

SOUNDWALKING THROUGH A HONG KONG WET MARKET

Qianxi Jiang¹, Haowen You¹, PerMagnus Lindborg¹

¹*School of Creative Media, City University of Hong Kong, Hong Kong SAR, China*

This paper is a revised version of the authors' submitted manuscript that was peer-reviewed by at least two anonymous reviewers.

Abstract

Wet markets are integral components of everyday life and culture in Hong Kong. Documenting and understanding the sensory environment of wet markets can better support their protection and management as intangible cultural heritage. Using a soundwalk method, this study provides a baseline assessment of the soundscape of Shek Kip Mei Market in Hong Kong, examining and comparing its environmental quality and people's experiences. Two soundwalk sessions were conducted at separate time points across eight stall locations in this market, with acoustic measurements taken and on-site questionnaire ratings ($n = 96$) of soundscape quality collected from six participants assigned to the sound-related role. The results suggested that (1) human voices and fan noise were the dominant sound source types in Shek Kip Mei Market; (2) human voices were positively associated with pleasantness and eventfulness; and (3) pleasantness and eventfulness ratings were similar across the two walks, while agreement for individual sound-source ratings was generally lower. We discuss Shek Kip Mei Market's soundscape characteristics and outline future research on multisensory environmental perception in Hong Kong, including soundscape and smellscape. The findings provide baseline insights into the research and practical management of Hong Kong wet markets.

Keywords: *soundscape, soundwalk, environmental perception, wet market, Hong Kong*

1. Introduction

A wet market refers to a public market located on a street or within a multi-story building, where "wet" means the regular hosing down of the floors with water [1, 2]. In Hong Kong, for hygiene reasons, many wet markets are now located indoors with air conditioning, selling a variety of products such as fresh vegetables, meat, dry products, and other sundries [3]. Despite

rapid urbanization and the increasing importance of supermarkets, many Hong Kong residents still maintain the habit of shopping at wet markets [1]. Wet markets are not only places for food and groceries, but also a vital part of Hong Kong's cultural identity [1, 4]. As a multisensory and socio-cultural context, the sensory environment we perceive in wet markets is an intangible cultural heritage worthy of protection, documentation, and research, especially the acoustic and olfactory dimensions, namely soundscape and smellscape [3, 4]. Some studies have used wet markets in Hong Kong and other Asian regions as case sites to investigate soundscapes and smellscapes, such as Lou's [3] ethnographic research in Tai Po, Hong Kong, and Lindborg and Liew's [5] sensewalk study in Singapore. In our previous study of Shek Kip Mei Market, Hong Kong, we presented participants online with previously recorded market clips with matched and mismatched audio-video pairs to examine how multisensory interactions influence environmental perception [4]. Results showed that participants could identify the context to evaluate environmental quality and imagine smells through multisensory interactions even with audio-visual mismatches [4]. However, the sensory experience presented previously was not on-site but digitally mediated, thus requiring a more detailed on-site examination. Therefore, we continued with a broader field study of Shek Kip Mei Market to further explore the characteristics of the sensory environment perceived in the wet market.

This paper focuses on the soundscape ratings of Shek Kip Mei Market to address the following research questions: (1) to examine the environmental quality of the wet market's soundscape, and (2) to compare the soundscape ratings across repeated sensory experiences.

2. Methods

2.1 Soundwalk

The term "soundwalk" was devised by Schafer [6]. According to ISO [7], it is a method in which people walk through an area while focusing on listening to the acoustic environment. People's feelings and responses during the walk are obtained and measured by data collected on-site, such as through questionnaires and

Corresponding author: qianxi.jiang@my.cityu.edu.hk

Copyright: ©2026 Qianxi Jiang et al. This is an open-access article distributed under the terms of the Creative Commons Attribution 3.0 Unported License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

interviews [5, 7, 8]. Daumal I Domènech et al. [9] suggested a new soundwalk method involving three participants in different roles, blind person, guide, and notary, which enabled them to more actively notice subtle sounds during the walk.

Our study referenced the method of Daumal I Domènech et al. [9]. However, considering the narrow passageways and high crowd flow at our case study site, we chose to use verbal prompts to emphasize active listening rather than blindfolding participants.

2.2 Site

Shek Kip Mei (SKM) Market is located in Sham Shui Po, an old district with a large working-class population in Kowloon [3] (see Figure 1). It is in a residential area, where everyday activities are more prominent compared to tourism-oriented areas such as Mong Kok. In addition, being surrounded by four streets, its indoor soundscape may differ from that of other street markets in Sham Shui Po. This makes SKM Market a useful case for understanding the soundscape of ordinary Hong Kong wet markets in a local community context. SKM Market has a variety of stalls and products categorized into different sales areas, such as the vegetable area, meat area, and fish area. Some types of stalls are fewer in number but relatively concentrated, such as dry food stalls. Based on our previous research on SKM Market [4], the present study selected eight stall locations: clothing stall, dry food stall, fish stall, flower stall, fruit stall, incense and joss paper stall, meat stall, and vegetable stall. Figure 2 shows the distribution of these stall locations.



Figure 1. Location of Shek Kip Mei.

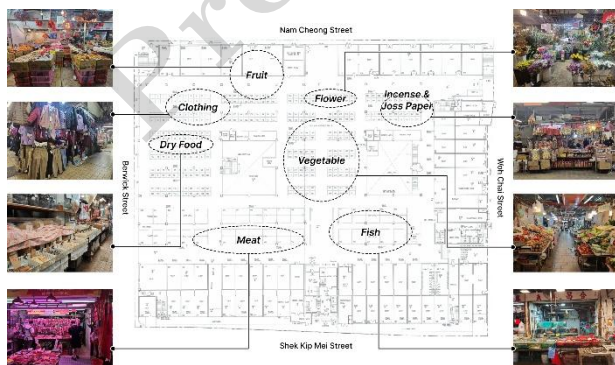


Figure 2. Distribution of the selected eight stall locations at Shek Kip Mei Market.

2.3 Participants

Given that focusing on soundscape rating, this paper involved six participants assigned as “Sound Person.” These included three females and three males, aged 18 to 30 years, with a median age of 25. Five were born in Hong Kong and one in mainland China. Four had lived in Hong Kong for a long time, one for 3-5 years, and one for less than 6 months. Three spoke Cantonese during soundwalks and three spoke Mandarin. All participants reported having no hearing or vision impairments, no rhinitis, and no recent colds. The compensation for participation was a HK\$100 voucher.

2.4 Procedure

For the baseline documentation and comparison, two soundwalk sessions were held: one in the first week of February 2026 and one in the second and third weeks of March. Each session was divided into six 60-minute time slots, conducted between 9:00 am and 12:40 pm on Mondays and Tuesdays. Each time slot involved one participant. All participants completed two sessions. Before the soundwalk began, participants were verbally instructed to perceive the wet market environment using only their hearing, such as “You are the Sound Person.” Each participant followed a designed route through the eight stall locations, in which the location orders were counterbalanced by a Latin square design. Participants were asked to walk for two minutes at each location and then complete a series of tasks at a stopping point near the location (see Figure 3). This paper is only concerned with the on-site evaluation of the soundscape quality at each stall location through a questionnaire. It was developed with reference to ISO/TS 12913-2:2018 [7] using seven-point Likert scales to assess the following aspects (available in both English and Chinese [10]):

- Pleasantness-Eventfulness including eight attributes (-3 = “Strongly disagree” to 3 = “Strongly agree”; 0 = “Neither agree nor disagree”);
- Types of sound sources including Traffic, Humans, Nature, Fan, and Other sound (0 = “None at all” to 6 = “Dominates completely”; 3 = “Moderately”).

The data collection method in the study was approved by the Research Ethics Committee of City University of Hong Kong [Reference No.: 27-2022-60-E].



Figure 3. Photo of participant walking through the meat stall location.

3. Results

As six participants completed two soundwalks each, rating eight stall locations per walk, a total of 96 ratings regarding soundscape quality were collected through a seven-point Likert scale questionnaire. This paper's analysis aims to outline and understand SKM Market's soundscape. Table 1 summarizes the mean and median values of the overall soundscape, and Table 2 details the mean values across the eight stall locations. See detailed analysis in the below sections.

Table 1. Overview of mean and median ratings of Shek Kip Mei Market's soundscape.

	Mean	Median	Unit
LA_{eq}	64.7	62.3	dBA (1 min)
LC_{eq}	75.0	74.7	dB (1 min)
Pleasantness (P)	0.10	0.10	-1...+1
Eventfulness (E)	-0.07	-0.01	-1...+1
Traffic	1.23	1.00	scale 0...6
Humans	2.90	3.00	scale 0...6
Nature	1.24	1.00	scale 0...6
Fan	2.49	2.00	scale 0...6
Other	2.23	2.00	scale 0...6

Table 2. Overview of mean ratings of eight stall locations' soundscapes (the units are the same as in Table 1).

	LA_{eq}	LC_{eq}	P	E	Dominant source(s)
Clothing	55.5	66.8	0.13	-0.32	Humans (2.50)
Dry food	62.3	74.5	0.10	-0.20	Humans (2.83) Fan (2.83)
Fish	70.0	80.1	-0.09	0.36	Fan (3.75)
Flower	63.2	75.2	0.28	-0.07	Humans (3.42)
Fruit	57.2	65.3	0.17	-0.34	Humans (2.75)
Incense & joss paper	60.1	73.3	0.13	-0.61	Fan (2.83)
Meat	66.7	77.5	-0.12	0.49	Humans (4.00)
Vegetable	70.6	77.5	0.22	0.10	Humans (3.50)

3.1 Acoustic measurements

During the participants' soundwalks, SKM Market's sound pressure level (equivalent A-weighted and C-weighted SPL) was measured using a Type 2 sound pressure meter. All meters were calibrated. The results showed that the average LA_{eq} (1 minute) was 64.7 dB, ranging from 52.1 to 77.7 dB; whereas LC_{eq} (1 minute) showed a mean of 75 dB, ranging from 63 to 83.9 dB (see Figure 4). Based on Hong Kong Environmental Protection Department's [12] classification of areas with noise sensitive receivers, SKM Market is more likely to be defined as an urban area with the acceptable daytime noise level of 65 dBA. The average LA_{eq} measurement in this study was slightly below this limit and one-third of the data exceeded.

In addition, Table 2 illustrates that LC_{eq} was higher than LA_{eq} across all stall locations, but with varying differences. Vegetable and fruit stalls, located inside the wet market and distant from the streets, exhibited $LC_{eq}-LA_{eq}$ value below 9 dB, which was aligned with

human-sound-dominated environments [13]. In contrast, LC_{eq} measures at other locations were much higher than LA_{eq} . They either directly faced the street entrance or had fans and air conditioning nearby. Especially, the incense and joss paper stall had the highest $LC_{eq}-LA_{eq}$ value of 13.1 dB. Although its LA_{eq} was not high, low frequencies still dominated due to its proximity to both the street and machinery.

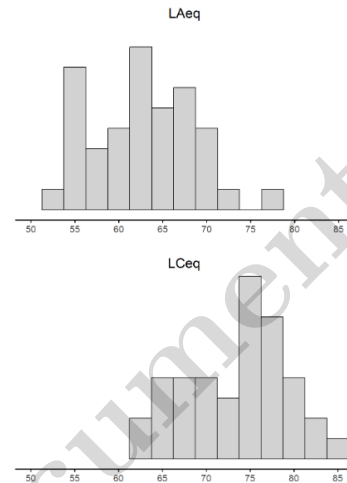


Figure 4. Histograms of measures of LA_{eq} and LC_{eq} (1 min) at eight stall locations.

3.2 Soundscape ratings

Following the ISO [11] analysis method, pleasantness and eventfulness were derived from ratings on eight unipolar scales (pleasant, chaotic, vibrant, uneventful, calm, annoying, eventful, and monotonous) in the questionnaire and then changed to a range of ± 1 based on the provided formula (see Table 1). SKM Market as a whole illustrated moderate levels of pleasantness and eventfulness. In addition, there were some differences between different stalls. Table 2 provides specific mean ratings and Figure 5 shows their distribution across pleasantness and eventfulness. The vegetable stall was in the first quadrant with both high pleasantness and eventfulness. Clothing, dry food, flower, fruit, and incense and joss paper stalls in the fourth quadrant showed relatively high pleasantness and low eventfulness. In contrast, meat and fish stalls in the second quadrant had lower pleasantness but higher eventfulness. No stalls showed both low values.

Sound sources were categorized into five types: traffic, human voices, nature, fan, and other [13]. Combined with Tables 1 and 2, Figure 6 compares rating differences across stall locations for each sound source type. Overall, sounds from humans and fan received higher ratings at most stalls, indicating that these sounds are most prominent in the wet market environment. In contrast, the ratings of nature and traffic were generally lower, suggesting their limited presence within the wet market. However, traffic ratings were notably higher at stall locations near the open street-facing entrance, such as dry food and flower stalls. In addition, text annotations from some participants regarding the type of other sounds were

diverse and distinctive, often related to events occurring at the stall locations. For instance, the meat stall had noticeable sounds of meat being chopped on cutting boards, while the fish stall exhibited sounds of fish being scaled. Vegetable, fruit, and flower stalls were characterized by plastic packaging sounds.

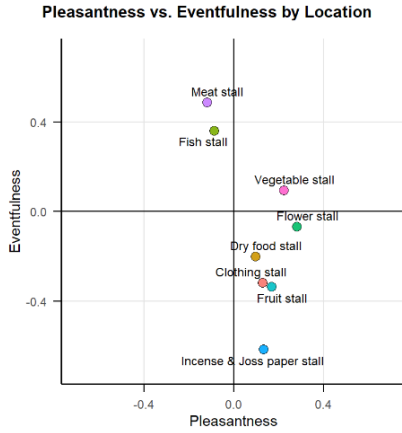


Figure 5. Four-quadrant plot of Pleasantness (x-axis) vs. Eventfulness (y-axis) by location.

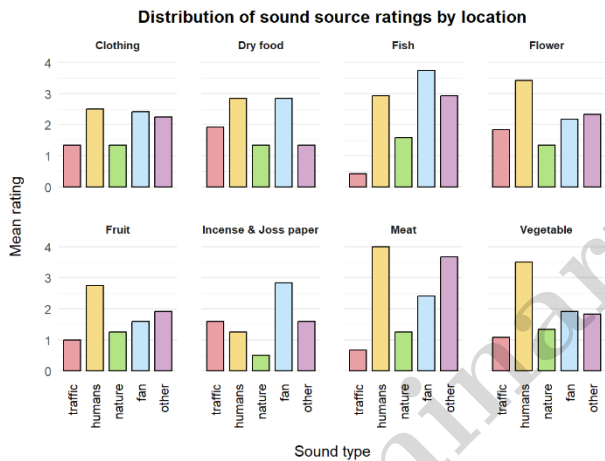


Figure 6. Faceted bar chart of distribution of sound source ratings by location.

We then examined the relationship between the dimensions of pleasantness and eventfulness and five sound source types using Spearman's rank correlation analysis. The results showed that the perception degree of human voices was significantly positively correlated with both overall pleasantness ($\rho = 0.21$, $p = 0.04^*$) and eventfulness ($\rho = 0.54$, $p < 0.001^{***}$), suggesting that stronger perception of human voices may be associated with higher pleasantness and eventfulness in the wet market soundscape. In addition, there were also significantly positive relationships between eventfulness with natural ($\rho = 0.22$, $p = 0.03^*$) and other sounds ($\rho = 0.27$, $p = 0.008^{**}$). Natural sounds within SKM Market primarily consisted of water flows and wind which interacted with people or items at the stalls, while other sounds were associated with activities occurring. All of these factors may contribute to the increase of eventfulness.

Overall, the soundscape of SKM Market was mainly characterized by human voices and fan noise with moderate levels of pleasantness and eventfulness, both influenced by the perception of human voices.

3.3 Comparison of two soundwalk sessions

Another research question was to explore whether there were differences in perceived soundscapes between two soundwalk sessions. Therefore, paired t-tests and intraclass correlation coefficient (ICC; two-way random, absolute agreement, single measures) analyses were conducted for two affective dimensions (pleasantness and eventfulness) and five sound source types (traffic, human voices, nature, fan, and other) (see Table 3).

First, for pleasantness and eventfulness, there were no significant differences between the two sessions, and their reliability was moderate (all $p > 0.05$, $ICC(2,1) = 0.58$ and 0.64 respectively). Second, for sound source types, the average sound ratings of traffic, human voices, fan, and other did not change significantly (all $p > 0.05$). However, their low ICCs indicated limited agreement in individual participants' ratings across sessions. Only the sound source of nature showed a significant change ($t(47) = 3.00$, $p = 0.0043^{**}$) with moderate reliability ($ICC(2,1) = 0.52$). It suggested that participants may perceive different natural sounds, but this change was not highly stable across sessions.

This baseline comparison indicated relatively similar overall soundscape evaluations, while individual responses to specific sound source types could have differences between sessions. This may reflect the dynamic feature of everyday wet market environments, where people's perceived soundscape can fluctuate depending on different locations, ongoing activities, stall owner's operations, and surrounding conditions.

Table 3: Paired t-test and ICC results of participants' soundscape ratings across two soundwalk sessions.

	Paired t-test		ICC	
	$t(df)$	p	$ICC(2,1)$	95% CI
Pleasantness	-0.40(47)	0.69	0.58	0.35-0.74
Eventfulness	0.50(47)	0.62	0.64	0.44-0.78
Traffic	-0.41(47)	0.68	0.17	-0.13-0.43
Humans	0.36(47)	0.72	0.47	0.22-0.67
Nature	3.00(47)	0.0043**	0.52	0.26-0.70
Fan	0.07(47)	0.95	0.26	-0.02-0.51
Other	0.28(47)	0.78	0.39	0.12-0.60

4. Discussion

4.1 Overview of Shek Kip Mei Market's soundscape

SKM Market is a typical Hong Kong wet market within an air-conditioned building, with most stalls grouped by type [1, 3]. Although located in a residential area, SKM Market is not low-rise or low-density; therefore, it is still regarded as the urban area [12]. Hong Kong Environmental Protection Department [12] sets the acceptable daytime noise standard for urban areas at 65 dBA. Our LA_{eq} measurements showed that the average value approached this limit and one-third of

the data exceeded it. This indicates that SKM Market's noise level was not generally within the acceptable range, reflecting a relatively noisy operating environment, which is consistent with the acoustic conditions of Hong Kong, particularly Kowloon, where the market is situated [13]. Moreover, the L_{Aeq} values of all stall locations in the study were lower than their L_{Ceq} values, suggesting a generally low-frequency environment in SKM Market. This may be attributed to the air conditioners and fans commonly found in Hong Kong's indoor wet markets [8].

The affective quality calculation of soundscape in this study based on ISO [11] was more precise and rigorous than in our previous research [4]. Despite methodological and stimulus differences, both studies consistently found that flower and vegetable stalls exhibited the highest pleasantness ratings. Their common characteristics in this study were high human voice presence and relatively minimal low-frequency content, which were aligned with the correlation analysis results. Notably, the vegetable stall also had the second-highest mean L_{Aeq} value, suggesting that a high physical sound level may not necessarily equate to a poor perceptual experience in the context of wet markets. A case study of Hong Kong communal open spaces demonstrated that the perception of sound sources also influences acoustic environment quality assessment in addition to physical sound characteristics [14]. However, due to contextual differences, that study of communal open spaces found that human voices had a negative impact [14], whereas our results in the wet market site indicated a positive effect.

The comparison between two soundwalk sessions revealed that ratings of pleasantness and eventfulness were more consistent than participants' individual ratings of sound source types. This may indicate that while participants' overall impressions of the market acoustic environment were relatively similar, their perceptions of specific sound sources varied between the two walks. Jo and Jeon's [8] study has shown individuals' varying levels of attention to different ISO-defined sound source types. Moreover, in the context of wet markets, short-term human activities and changes in surrounding conditions are common, for example, fluctuating crowd flows and traffic conditions. Combined with the limited time spent walking and stopping at each location, participants may not be able to perceive and experience the soundscape for a long period. On the other hand, pleasantness and eventfulness are two affective attributes of soundscape, derived from a composite calculation of eight evaluative scales [11]. Therefore, participants may have similar impressions of what the stall locations sounded like, although they identified different sounds. Future research will combine qualitative data from the soundwalks to examine how specific sound sources influence participants' affective responses.

4.2 Soundscape as part of intangible cultural heritage and urban design

Our previous research identified wet markets as a vital component of Hong Kong's cultural heritage [2, 4].

Unlike commercial centers such as Mong Kok which have become tourist destinations, SKM Market primarily provides retail services to local residents. Its soundscape is part of SKM's local culture, reflecting the daily social interactions, commercial activities, and routines of nearby residents [4]. Building on our previous online survey of SKM Market [4], this study used on-site soundwalks to capture participants' soundscape perceptions, thereby providing a more authentic baseline assessment of the wet market.

In addition, as another common and important retail site, supermarkets in Hong Kong operate and market differently from wet markets [1, 15]. Regarding the acoustic environment, supermarkets typically play designed background music and advertising broadcasts to encourage consumption [15, 16]. Multisensory design is also widely applied in the design of these store environments [16]. In contrast, during the two soundwalk sessions in SKM Market, no specifically designed acoustic content was documented. The sounds from air-conditioning and fans are centrally managed and controlled, but their purpose is to ensure the wet market's operation, not to design the shopping atmosphere. The only acoustic content in SKM Market similar to that in supermarkets was the radio and TV programs played by some stall owners for their own entertainment, as noted in participants' text annotations of Other sound source in questionnaires.

These baseline insights help managers and designers better understand the wet market's unique soundscape characteristics. Improving the acoustic environment of wet markets does not simply mean reducing noise levels; it may also require considering specific sound sources and overall affective experiences in such a context. In addition, multisensory environmental design is also a growing trend, and the integration of audio, visual, and smell elements can help enhance the overall coherence of the wet market's sensory atmosphere [16].

4.3 Limitation and Future work

This study has some limitations. First, although 96 ratings were collected, these were based on only six participants. Therefore, the findings should be interpreted as preliminary and have the limited generalizability. Second, this study was conducted at a single wet market, lacking cross-market and regional comparisons, such as with other wet markets in Hong Kong. Third, the study included only two soundwalk sessions within a relatively short period, which does not provide a full understanding of longer-term temporal patterns of soundscape perception.

This paper is part of a broader research project on multisensory environmental perception in Hong Kong focusing on both soundscape and smellscape. Beyond the six participants involved in this paper, the multisensory research also includes other participants assigned to the smell-related role and tasks. Specifically, we conducted smellwalks concurrently with soundwalks and used mixed methods. On the one hand, in addition to soundscape rating, we also applied the think-aloud protocol to obtain participants' verbal reports. On the other hand, we simultaneously collected smellscape



data. Future work will explore comprehensive data modalities, smellscape analyses, and multisensory interactions to better understand participants' perceptions and interpretations. It will also consider including additional Hong Kong wet markets while further refining the research methodology.

5. Conclusion

This study provides a baseline documentation of SKM Market's soundscape to better understand how people acoustically perceive, interpret, and evaluate the wet market space. We organized two soundwalk sessions with six participants to explore the soundscape characteristics of SKM Market and compared the changes across the repeated walks. The findings showed that (1) human voices and fan noises dominated SKM Market's soundscape; (2) the perception of human voices had positive associations with pleasantness and eventfulness; and (3) although individual responses to sound source types differed across the two sessions, the ratings of pleasantness and eventfulness were broadly similar. Despite some limitations in terms of sample, case site, and session design, it contributes to a preliminary understanding of everyday auditory perceptions and experiences in Hong Kong wet markets. Future research will continue to explore the multisensory environmental perception of Hong Kong wet markets including both soundscape and smellscape, to support the preservation and management of this urban cultural heritage. This may also be applicable to other traditional everyday settings in Hong Kong, such as street markets and cooked food stalls.

6. Acknowledgments

The work presented in this paper was partially supported by a grant from the Research Grants Council of the Hong Kong Special Administrative Region, China to Per Magnus Lindborg (General Research Fund #11605622 – CityU project #9043455).

References

- [1] S. Ho, "Evolution versus tradition in marketing systems: The Hong Kong food-retailing experience," *Journal of Public Policy & Marketing*, vol. 24, no. 1, pp. 90–99, 2005.
- [2] P. Lindborg *et al.*, "Multimodal Hong Kong: Documenting soundscape and smellscape at places of intangible cultural heritage," in *Proc. of the 53rd International Congress and Exposition on Noise Control Engineering*, (Nantes, France), pp. 713–724, 2024.
- [3] J. J. Lou, "Spaces of consumption and senses of place: a geosemiotic analysis of three markets in Hong Kong," *Social Semiotics*, vol. 27, no. 4, pp. 513–531, 2017.
- [4] Q. X. Jiang, P. Lindborg, L. S. Wei, J. L. Xiao, and R. Yue, "Multimodal Hong Kong: A multisensory study of environmental perception of places through sight, sound, and smell," in *Proc. of the 53rd International Congress and Exposition on Noise Control Engineering*, (Nantes, France), pp. 1222–1233, 2024.
- [5] P. Lindborg and K. Liew, "Real and imagined smellscape," *Front. Psychol.*, vol. 12, pp. 1–19, 2021.
- [6] R. M. Schafer, *The Tuning of the World*. New York, NY: Alfred A. Knopf, 1977.
- [7] ISO, *ISO/TS 12913-2:2018 Acoustics—Soundscape—Part 2: Data collection and reporting requirements*. ISO: Geneva, Switzerland, 2018.
- [8] H. I. Jo and J. Y. Jeon, "Urban soundscape categorization based on individual recognition, perception, and assessment of sound environments," *Landscape and Urban Planning*, vol. 216, pp. 1–17, 2021.
- [9] F. Daumal I Domènech, J. Vida Manzano, S. Herguedas, and S. Silva Antunes, "Interventions and acoustic nuances in the soundwalks with Daumal and ISO 12913 methods in Elche, Cuenca and Faro," in *Proc. of the 11th Convention of the European Acoustics Association Forum Acusticum / EuroNoise 2025*, (Málaga, Spain), pp. 4583–4590, 2025.
- [10] F. Aletta *et al.*, "Soundscape descriptors in eighteen languages: Translation and validation through listening experiments," *Applied Acoustics*, vol. 224, pp. 1–17, 2024.
- [11] ISO, *ISO/TS 12913-3: 2019; Acoustics—Soundscape—Part 3: Data analysis*. ISO: Geneva, Switzerland, 2019.
- [12] Environmental Protection Department, "Noise Criteria," epd.gov.hk.
https://www.epd.gov.hk/epd/noise_education/web/ENG_EPD_HTML/m2/types_5.html (accessed Mar. 27, 2026).
- [13] P. Lindborg, L. H. Lam, Y. C. Kam, and R. Yue, "Sensory heritage is vital for sustainable cities: A case study of soundscape and smellscape at Wong Tai Sin," *Sustainability*, vol. 17, no. 16, pp. 1–51, 2025.
- [14] M. Lin, C. K. Chau, S. K. Tang, W. K. Chung, and H. M. Yu, "Determinants of soundscape quality of communal open space in Hong Kong," *Building and Environment*, vol. 267, pp. 1–13, 2025.
- [15] S. Lui, "An ethnographic comparison of wet markets and supermarkets in Hong Kong," *The Hong Kong Anthropologist*, vol. 2, pp. 1–52, 2008.
- [16] C. Spence, N. M. Puccinelli, D. Grewal, and A. L. Roggeveen, "Store atmospherics: A multisensory perspective," *Psychology & Marketing*, vol. 31, no. 7, pp. 472–488, 2014.

