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Sena Karahan

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Urban Sonic Research and Sound Map

soundinbetweenness.org

Abstract. *"Can sound be defined as a factor in the social reproduction of space?" The research culminated in the production of a sound map based on soundwalk recordings, soundscape analysis, and surveys. To better understand the relation of sound, individual & environment in urban fields, we aim to collect crowdsourced data through the website. Soundwalks have been converted into flipbooks of sound postcards - embedded QR codes - allowing users access to the website. Here, users can create postcards (upload field-records), participate in the survey, get to contribute to the body of sonic data pertaining to the urban environment, individual experiences to be then used as a resource for further soundscape analysis and to create awareness of everyday sonic fields in order to discuss urban public spaces.*

Sena KARAHAN[1]

Keywords. ***Sound Map, Urban Soundscapes, Everyday Life, Participation, Sound-postcard, Flipbook***

Urban Sonic Research

Architecture is not a steady phenomenon. The spaces move and resonate between bodies and objects through sound. Due to their physical attributes, sound as a dynamic element of space creates continuous affection between objects and living creatures, allowing them to act upon space as its subjects and objects.
Soundscape as a concept refers to the totality of the sounds present in a physical environment. It examines the relationship between the space constructed out of sound and its perception by the individual or society/community (soundscapes studies are not limited to anthropocentric research) (Panye, Davies and Adams, 2009).

In his work *Acoustic Communication* (1984), Barry Truax elucidates the continuously evolving relationship between environment, sound, and individual by considering the individual simultaneously as a sound source and a listener. In this sphere, the movement of sound blurs the border between society and the individual, thus turning physical space into a social one reproduced continuously in the urban context via the daily movement of all things, living and inanimate alike. Also, sound produces different human experiences without becoming independent of its context as it emanates from its source and reaches its target. LaBelle in his book, *Acoustic Territories: Sound Culture and Everyday Life* (2010), analyses sound as a deep and widespread expression of culture, and asserts that an entire culture and history can be found within a single piece of sound. Sound, existing as energy and continuously transforming itself as such, spreads to the void, which allows it to operate as an area of sharing, thus enabling plurality. The intensity and grace with which sound may create a relational space, a meeting point, diffuse and yet pointed; a private space that requires something between, an outside; a geography of intimacy that also incorporates the dynamics of

1. Ph.D.Student, Urban Planning, Mimar Sinan Fine Arts University, sena.karavan@gmail.com

interference, noise, transgression (xvi-xvii). Due to its versatile nature, sound constitutes the inclusive component of spatiality; it is heard, it contacts, it interacts, transforms itself and then disappears. In this context, it allows the recurrent and inevitable restructuring of the invisible bonds between the individual/body and the society, each time in a different way than the previous one (Karahan, 2019).

Lefebvre asks: How can everyday life be defined? It surrounds us, it besieges us, on all sides and from all directions. We are inside it and outside it (2002, 41). According to Lefebvre, social space in the occurrence of the rhythm of everyday life is not a thing among things or any product among products. It contains their coexistence and their relationship within their simultaneity, therefore containing relative order and/or disorder (Lefebvre, 2014, 99). Social space does not occur as a product of a set of rules, it is generated by life itself. Sound as an energy within the relationship between the individual and the society, blurs the distinction between interior-exterior and helps us (Stavrides, 2016) discovering the relationship between "inside" and "outside," and not simply the beyond of the body or the periphery. Soundscapes, which are being generated as a threshold space and defeating potential fictions of social space at the moment, offer proximity, distinction and rhythm to the bodies meeting within the invisible (Lefebvre, 2014, 180). The sound that does not discriminate and the social space it affects, offers a cultural soundscape. The geographical structure, the fauna, flora, built environment, economic dynamics, technology, population, belief and orientation systems of a city are sources constituting the cultural soundscapes of a city.

In this context, urban soundscapes offer a wide and diverse field of study. The concept gained increased popularity in the 21st century, and soundscapes have demonstrated themselves to be a significant field of discourse in the studies on urban space and the evaluation of sound in everyday life (Augoyard and Torgue, 2005; LaBelle, 2010; Lacey, 2014; Raddichi, 2013, 2017, 2018; Thibaud, 2011, 2015; Wunderlich, 2013).

In this work, soundscapes are evaluated as a field of encountering and struggle, as threshold spaces (Stavrides, 2016). In relation to that, the field research took place along the coastline of Galata, Karaköy, a cultural and physical threshold space. This old gate was the key point where the industrial and electrical revolution met with Istanbul. On the other hand, in the short history of the republic, the political economy of Turkey has left deep scars on the urban morphology and in the demographic structure of Galata City.
Today, whilst the rhythms of everyday life of this area are facing major restructuring or eradication through gentrification, mega 'renewal' projects, it also enhances the importance of a discourse about sound and social space built through sound, problematization of change in public space and the experience of spatiality in public space.

This project, which has been realized with the help of the research grants given by Mekanda Adalet Derneği (Center for Spatial Justice), is the continuation of the master thesis; "Social Reproduction of Space and Soundscapes." The sound mapped field re-studied and converted to an online platform. In the research, soundscape samples of everyday life of the area have been recorded with a Zoom H6 Handy Recorder (X/Y 120°) and analyzed by applying widely accepted methods in this domain such as soundwalks (thesis March 2017 - December 2018, MAD Research October 2019 - December 2019) and soundscape analysis.

This work, which examines the discourse of public space in urban environments through the notion of "sound" which allows for physical and social bonds to be built, has been conceived to include different agents to the research and thus transferring

the sonic maps to the virtual environment.

In order to emphasise the relationship of the participation with the online platforms – www.soundinbetweenness.org – we have worked on the motive of "postcard," which can easily be articulated within the framework of everyday life practices, and one of the soundwalks has been designed as a flipbook.

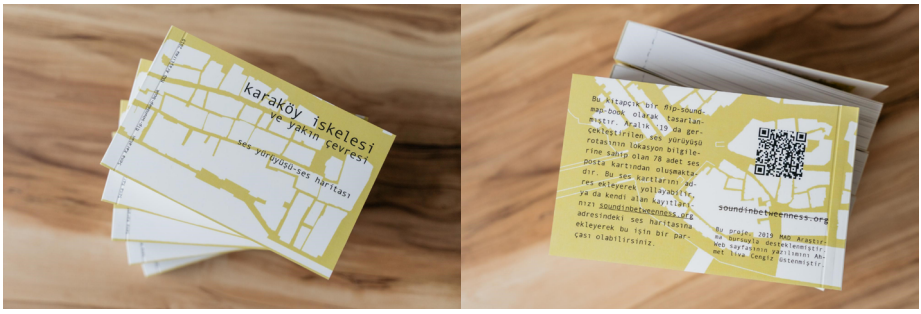

Figure 1. Flip-soundmap-book

The origin of the soundwalks has been selected with reference to the ferries; indispensable objects of everyday life, which also are cultural and industrial heritages of the neighborhood and the city. The term 'soundmark' often used in soundscape analysis refers to a sound having unique qualities and importance for a community. For the case of Istanbul, these sounds can be church bells or the azan, which have dominated the sonic landscape in that area for centuries. For the specific case of Galata, this would be the ferry whistle. Therefore, the ferry port of Karaköy has been determined as the origin of walks and mapping.

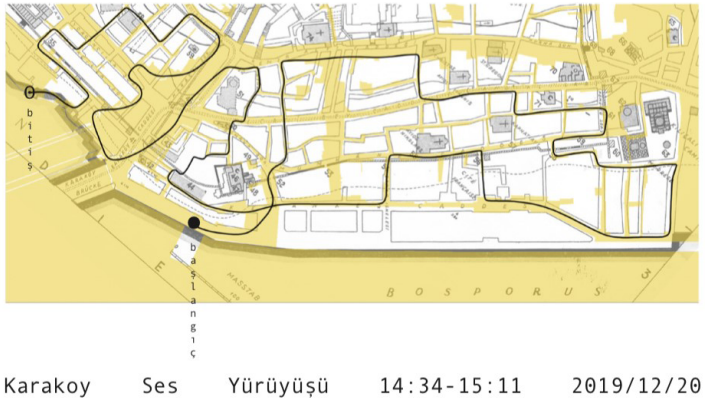

Figure 2. A display of the route of the stroll that can be seen in the flipbook

The stroll that took place between the Karaköy ferry port and the speedboat port of Galata between 14:34 and 15:11 at 2019/12/20 has been transcoded to the manual animation consisting of sonic postcards.

Figure 3. Front and backside of the sonic postcards

The detachable cards in the book have been instrumentalized to emphasize the relationality of the user, to expand the field of interaction and exchange, and to facilitate the access to digital interfaces. The QR codes that can be found on the backside of the cards are able to transmit the sound of the specific location represented at the given moment, thus enabling a temporal layering in the experience of space.

The yellow colored area coded in the map represents the range of motion for sound and the social/common space built with sound[2]. In this two-dimensional representation (see Figure 2, the present urban texture of the city has been layered with the topographic and archaeological map of Galata (SALT archive), different eras and rhythms of the city have been compared[3]. The Google Street View images that were used have been selected due to the fact that they comprehend different temporalities, allow for randomness and are instantly accessible.

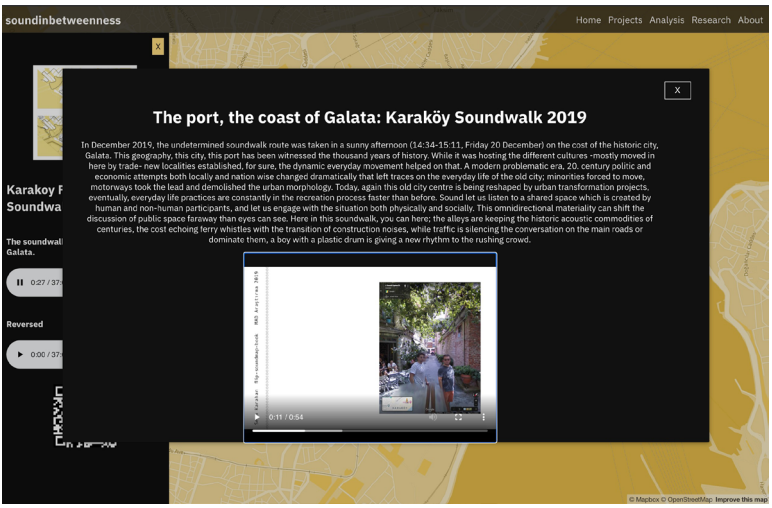

Figure 4. Excerpt from a soundwalk map from the book

2. The map of Italian architect and surveyor Giambattista Nolli (1748). Nolli defines shaded areas as positive masses while unshaded areas as void of mass. In addition to that he expands the relationship of public and private. While the shaded areas define private spaces, the unshaded/white areas define the use of public (street, churches, chatetrals).

3. The morphology of Galata experienced the most radical change in the interventions in the second half of the 1950s. The streets and built surroundings of the city were torn into wide streets opened on the planned motor vehicle traffic axes (Gül, 2009: Kafesçioğlu, 2016).

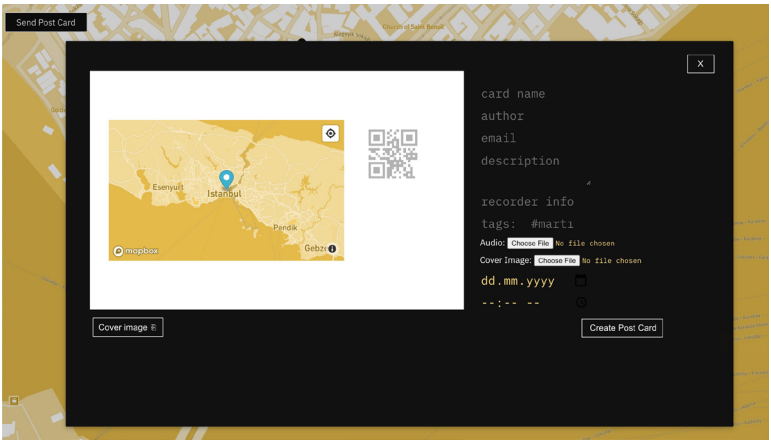

Figure 5. Sonic postcard loading screen

The screenshots Figure 4 and Figure 5 are from soundinbetweenness.org, which at the same time also is the main platform for the research to deepen and diversify. Developed by Ahmet Liva Cengiz, the role of the user in this website is key. The website, which can be accessed via sonic cards, allows the users to not only listen to the existing recordings, but also lets them map and upload the recordings of their own (mapping can take place globally). Via a survey interface targeting the contributors of the sound maps, the generation of an experience map is intended. As the archive gets richer and more diverse over time, a process that allows urban space analysis and processing of data on various concepts is conceived. Also, another longer-term goal is to generate soundscape compositions by applying AI on the recorded data.

Furthermore, as declared before, the website and studies aim to discuss the critical role of sound in everyday life and tries to multiply the actors who participate in the public space. As sound which blurs the borders of public space and the bodies, this website could be an interdisciplinary tool. Therefore, another component that is intended is the consolidation of the collective structure and to provide a platform for multi-faceted discourses for projects/works focussing on space and urbanism in order to design, more inclusive public spaces, and deeply analyze the notion of public space.

For more info and sonic data please visit: www.soundinbetweenness.org

References

Aletta, Francesco, and Jieling Xiao. “What are the current priorities and challenges for (urban) soundscape research?.” *Challenges* 9, no. 1 (2018): 16. https://doi.org/10.3390/challe9010016

Augoyard, Jean-François, and Henry Torgue, ed. *Sonic experience: A Guide to Everyday Sounds*. Translated by Andra McCartney and David Paquette. Montreal: McGill-Queen’s Press. 2014.

“Galata’nın Topografik ve Arkeolojik Planı - Galata Topographisch-Archaologischer plan mit erlauterndem text von A.M. Schneider und M. Is. Nomidis [İstanbul] - Topographical and Archaeological Plan of Galata”, SALT Research, Accessed May 20, 2020. https://archives.saltresearch.org/handle/123456789/102336

Gül, Murat. *Emergence of modern Istanbul: Transformation and modernisation of a city*. IB Tauris, 2009.

Kang, Jian, and Francesco Aletta. “The impact and outreach of soundscape research.” *Environments 5*, no. 5 (2018): 58.

Karahan, Sena. “Social Reproduction of Space and Soundscapes.” Master Diss. Istanbul Bilgi University 2019.

LaBelle, Brandon. *Acoustic Territories: Sound culture and everyday life*. USA: Bloomsbury Publishing. 2010.

Lacey, Jordan. “Rupturing urban sound (scape) s: spatial sound design for the diversification of affective sonic ecologies.” Ph.D.Diss. RMIT University 2014. https://researchbank.rmit.edu.au/view/rmit:161186/Lacey.pdf

Lefebvre, Henri. *Mekânın* üretimi. Translated by Işık Erguden. Istanbul: Sel Yayıncılık. 2014.

Lefebvre, Henri. *Critique of everyday life: Foundations for a sociology of the everyday Vol*. 2. Translated by John Moore London & New York: Verso.2002.

Orçun Kafesçioğlu, Figen. “19. Yüzyılın İkinci Yarısından Günümüze Galata/Karaköy’de Kent Morfolojisi ve Yapı Türlerinin İncelenmesi.” *IDEALKENT 7*, no. 18 (2016): 174-203 https://dergipark.org.tr/en/pub/idealkent/issue/36793/419092

Payne, Sarah R., William Davies, and Mags Adams. “Research into the practical and policy applications of soundscape concepts and techniques in urban areas (NANR 200).” (2009). http://usir.salford.ac.uk/id/eprint/27343

Radicchi, Antonella. “The sonic niche-A new design tool to enhance and create atmospheres with sounds in the contemporary city.” *Ambiances in action / Ambiances en acte(s) - International Congress on Ambiances, Montreal 2012*, Sep 2012, Montreal, Canada. pp.253-258. (halshs-00745534)

Radicchi, Antonella. “Emotional geography & soundscape studies: beyond the cognitive approach in (sound) mapping urban spaces.” In Conference: the EAEA11 Envisioning Architecture: Design, Evaluation, Communication. 2013.

Radicchi, Antonella. “The Notion of Soundscape in the Realm of Sensuous Urbanism: an Historical Perspective.” In Wilson, A., (ed.), Listen! Sounds Worlds from Body to Cities, Cambridge Scholars Publ. 2019

Stavrides, Stavros. Kentsel Heterotopya, Özgürleşme mekânı Olarak Eşikler Kentine Doğru. Translated by Ali Karatay. Istanbul:Sel Yayıncılık. 2016.

Thibaud, Jean-Paul. “A sonic paradigm of urban ambiances.” *Journal of Sonic Studies*, 1 (April 2011): 1-11. (hal-00980746)

Thibaud, Jean-Paul. “The backstage of urban ambiances: When atmospheres pervade everyday experience.” *Emotion, Space and Society*, Volume 15 (May 2015): 39-46. https://doi.org/10.1016/j.emospa.2014.07.001

Truax, Barry. *Acoustic Communication*. New Jersey: Ablex Publishing. 1984.

Wunderlich, Filipa Matos. “Place-temporality and urban place-rhythms in urban analysis and design: An æsthetic akin to music.” *Journal of Urban Design 18*, no. 3 (2013): 383-408. https://doi.org/10.1080/13574809.2013.772882