



# FORUM ACUSTICUM EURONOISE 2025

## SUNDAY SOUNDSCAPES: FOREIGN DOMESTIC HELPERS' ACOUSTIC CONTRIBUTIONS TO HONG KONG'S PUBLIC SPACES

YUE Ran<sup>1\*</sup>   Permagnus LINDBORG<sup>1</sup>   LAM Lok Him Ryan<sup>1</sup>  
LIN A Lin<sup>2</sup>   KAM Yui Chung<sup>1</sup>

<sup>1</sup> School of Creative Media, City University of Hong Kong, HKSAR

<sup>2</sup> School of Civil Engineering and Architecture, Zhejiang Sci-Tech University, P.R. China

### ABSTRACT

This study investigates the impact of foreign domestic helpers (FDH) on Hong Kong's urban soundscape, focusing on their weekly Sunday gatherings in public spaces. With over 400,000 FDH working and living in Hong Kong their presence significantly influences the city's social fabric. While extensive research exists on FDH' use of public spaces and related policy issues, the ways in which they contribute to urban soundscapes, and what the soundscape means to them, remains understudied. The research extends beyond traditional interpretations of "voice" as a political metaphor for minority groups. We examine the acoustic environment created by FDH gatherings in pedestrian footbridges and parks. Building on soundscape research, especially sensewalk methods, this study employs comparative analysis of weekday and Sunday soundscapes through on-site interviews and measurement. It explores how FDH create a distinctive acoustic environment and examines how the public perceives them. The findings contribute to understanding inclusive urban soundscape planning while revealing the complex social and cultural dynamics of public spaces. Additionally, the study considers how soundscape diversity potentially enhances Hong Kong's tourism appeal, offering a new perspective on the intersection of social inclusion, urban planning, and tourism development.

**Keywords:** *urban studies, soundscape, domestic helper, tourism, Hong Kong*

### 1. INTRODUCTION

Currently, Hong Kong has over 400,000 foreign domestic helpers (FDH), 98.5% are women, accounting for about 5% of the total number of residents [1]. According to the legal regulations, they must live in their employer's residence and are responsible for tasks such as cooking, cleaning, and childcare. They are only allowed one day off per week. As a result, their social and leisure activities primarily take place on Sundays, often in the form of gatherings that occupy various public spaces across Hong Kong, such as pedestrian footbridges and parks. While the current situation, issues, and related policies concerning FDH activities in public spaces have been widely studied [2-6], research on their contributions to urban soundscapes remains limited. Previous studies often interpret "voice" or "sound" as a political metaphor for minority groups. However, this research shifts the focus to the soundscape created by FDH. Existing soundscape research in Hong Kong includes people's perceptions of various sound sources, such as traffic noise, natural sound, and human sound [7-10]. As a high-density city with a diverse population from different countries and ethnic backgrounds, Hong Kong's "human sound" needs differentiation and in-depth exploration. The earlier work on the soundscape and smells of pedestrian footbridges has mainly focused on weekdays [11], overlooking the dynamic soundscapes created by FDH gatherings on Sundays. Pursuing this line of research, the present study uses on-site recordings to analyse and compare the soundscapes of weekdays, Saturdays and

\*Corresponding author: ranyue6-c@my.cityu.edu.hk

Copyright: ©2025 First author 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.





# FORUM ACUSTICUM EURONOISE 2025

Sundays. It examines how FDH are creating a distinctive soundscape and investigates how different users perceive and respond to these changes in their experience.

## 2. METHODS

To cover the daily life of foreign domestic helpers as much as possible, and show the soundscape created by foreign domestic helpers in Hong Kong's public spaces, the possible data we collected include three parts: photos and audio recordings, Sound Pressure Levels (SPLs) data, and descriptive data from on-site interviews. When we recorded the scene, we included the gathering of domestic helpers, tourists and other passers-by as part of the sound source in the soundscape. Their conversations, walks, play, and music dynamically shape the soundscape - they are both its components and creators.

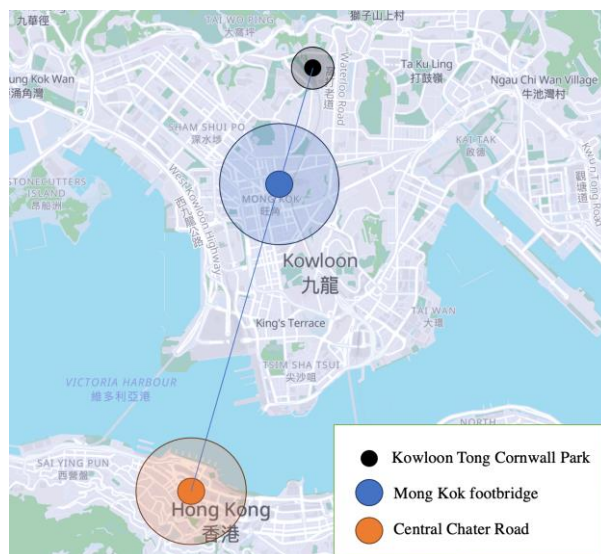
The present paper focuses on the on-site interviews, and we use thematic analysis to frame the idea of how people are perceiving the sound environment, details are in **Section 2.4**. In **Section 2.1**, we introduce how and why the research sites are chosen, and the photos are shown with daily life observations. In **Section 2.2**, the daytime schedule of data collection is listed. In **Section 2.3**, the devices and methods of on-site measurement are described.

### 2.1 Sites

Most of the previous research into FDH activity's locations were Hong Kong Island (Central, Sheung Wan to Wan Chai) and Tsim Sha Tsui in Kowloon District, close to public parks, piers and pedestrian bridges on both sides of Victoria Harbor [12]. But there are still very few in other places in Kowloon.

Regarding foreign domestic workers' gatherings, we attempt to extend to everyday locations, not just tourist hotspots, to enable close observation of FDHs' daily life conditions and their different perceptions of surrounding environments. Additionally, the location closing to communities helps understand their reasons for gathering in different locations. Regarding soundscape aspects, we try to cover different types of public spaces, from transportation-focused to leisure-oriented spaces, spanning Hong Kong Island and Kowloon regions.

Geographically, the sites include footbridges and parks, both popular and non-popular tourist areas, shown in **Fig. 1**. The activities of foreign domestic helpers in Kowloon Tong Cornwall Street Park, Mong Kok Footbridge and Central's Chater Road were recorded, including holiday gatherings, eating, leisure, singing and dancing, etc, see **Fig. 2,3, and 4**.



**Figure 1.** Distribution of the three data collection sites.



**Figure 2.** FDH gathering in Kowloon Tong Cornwall Park on the overpass MTR bridge and large lawn.





# FORUM ACUSTICUM EURONOISE 2025



**Figure 3.** FDH gathering on Mong Kok footbridge, singing and dancing.



**Figure 4.** FDH gathering on Chater Road, celebrating the events and festivals.

Specifically, on March 2, Charter Road, there was an event for the Asian Cultural Festival, together with the pre-celebration of the International Women Festival and the HK One Billion Rising activity, see **Fig. 4**. This only comes as a documentation of a unique moment, the main research sites are Kowloon Tong Cornwall Park (Site 1) and Mong Kok Footbridge (Site 2), focusing on the Kowloon side.

## 2.2 Schedule

On weekdays, Saturdays and Sundays in March 2025, from 1 pm to 5 pm, we visited and investigated the 2 sites on the same day. In total, we covered 4 weekdays, 3 Saturdays and 4 Sundays.

## 2.3 Measurements

We used a Zoom H3-VR and one X3 panoramic camera for audio and video recording, and SM-130DB Digital Decibel Meter for SPL measurement. Each video recording lasts about 5 minutes, and the measured  $L_{Aeq}$  is the average value within 1 minute.

## 2.4 Interviews

While recording and videotaping, we conducted semi-structured interviews with FDH (10 individuals, coded as FDH1-10), tourists (6 individuals, coded as T1-6), residents (3 individuals, coded as R1-3) and passing cleaning staff (1 individual, coded as C1), a total of 20 people. We designed a scheme for semi-structured interviews, probing the interviewees' perspectives on Topic 1: The Overall acoustic environment, Topic 2: FDH gathering phenomenon, Topic 3: FDH preferences, Topic 4: FDH soundscape, Topic 5: Tourism and expectation, and Topic 6: General info.

## 3. RESULTS

### 3.1 Sound Pressure Level (SPLs)

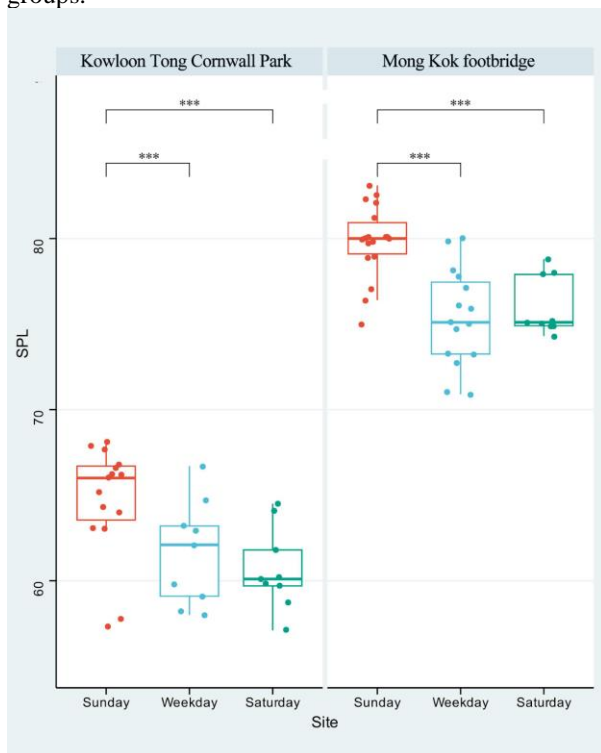
**Fig. 5** shows the result of SPLs. At Cornwall Park, the SPL levels are generally lower (around 60-65 dB) compared to Mong Kok footbridge (around 75-80 dB). Sunday shows the highest SPL levels at both locations, followed by weekdays, with Saturdays showing the lowest levels. The Mong Kok footbridge consistently shows higher SPL values and greater variation (larger boxes and whiskers) compared to Cornwall Park. Individual data points are plotted as dots, showing the distribution of measurements, with some outliers visible, particularly on Sundays at both locations.

The two-way ANOVA result (see **Table. 1**) reveals a significant effect of both Site and Day on the dependent variable. Specifically, there is a highly significant difference between the sites ( $F(1, 69) = 562.687, p < 0.05$ ), indicating that the two sites differ substantially. Similarly, there is a significant effect of Day ( $F(2, 69) = 20.026, p < 0.05$ ), suggesting that the average value varies significantly across the different days. The interaction between Site and Day is not significant ( $F(2, 69) = 0.609, p = 0.547$ ), meaning both Site and Day independently influence the dependent variable, their effects are additive rather than interactive. The comparison between the combined Saturday/weekday data and the Sunday data yielded a Cohen's  $d$  of 0.448. This indicates a medium effect size, suggesting a



# FORUM ACUSTICUM EURONOISE 2025

practically meaningful difference between the two groups.



**Figure 5.** Boxplot: SPLs of Saturday, weekday and Sundays of Kowloon Tong Cornwall Park and Mong Kok footbridge.

**Table 1.** Two-way ANOVA analysis of SPLs

Group	Df	Sum Sq	Mean Sq	F	Sig
Site	1	3978	3978	562.687	***
Day	2	283	142	20.026	***
Site:Day	2	9	4	0.609	0.547

## 3.2 Thematic analysis

This section presents the results of thematic analysis. We coded the interview text data, considering the identities of different groups, their raised issues and suggestions, as well as their awareness of temporal and spatial changes, resulting in a total of 4 themes: a) The dual role of FDH, b) Temporal patterns c) Space usage d) Agreement, conflicts and suggested solution.

The two sites and interviewees' numbering method have been mentions in **Section 2.1** and **Section 2.4**.

### 3.2.1 The dual role of FDH

The FDH gathering activities are creating soundscapes. However, in the original environment with bustling traffic and dense crowds, even foreign domestic helpers immersed in the atmosphere of leisure and entertainment will inevitably be affected by other sounds around them.

As creators of the soundscape, FDH activities produce a cumulative effect, increasing the noise level. While people generally accept that noisy sounds and FDH gatherings are both integral parts of Hong Kong, tourists' evaluations specifically regarding the soundscape created by them are mixed and varied.

*"Drinking, chatting, noise, singing, and unity." - T2*

*"Positively impacts sound diversity, but negatively affects specific locations with increased noise." - T3*

*"The first time, I felt that foreign domestic helpers enriched the environment, and their singing was quite enjoyable. The second time, I felt they made the environment somewhat chaotic, and it affected my mood.....". - T6*

FDHs also have diverse perspectives when perceiving the sound environment.

*".....With all the trees, flowers, and the mountains, you balance the city, and then the environment, the nature, and then those of the city, buildings, and whatever you can call it. I like it". - FDH1, at Site 1*

*"The sound is okay. In Indonesia, it's around, it's like.....even more crowded than here." - FDH5, at Site 2*

- Interviewer: *"How are you feeling about the sound they are making (FDH singing and dancing)?" - FDH9, at Site 1: "It's really annoying. Even my mom and sister feel so annoyed. I also go to Central and Mong Kok and it's very noisy I feel."*

### 3.2.2 Temporal Patterns

When examining temporal differences, we found variations between weekdays and weekends, as well as during different times of the day.

*"Filipino domestic helpers in Hong Kong typically gather in various corners of the city every Sunday, usually around footbridges or in small parks, where they lay out blankets for their gatherings.....As someone who prefers quiet*



# FORUM ACUSTICUM EURONOISE 2025

*environments, I actually enjoy their Sunday activities as they add interest and diversity to Hong Kong's soundscape. Personally, I prefer the footbridge bridge, where the helpers' voices make the noisy traffic sounds less noticeable. However, if sitting in parks, I still wish for a quieter environment.” - T1*

*“Sundays are like this. Because from Monday to Friday, we stay quiet at home. Then after sleeping a few days, we can be louder.” - FDH6, at Site 2*

*“Once I stayed in a hotel in Mong Kok for a night. At 1-2 AM, with the windows open, I could hear endless construction site sounds echoing from distant parts of the city. A peculiar atmosphere washed over me - a mix of humid air, noise, and quietness.” - T6*

*“I go to the church this morning. I like Christian song.” - FDH3, at Site 1*

### 3.2.3 Space Usage

Preferences regarding space usage and sound are often related to actual activity purposes and specific behaviours rather than directly to sound itself. People typically “pause” their current actions before beginning to focus on the surrounding sound environment.

*“Hong Kong's traffic is quite busy, with vehicle honking and crowd noise particularly noticeable at transportation hubs. However, in parks and quiet neighbourhoods, the sound environment is relatively comfortable.” - T4*

*“I've never seen this (FDH gathering) before.....it's different from what I've seen online. The Mong Kok footbridge, is this the place? It feels unfamiliar.” - T1, on Sunday*

*“People don't like (noise), people are quiet, we stay here, with a little music. Usually, we don't go to the park, like further in. Or we go to the pond, like where there's less people.” - FDH4, at Site 1*

### 3.2.4 Agreement, Conflict and Suggested Solutions

In this section, we collected perspectives from users of different identities from various perspectives. Hong Kong local residents tend to reach a consensus.

*“What I love most are natural sounds like wind and water — even if it's not music, I still really enjoy them.” - R2*

*“I feel like no one cares unless someone complains about the volume being too loud. Otherwise, people just ignore it, so I've gotten used to it.” - R3*

*“Actually, it's a situation where many different sounds gather together and become very loud, but I feel that kind of sound has already become a part of Hong Kong.” - R1*

However, tourists' views vary significantly depending on different locations and times.

*“First impression was intriguing, like a cultural characteristic, unsure whether positive or negative.” - T5, at Site 2*

*“I would say normally this level of noise would depress me. But it's my first day visiting so I'm impressed by everything. It's a give or take. But if I could live here, it would be an unpleasure.....you don't move people, so it is the noise from traffic that needs to be reduced.” - T2*

*“The gatherings of foreign domestic helpers reflect their way of life in Hong Kong, which is based on their cultural background and living standards. These gatherings have become an important component of Hong Kong's soundscape, particularly in public spaces.” - T2*

*“It's just noisy, nothing much to say.” - C1, at Site 2*

Regarding future recommendations and solutions, various ideas were proposed, though their specific feasibility remains to be discussed.

*“There is no unified venue arrangement, such as using standardized, managed locations like sports grounds or libraries.” - T*

*“Compared to legal measures, this issue may require more policy-driven solutions, along with mutual understanding from all parties. It's truly challenging to balance the needs for both sound and space.” - R*

## 4. DISCUSSION

This study aims to provide new insights into how soundscapes are shaped by marginalized communities and how these auditory contributions are perceived by the wider public. By bridging soundscape studies with the lived experiences of FDH, it highlights the importance of inclusive urban soundscape planning and the potential for







# FORUM ACUSTICUM EURONOISE 2025

sound to reveal the intricate social and cultural dynamics of public spaces. Furthermore, this diversity also contributes to the development of Hong Kong's tourism industry.

According to common perception, tourists and FDHs are thought to be "competing" for public space usage [13]. However, the actual situation reveals that tourists expect Hong Kong to be crowded and populous - they aren't particularly "bothered" by FDH gatherings at tourist spots but rather view it more as something "unfamiliar." As for FDHs, they choose gathering locations based on proximity to friends or family, and when gathering in larger groups, they opt for Mong Kok or Central. This represents a kind of compromise solution.

However, there are still some limitations that the research on stakeholders is not enough, some visits to surrounding commercial and residential areas and suggestions from government departments may be needed [14-15].

## 5. ACKNOWLEDGMENTS

The work presented in this paper was partially supported by a scholarship to the first author from City University of Hong Kong, and a grant from the Research Grants Council of the Hong Kong Special Administrative Region, China to the second author (GRF #11605622 – CityU project #9043455).

## 6. REFERENCES

- [1] Website of Hong Kong Labour Department: <https://www.fdh.labour.gov.hk/en/home.html>
- [2] J. S. Tillu, "Spatial empowerment: The appropriation of public spaces by Filipina domestic workers in Hong Kong" *Diss. Massachusetts Institute of Technology*, 2011.
- [3] K. H. Mok and C. H. Hung, "Finding a home away from home: an explorative study on the use of social space with the voices of foreign domestic workers in Hong Kong," *Annals of the American Association of Geographers*, vol. 111, no. 5, pp. 1403-1419, 2021.
- [4] K. A. Chang, and L. H. Ling, "Globalization and its intimate other: Filipina domestic workers in Hong Kong," *Gender and global restructuring*. Routledge, pp. 60-77, 2010.
- [5] M. Y. Lai, "The present of forgetting: Diasporic identity and migrant domestic workers in Hong Kong," *Social Identities*, vol. 17.4, pp. 565-585, 2011.
- [6] R. Y. Chung and J. K. Mak, "Physical and mental health of live-in female migrant domestic workers: A randomly sampled survey in Hong Kong," *American behavioral scientist*, vol. 64.6, pp. 802-822, 2020.
- [7] M. K. Wai, C. M. Mak, and H. M. Wong, "Effects of environmental sound quality on soundscape preference in a public urban space," *Applied Acoustics*, vol. 171, pp. 107570, 2021.
- [8] L. Hui and K. Lam, "Soundscape of urban open spaces in Hong Kong," *Asian Geographer*, vol. 27, no. 1-2, pp. 29-42, 2010.
- [9] K. Jian and F. Aletta, "The impact and outreach of soundscape research," *Environments* vol. 5.5, no. 58, 2018.
- [10] L. I. N. Minqi, 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*, 112261, 2024.
- [11] R. Yue, P. Lindborg, R. Ikeshiro, and R. Gui, "Multimodal Hong Kong: Perceiving pedestrian footbridge spaces in a high-density area through soundscape and smellscape perspectives," *In INTER-NOISE and NOISE-CON Congress and Conference Proc.*, (Nantes, France), vol. 270, no. 11, pp. 725-735, 2024.
- [12] E. Kwok, Spatial agency and occupation: "Migrant domestic workers in Hong Kong," *Edinburgh University Press*, 2024.
- [13] W. J. Huang, M. Li, J. He, and W. K. Chan, "Conflicts and interactions in urban tourism: Use of urban public space by residents, tourists, and migrant domestic workers in Hong Kong," *Tourism Management*, vol. 105, pp. 104960, 2024.
- [14] P. Lindborg, L. H. Lam, Y. C. Kam, J. Xiao: "An Approach to Sensory Heritage Policy through Soundscape and Smellscape", paper submitted to Forum Acusticum - Euronoise, the 11th EAA Annual European Conference on Acoustics and Noise Control Engineering, (Málaga, Spain), 2025.
- [15] L. H. Lam, R. Yue, Y. C. Kam, P. Lindborg. "Perceptions of Chinese temples through soundscape and smellscape: A case study at Wong Tai Sin", paper submitted to Forum Acusticum - Euronoise, 11th Annual European Conference on Acoustics and Noise Control Engineering, (Málaga, Spain), 2025.

