising in a crowded place, we can choose only those who are interested in us as the target of the advertisement".
- (3) By walking backward, they were getting information from behind. In the interview, they said that "daring to show your back is not put off the audience" and "we can show the signboard wearing the back".

3.2 Differences according to the career

- (1) There was a difference in the amount of time spent looking at a single object (speed of discernment). It was found that the time to look at one object, such as a building or an audience, became shorter as the length of the career increased.
- (2) There was a difference in the extent of viewing. The longer the career, they tried to obtain information on the upper floors of buildings and buildings in the distance and so on.
- (3) The longer the career, the more frequently they used omnidirectional visual recognition using backward walking.



Figure 3: Output of the eye-tracker
(Watching at the upper floors)

4. Consideration

- (1) The results showed that the older the subjects were, the higher their ability to recognize the environment improved with their career.
- (2) The reason why the subjects other than the chairperson also tried to recognize the environment in the same way as the leader was thought to be due to explicit guidance by the leader. In the fieldwork in 2023, it began to see situations in which the chairperson provided explicit guidance in their advertising. One of the explicit instructional opportunities off-sites is "Hayashi Juku" (a private lesson by the leader), where he teaches how to walk, how to play, how to use one's body without getting tired, and so on.