

The Influence of Religious Soundscapes on the Image of the City: The Case of Thiruvananthapuram

Fabya Thaila Chandy Mohammed ¹, *Ms., Department of Architecture, College of Engineering, Trivandrum*

Sharat Sunder R ², *Professor, Department of Architecture, College of Engineering, Trivandrum*

Anurup K ³, *Professor, Department of Architecture, College of Engineering, Trivandrum*

©2021 Fabya Thaila Chandy Mohammed, Sharat Sunder R, Anurup K
Published by SPACE Studies Publications owned by SPACE Studies of Planning and Architecture Ltd.

To cite this article:

Mohammed, F., T., C., Sharat, R., S., Anurup, K. (2021). The Influence of Religious Soundscapes on the Image of the City: The Case of Thiruvananthapuram. SPACE International Journal of Conference Proceedings, 1(1), 1-9. <https://doi.org/10.51596/sijocp.v1i1-1>

fabya.mohd@gmail.com

This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution(CC BY) license



This article is published at journal.spacestudies.co.uk by SPACE Studies Publications.

The Influence of Religious Soundscapes on the Image of the City: The Case of Thiruvananthapuram

Fabya Thaila Chandy Mohammed ¹, Ms., Department of Architecture, College of Engineering, Trivandrum

Sharat Sunder R ², Professor, Department of Architecture, College of Engineering, Trivandrum

Anurup K ³, Professor, Department of Architecture, College of Engineering, Trivandrum

Article History:

Received May 14, 2021

Accepted June 7, 2021

Published Online July 7, 2021

<https://doi.org/10.51596/sijocp.v1i1-1>

Abstract

The world is undergoing urbanisation, eventually transforming the character of cities. Although urban designers and planners have used visual aesthetics to shape the urban environment, acoustic ecology and soundscapes have often been overlooked. In fact, cities have developed legislation to effectively reduce noise, considering them as pollutants, where environmental sound can actually be perceived as a resource. Today, urban designers continue to follow the imageability concept developed by Kevin Lynch, which has always focused on the visual senses. Hence, this study adds an auditory understanding of places. The research commences by understanding the gap between soundscape and urban design, emphasising the need for a soundscape approach in the urban design process and highlighting the impact of sounds in an urban space. The sonic data for the research was collected through sound walks conducted during two different time periods. The study reveals the presence of a range of sounds that enrich the experience of any person walking through the sound walk routes and the creation of mental images in the minds of locals, workers and tourists. The results also indicate that apart from natural and artificial sounds, soundscape also covers cultural sounds, social sounds, religious sounds and image sounds. However, the transformation due to urbanisation has put the place into constant change, thereby challenging the future of sound experiences in the areas. This research underlines the need to preserve such sounds forming a part of intangible cultural heritage and concludes by formulating recommendations to sustain the same through a soundscape-based urban design and a sonic model that can be used as a reference for future research for shaping a sustainable image for other cities.

Keywords: Culture, Imageability, Soundscape, Sustainability, Urban Design

1. Introduction

With rapid urbanisation, the sustainable development of urban areas has been one of the key concerns in city policy and urban design in the 21st century. Subsequently, several solutions have been created to shape a good urban environment and maintain the image of the city by concentrating on the visual and functional aspects of the same. The image of the city is a visual representation that guides through daily life and maps out meaning (Lynch, 1960). However, designers and planners follow only this idea of a city and have a vision-oriented approach to

Corresponding Author: Fabya Thaila Chandy Mohammed 1, Ms., Department of Architecture, College of Engineering, Trivandrum, fabya.mohd@gmail.com

urban design where the auditory aspect of a city is often overlooked. In fact, sound is considered as “noise” rather than a resource.

The visual experience of cities is not independent of the sound experience but rather linked to the sounds that accompany it (Southworth, 1967). In his 1979 work *The Tuning of the World*, Schafer suggests that just as vision can reveal a place, so our sense of hearing can perceive a place as a composed, landscaped unit (Geisler, 2010). In fact, preferences for different combinations of soundscapes and landscapes are a combination of both auditory and visual factors (Tamura, Schick, & Klatte, 1997). Based on these theories, this paper focuses on the concept of urban soundscape as an important aspect that influences the image of the city.

1.1 Research Framework

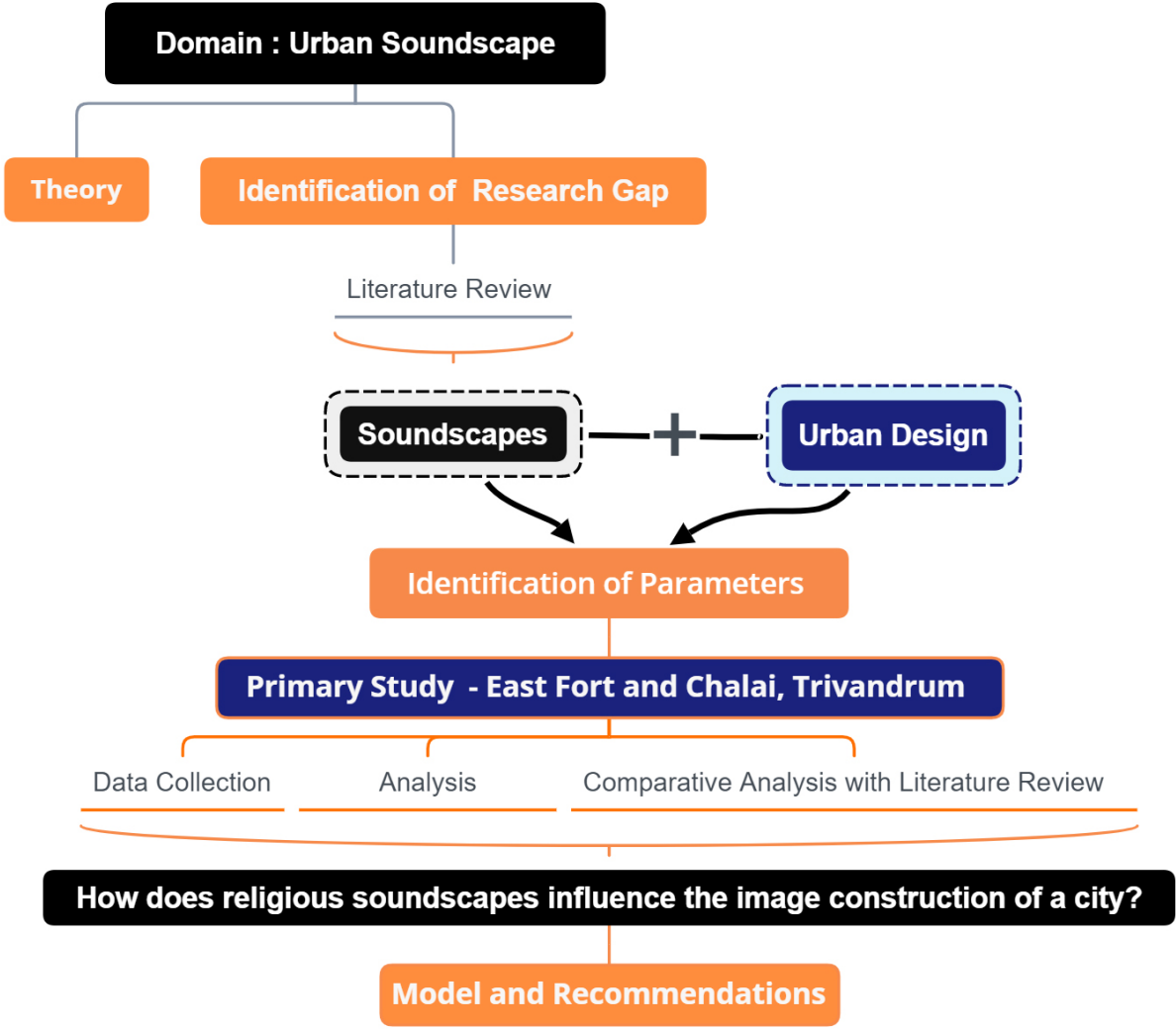


Figure 1. Research Framework

The research framework (Figure 1) is an extension of a research reported in a manuscript entitled ‘Role of Religious Soundscapes in Creation of Image of the City’ (Mohammed, K, & Sunder R, 2021) in which a research gap was identified in the study of soundscape in urban design and the study of religious soundscapes. Also, technical studies on soundscapes were found to be explored to a great extent but not from the perspective of image construction of a city. Furthermore, in pluralistic countries like India, where sounds form a major part of the environment, auditory dimensions were found to be understudied. Thereby, it became necessary to explore the image of the city with a different perspective and complement the large amount of quantitative soundscape research that already exists.

Thus, this paper identifies the sources and variations of sound over time through a primary study to explore sound as a contributor to a places’ image with emphasis on religious sounds, based

on the parameters identified in the manuscript. This paper shall add knowledge to the domain of urban soundscapes along with recommendations for the urban soundscape design of any city.

2. Literature Review

2.1 Urban Imageability

The origins of sense-based studies were based on psychological research during the 1950s. Kenneth Boulding, a social scientist in 1956, theorised that humans sustain a comprehensible and systematised imprint of the environment in their thoughts (Boulding, 1956). This results in the formation of a mental abstract of the environment that gets more depth and meaning as one interacts with his surroundings. Boulding denoted this idea as the “image”. Kevin Lynch's *The Image of the City* is, in fact, an example of Boulding's theory of the image in relation to place (Gokce, 2009). Wayfinding in a city happens through an individual's experience of five elements: “paths”, “edges”, “nodes”, “districts”, and “landmarks”, constituting a mental map of different perceptions (Lynch, 1960).

However, urban planning has given the emphasis on opticality and has relied on ‘visibility, readability and legibility’ to make a city better. In fact, Henry Lefebvre argues that focusing on just optical aspects creates only an abstract image of the environment, and this often results in alienating other aspects of everyday life from their sites of occurrence. He believes that sounds also play a fundamental role in understanding our modes of inhabitation and identity and our relation to our surroundings.

2.2 Soundscape

Interestingly, the first research on soundscape was conducted the same year, *Image of the City* by Kevin Lynch was published. This pioneering work was done by Murray Schafer. He coined the term “soundscape” and described it as an acoustic environment consisting of events heard rather than objects seen (Schafer, 1977). In 1967, Michael Southworth tried to establish the relationship between sounds and place by creating experience maps of Boston's sonic environment. He explored the concept of imageability through sounds linking to Lynch's idea of creating images for an urban environment and found that three key aspects influence sound preferences: the sound information, the context and the sound level (Southworth, 1967). Similar to Lynch's classification of elements, Schafer mentioned that soundscape typology is constituted of three sonic aspects: keynote sounds (background sounds), signal sounds (foreground sounds that capture our minds) and sound marks (places regarded as important in terms of acoustics or sound by the society) (Schafer, 1977).

3. Methodology

3.1 Study Area

In this research, the chosen area of study is Chalai and East Fort, located at the heart of the Central Business District of the city of Thiruvananthapuram in India. The study area was chosen based on the following factors: History, Imageability, Ethnicity and Culture, and Land – Use. Also, Thiruvananthapuram's religious concepts, symbols and practices have made their appearance in media and popular culture, and religion as an issue has found its way into debates about its identity. Therefore, it becomes necessary to study Chalai and East Fort (the historic urban core of Thiruvananthapuram) to analyse the parameters mentioned by Southworth and Schafer (Mohammed, K, & Sunder R, 2021) and establish the importance of sounds in influencing people's perception of a city and see if further parameters could be discovered.

3.2 Methods

Textual analysis and Soundwalk were the two methods used to conduct the research. The textual analysis included the collection of policy documents, academic and consultant reports, articles, written reports, books, and articles to analyse the historical evolution of soundscapes.

A sound walk was conducted through the major streets of Chalai and East Fort during the Morning (05:00– 06:30) and Evening (17:30-19:00) on Tuesday, Friday and Sunday for a week. During the

sound walk, all sounds were observed (religious sounds in particular), and the sound pressure levels were measured, followed by noting the soundmarks (sources of these soundscapes), the keynote and signals. The activities related to these soundscapes were observed and marked accordingly on the sound level maps.

4. On-site Investigations And Results

4.1 Soundwalk 1 - Chalai

Soundwalk 1 was conducted from Killipalam Junction, Chalai and concluded at the east entrance of East Fort (Figure 2). The pause points were Aryasala Junction, Chalai Mosque, Gandhi Park and the East Fort entrance. During Soundwalk A (Figure 3), religious sounds dominate the environment during the mornings. The dominant sounds are of those activities associated with visiting the temples along the routes of Chalai that include people talking as they walk towards the temple and sounds of people selling flowers. Interestingly, the azan from the Chalai mosque that intrudes this soundscape for a few minutes plays the role of informing the residents of prayer time. Similarly, Soundwalk B (Figure 4) shows how the sound environment changes along the same route with the increasing density and activities, influencing people's behaviour and responses towards sounds (acoustic territories). The religious sounds from temples are masked by other anthropogenic sounds, but the azan signals amidst the chaos, capturing the attention of the residents once again.

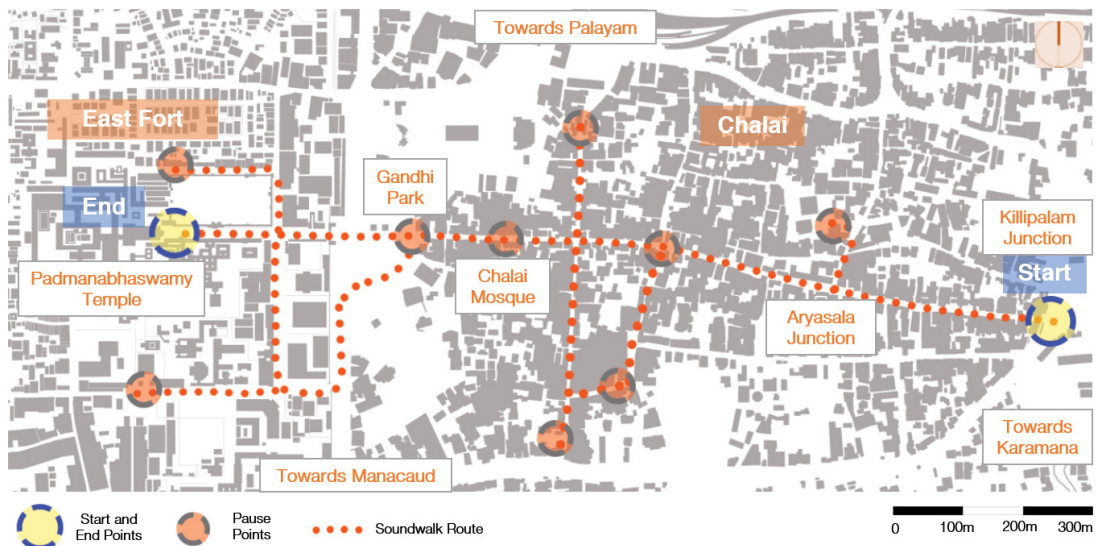


Figure 2. Soundwalk Route 1 - Chalai

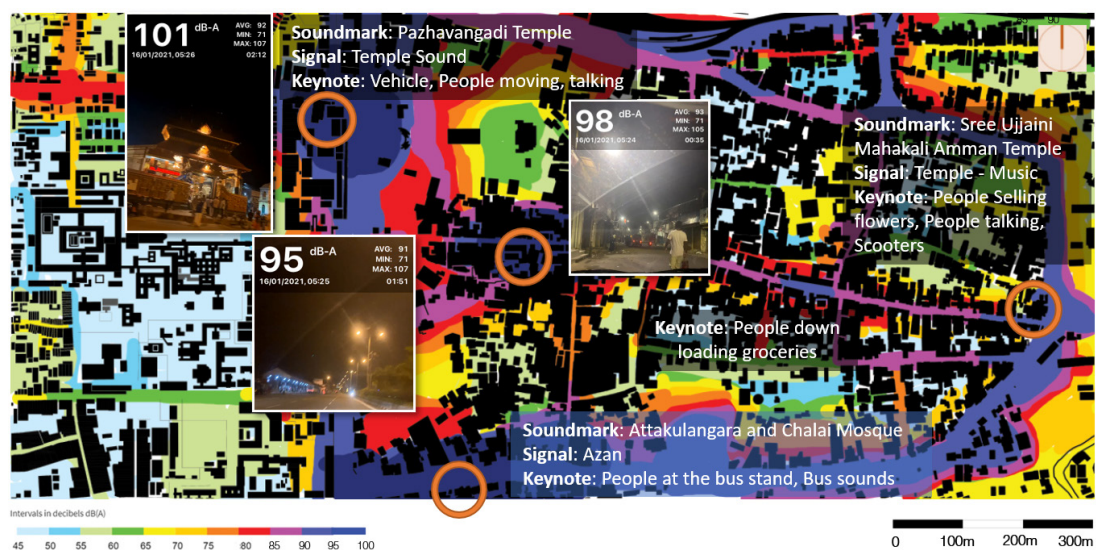


Figure 3. Soundwalk A (Morning) - Chalai

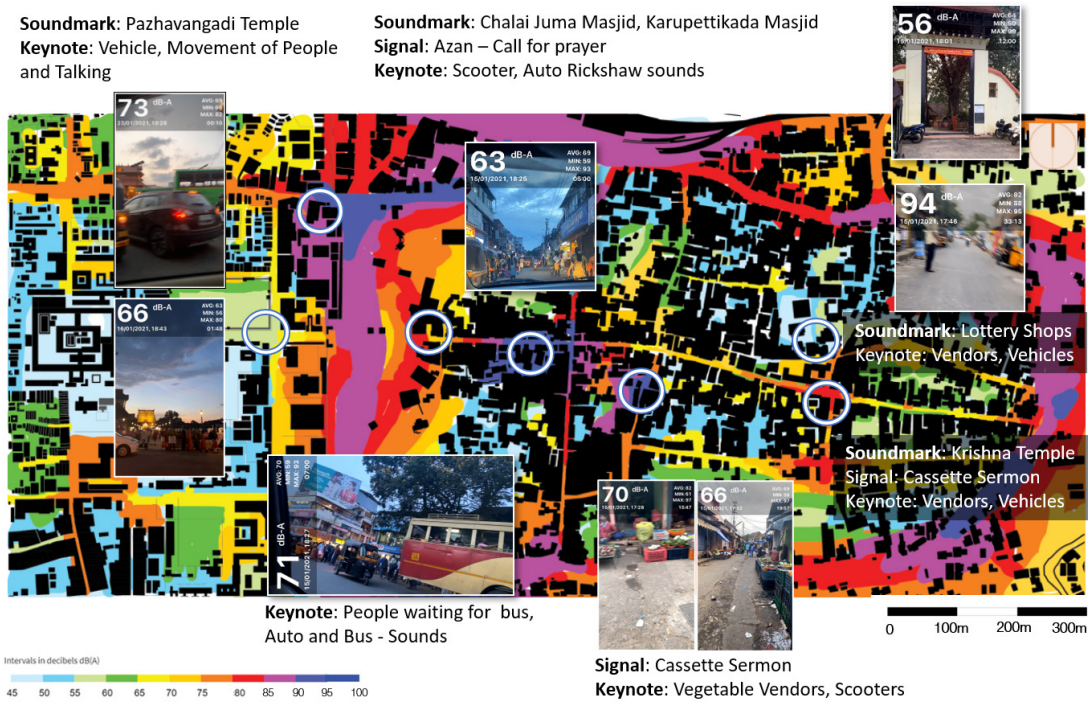


Figure 4. Soundwalk B (Evening) - Chalai

4.2 Soundwalk 2 – East Fort

Soundwalk 2 (Figure 5) was conducted from the east entrance of the East Fort and concluded at the same point. The pause points were SP Fort Hospital and Sri Chitra Thirunal Park.

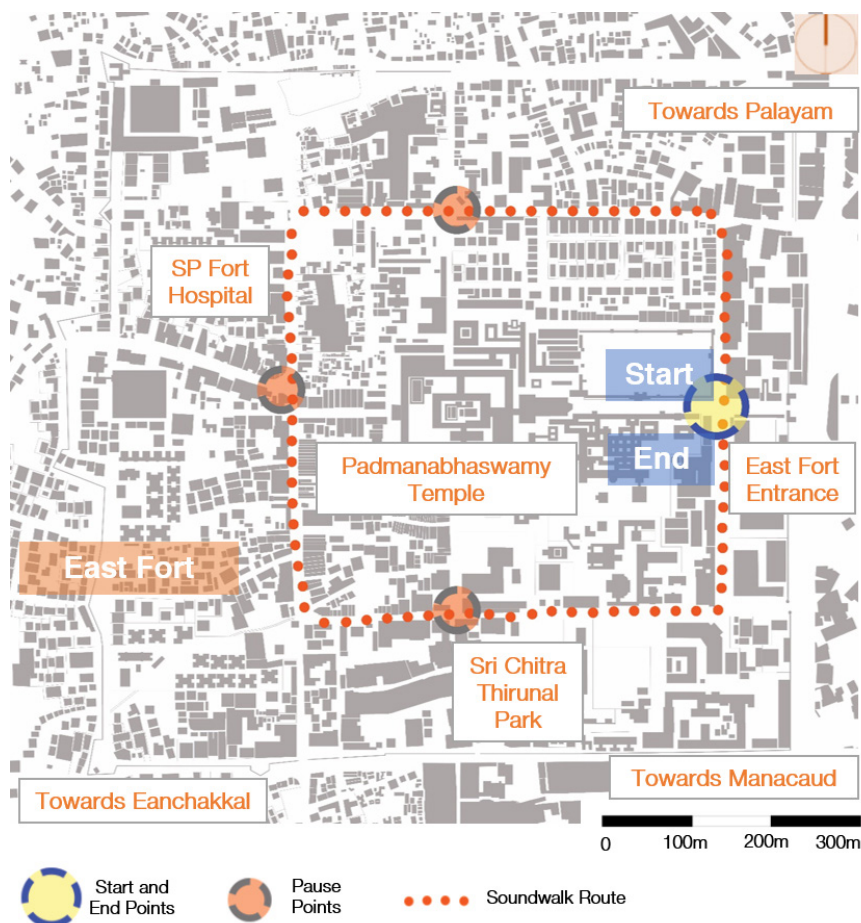


Figure 5. Soundwalk Route 2 – East Fort

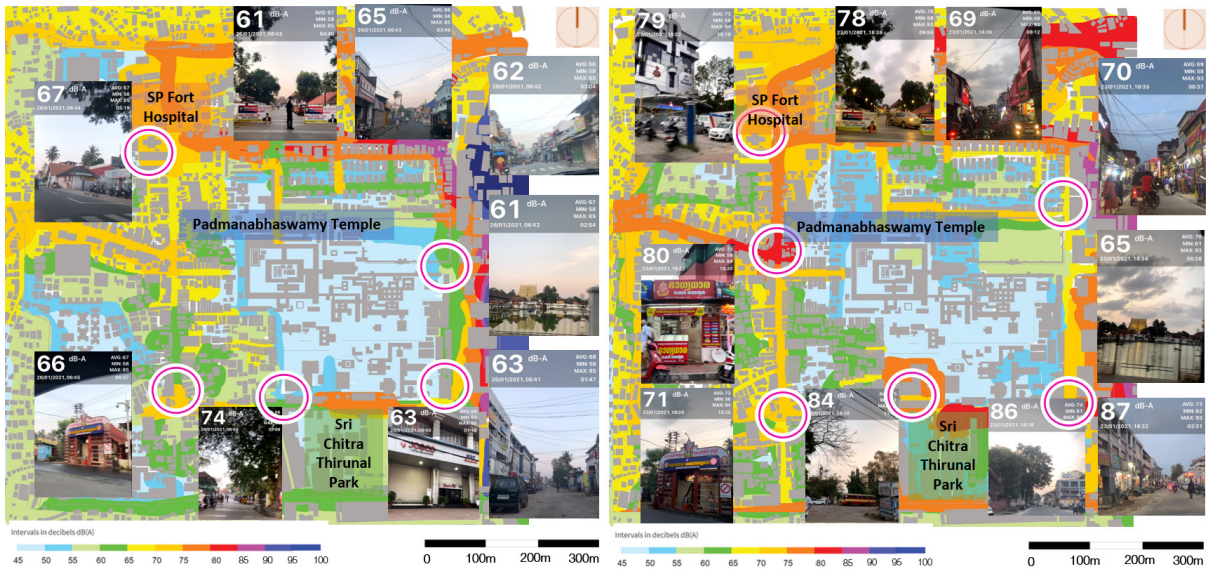


Figure 6. Soundwalk C (Morning – left and Evening - right) – East Fort

During Soundwalk C in the morning (Figure 6), the sound level showed a considerable drop (up to 55dB) relative to Soundwalk A. This could be associated with the fort wall diffracting sounds from the main road adjoining the east entrance, keeping temple-associated sounds dominant in East Fort. Similarly, the presence of open spaces and water bodies (visual aesthetics) aid in the pleasant perception of the place even though the sound levels remain relatively high during the evenings. However, sirens of ambulances from the nearby hospital and sounds from textile and lottery shops often interrupt the serene atmosphere of temple premises.

5. Analysis

5.1 Relationship between Sound and Space

The morphological changes over the years indicate a huge pressure on East Fort development because of the proximity of Chalaj, the good transport linkages and the associated increase in the number of jobs. This has resulted in changing low-density residential zones to commercial and mixed-use zones. Commercial activities have intruded into East Fort, which was never planned in the initial ideas of the Fort area (Figure 7). Accompanying these are the lottery shops at the entrance of the Fort Area that changes the complete feel as people walk towards the temple. Continuous broadcasting of advertisements and blaring sounds of people selling lottery tickets, along with traffic noise, makes the whole place look and feel different, unlike the calm atmosphere expected in such religious precincts.

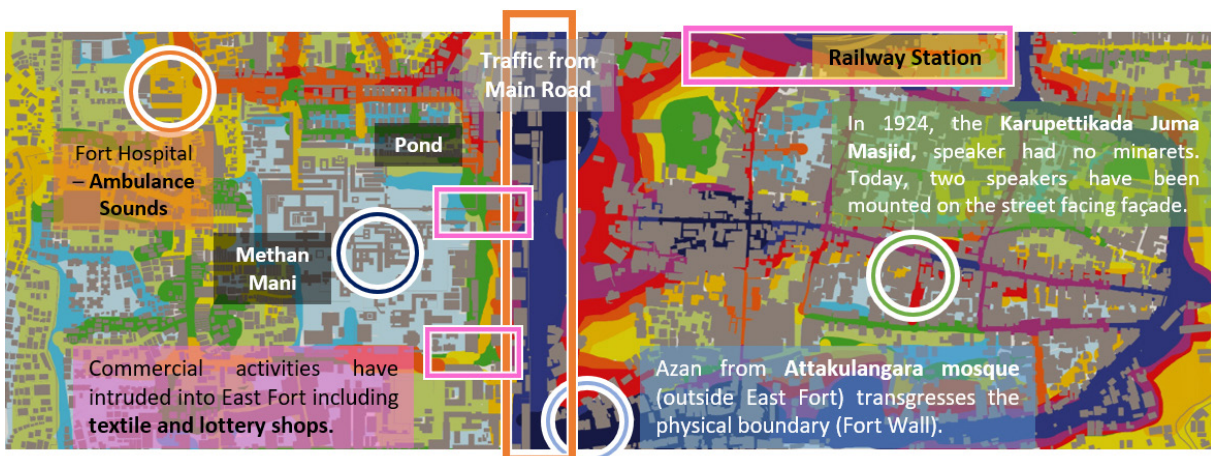


Figure 7. Analysis

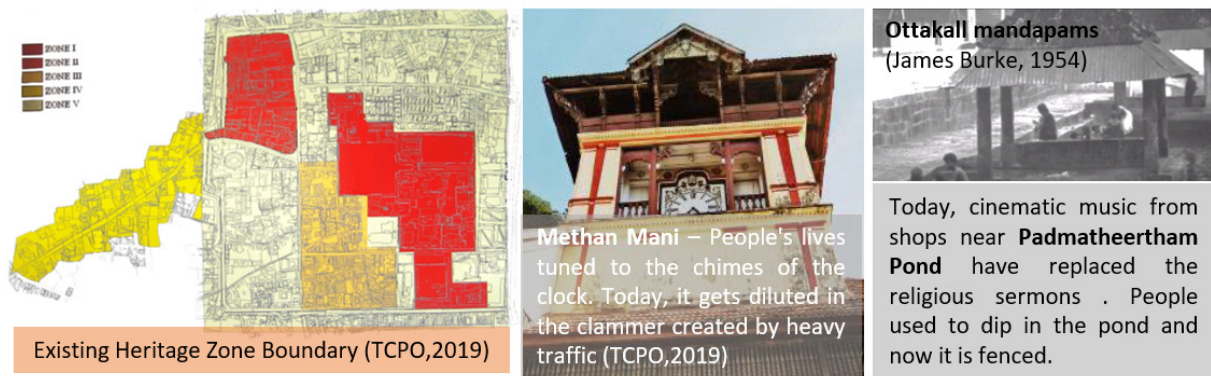


Figure 8. Existing Heritage Zone Boundary, Methan Mani (TCPO, Govt. of Kerala, 2019)

5.2 Sonic Boundary

In Chalai and East Fort, urbanisation has led to the intrusion of grey sounds into the sound experience. Though a physical boundary (Fort Wall) separates East Fort from its surroundings, sounds easily transgress these boundaries (traffic noise and sounds from Attakulangara mosque can be heard within the temple precinct) and create a new sound environment.

The study shows how a relationship is created between space and emotions through religious sounds (in this case), providing intimacy, feelings of belongingness and godliness. This relational feeling to the space creates an acoustic territory that needn't be physical. Nevertheless, they contribute to the construction of mental images of one's environment. Therefore, the study challenges the existing heritage zone boundary aimed to protect East Fort (Figure 8) that focuses on physical boundaries and emphasises the need for considering sonic boundaries with it and in future urban design.

5.3 Urban Soundscape As An Important Dimension Of Sustainable Urban Design

In Chalai, the daily walking of Brahmins to the temple, the sounds of people buying flowers and lamps for the Pooja, the background sounds of religious cassette sermons in the vegetable markets, the bhajan's from the temples and the intermediate Islamic soundscapes are all a result of cultural and religious practices and these sonic environments embed images in people's minds. However, it is seen that these historic areas are getting gentrified with urbanisation. This will result in the threatening of local culture and the activities associated with it. Along with this, the sonic heritage will rapidly change. Hence, while designing an urban space, it also becomes necessary to consider soundscapes as an intangible cultural heritage to sustain a place without losing its character. Within the definition of Intangible Cultural Heritage (ICH) in the UNESCO Convention for the Safeguarding of ICH 2003, cultural sounds can be considered intangible cultural elements. Also, it is seen that in most of the places along the route, the sound levels average 80 dB instead of 55 dB, which is the criterion recommended by the World Health Organization for outdoor environments.

6. Recommendations: Sustainable Urban Soundscape Design

Based on the on-site observations and analysis, four aspects are found to affect the perceptual construction of sounds in any city, which are: Spatial, Functional, Social and Sound Aspects. The following recommendations, along with a model (Figure 9) mentioning the aspects that affect the perception of sounds influencing the image of the city, shall be used for future sustainable urban soundscape design.

- An assessment of sounds must be done prior to the design process using sound meters or other devices for the creation of sound maps, along with interviews to capture the image of the locals and others who visit the place.
- Sound categories must be categorised based on values like age, richness of sound, tranquillity, vibrancy and traditionality, and identifying sonic boundaries.

- Soundscape should be linked to their sources, the activities, daily life, traditions and other beliefs associated with it to identify soundmarks, keynote and signals.
- Soundscape must be associated with the cultural and historical character of the place, and zoning requirements for historic and cultural spaces must be created.
- Soundscapes during conservation shall be classified as active and passive sound marks: activity-generated sounds and sounds from design features like sculptures, respectively.
- The positive soundscapes should be given focus rather than the negative ones. The wanted, and unwanted sounds must be differentiated within the identified historic soundmarks.
- While conserving soundscapes, it must be made sure that natural sounds like that of sounds of people talking, bird chirping and other sounds that make us feel relaxed are considered.
- Other strategies like imposing speed limits or restricting certain activities shall be used to reduce noise sources.
- Acoustically designed materials must be used along with the existing sound to create a hybrid sound environment to create an image of the place.
- The addition of sound marks reflecting the area's cultural characteristics and activities that encourage the generation of sounds reflecting traditional and cultural systems shall add attractiveness to the place.

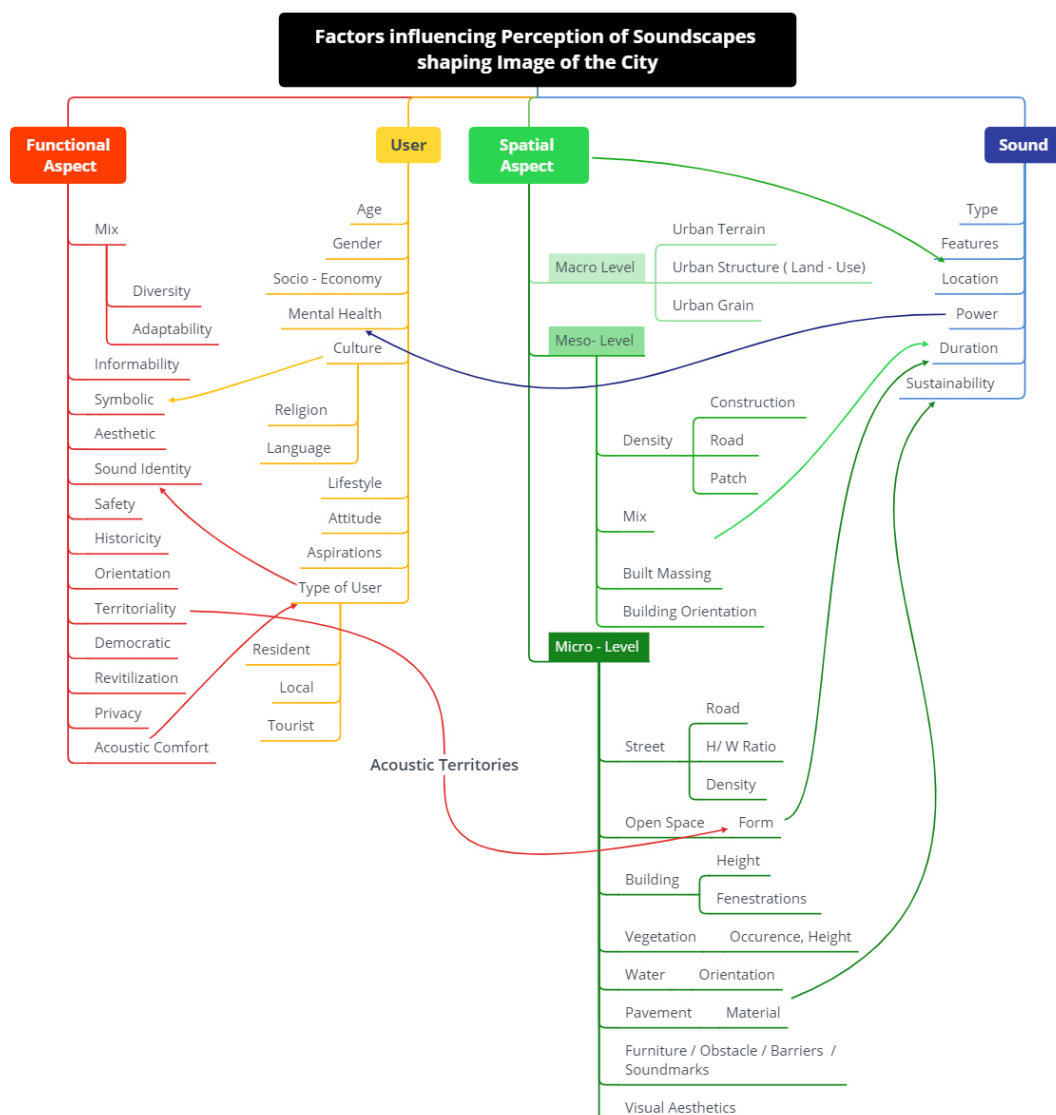


Figure 9. Sonic Model

7. Discussion

In this research, we analysed urban soundscapes from the viewpoint of image evaluation by understanding that sounds today are considered a noise factor, with no efforts being devised to realise important memories or nostalgia of a place that soundscapes carry.

By doing the study of Chalai and East Fort, sound components were identified that a listener would experience during their walk. With the transition from religious sermons to that of poojas and associated activities, a listener gets a sonic image imprinted in their mind. It also revealed how the sounds have transformed over the years due to urbanisation.

Also, these results challenge the existing heritage zone boundary, which was meant to conserve the historic urban core of Trivandrum, Chalai and East Fort with a preference for visual culture. The study reveals how sound transgresses despite physical barriers, showing that sounds are an important asset that influences the sense of a place. Chalai and East Fort are undergoing gentrification with the ever-increasing population in cities.

These cities no longer remain the same, leading to the emergence of new activities, consequently bringing change to the existing soundscapes. Thereby, the intangible cultural heritage of the area is lost.

8. Conclusion

Thus, the paper brings recommendations and a model that can serve as a reference for soundscape analysis to shape city images and highlights the relevance of sounds in planning cities as sustainable places to live in. The future direction of this research will be to: update and modify this model with in-depth interviews of tourists and residents and establish a set of controls in urban areas and find ways in which technology can also be adapted in soundscape-based urban design with the help of local governments.

Acknowledgements

The authors haven't reported any specific grant and/or funding.

Conflict of Interests

The author declares no potential conflict of interest was reported by the author.

Endnotes

This paper has been presented at the SPACE International Conference 2021 on Sustainable Architecture, Planning and Urban Design.

References

- Boulding, K. (1956). *The Image*. Ann Arbor, MI: University of Michigan Press.
- Geisler, É. (2010). Soundscape revisited. 1–5.
- Gokce, K. (2009). The Role of Sound in Making of a Sense of Place in Real, Virtual and Augmented Environments. 178. Retrieved from <https://escholarship.org/uc/item/Ov08q5qf>
- Lynch, K. (1960). *The image of the city*. MIT Press.
- Mohammed, F., K, A., & Sunder R, S. (2021). *Role of Religious Soundscapes in Creation of Image of the City* [Unpublished manuscript]. Department of Architecture, College of Engineering, Trivandrum, India.
- Schafer, M. (1977). *Our Sonic Environment and Tuning of the World*.
- Southworth, M. (1967). The Sonic Environment of Cities. *Environment and Behavior*, 1(1), 49–70.
- Tamura, A., Schick, A., & Klatter, M. (1997). Effects of landscaping on the feeling of annoyance of a space. *Oldenburg Symposium; 7th, Psychological Acoustics*, 135–162. Carl von Ossietzky University of Oldenburg.
- TCPO, Govt. of Kerala, A. and H. C. (2019). *Fort Area Heritage Zone*.