Banu Çiçek Tülü

Sonic Design: Strategies to include sound into urban design process

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Declaration: This thesis was composed by the candidate working entirely independently, that the candidate has not used any sources or aids other than those specified and that they marked any direct quotations or indirect references from other authors as such.

Banu Çiçek Tülü

Prüfungskommission:
Dr. Friedrich von Borries, Erstgutachter, Prof. im Studienschwerpunkt Theorie + Geschichte (Erste Betreuer)
Dr. Jesko Fezer, Zweitgutachter, Prof. im Studienschwerpunkt Design (Zweite Betreuer)
Dr. Anja Steidinger, Prof. im Studienschwerpunkt Theorie + Geschichte
Dr. Anke Haarmann, Prof. für Designtheorie / Designforschung, HAW Hamburg

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I grow up in the very South – East Turkey city called Adana. As in summer time the weather is very warm, it is usual for families to either go to mountains or seaside. As a daughter of working class family, my first migration started to go to mountains for six months every summer, with my grandparents while mom and dad had to work and stay in the city. I remember how I missed the sound of the city. I was craving of signals, hums, traffic. It wasn't so long ago that I realized actually the city meant my parents, and I hankered after hem. The only sound in the mountains were nature. There was no infrastructure for electricity, but my uncle had a small radio which was the only possibility have the connection to the sounds of city. Some weekends, my parents would come and visit us. Every night dad would take a stick and pretend like he is playing "saz" – traditional Anatolian instrument. He would be the "Aşık" who explains a love story and sings at the same time.

I guess my first migration has a lot to do with my passion in sound and music, my longing the sound of the city (- my parents).
Other migrations throughout my life only provoked this passion and this thesis is a part of me and my journey where I gather everything related to sound.

I am very grateful to work with my both supervisors Prof. Friedrich von Borries and Prof. Jesko Fezer, learning from them was a privilidge. I am thankful to Brandon

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I am only in this point of my life and this research is actually only possible because of my parents, their endless support and unconditional love.

To my canım anneme ve babama…

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ABSTRACT

This thesis focuses on sound and considers sound as an important element in urban design process. It adopts an interdisciplinary approach and suggests using sound as a crucial instrument for spatial research. The proposals which have been presented in each chapter can be seen as a design technique to combat planning scenarios where sonic awareness and sound environment strategies are restricted to noise reduction. While combining theory and artistic practice to gather ideas on potential sonic methods of post-industrial urban space development, rather than offering a single design solution for the sound environment of urban spaces, this thesis aims to become a handbook for the urban designers (and all the others who are interested on this topic) that helps how to include sound in urban design processes. After covering different methods – soundwalks, sonic mind maps, sound art installations – that have an artistic and participatory approach to including sound into urban design, the thesis refers to the techno music DJ'ing as a proposal to analyse urban space through sound. After including effective sonic solutions in urban design with materials and small interventions, the thesis gives future thoughts at the end. For the data collection, Köpenicker Straße in Berlin has been chosen as a case study. Besides proposing hands-on methods to urban designers, the thesis invites readers to think about their sound environment.

Zusammenfassung

Diese Arbeit konzentriert sich auf den Klang und betrachtet ihn als ein wichtiges Element im Prozess der Stadtgestaltung. Sie verfolgt einen interdisziplinären Ansatz und schlägt vor, Klang als wichtiges Instrument für die „spatial research“ zu nutzen. Die in den einzelnen Kapiteln vorgestellten Vorschläge können als Instrumente zur Herausforderung von Planungsszenarien betrachtet werden, bei denen sich das Klangbewusstsein sowie Strategien für eine gesunde Umwelt auf eine reine Lärmminderung beschränken. Die vorliegende Arbeit verbindet Theorie und künstlerische Praxis, um Ideen für potenzielle klangliche Methoden der postindustriellen Stadtentwicklung zu sammeln. Sie bietet nicht nur eine einzige Planungsherangehensweise für die klangliche Gestaltung städtischer Räume. Die Arbeit soll vielmehr ein Handbuch für Stadtplaner:innen (und alle anderen, die sich für dieses Thema interessieren) sein, das ihnen hilft, Klang in städtische Planungsprozesse einzubeziehen. Nachdem verschiedene Methoden - Soundwalks, Sonic Mind Maps, Klangkunstinstallationen - vorgestellt wurden, die einen künstlerischen und partizipatorischen Ansatz zur Einbeziehung von Klang in die Stadtplanung verfolgen, schlägt die Arbeit das Auflegen beziehungsweise DJing von Techno-Musik als Methode zur Analyse städtischen Raums durch Klang vor. Nach der Einbeziehung effektiver klanglicher Lösungen in die Stadtplanung mit Hilfe von Materialien und kleinen Interventionen, gibt die Arbeit am Ende einen Ausblick auf zukünftige Forschungsfelder. Für die Datenerhebung wurde die Köpenicker Straße in Berlin als Fallstudie ausgewählt. Neben Vorschlägen praktischer Methoden für Stadtplaner:innen lädt die Arbeit die Leser:innen ein, über ihre Klangumgebung nachzudenken.

1. INTRODUCTION

Sound-related topics are getting attention from different fields, from human and social sciences, art, architecture, urban planning and many more. The working field of Sound Studies contains interdisciplinary research approaches. The review of recent topics shows that "sound environment and acoustic ecology" is an emergent topic. Acoustic contamination in our living environment(s) is not only a question of noise pollution caused by traffic, industrial or daily activities, but rather about understanding the auditory experiences and discovering the sonic territories in urban space. Contemporary urban design projects already left the tradition of designing only visually and started to focus on aspects like acoustic qualities and perception of users (also light, smell, etc). However, they do not go further than measurements and laboratory work. This thesis proposes different methods to include sound into urban design processes. The methodology contrasts itself from the mainstream urban design process and transfer the research into the urban space. Nonetheless, the thesis involves artistic practice that employs sound in urban space. In chapter two, soundwalk, sonic mind maps and sound art installations are explained as well-known methods in art context. It is clear that the urban designers are not aware of their existence, neither their possibilities. In order to support the chapter in exploring the sonic territories and sonic experiences of residents and the users, between June and December 2017, interviews with residents and users of Köpenicker Straße in Berlin have been conducted. The aim was to point out that a very central, mixed used street, is considered as a transition area – even though it contains public spaces, meeting points, etc. – because of poor sonic qualities. After the field work, drawing on Guattari and Deleuze's concept of 'refrain' and on Lefebvre's 'rhythmanalysis', it can be stated that sound environment should be rethink theoretically and sound should be considered as a relevant element in the spatial, functional and qualitative construction of urban spaces.

In cities, the dynamism and rhythm of human activity generates the everyday activity. The design of urban space has an impact of everyday life. In the past, urban design practice has been considered the urban space as a mere morphological structure. The human interaction with buildings and mobility was in the core of the urban design process. After Kevin Lynch's work on human perception, urban design has been practiced more than being only visual and urban designers started to consider the different elements of the urban space, perception, interaction, etc.(Calleri, 2015). Contemporary urban design of the "post- cities" enhance its limits and takes environment into consideration. Recent approaches on ecological urbanism focuses on the notion of ecology within the field of urban studies. It has been covered as a cross-disciplinary approach in which the urban environment is reconsidered as a complex and layered site. Environmental planning and design consist the relation between other humans, non-humans, nature, animals, species and things. In the era of post-Anthropocene, these encounters have an important impact of the design of urban space. Nonetheless, designers are more than aware how other senses – beside sight – are fundamental elements while designing the urban space.

Sound has been taken into consideration as well in order to create sustainable urban places by accepting noise as an urban condition. Human enjoyment, well-being, comfort, quality-of-experience, or quality-of-life has been questioned regarding the different senses and acoustically "well-designed" urban spaces get more appreciation from users or decision makers. Recognizing urban acoustic space as shifting, heterogeneous and emerging space generates questions about how urban design and sound can be actively used in the investigation and formation of urban spaces (Wunderlich 2013).

The World Health Organization (WHO) has dealt with the problem of noise (environmental noise, residential noise or domestic noise) since 1980. "Guidelines to Community Noise"

launched in 2000 still serves as an important document for policy-makers and other stakeholders at an international, regional and local level. It helps to generate action plans for legislators regarding noise pollution in human environments. The quality of the sonic environment is important for our well-being. The experts at the WHO obviously are aware of this, even though they do not substantiate this standpoint in more depth. The WHO focuses the sound in urban environment, unfortunately, does not going beyond than technical measurements and thresholds while urban design is in need of a progressive research methods that considers all kind of interaction, perception and experiences urban sonic space (Hellgrän, 2015). This thesis do not undermine the importance of measurements and thresholds related to hearing and listening as well as regulations. However, it is interested with the definition of sound as a complex phenomenon where physical proprieties merges human perception and sonic experiences.

A first approach to acoustic phenomena could be made by asking, 'What do you hear?' and receiving the vague answer, 'A sound.' However, in a subsequent step, the question of what this sound or noise represents arises. The search for generally applicable aspects of sound or tone is thus complex, because acoustic impulses can be perceived extremely differently, particularly through individual subjective reception. As a result, the first approach to sound and sound is theoretical, which is then contextualised in a subsequent step in the overarching field of sound studies. This method also allows for a critical examination of sound as the starting point of auditory perception, as well as its written exploration via sound studies.

Definitions of sound emphasize the term's acoustic properties, while physical aspects are rarely mentioned in other meanings, as the emphasis is solely on the social impact of sound. As a result, many of sound definitions are already based on limiting or evaluative criteria. The following definition includes both perception-based processes and physical sound conditions:

"Sound is an emergent perception that arises primarily in the auditory cortex and is formed in an embodied system through spatiotemporal processes" (Grimshaw-Aagaard, 2019:19).

Thus, the concepts of sound is not suited to a straightforward approach. They share this feature with, among other things, the phenomenon of music, where many practical and theoretical sub-disciplines debate an appropriate view of and characterization of music.

Rather, the property attributed to every form of sound of the relationship between itself - i.e. the sounding source of sound - and the interpretation - by a perceiving subject - represents a significant difficulty in defining it adequately.

LaBelle (2015) underlines:
“ Sound is intrinsically and unignorably relational: it emanates, propagates, communicates, vibrates, and agitates; it leaves a body and enters others; it binds and unhinges, harmonizes and traumatizes; it sends the body moving, the mind dreaming, the air oscillating. It seemingly eludes definition, while having profound effect“ (Labelle, 2015: Introduction).

The term "relational" may initially imply more than "just" the process of sound propagation as well as reception and processing by the human ear. Rather, "sound" is to be understood as a "social relationship" that not only spreads from a sound source to a dedicated human organ of perception, but also allows conclusions about social structures between living beings to be drawn (LaBelle, 2018).

“The complex and entangled ontology inherent to an auditory position, of sonic thought and imagination, voice and care, is, from my view, enabling for a deep and complex ethics. For instance, in listening one is situated within an extremely relational instant, one conditioned by

the silence of thought (attention for the other, even of oneself – the oscillations that sound out an inner acoustic), and in sounding forth one may vary the conditions of that attention, to nurture and care, as well as to argue and disrupt. Sound and sounding practices may therefore function as the basis for creating and occupying a highly malleable and charged relational arena, modulating the social coordinates and territorial boundaries by which contact and conversation may unfold. Through such auditory conditions and experiences one may learn from the affective and animate channels of relations how to recognize more than what appears in the open.“ (LaBelle, 2018:8).

The attempts at a relational description of sound presented in Brandon LaBelle's quotation reflect not only the possibility of its widely varied characteristics and forms of appearance, but also the difficulty of a linguistic form of expression in terms of the concrete presentation of individual aspects of sound description.

As much as relational, sound is also spatial. Many of today's concepts of urbanity can be traced back to Henri Lefebvre, who was deeply involved in the process of urbanisation and the related consideration of urban society (Lefebvre, 1974). When looking through contemporary writings on Henri Lefebvre, one thing that stands out as the most frequently cited and used element for subsequent research from "The production of space" is that Lefebvre, when referring to space, was not interested in simply opposing "structure and agency, discourse and practice" (Ronneberger 2008:137), but instead suggested a triadic division of space into the following categories. First of all, he mentions „perceived space“. […] perceived space refers to collective production of urban reality, rhythms of work, residential and leisure activities through which society develops and reproduces its spatiality“ (Ronneberger 2008:137). As second he explains „conceived space“ […] conceived space is formed through knowledge, signs and codes. Conceived space refers to „representations of

space“ by planners, architects and other specialists who divide space into separate elements that can be recombined at will. The discourse of these specialists is oriented toward valorizing, quantifying and administering space, thereby supporting and legitimating the modes of operation of state and capital“ (Ronneberger 2008:137). His last point in that manner is „lived and endured space“, or „spaces of representation […] users of space experience lived space every day, through the mediation of images and symbols. Lived space offers possibility of resistance“ (Ronneberger 2008:137).

This indicates that, according to Lefebvre's framework:

[…] the schism between subjects’ perceived and lived spaces of activity and „objective“ scientific-technological spatial structures is bridged by „ideologies of space“. […] [T]hese ideologies articulate science with everyday life, render spatial practices coherent, guarantee the functioning of everyday life and prescribe modes of life. (Lefebvre, 1974:25).

In Lefevbre’s various analytical approaches to urbanity are also united in what is known as Urban Studies, a very diverse research direction that resembles Sound Studies both in methodology and, more importantly, in its various perspectives.

While Murray Schafer (1994) sees the city as an acoustic fog in which one must orient oneself through "ear cleaning ", others see the city, or urban space, as an extremely interesting, plural, and, above all, contemporary field of research. The subjective and collective understanding of social experience of urban space, as well as the associated urbanisation processes, are an urban space for action. Urbanisation processes are thus crucial for defining an urban space of action (Lefebvre, 1974). At this point, sound and the accompanying directed auditory perception can be understood as a kind of signifier of this urbanisation process.

Atkinson (2011) highlights that sound is both an ordered and an ordering force in urban space. It has a non-random spatial distribution that is related to social ecologies as well as the relative clustering and dispersion of various transport, leisure, economic, production, and other functions that emit sound to varying degrees (Atkinson, 2011).

Because of the previously mentioned characteristic of sound, 'listening' has a special position in urban space, on the one hand allowing interpretable conclusions to be drawn about a space and on the other hand standing as an expression of action for subjects acting in this space.

One way to understand and design sound in urban space is to use sonic elements and elaborate their spatial relations in urban projects through artistic experiments (Atkinson, 2011). Artists have been intensely engaged in describing the impressions connected to urban sound. Soundscape of New York have been studied, as exemplified in the work of novelist Don DeLillo. As a writer, DeLillo refers to the sounds, tones, and noises that are present in modern, metropolitan life. In his novels the city appears and is described as a continuous flow and combination of sounds. DeLillo gives a number of interesting reflections on our basic modes of audible experience in urban environments.

Sound has been used in torture, on the battlefield, and to break up protests (Long Range Acoustic Device). In his book, Goodman (2010) narrates individual situations, moments and events through the history of sonic weaponry. For Goodman (2010), not only military machines can be used as weapons—all technological tools are sonic weapons that aim to repel, influence and manipulate human beings.

Berlin based sound artist Nik Nowak's work is mostly about how space and sound relate to each other. In his installations the artist investigates examples of how sound has manifested itself as a violent force throughout history. Nowak looks at how sound can be used as both a weapon and a way to spread propaganda and as a way to change culture. Nik Nowak, who studies sonic warfare, has created a new piece called "The Mantis." It is a two-ton, four-meter-tall sound sculpture that rears up in a biomimetic, hydraulic way to get ready for battle. The sound installation is a "Panzer" loudspeaker tank on the other side of a border fence. It reminds to the audience the "sonic wars" that happened at the German-German border during the Cold War in the early 1960s. Nowak did the first performance during the CTM 2019 (Festival for Adventurous Music and Art) at Berghain Halle and later Berlin Kindl Zentrum. The visitors were triggered by the sound, the visuals as well as the cold beton environment as whole experience was related too many senses at the same time.

Similar to how we normally perceive things, sound art is experienced simultaneously by all of our senses. In particular, visual and aural perception are closely linked, and a third crucial level of perception is added by the ability to detect one's own physical movement during the reception process. The recipient's "listening path" and the subjective act of bringing together optical and aural elements form the product, which the artist has not yet created, but only structured as a field of possibilities. Switching from one sense to another is a crucial part of this multi-sensory concentration, therefore distraction is inevitable. For architecture (the city), Walter Benjamin (2008) stated that such a distracted reception was especially commonplace. A significant purpose is served by this chance encounter, which was marked by tactile use and unfocused visual awareness.

"The basic formula of this hypothesis is that 'becoming conscious and leaving behind a memory trace are incompatible with each other within one and the same system'. Rather,

vestiges of memory are ‘often most powerful and most enduring when the incident which left them behind was one that never entered consciousness’. Put in Proustian terms, this means that only what has not been experienced explicitly and consciously, what has not happened to the subject as an experience [*Erlebnis*], can become a component of the *mémoire involontaire.* (Benjamin, 2006:319)

Adaptations in perception may only occur, according to Benjamin (2006), through habituation, when the recipients do not immerse themselves in the work of art but instead appropriates it for their own purposes, sinking it virtually into them. The input from the audience transforms the traditional presentation format of the artistic monologue into a conversational structure.

One of the most important book about sound art theory is Background noise perspectives on sound art by Brandon LaBelle (2015).

LaBelle (2015) approaches sound art with a knowledge that the structure of the material is formed by music, which means that it's not just random sounds strewn together, but a purposeful structure. From the standpoint of a listener, rather than a composer, it is important to consider LaBelle's (2015) emphasis on musical understanding. Gillian Wearing's (1994) performance “Dancing in Peckham” is used by LaBelle (2015) as a starting point for further exploration and understanding of sound art as an oscillation between different modes of perception. This switching between different ways of seeing is described by LaBelle (2015) as "making clear the negotiations of inner and outer, as intensities of dialogue or abrasions and marks left to be read through fantasies of possibility." (LaBelle 2015:Introduction). LaBelle (2015) makes it clear that this switching between ways of perceiving means that a listener can understand a sound installation in more than one way. In LaBelle's (2015) writing, a holistic approach is clear. There doesn't seem to be a single way to understand a sound art installation,

but rather, a fluctuation between different states of mind. For LaBelle, the perception of sound art installations is a combination of several perceptual building blocks, and not just based on hearing and listening alone, "for listening may gather in the total situation of not only sound but its context, synthesizing all these things." (LaBelle, 2015:13)

The purpose of LaBelle's (2015) research is to comprehend the role of sound in sound art installations not as discrete elements that are prepared for examination but rather as something more comprehensive that must be perceived in its entirety. The result of this is the direct perception of a syntactic pattern, as opposed to the semantic approach, which involves the analysis of individual components in order to comprehend the larger whole. In that sense the author writes:

“The art object, like the musical composition, is not so much a series of signs in need of interpretation but an organised event that aims to open out on to the field of meaning by inviting speculation, curiosity of perception, and the simplicity of ordinary materials to carry the imagination.” (LaBelle, 2015:59)

Labelle (2015) discusses what he believes to be the most interesting aspect of sound art installations: the utilization of sounds. Labelle explains how dislocated sounds interact with our prior knowledge and experience of sounds, as well as how the actions we take in our day-to-day lives effect how we behave and what we perceive when we visit a sound installation.

This thesis adopts the idea of sound art and the use of sound as an embodied object. Translating this into urban space provides a useful theoretical background. The city is no longer regarded as a site for industrial production and functionality alone, but also serves as a space for sustainable and cultural production in a human-scaled city. Ecological approaches

considering sound in the city has been extensively researched by R. Murray Schafer who founded the World Soundscape Project. As a composer R. Murray Schafer brought the soundscape into discussion regarding its impact upon the social and sonic environment. The complex relation between sound and space encouraged this thesis to deepen the context on other possible theories from different disciplines which invites the reader to rethink Schafer's approach.

1.1. The critical turn on sound ecology (Theoretical Orientation)

Daily we experience sound in a negative way as noise pollution. Schafer (1993) states that ecology is the study of the relationship between living organisms and their environment. For this, the author introduces a new terminology – Acoustic ecology; sounds in relationship to life and society. Acoustic ecology focuses on the effects of the acoustic environment, or soundscape and the physical responses or behavioural characteristics of users. Soundscape is a recognizable and aesthetic assemblage of sounds in a particular environment, also sometimes called the sound milieu or acoustic environment (Schafer 1993; Augoyard&Torgue 2005). Soundscape and acoustic ecology by Schafer has been remarked from wide-range disciplines. The author proposed the sound of acoustic environments through the concepts of low- fi and hi-fi soundscape creating a hierarchy between existing sounds. (Schafer, 1993). While low-fi is a distorted sound environment, hi-fi soundscape is clear and harmonious. At that point, Schafer received also remarkable critic from scholars and artists. This thesis takes the critics into consideration and finds its own terminology rather than 'soundscape'. Ari Y. Kelman (2010) brings together different uses and misuses of the term and connects them to the main description of Schafer. For Kelman, as the term itself has been interpreted wrongly by Schafer, therefore, the term understood wrong, used wrong or interpreted according to

other other author's need. The critic of Kelman proposes to think again the fundaments of the soundscape. The other critic of Schafer comes from Sophie Arkette, a sound artist, to his "prejudice of urban space" by describing the sound of nature superior than cities' noise. Arkette (2004) opposes that hierarchy and draws interest upon Schafer's misread of urban space and not consider the dynamics of everyday life (Arkette, 2004). Recently, Jackson (2016) elaborates the whole critiques and adds philosophical approach to 'soundscape' discussion. Jackson highlights the importance of contemporary urban space, its elements and its materiality. His critic bases on Schafer's understanding of soundscape as a listening act. The other elements emerge with sound and creates "the sound environment" regardless one listens or not. Jackson invites to leave our comfort zone and think about the unconscious act of listening.

The author draws attention to societal, political and economic changes. In that sense, Jackson founds the definition of soundscape by Schafer conservative, in which there is no space for interpretation and improvisation. Thus, the author clarifies that "Soundscapes do not merely reflect an environment but construct worlds that exist in the affective intersections where emotional connections are created between people and places through the compositional production of the imagination" (Jackson, 2016 p:29).

1.2. Theoretical direction

Certainly, the critiques do not leave aside Schafer's research, they also give the appreciation and respect as this thesis does. However, what this thesis follows as starting point is that acoustic contamination is not only a question of noise pollution caused by traffic or industrial activities, but rather about understanding the auditory experiences and discovering the sonic territories in urban space. In that sense, Auditory Architecture Unit, at Sound Studies

Department at Udk Berlin founded by Alex Arteaga is an important reference for this research. Auditory Architecture works at the intersection of sound, environment and experience. Klangumwelt has been used as the term in order to describe their main concept and constructed as a new artistic-scientific discipline whose aim is to understand and design the 'aural surrounding world'. The main idea behind Klangumwelt is the experience. However, the experience is not taken as an individual act, rather has a collective meaning. Auditory Architecture is an enactive approach which proposes the interaction between organism that is aware of its interaction within its own consciousness as an experimenter and its environment. That has been said, an experience is not a result of the experience, yet it is the whole process. Alex Arteaga positions his research and the terminology into the cognitive science and human experience and highlights that the content of cognition is cognition itself, therefore, the process itself. The experience is defiantly processual, relational and transformative. Being the experiencer, the development of his emotional state, as well as the loudness of his environment or the sounds heard in it are constitutive elements of the Klangumwelt. In the beginning of July 2018, Alex Arteaga led a workshop at Floating University in Berlin. Arteaga has challenged the participants giving the example of a fall of a tree. For him (and for his project) a fall of three in the middle of forest does not create a sound, because there is no experience neither experiencer. However, fall of a tree in a windy day in a residential area could create the Klangumwelt, where there is an 'auditory experience' by hearing. In that case, it is a modality. At the same time, the auditory could refer to a condition which is listening. In the case we see tree falling, we expect an auditory experience which would not be surprise and the emotional aspect would be more superficial. Therefore, embodiment of Auditory Architecture is first as a modality of experiencing and second as its condition.

Bearing in mind all the critiques and proposals, this thesis adopts the term ‘sound environment’ as an approach to ecology and sound more appropriate rather than ‘soundscape’. This thesis approaches to the sound and sound related projects as a participatory tool and proposes methods that can be used as collective listening in order to understand the sound environment. The idea of collectivity derives from a post-human vision to the urban space. Amin (2008) states that the contemporary urban space is far from the tradition which located the urban public space in the encounters and personal relations. However, the dynamics and rhythm of such spaces are mainly constructed by the complex relation of human and non-human bodies which forms a “pre-cognitive template for civic and political behaviour” (Amin, 2008).

The above draws the main theoretical line of the research. The academic and societal relevance, research objects and questions, as well as research methods will be presented.

1.3. Academic and Societal Relevance

Certain concepts found in different academic and artistic works that considers urban spaces and cities as a system, relating to users perception. In academic literature, there is a gap regarding use of sound as a participatory tool in urban design within the field of acoustic ecology. The majority of scientific articles and reports focus either on sound and rhythm in the city without reflecting on user’s perception. People perform everyday life alongside others, consequently defining the order, pace, and rhythm of places. Jane Jacobs (1961) refers to social space as a temporal choreographed whole of body-ballets and time-space routines—in other words, as constituted by synchronized patterns of human gestures and everyday activities.

"A city street equipped to handle strangers, and to make a safety asset, in itself, our of the presence of strangers, as the streets of successful city neighborhoods always do, must have three main qualities: First, there must be a clear demarcation between what is public space and what is private space. Public and private spaces cannot ooze into each other as they do typically in suburban settings or in projects. Second, there must be eyes upon the street, eyes belonging to those we might call the natural proprietors of the street. The buildings on a street equipped to handle strangers and to insure the safety of both residents and strangers, must be oriented to the street. They cannot turn their backs or blank sides on it and leave it blind. And third, the sidewalk must have users on it fairly continuously, both to add to the number of effective eyes on the street and to induce the people in buildings along the street to watch the sidewalks in sufficient numbers. Nobody enjoys sitting on a stoop or looking out a window at an empty street. Almost nobody does such a thing. Large numbers of people entertain themselves, off and on, by watching street activity." (Jacobs, 1961:37)

Likewise urban spaces and sound environment share the attributes of vivid and distorted sense of time, the experience of flow and rhythm. Within the context, sound environment – which is mainly referred to by the academicians as the soundscape – have often been the subject of social-scientific and environmental research. The foci of these studies were mainly related to issues of noise pollution and no research has examined the possibilities of sound as a participatory tool in urban design process. The different methods which are proposed in this research are surely have been investigated. However, there is any research that brings all together and highlight the importance of participatory aspect of the sound.

Jesko Fezer (2009) notes that design is not able to solve problems produced by political and social situations, practices and actualities. The more interesting dimension of design is its potential to articulate and transform these conflicts. Architecture, planning and design have the capacity to enable social-spatial negotiations. In that sense, sound can be proposed as the main tool to initiate these negotiations and start a discussion. Therefore, the aim of this thesis is to fill the gap in the academic debate with an artistic research in the context sound environment. It will create a place for critical reflection, communication, and discussion on an urgent subject like sound in urban spaces. Meanwhile it will provide a relevant contribution to urban design theory and other disciplines.

1.4. Research Objectives and Questions

Soundscape research is essentially a qualitative approach which aims to discover ways to improve the "sonic environment". There is a possible analogy for the acoustic quality of some urban spaces. Furthermore, it can be proposed that urban space may have a specific, distinct and recognizable sound environment; church bells or call to prayer as a sign of religion, merchant ship in a coast city. Hence, the sound environment occurs which is created both by the architecture and the sound sources. In addition to that, user's perception is the key for a further step. As it discussed in previous section, the acoustic comfort or sound quality of these urban spaces cannot be sufficiently dealt with via noise parameters. The drift of this research interested in what sound indicates in urban space and how it can be used and deployed to create different understandings of the places we live and act. The aim is showing the possibility of evaluating and designing urban spaces through discovery of sound environment.

1.4.1. Research Objectives

• to discover the relation between the urban space and sound environment with a participatory approach by adopting sound (In order to explore these sonic territories, sonic experiences of residents or the users should be taken into consideration)

• to determine whether the sound can be considered as a relevant element in urban design and to what extent would be a critical agent in the spatial, participatory and qualitative research tool of urban spaces and their assessment by users.

• to identify the architectural elements, compositions or interventions of urban space that contribute to the shape and character of its sound environment

1.4.2. Research Questions

• What are the methods that can adopt sound as participatory element?

• What kind of sonic research and intervention could be useful for the process of participation and urban design?

• Besides visual analysis applied in urban space, can analysis of sound environment would add any input in the process of urban design?

• How small interventions can improve the sound environment?

• What are the materials can be absorb the sound?

• What are the design principals which helps to create comfortable sound environment?

• How music has been included into urban design process?

- What are the benefits of using music in the design of sound environment?

- How techno music DJing can be think together with urban design process?

1.4.3. Research Methods

The research methods consist of two layers. The first layer is the theoretical part that forms the academic dissertation. For the first layer, the methodological approach will be analytical and discursive literature review and research on previous artistic – academic works. In addition to this, a qualitative field research will be realized. The aim of field research is analyzing and describing the sound environment with the participation of the users. The collected data will be transfer into spatial context; i.e map of flow of people, flow of sound, etc. Finally, different methods of including sound into urban design process will be presented. Parallel to the first layer, the second presents the artistic practice where the researcher will be developing an audio-visual performance. The field data (the results of field research and field recording) will be used for the performance.

2. Sound as a participatory tool in urban research

Above the theoretical direction have been introduced. Having argued in the previous pages that sound should be consider as a participatory tool in urban design process, this chapter explains the ways in which sound can be include into those processes. The aim of this chapter is also to answer the research question on what kind of sonic research and intervention could be useful for designing the sound environment. In order to do that, the results of the field research will be presented.

In this chapter, the theoretical background of participatory design will be introduced by exemplifying different authors who have important contribution to urban research. There are

different authors whose theories have been adopted. The reason why this thesis investigates these authors differs. Firstly, starting from the 1968 movements till 21st century, the presented authors have been draw a critical line on the notion of participation. Their political positions supports the ideological background which this thesis wants to spread in urban research. At the same time, this thesis steps away from the prevailing normative and procedural approach to theory development, and instead adopts a critical approach grounded on the deep understanding of the challenges of participation in the urban research. Secondly, their work is applicable to global scale, but their focus, point of view and working areas (mostly) are taking Europe as their case. This is important for this thesis in terms of understanding the urban discussion in social, political and cultural context.

2.1. Participation in the urban context

The theoretical background and practice of participation are based ecological, geographical and anti-system social movements. In fact, in the practice and discussion of socially engaged urban design have been addressed because of several problems. One of the problems was the environmental pollution in high density urban settlements. The living conditions of the urban life were threatening the communities' health and safety. Other problem was the fragmentary social change followed by economical diffraction reflected to the spatial contexts as inappropriate developments in urban areas. The mass housing and densely packed large buildings transformed the urban fabric and mostly caused an isolation and barrier between the communities. In parallel with that, the top-down decisions and authoritarian approach created obstacles between decision makers and the habitants. As a result, the participation of citizens was taken into consideration by both governments and professionals in decision making processes.

The role of the designer and user (-participant) which is heavily debated in the history of Western world of the 20th century has been discussed in detail by Italian architect, writer and educator and curator Giancarlo De Carlo. His work is very influential in terms of notion of social engagement and its actors in the design process. De Carlo went beyond than architectural scale and interested with all kinds of spatial production. His ideology positions itself against to the conventional and authoritarian thinking in architecture and urban design. His critical thinking was much ahead and progressive than the 1960's spirit. De Carlo published his provocative approach to Architectural practice in "An Architecture of Participation" and "Legitimizing Architecture: The Revolt and Frustration of the School of Architecture". The article "Architecture's Public" by De Carlo – published in 1970 and was a political call for spatial practitioners– as a good example to show the importance of his thinking. His influence on the architecture and urban design education is crucial. Therefore, most of the literature about De Carlo have been published in the context of education and pedagogy. However, there is some literature focuses De Carlo's practice as a tool of understanding the formation of participation. In that sense, his critical position is essential for this thesis in terms of exploring the issues and outlining "indirect participation", rather than considering design as purely an intellectual investigation. After almost fifty years, his work can be used to rethink, revitalize and reorient the term participation.

Giancarlo De Carlo explains two different design processes; authoritarian and participatory. The first one approaches to the architecture projects as art objects. Therefore the structure of the object does not allow any kind of intervention. The second one proposes the participation practice and described as "participation in action". This kind consist different processes in itself; each operational phase in the design process becomes a stage of design, the usage becomes a stage of operation, so at the end those different stages emerge in the design process. In that point, the designer's role is not directly producing concrete objects, results or focusing

to better physical conditions, rather follow up the confrontation and encounter during those stages. That means a project can respond to the user's need with the help of its representation and the communicative process. However, it is not always possible to realize projects that involves participatory processes which described by De Carlo. Some complex political, social and cultural details make these processes even harder. De Carlo is also aware of them and speaks about two pragmatic criticisms directed to participation. The first one is the scale of the project. Long term and big scale projects, the top-down decisions, neoliberal urban developments and private projects are most likely to have the one man's power. The length of a long term big scale project implies the impossibility of participation. The participatory design process becomes difficult in examples such as the infrastructural operation of large-scale projects and the restoration of ecological solutions or improvement. The second one is the complex structure. The layered design and operational process in a project can make communication of individuals and related groups very difficult. To stand up to these criticisms, De Carlo states that the participation should become a decision-making mechanism with a clear political position. Yet, the problem of participant's representation and cultural relativism should take into account. The local identity of each society and community varies. The difficulty of taking a political position in the global societies that we are living in makes harder to engage as a decision-making practice.

Henry Sanoff, one of the most known and influential scholars in participation in architecture urban and environmental design, theorizes the notion of participation based on consensus (Sanoff, 2006; 2000). Sanoff is also important in terms of describing several steps to achieve the consensus. The author proposes different forms of participatory processes which help the participation can be effectively achieved (Sanoff 2000). The clear objectives, expectations and end result of the process is important for each participant to know. Their satisfaction is

directly related with the continuation of the process (Sanoff, 2000). Therefore, goal identification is an important phase for the participatory design processes. Besides that, planning and implementation of the stages should be designed open and explicitly with a strong management in order to have consensus in the end (Sanoff 2000). The author suggests several steps for consensus building which includes; identifying a shared sense of purpose by the participants; sharing information regarding the problem in order to make the problem clear; the problem statement which reflects the participants' apprehension; visioning related possible solutions; generating different ideas and creating alternative solutions and implementation. The concept of consensus is central to Sanoff's understanding of democracy. According to Sanoff, the importance is on the collective decision-making where "all individuals learn participatory skills and can effectively participate in various ways in the making of all decisions that affect them" (Sanoff, 2006, p. 133). For the author, professionals and users should be enable to creatively collaborate reaching a consensual decision-making, no matter which participatory method or technique is selected (Sanoff, 2000). He uses Habermas' (1992) ideal speech situation as a communicative framework for achieving consensus within a participatory process in which: "There must be no constrains in the discussion process. The individual must be free to express his or her personal opinions. - Each participant must be given an equal platform from which to express his or her concerns. No one participant should have more or less opportunity to discuss personal desires and needs. - All participants assume equal power. All political hierarchies are abandoned, and no participant is allowed to exercise more influence than others. - A rational discussion where good reasons are used to persuade others instead of threats" (Sanoff, 2000:15).

Nowadays, participatory processes in design are still in demand. In the spatial scale, urban design practices have been adopted different methodologies which includes urban research and urban pedagogy. In recent years, participatory design has been applied by anti-

gentrification design actions, urban interventions and collective design in almost every city in the world. The thesis considers participatory processes in spatial scale as a positive transformation tool. At the same time, it is recognized that participation is inherently ambiguous and complex. In that sense, the thesis considers the challenges of participation referring to Markus Miessen who clearly states that the term participation has been overused and romanticized by the urban actors (Miessen, 2010). Miessen's practice is extensively on participation "as a strategic tool for political legitimization". He published several books on participation and presented his research in different forms as exhibition design or educational programs. Participation for Miessen is not negating against the authoritarian system. It is rather an alternative strategy to get access to fields of knowledge and practices. In that sense, his constructive criticism while offering alternatives is an important component for this thesis. By proposing different methods, this thesis offers sound as a participatory element in urban design, a new actor in urban space and useful tool enhancing the participation. In Crossbenching – Toward Participation as Critical Spatial Practice articulates new theories about the production of spaces politically, socially and performatively. Miessen (2016) proposes an alternative positioning named as "conflictual participation" which is a "pro-active commitment where the individual dedicates himself to cause at hand". The explained concept "crossbenching" is adopted practice from House of Lords in the UK where members who are not affiliated with any political party (crossbenchers) and make their own judgements about a wide array of issues. For the author, architectural and urban practice is in need of this external observer in order to implement new spatial practices. Miessen (2016) proposes to look critically into the notion of participation which "has typically been read through romantic notions of negotiation, inclusion, and democratic decision-making". The critique of the author is on "unquestioned mode of inclusion—used by politicians as one of never-ending retail politics—that precludes critical results".

Following that, neo-liberal politics, privatization or municipal / government ownership arrangements in urban transformation projects have been used the term participation in their context. The process in which user and urban designer is involved in the design process does not always mean that there is an alternative in the context of a radical democracy. In that sense, one can surely talk about new neoliberal restructuring processes that includes the non-state actors in decision-making processes and increase their responsibilities of the (local) state. Therefore there is also a new understanding of governing, "governing beyond the state", which refers to the transformation of the institutional configurations of the local state and the externalization of (former) state tasks and functions which proposed by Erik Swyngedouw, a professor and urban theorist who extensively worked on political ecology, neoliberal urbanization and new forms of governing. The author elaborates the new actors in decision making processes where uneven power relations have been missed or not even take into account. Erik Swyngedouw refers to such participation processes "post-political" because the decision makers underestimate the complex nature of the disagreement in political debate and eliminate the alternative developments and unusual applications. In that sense, the government has the total control over citizens whose needs are made invisible and their confrontation suppressed (Swyngedouw, 2013). Another contribution to critique of participation has been pointed out by Marit Rosol who studied civic engagement with critical point of view using community gardening and ecological debates as case study. For the author, the increase of residents' responsibility and the activation of civic engagement in urban decision processes does not always aim to strengthen participatory rights of the population, but rather to shift responsibilities of the state to civil society organizations which created an austerity (Rosol, 2012). Since the content of these new settings are limited, they do not consist complex topics that are not easy to reach the consensus. These limitations, unfortunately, do not let any real chances for civil society to participate in decision-taking (Rosol, 2006). The mentioned authors' works are mostly on the European perspective which

is one of the main reasons to include their research into this thesis. While the application of proposed methods has no geographical limitation, understanding the political dimensions of the case study is necessary.

In Berlin scale, Jesko Fezer is crucial reference for this thesis. He has been worked about participatory design processes avoiding the historical and mainstream understanding of 'bottom up' notion. As an educator, author and architect, Fezer's work corresponds to a critical rethinking of the urban space in which Fezer questions the social and political role of the architect and urban designer as well as the other actors who are in the same participation process. Jesko Fezer make a suggestion of design in the context of cities that 'could redefine itself as a search for an alternative urban practice, beyond the techniques and the ideology of crisis-ridden, late-capitalist urbanism.' The author asks: "How would design look if it were inspired by an open, processual, micro-political, interventionist, communicative and participatory approach that relates to everyday urban life? Would it be destined to be merely an element in the commodified colonization of social spaces, or could it be a strategic tool with a political and social character that can make an essential contribution to a social city?" (Fezer, 2010).

This thesis do not plan to answer this question. It rather proposes options to debate in design theory between theories that promote ideals of inclusiveness, power- balance and consensus in participation and the ones that argue that in reality there are practical constrains that compromise the implementation of these ideals. Considering sound as a participatory tool, using the proposed methods as the strategic combination of participation and integrating solutions within the provision of urban spaces can create benefits that go beyond well valued physically improvements. With enough political and organizational support and resources, the

process can provide involvement of a significant amount of users and increase the influence of participation.

This research situates itself on the interdisciplinary research and proposes sound as critical spatial research tool. It can be conceived as a design practice for counteracting planning situations where sonic awareness and sound environment strategies are limited to noise control. Rather than proposing one single design solution for the sound environment of urban spaces, this research combines theory with practice to collect thoughts on possible sonic approaches of post-industrial urban space development. In the next section, soundwalk, sonic mind maps and sound art installations will be explained as inclusive approaches which use sound as a participatory tool in urban space design.

2.2. Soundwalk

The soundwalk is an important tool for proposed World Soundscape Project initiated by Murray Schafer and his collogues. As the group focused the noise pollution, their methods were interested to create comfortable acoustic ecologies and how to heal the listening abilities. The everyday sounds of industry, ie. cars, trains, city turmoil were the reasons which inhabitants lost their capabilities to listening the real environment. In that sense, the soundwalk was a tool for gaining the lost skill of conscious listening. At the same time, it could also help to ‘ear cleaning’ method. According to World Soundscape Project (1977:80), the listener should be trained in order to change the hearing process and become aware of the environment. Therefore, soundwalk as a way to listen the environment, as well as a practice of our listening abilities have been proposed by the members of World Soundscape Project.

Soundwalk practice has been widely studied by Hildegard Westerkamp. In her explanatory essay, Westerkamp states:

„A soundwalk is any excursion whose main purpose is listening to the environment. It is exposing our ears to every sound around us no matter where we are. We may be at home, we may be walking across a downtown street, through a park, along the beach; we may be sitting in a doctor's office, in a hotel lobby, in a bank; we may be shopping in a supermarket, a department store, or a Chinese grocery store; we may be standing at the airport, the train station, the bus-stop. Wherever we go we will give our ears priority. They have been neglected by us for a long time and, as a result, we have done little to develop an acoustic environment of good quality.“ *(*Westerkamp, 2001:1)

The author points out that the soundwalk can be done by anyone, alone or in a group anytime. The area of soundwalk can be a particular spot or a wide field. The timing can also vary but Westerkamp suggest longer walks for naturalize the t hearing barriers and get into deep involvement with the place. and takes the attention to the walking act in the context of qualified research. In the same text, the author brings a critique of everyday sounds. “Listening in that way can be a painful, exhausting or a rather depressing experience, as our ears are exposed often to too many, too loud or too meaningless sounds. Trying to ignore them, however, makes even less sense. Since we cannot close our ears, we cannot help hearing all sounds. No matter how hard we try to ignore the input, the information enters the brain and wants to be processed. Physically and psychically, we still have to compensate for any noise even if our ears perceive it unconsciously. In addition and most importantly, we desensitize our aural faculties by shutting out sounds and thereby not allowing our ears to exercise their natural function.“ *(*Westerkamp, 2001:2)

Unless we listen with attention, there is a danger that some of the more delicate and quiet sounds may pass unnoticed by numbed ears and among the many mechanized voices of modern soundscapes and may eventually disappear entirely. Our first soundwalk is thus purposely exposing listeners to the total content of their environmental composition, and is therefore very analytical. It is meant to be an intense introduction into the experience of uncompromised listening." *(*Westerkamp, 2001:5)

As it is seen, the motivation behind the soundwalk for Westerkamp is concentration to the nature or comfortable sounds. Yet, in an urban space, a soundwalk can help us to learn about sociocultural practices, political encounters and cultural appropriations.

Listening through soundwalk could function as research tool for wide range disciplines. Dr. Andra Mccartney directed research project called Soundwalking Interactions where she organized different types of soundwalk which aimed to establish a dialog with the participants. The end result was a performance and interactive installation with the data that the author collected throughout the years. The project highlights the variety of disciplines that has been utilize the soundwalk as scientific or artistic approach with a focus on acoustic ecology and performing arts. Giving the reference to Situationist International (SI), walking is the fundamental act for studying everyday situations and environments while listening (Paquette and McCartney, 2012). Soundwalk became an inspiration for many artistic practices that use the sonic properties of the environment and employ various listening strategies. The conscious listening which reveals the multi-sensory relationship with the world, other and the things focuses the subjective aural experience. Nonetheless, it also functions as a collective experience of being in the world. I will now introduce some soundwalk examples some that I also participated.

2.3. Examples of Soundwalk

As it mentioned before, soundwalk has been used by broad disciplines. The artistic contribution is one of the most interesting whilst proposing multi-sensory and embodied ways to discover the social, cultural and (sometimes) political geography.

In the fall 2018, The Global Composition Conference (TGC) hosted World Soundscape Project community which took place in Dieburg, in the Media Campus of Darmstadt University. There were several soundwalk workshops led by different artists. One of them by the pioneer of the practice Hildegard Westerkamp who took the participants to a walk around the campus. The campus located in a green sub-urban area, accessible to the forest and surrounded by new construction of single family houses. Westerkamp started to workshop in a classroom where she made clear that she does not want the participants to talk and just listen. Around 15 participants started to walk led by Westerkamp. After leaving the building, a grass mower sound started to be visible and it was getting closer. While the group were passing the Gardner with the grass mower, the sound was much more intense. In that moment, Westerkamp made clear her disturbance with a uncomfortable look in her face. After 700 m, where the mower's sound was not dominant again, Westerkamp smiled to the participants. Whole mimics and expressions translated to the participants that she definitely got annoyed by the sound of mower was an unwanted sound. Later in the discussion, some of the participants mentioned that the sound of mower did not bother them at all. One of them argued that in a small town in Germany which was very quiet, the 30-40 second of interruption by the grass mower should easily disturb. The participants expressed that it was instead a rupture where she did stop for a moment and started to pay attention to the nature and look around.

After that, the participants moved into an sub-urban area with new constructed functional housing. It was obvious that the area's population was upper middle class from the model of the cars, the decoration in their garden, the curtains were giving me an idea of middle class population. Later the participants could hear news in TV show which was about far right political party development in Germany. Another participant during the discussion referenced the TV sound as another rupture which led him to think about other topics i.e. racism. As the walk continued, Westerkamp stopped the group. All of the participant were close to each other in a still position. Westerkamp collected dry leaves, oak tree seeds and some small stones from the floor. She started to make sounds with these material very close to the ear of one participant. She repeated with two more participants. After that, the group walked back to the housing area and finally arrived to an empty pool with a metal sculpture. Westerkamp started to touch the metal sculpture with a wood stich, then with a stone. She invited the other participants doing the same with an inviting gesture. They were totally concentrate to the sounds they were making but not aware of the other sounds nearby. The workshop ended participants and Westerkamp creating natural sounds with all the materials they founded.

This example shows that even the person who leads the group has different aim for the walk, the participants can find the wide range possibilities of soundwalk as an useful tool to understand the everyday life. The soundwalk mostly focuses on a site-specific sound environment. Sounds are compared and various acoustic phenomena (reflection, absorption, reverberation, etc.) are examined. At the end, the analyzes of a specific sound environment varies depending the participant's perception.

The concept of soundwalk embraces many new forms that use various listening and walking tactics as well as different artistic approaches. In the case of "Electrical walks" designed by Christina Kubisch, composer, sound artist, performance artist and flautist, special headphones

have been produced which converts electromagnetic fields generated in urban space into sound signals. In Kubisch's composed spaces, you can hear and see at the same time, just like in music and art. She puts sounds together not only in time but also in space. Her pieces are made for specific places, but she doesn't say exactly what the end result will sound like to the listener. Started in 1970's, Kubisch has been realized the project in different cities. It is an invitation where participants follows a map and experience the sound environment that become audible through built-in coils.

Image: Flyer of Electrical Walks New York by Cristina Kubish (source: https://christinakubisch.de/)

The other artist who is worth mentioning is Amanda Gutiérrez. She is an artist who works intersection of sound and video. She is interested with the perception and works with the idea of sounds from Global South in order to break the western approach in soundwalk practice. In

her project “Flaneuse>La caminanta” where she researches her artistic practice and its connections to being a woman of color and an immigrant. For this project she conducted soundwalks with migrant woman in all over the world. Rather than just focusing on listening, the artist uses 360-degree camera in order to explore different perspectives. She invites participants to walk with her in urban space that has a personal meaning or everyday memory. In her work, Gutiérrez stressed the notion of flaneur as a white bourgeois man who does not have any problem of walking in any part of the city and any time of the day. However, as Guitérrez pointed out, it is not realistic for women especially in some countries in the Global South. She explains further the situation of femicide in Mexico with an example on gender-based hate crime cartography. The artist produces the videos related to sonic harassment which women experiencing in their everyday life. Gutiérrez travels and connects with different women with migrant background. She argues that not all soundscape are welcoming different communities, in case of the non-confirmative and self-identified female body transiting an environment that is mostly designed, ruled, and surveillance by patriarchal society.

Image: Still image from the video “Flâneuse>La caminanta“ by Amanda Gutiérrez (source: www. soundstudiesblog.com)

According to Gutiérrez, most of her participants had similar experiences in different cities of the world. The unsolicited sexual gestures, sonic harassment by pointing out specific clothing or hair color, car honks, angry masculine drivers are some of them. While she realizes these walks, Gutiérrez intention is create an intimate moment in the urban space that everybody can share their own solutions or protection strategies. The most known, she proposes, is keeping the silence and walking away, or blocking the sound through headphones. Gutiérrez practice

can be seen as a critical perspective on soundwalk in terms of not every urban space is same neither people's experiences and perception. Urban space consist verbal sonic situations that make women or LGBTQIA* community uncomfortable. The power of simple act of walk can create an awareness of social problems through the sound environment.

In Spring 2018, CLB Berlin – an independent project space for contemporary art, cultural studies, and urbanism at Aufbau Haus on Moritzplatz in Berlin Kreuzberg – realized an exhibition with a sound installation about the A-100 Highway which threaten urban fabric of Berlin. The shortage in the budget, the political conflict of different decision-makers, as well as the counter actions by community, A-100 Highway project is highly speculative and much-discussed. The project's aim was to bring together different professionals who work on sound in different context in order to describe, re-imagine and re-think about the sonic effects of the planned Highway. As a part of the exhibition, one of the organizers of the exhibition and artist, Sam Auinger, led several soundwalk workshops in Tempelhofer Feld Berlin. One of the completed part of A-100 Highway cross the South-west side of the old Airport and it has a big impact on sonic environment of its surroundings. In a rainy Sunday morning, the participants met Auingner at the Tempelhof Sbahn Entrance. Before the walk has been started, Auingner gave some information about the A-100 project and informed the particpants about the 60 minutes of soundwalk. The first stop was the information counter and its small terrace is used also as scenery watching point. The participants stand next to this counter and listened the sound environment. Than the artist invited the participants to go up to the terrace and listen again. The difference was quite precise. On the floor, one can could hear a continuous but far away traffic sound which was clear. On the top, the sound was more rustling but still continuous. After going down from the terrace, Auigner invited the participants to stay in the other side of the counter for using the counter as a block between them and the highway.

Lastly, Auigner asked to put the ear in this metal structure and feel the how reverberation of the Highway so close is. The second stop was the wood fences which were not same height. In order to arrive to the fences, the participants needed to leave the asphalt and walked by the small size bushes. As they all walked, their steps were creating a sound which were masking the other sounds. Auigner pointed out one more time the importance of user's own movements and relation to the materials. As the participants came closer to the wood fences, Auigner guided them between different height fences. These differences were creating a sound play by blocking the sound of the highway. This workshop shows how different urban materials and elements can influence the sound environment which will be presented more in chapter four.

Till here few examples of the soundwalk practice have been covered. It is possible to mix different methods and realize a new project. As this thesis is suggesting sound as participatory tool, soundwalk, in that sense, is a method that designers should add to their agenda. It requires a serious preparation in order to include different users and participants. In order to do that please see the introduction of this chapter where some hints of successful participatory process has been mentioned. In the next section, sonic mind maps, a mapping tool which can be done collectively with the users will be introduced.

2.4. Sonic Mind Maps

The background of sonic mind maps derives from cognitive mapping. This concept have been applied to urban space by researcher Kevin Lynch. In this section, firstly the general overview of Lynch's theory will be explained. Later, the idea of sonic mind maps will be introduced.

The section will be concluded with a collective exercise on creating sound mind maps with the students of Berlin Sonic: Auditory Collective Explorations.

Throughout history, cities have changed and transformed depending on the conditions of their geography and the socio-economic, cultural, political changes of their inhabitants. The fact that the built environment evoked different perceptions in each people has inspired many researchers who work in urban context. The most well-known of these studies are the conceptual typologies of Kevin Lynch, who have carried out a lot of research on user's perception in urban space. According to Lynch (1960), identity of a city does not equate with anything else, but it is the singularity, and also facilitates the recognition and discovery of urban areas. Urban identity is a dynamic structure and expresses continuous processes. In all historical periods, the social structure of a city has somehow reflected the physical form of the city. Urban identity is a meaningful totality, which is influenced by the process from the past to the present, which affects the imaginability of the city. This identity has a distinctive scale and character in each city, and these characteristics are influenced by physical, cultural, socioeconomic, historical factors and influenced by inhabitants and their lifestyles. Urban identity consists the natural and artificial elements of a city and its surroundings and socio-cultural characteristics. Flora, climate and topography forming the natural environment; structures, monuments, urban areas, roads, squares and urban furniture constitute the urban identity. The smallest unit constituting the urban identity is thought to be the neighborhood. Geographical features, architectural structure, local traditions and lifestyles are the components that complement the identity of the city as a whole (Lynch, 1960).

At the same time, urban identity is the meaningful integrity of a process which affects the urban image. Urban issues and lifestyle affect the urban image, it creates its own characteristics with different scales and interpretations in each city which shaped by physical,

cultural, socio-economic and historical factors. The concepts of urban image and urban identity are often confused. The urban image is about the city being visible and expresses a mental process. The urban identity points to the social, cultural and physical structure of the city. While the identity of a city is related to an objective structure; the image is related to how this identity is perceived. Therefore, this two concepts are interrelated, yet different (Lynch, 1960).

In his work, Lynch argued that the perception of urban texture is shaped by the images that has been created user's mind. These studies are mostly carried out in large urban centers in terms of scale and population and with the groups that have long resided in the researched area who are familiar with the field. The aim is to try to find answers to the question of how people perceive their physical environment, which images and elements are shaped by priorities in the minds of the users of the city and how they exist and how they change over time (Lynch 1960, 1972).

In his research, Lynch aimed also to investigate the perceptions of foreign individuals, who are not familiar with the field. Tourists and visitors have been taken into account in terms of activities and actions they made during their time in the city. Lynch proposes that there is a meaningful contribution of the new individuals who come to the city for a specific purpose and task, and the semantic relationship they have established. Depending on the task (i.e. designing a touristic care) interviewees should be selected correspondingly.

According to Lynch, legibility comes from the top of these questions (Lynch 1960). Lynch sees the legibility of the space as a visual act of perception by the users and he groups urban images into five elements. These elements play an important role in creating legible places and affect people's perceptions about their environment. They are paths, edges, districts,

nodes and landmarks. Paths can be defined as the circulation networks where transportation connects to the other city elements. Borders are the elements that draw attention with regard to the liner characteristics and often frame the other physical environment with natural limiters such as mountain sea and lake. Districts are the urban areas where users feel the physical boundaries in their minds and feel the space in which they are located. Nodes are the strategic points of the city at the intersection of roads. Landmarks distinguish itself from the urban fabric as a remarkable feature object and structure. Lynch proposes that the formation of the physical environment in the mind is the result of a bidirectional process between the user and surroundings. Environment reveals relations and differences; the user selects them and arranges them according to their experiences. In that point, the needs of user play a significant role and shape also the image. A selective process begins and would affect the constructed mind maps which will be explained in the following.

The priorities of these five elements that trigger the spatial perception created in the mind depend on the moment and spatial experience of the user. Therefore, user creates mind maps of these spatial experiences. This concept is used widely in the field of environmental psychology in a sense that expresses the inner image, mental / cognitive construct or representation of the environment in which users live or visit. Kevin Lynch aimed to determine the images of people about their cities through the cognitive mapping technique. The main purpose of his research is to determine the physical elements of the environment in one's mind. Based on the sketch maps and interviews with the residents of the cities, the inhabitants classified the city as those five physical elements. The human can guide himself through mental maps and have an idea about the city. Cognitive mapping means collecting, organizing, storing, recalling and manipulating information about the environment.

According to Lynch's work (1960), the mental map to be formed by the user with little experience in the researched area contains the main characteristics of the space, regional features and then the paths. Experienced users add the reference points to the mental map. The ways to explain how learning a new environment takes place is depended on user's familiarity with the environment. In one hand, people rely more on ways and regions than on other elements in an environment which they did not know before, thus they tend to become familiar with the environment by using landmarks for orientation. On the other hand, in the learning phase, paths will be structured in such a way that they would make connections between landmarks. In latter, it is expected that paths will be used more in mental maps while in the first, landmarks would be dominated.

This thesis considers also the critiques of Lynch's work. First of all, the structural information of cities is are up-to-date with the use of technology. With the fast development of urban areas, user's perception is highly affected in terms of time and cognition. In that sense, it can be suggested that technological developments should be taken into account while creating the mental maps. Secondly, Lynch explains three formal components for perceiving an environment: identity, structure and the meaning, but his study is only identity and structure excluding the meaning, although meaning plays an important role in improving the imageability of the city. In other words, Lynch's cognitive mapping techniques tend to neglect issues of people's feeling toward their environment and what actually it means to them. The urban space is obviously not just a map constructed by only those five elements. They can be, however, preliminary research tools before adding the meaning. Thirdly, Lynch research focuses the visual perception to forming the image of a city obscuring other significant factors associating in image formation such as sound, smell and tactile. Lynch emphasized the seeing aspect of the imagery, while cognitive image is a product of an integrated multisensory representation that involves visual aspect and many other inputs. In

that sense, this thesis proposes to take Lynch's research approach step further and invites urban designers to understand the urban space more than a visual construct.

2.4.1. How to do Sonic mind maps

The particularity and challenge of this PhD research encounter between the urban space, the physical approach to acoustic measurement and the perception of the sonic environment by the users. This section introduces the understanding and assessment of sound perception in order to highlight the importance while designing urban space. In that sense, guidelines to prepare sonic mind maps with users will be suggested. Firstly, auditory spatial awareness will be discussed. After that, a qualitative research conducted with the students of Berlin Sonic: Collective Auditory Explorations will be shown as an example.

Which factors influence sonic perception? This question is the guiding research line of this section and it is difficult to answer because of the number of determining variables on user's perception. However, the sonic elements which have an impact on perceived ambiance can be researched. Barry Blesser, a pioneer of digital audio, worked as an Associate Professor at the MIT Electrical Engineering and Computer Science and Linda-Ruth Salter is Assistant Professor in the Humanities and Social Sciences at New England Institute of Technology, where she contributes to the fine and performing arts curriculum in a technology context amplify "auditory spatial awareness" in their book "Spaces Speak, Are you listening? Experiencing Aural Architecture" (2007). The book is considered as one of the most important influencer in the working area of sound environment and architecture not only as built space. It has been reviewed as a study which discusses some of the missing components of sound, aural awareness and perception that continued to receive little or no attention from those who are working in built environment related fields.

The authors suggest that the understanding the aural architecture of a space is related to perception, memory and the experience. In that sense, architecture is presented as a symbol which communicates with the users. Architects choose the spatial elements in order to reflect the meaning of a culture. However this symbols stuck in visuals appearance of a structure. As the authors highlight that the environment has its audible characteristics; the blended surfaces, objects and geometries in a complicated environment creates an aural architecture:

"As we hear how sounds from multiple sources interact with the various spatial elements, we assign an identifiable personality to the aural architecture" (Blesser & Salter, 2007:52).

The authors outline auditory aspects of architectural space as "aural architecture" which can be experienced by listening. This audio-spatial dimension can influence our state. In a highway, one can feel unsafe and stressed because of the noise; in a concert of our favorite musician one can feel dynamic and exited; in a religious space one can feel safe and mortal. Thus, aural architecture has cultural and social connections. Making research on aural architecture means that we should find these connections:

"To evaluate aural architecture in its cultural con- text, we must ascertain how acoustic attributes are perceived: by whom, under what conditions, for what purposes, and with what meanings. Understanding aural architecture requires an acceptance of the cultural relativism for all sensory experiences" (Blesser & Salter, 2007:86).

In addition to that, authors lay the emphasis on auditory spatial awareness which involve the emotional and behavioral experience of space and it is not only the detection of changing sounds or acoustic measurements (Blesser & Salter, 2007).The authors explain auditory

spatial awareness as a mixture of personal experience, spatial and aural qualities, cultural and social significance. There are at least four different ways in which auditory spatial awareness can be influential. Firstly, it has an effect on our social behavior. In a library, one automatically intend to walk quietly. Second, it guide us through space. In addition to vision, hearing acoustic qualities navigate us. Third, it influences our visual aesthetics. Sound can make a space ugly/boring or pleasing. Fourth, it amplifies our experience of music and voice. In a music hall or in a club, physical acoustics are connected to aural experience. Taking into account these four ways, the authors mention a dual experience. While human experience of sound in space is related to aural perception, the modification of the sound by the aural architecture is inevitable no matter it is socially, culturally or politically produced. In order to prevent the confusion with the concept of physical acoustics, the authors proposes *spatiality* for explaining the people' experience in space by listening. Therefore, it is proposed that there are at least five types of spatiality: social, navigational, aesthetic, symbolic and musical. Those typologies are organically connected to different ways which has been explained above (Blesser & Salter, 2007).

The authors claim that there is a gap in the literature on how people experience aural space. Therefore, Blesser & Salter (2007) propose to understand the relation between aural architecture and auditory spatial awareness that "provides a way to explore our aural connection to the spaces built by humans and to those provided us by nature." (Blesser & Salter, 2007:18).

This thesis follows these concepts in the case of sonic mind maps. On the one hand, by working with notions of personal experience and social connections, sonic mind maps can employ awareness and perception. On the other hand, as the concept of the aesthetics and navigation is crucial, sonic mind maps can be applied into decision-making and

implementation. Hence, these concepts facilitates to map aural spatial patterns in the working area of psychoacoustics, sound environment research and urban design practice. These characteristics have a strong link to participatory design processes which is discussed at the beginning of this thesis.

2.4.2. The field Research in Köpenicker Straße, Berlin

This section focuses on the theoretical background that have influenced as the author has worked on designing urban sound environments. The theory is based on a cross-sectional analysis of Henri Lefebvre and Gilles Deleuze and Felix Guattari especially their philosophical investigations of space, rhythm, and nature. It is presented as conceptual overlays with the direct quotation of the interviews that has been conducted during the field research.

In this section, the thesis refers to other theories that help to understand, rethink and improve the urban space collectively. The quotations are from the interviews that has been conducted between June and December 2017, with residents and users of Köpenicker Straße, Berlin. On the one hand, direct quotations are important to understand the experience of the users. On the other hand, these quotations can be seen as reading both Lefevbre's Rhythmanalysis (1991 [1974]) and Deleuze and Guattari's A Thousand Plateaus (2004 [1980]). Both of the work is important for this thesis in the sense that shows how such distinctions are operations on the surface of a deeper field with more complicated and multidimensional dynamics in urban space (Lacey, 2014). Especially in the case of Köpenicker Straße which consists different urban design elements with important cultural details and tourism. It is located in Mitte district, a very central, mixed used street which is considered as a transition area by the users– even though it contains public spaces, meeting points, etc. In addition, Köpenicker Straße

could be researched as a laboratory of urban transformation where alternative housing meets with gentrification by global investors.

Image: Illustration of research area in Köpenicker Straße. Mixed used shown in yellow, industrial use shown in grey and commercial use shown in orange.

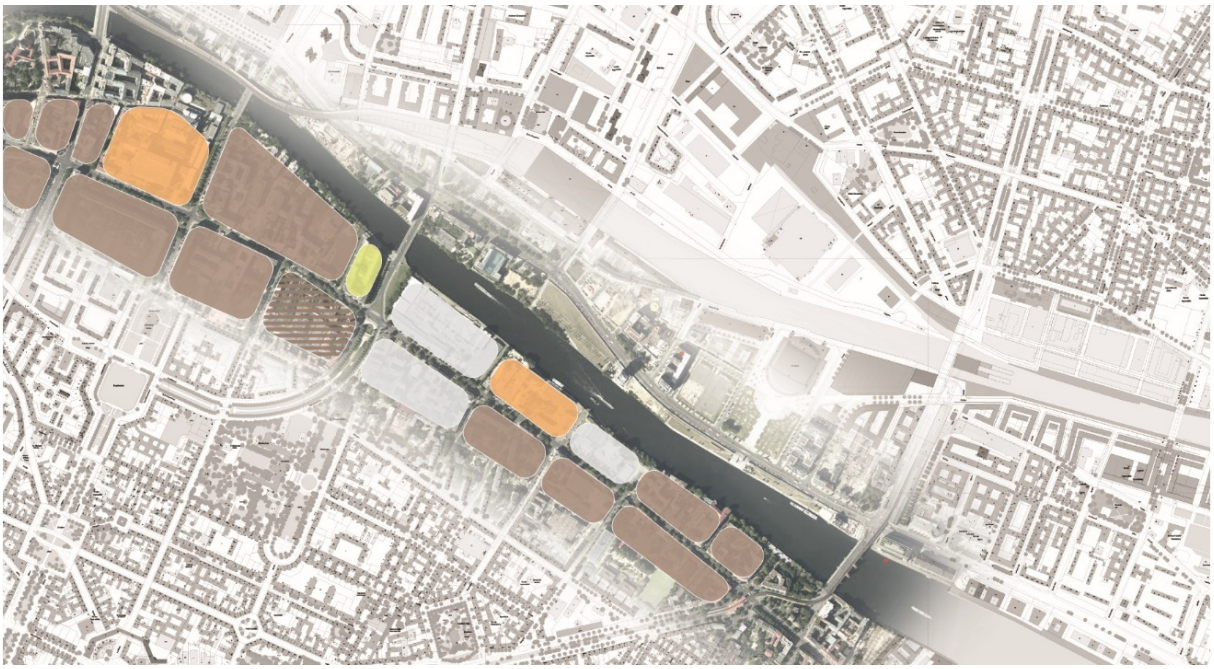


Image: Illustration of research area in Köpenicker Straße. Residential area shown in brown, industrial use shown in grey and commercial use shown in orange.

2.4.2.1. Temporality, Rhythmanalysis and Perception

Interviewee 3 (f. 31), resident in Köpenicker Straße: I live here since 5 years. I do not have a car, I use public transport and cycle when the weather is good. I walk a lot in this street to take the train, bus etc. or I just walk. It is a shame that there are a lot of spaces for walking but nobody wants to walk here because of traffic. It is loud. However, I kind of like it also. It has a certain tempo, certain rhythm to move with you. If you don't know what time it is, you can kind of figure it out because in pick hours the traffic gets dense, or on weekends it is much calm than weekdays. People even don't go next to the Spree. That area is so nice but it is like a death end. I think that is because there is no continuity on the side of Spree. There are small streets that you can arrive, but when you arrive there, it is just too short. So you don't bother yourself to go there and come back. There is no continuation. I really like walking along the Spree. But there are apartments that you cannot pass to their property. I would like to have a big open park nearby. It is a shame this big and long street is just created for cars. The sound of Köpenicker Straße is mixed for me: traffic and sirens, also really quite. It could be that one gets used to that sounds. I cannot name any sound of nature here in Köpenicker Straße, but when I go next to Spree, is totally different feeling than being in Köpenicker Straße. It has different kind of rhythm. You don't have to follow the rhythm of the traffic.

Lefebvre notes how life in the street follows rhythmical orders, patterns, and sequences (Lefebvre & Régulier, 1996). Lefebvre began developing rhythmanalysis from the perspective that the city constitutes a rhythmical order. Urban space forms an everyday stage for conflicts and relations between natural, social, economic, and cultural rhythms, between cyclical and linear, dogmatic and dynamic, collective and individual, outer and inner rhythms which is a process of experience. These rhythms are affected by cultural conditions. To participate in a

culture means to incorporate its rhythms in a fluid relationship between bodily perceptions, the topography of place, and the perceptions of maps. (Lefebvre & Régulier, 1996).

Therefore, we can talk about a collective rhythm with social, spatial and natural aspects influenced, shaped and characterized by everyday life in urban environments. They are responsible for the perception of time in places and feelings of identity. In this context, urban rhythms shape senses of time and place. This is significant to understand urban spaces. Rhythms as an experience influence the character and perception of identity. The analysis of urban rhythm offers a new mode of observing and understanding places (Wunderlich, 2013). Rhythmanalyst (– researcher), in that sense, observes and begins the analysis in order to choose the method. As the third person the researcher's perspective can be used as an aid to the study of the sound environment. The important point is that the researcher would be independent and being present in the experience process without experience (Arteaga, 2011).

2.4.2.2. Refrain, Territorialisation, deterritorialisation and reterritorialization

Interviewee 11, (m.25), visitor: "I came to visit Berlin; it is my third day. This area looks like any other city in Europe. This street is just about cars and apartments. It repeats itself. There is nothing surprising. If you walk more than ten minutes, you get used to the sound and it moves with you. It never leaves you alone. So, you don't really pay attention to other things. You just walk with traffic. It is extremely dominate. It is different in night time. It is much more relax, and then you realize the open spaces, green areas, the trees..."

A refrain consists sonic elements. Deleuze and Guattari use bird song as an example to describe refrain (Deleuze and Guattari, 1980:356-358). They cite that a bird sings continuously, it also territorialises space. They state that "the role of the refrain . . . is

territorial, a territorial assemblage" (Deleuze and Guattari, 1980:344). The sonic condition that the bird creates becomes a territory. The bird can deterritorialise by stopping to sing. When the bird starts with the same song, then it reterritorialises the space. As Deleuze and Guattari states "The refrain is rhythm and melody that have been territorialized because they have become expressive and have become expressive because they are territorializing. We are not going in circles… There is a self-movement of expressive qualities" (Deleuze and Guattari, 1980:349). At the same time they mention that they speak of the refrain when an assemblage is sonorous or "dominated" by sound. An urban example could be traffic noise in the street. Cars start their engines and drive (territorialisation), they stop or pose (deterritorialisation) and they take off again (reterritorialisation). Cars could change however the sound that we perceive is the same (sometimes louder or less, also depending one's position): the repetitive engine sound that we hear like a dense noise block. Thus, the traffic noise territorialises urban space on an everyday basis.

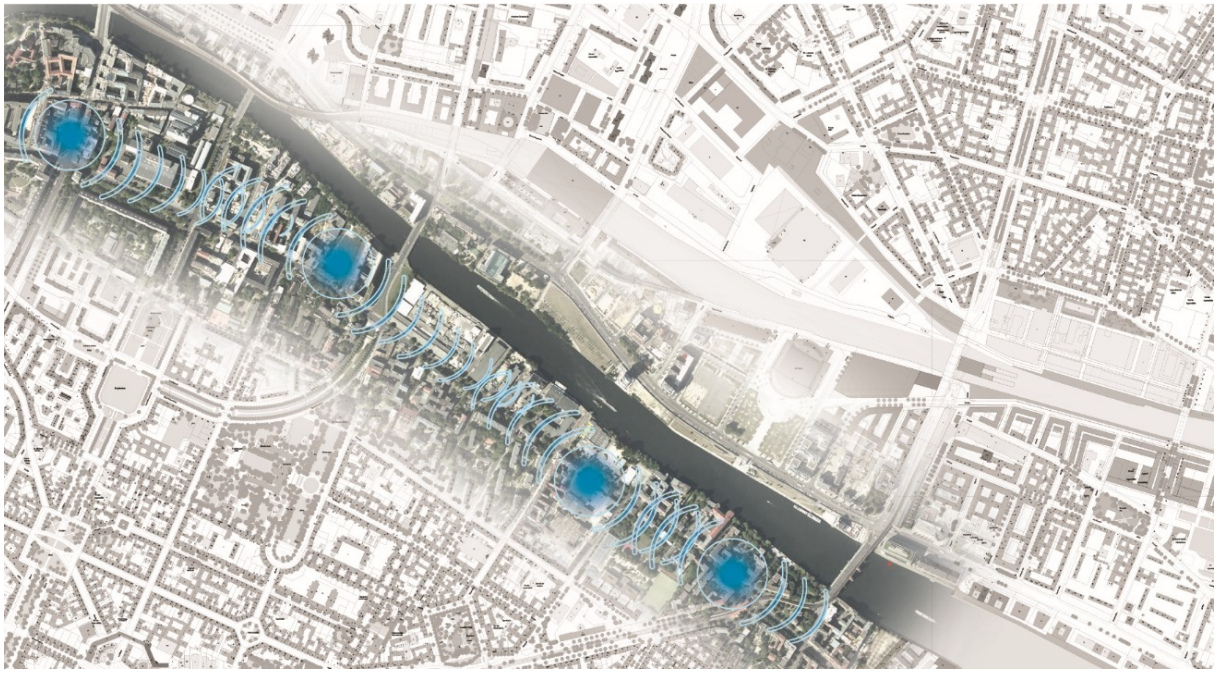


Image: Illustration of research area in Köpenicker Straße with traffic flow.

2.4.2.3. Striated and Smooth Space and Production of Space

Interviewee 7, (f. 33): "I am working in an office in Köpenicker Straße. I find the area very central. It is a busy street, and there are not enough traffic lights, so cars go too fast, in my opinion. I think that it is a noisy street, because there is not so many facilities like, parks, separate walking areas, etc. It is like a big axe that connects East Kreuzberg to Mitte. It is loud and the new residential projects are standardized. That make the street a homogeneous building structure also other elements like sound and open spaces. If you are not familiar with the street, it feels like everywhere is same. Same traffic, same buildings, same sound. It is pity that there is not so much access to the Spree side. In summer, it is much better, because the street has really old trees. They kind of help to not see the buildings. They cover them. I think this street will change a lot soon, because the industrial areas possibly already sold or will be sold to big companies to do fancy residential areas. But that won't help to change the street life."

The concept of striated and smooth space by Deleuze and Guattari offers a useful distinction between diverse spaces. Striated spaces are rigidly structured built environment that is organized; i.e. cities, towns and organized landscapes like agricultural areas. They produce limited movements and relations. Any big street in urban space can be considered as striated space; intersections with traffic lights, clearly separated lines and pedestrian areas. Smooth spaces have less limits to control, where interaction is possible and the movement is less regulated. Any open space can be considered as smooth space. Even though there are regulations, one can move more freely than in a big street. Here, Deleuze and Guattari (1980) do not argue that the smooth spaces are necessarily better than striated spaces. Smooth space facilitates the expression and creates places for different perceptions. In a striated space, users should adopt themselves to the regulation, to the speed and move with the created rhythm

with traffic of cars, people and shape of the streets. However, it should be clear that striated and smooth spaces are dualistic. Deleuze and Guattari explain that the two spaces in fact exist only in mixture: smooth space is constantly being translated and transversed into a striated space; striated space is constantly being reversed, returned to a smooth space (Deleuze and Guattari, 1980:524). Köpenicker Straße is a clear example of striated space. It is a street with three lanes, bike lines and pedestrian areas on both sides. The crossings are well organized with traffic lights and signs. The grid-like pattern of same size and height buildings are predominantly rectilinear and tall. The street has enough green areas and open spaces that are available to pause, sit, relax, etc. for the users. The users have the power of deterritorialisation of space by moving differently – or using the open space depending of their needs; i.e. Waiting for someone, sitting in a bench, etc. However, the sound environment of the street does not allow them to act freely. The sound environment of the street becomes an element that is a part of striated space which does not allow different encounters and uses but still creates an experience.

The perception of the users in everyday life in urban environments is privileged by the aural sense. In other words, the sound environment of an urban place plays a major role in the perception of everyday urban spaces (Thibaud, 2003). The interviews that have been conducted in Köpenicker Straße clearly show how sound functions as a territorialization and, hence, striates space. However, territory is not a state but a process of marking space and time or the experience. In addition, sound is an important element regarding to the process of experience.

Berlin's sound environment is mixed, relational and transformative. One can have variable experiences in different parts of the city. In the field work, I covered all seasons and different locations in Köpenicker Straße. The observations of the author facilitated the to analyze how the street has been constructed in this specific location. The street is a mixed use area that

consists mostly residential and office use. However, clubs, bars and restaurants are other visible majority of use. The street is considered as transition axis or a limit. While there are small green areas, the street consist large sidewalks. The public green areas are: Schulze Delitzsch Platz, Vattenfall's 'planz-was' project on Köpenickerstr. 60., and Engeldamm Bethaniendamm junction. The lack of public and green spaces creates the feeling of 'transition'. In winter, that feeling becomes stronger as the green disappears. The answers regarding design, urban space and sound were mostly negative in the sense of a 'lively atmosphere'. All interviewees are using the street for a practical matter, i.e going shopping, going work. That shows that user is in 'transition', there is no 'pause'. Pedestrian move is not different than public transportation or car traffic, they are all in the move. The relation of sound to urban space which explored in this paper arises a challenge to current urban design theory and practice. Urban space is not just about physical qualities and visual aesthetics. The perception and temporality, performance of users and the relation to other elements like sound is crucial in effective urban design processes. In further, the theoretical direction which described above within the qualitative data that collected in field work will draw a research line for the next chapters. Therefore, set of methods will be proposed to urban designers in order to include the sound into their design process. The methods will cover; the relation between constructed environment and sound with a participatory approach, creating acoustic experiences in urban space by collective listening and adopting technological innovation to the sound environment.

Image: Illustration of research area in Köpenicker Straße with pedestrian movements.

2.4.3. Sonic Pedagogy: The case of Berlin Sonic: Auditory Collective Explorations

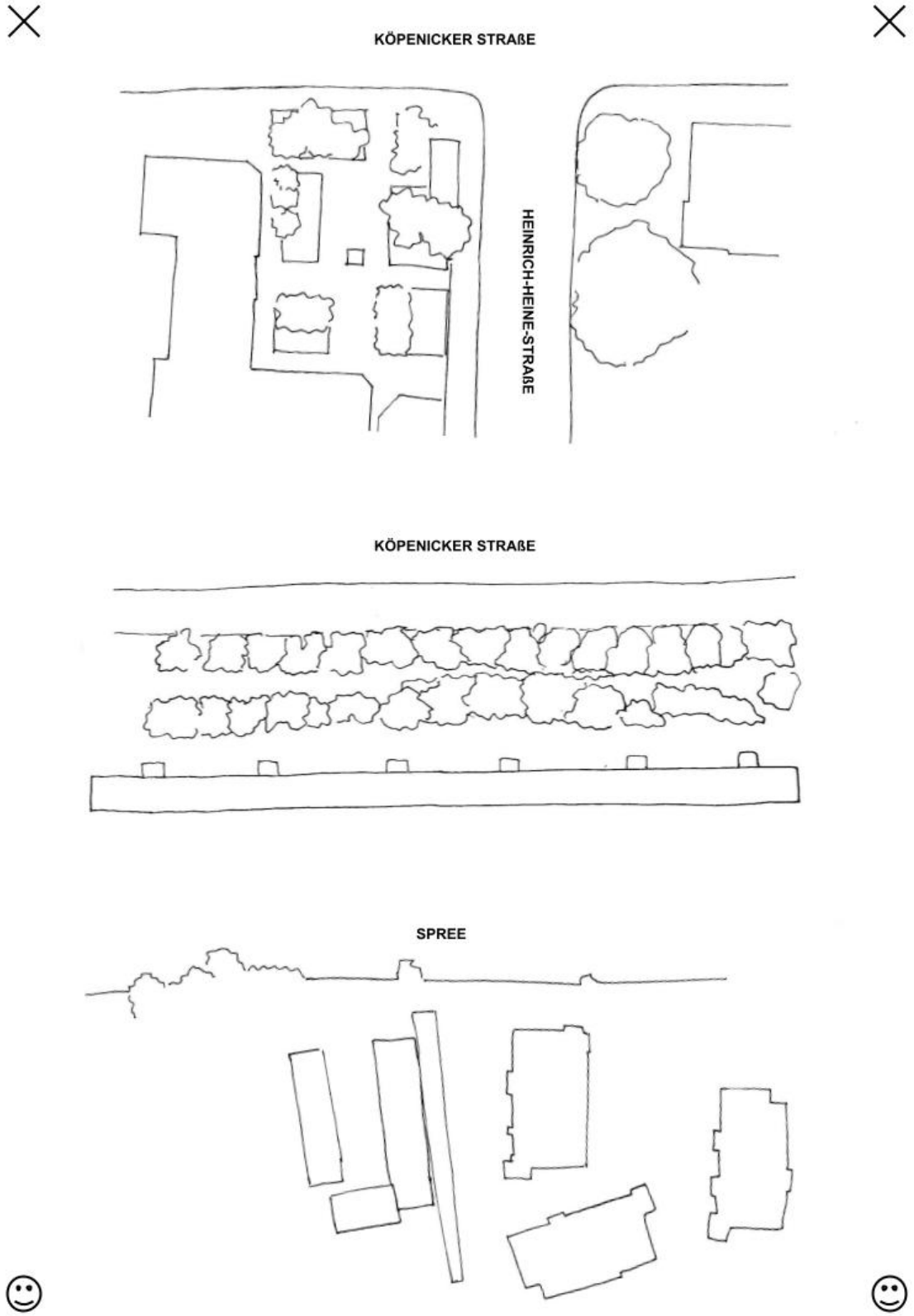
Between Summer Semester 2019 – Summer Semester 2021, the course Berlin Sonic: Auditory Collective Explorations held at Humboldt University. The course main topic was sound and the environment. Urban space is indeterminate, an ambiguity for its inhabitants and users. Sound has the crucial potential to discern this liminality. Sound can be seen as the key to this indeterminacy of approaching urban space, local actors and unexplored sonic forms in the urban scene. The understanding of sonic exploration can be explained as an alternative and interdisciplinary teaching tool for the discovery of urban space through sound. For that, the teaching experience of the author will be introduced which is also an important part of this research. “Berlin Sonic: Auditory Collective Explorations” was an ongoing research project and seminar in the Berlin Perspectives module at the Humboldt University of Berlin. The course is designed to enhance the understanding of urban space for international students during their temporary stay in Berlin, with a syllabus that focuses on sound in the city and its cultural, social

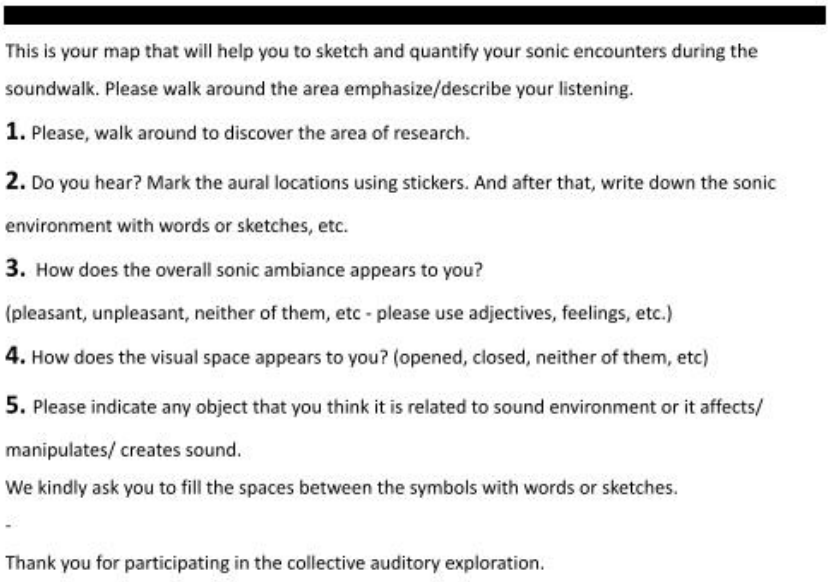
and political dimensions. The course aims to allow international students to explore the urban space in a new city through sound, gain strength, and develop knowledge as well as their individual perspective on research in sound studies. Coming from different backgrounds, the students are invited to apply/adopt sound as a learning tool. Besides the theoretical input, the lecturer enabled students to practical work with small exercises, excursions, artist talks and workshops. At the same time, the artists and practitioners from Berlin and outside were invited to share their experiences.

The seminar is structured to collect site-specific projects that explore sonorities in the urban space and mediate sonic spaces to generate questions. The seminar is to foster further exploration of aural culture from the perspective of urban studies, architecture, and art. The seminar is participatory and open to contributions, but it is also quite subjective as auditory perspectives are very personal. The understanding of the potential of alternative teaching techniques - creating blurred areas, discovering liminal zones by using sound - embodies our pedagogical achievement. The seminar shows the relation between interdisciplinarity and liminality by proposing borderless learning and teaching methods that are in-between academic and practice-based artistic research, while proposing sound as an alternative pedagogy in urban research. The seminar is structured in different topics to explore Berlin individually and collectively. Throughout the semester, site visits are realized and different guests are invited to share their own practice. Exploring the city's acoustic dimension teaches students that sound is a signal and a spectrum or vibrational form that includes the social, the cultural and the political. Including their own background and studies, students discover interdisciplinary research methods based on research about participation, public space, sonic urbanism, sonic environments, acoustic ecology, collective listening, auditory diagraming, environmental spatial justice, and urban activism. At the end of the semester, students realize their individual

or group work in written or audio papers, sound compositions, sound collages, soundwalks, or performances concerning the city and their sonic environment.

During the course, Sonic Mind Maps have been used as an analysis tool for urban space. It was a qualitative research method in which the students are invited to take part. This has been realized two times. The first one during the Summer Semester 2019 and other during the Summer Semester 2020. In both events the same route has been followed. The meeting point was the West exit of U-bahn station Heinrich Heine. After the meeting, the working are briefly introduced to the students and they have been invited to participate in creating the audio diagraming which could be possible answering some questions and short listening exercises. First of all an empty diagram where the students can perform either with writing, drawing or coloring.


KÖPENICKER STRAßE
HEINRICH-HEINE-STRAßE
KÖPENICKER STRAßE
SPREE



This is your map that will help you to sketch and quantify your sonic encounters during the soundwalk. Please walk around the area emphasize/describe your listening.

1. Please, walk around to discover the area of research.

2. Do you hear? Mark the aural locations using stickers. And after that, write down the sonic environment with words or sketches, etc.

3. How does the overall sonic ambiance appears to you?

(pleasant, unpleasant, neither of them, etc - please use adjectives, feelings, etc.)

4. How does the visual space appears to you? (opened, closed, neither of them, etc)

5. Please indicate any object that you think it is related to sound environment or it affects/ manipulates/ creates sound.

We kindly ask you to fill the spaces between the symbols with words or sketches.

-

Thank you for participating in the collective auditory exploration.

Image: The empty diagram and instructions (Source: Author)

The first area is the plaza in front of high-rise buildings where in both Heinrich Heine Strasse and Köpenicker Straße where there are train and bus stops. There are two lane road with heavy traffic and a four-side junction. There are high-rise buildings on south West and East side, the north West side is empty land and there is two floor building on the north East side. That side can be considerably busier than the others because there is a restaurant and the Kiosk. After spending 10 minutes in the first area, the group walked toward west and pass a tunnel like entrance to the yard of the building. The soundscape changes drastically. Leaving behind all the traffic, bikes, cars, horn and the hum of people on the go, the group arrived a very calm yard with table tennis, basketball area and a playground. From a very hard floor material, the group started to walk in a very loose gravel and sand. It was very obvious that is the moment for all students start to recognize the differences in sound environment. As next the group took a five minutes break from walking and stayed still around the table tennis areas and reflect about the last minutes experience. The students were very surprised of the change in sound environment in such a short distance. The reasons first of all was the high rise

building which was blocking the all city sounds. Secondly, the vegetation and the different floor material reflect, absorb and reverberate the sound.

Following this, the group started to walk toward our meeting point, and cross the road using the underground tunnel of U-bahn. In that point, the students were asked to focus on sound, how do they feel in their body and maybe listen with their whole body. The wind and the vibration come with the arrival of the train starts to touch first to the face, continues with the areas without covering textile like arms and legs. Finally the whole body feels the sensation. In that sense, it is a process of adaptation. In a cold and windy day, one can even loose the balance because of the effect of wind of the tunnel. That can create a uncomfortable situation with sound while your body struggles to adapt. After this bodily experience, the group got out to the street from the East side where Kitkat Club is located and started to walk in Köpenicker Straße towards Schlesslisches Tor. The traffic sound became more less while we were getting away from the junction. The group arrived the second area which is a parking lot in front of a high-rise building, the other side of Tresor club and Kraftwerk. The both sides of the street has over two meters wide sidewalk which already separates the area from the road. The parking area filled with bushes and trees. The students spent around fifteen minutes. The area is very generic parking lot which we encounter in the urban space. Because of the vegetation and the proximity to the road, it is not as much loud like the first area but one can still hear the traffic. There is nothing interesting in sound environment, other than some birds. This area is a reset point for the students where they can just get used to the background city sound. While it is visually loaded with trees, buildings, cars, the sound environment is easy to analyze because the wide sidewalk creates a barrier with the road. The group continue walking without having a break. When they arrived to Wilhelmine - Gemberg – Weg, they turned left and started walking towards the Spree. Eventually, the group arrived the final area which is

the public area in front of Spreefeld residential area. Students spent here around twenty minutes and we get together for our conclusion part.

The first reaction of the students were that they were not expecting to arrive to such an area. Even the ones from Berlin always thought it would be a private area and one should not walk in. They were very amazed by the changes in sound environment. Some of them highlight the importance of the water and its reflection. It was very shocking for the students to still having the calm sound environment even we are facing to the S-bahn railway thank to the water surface. One of the students gave thought on running water in the small pool which belongs the residential area and how it masks the other sounds while dominating all of them. The area is a great example of the contrast of sound and the visual. One can sit the small beach area with sand and look at the silhouette of the city which is functioning, running and on the go. However, the sonic experience is totally contrary, calm, relaxing and still. The workshop has been concluded and the mind maps filled with students responses. As next, the maps have been merged into each other and one document has been created as a collective result. Different coloring has been tried, to create more differences between the responses. At the end each student received their own result and the collective one.

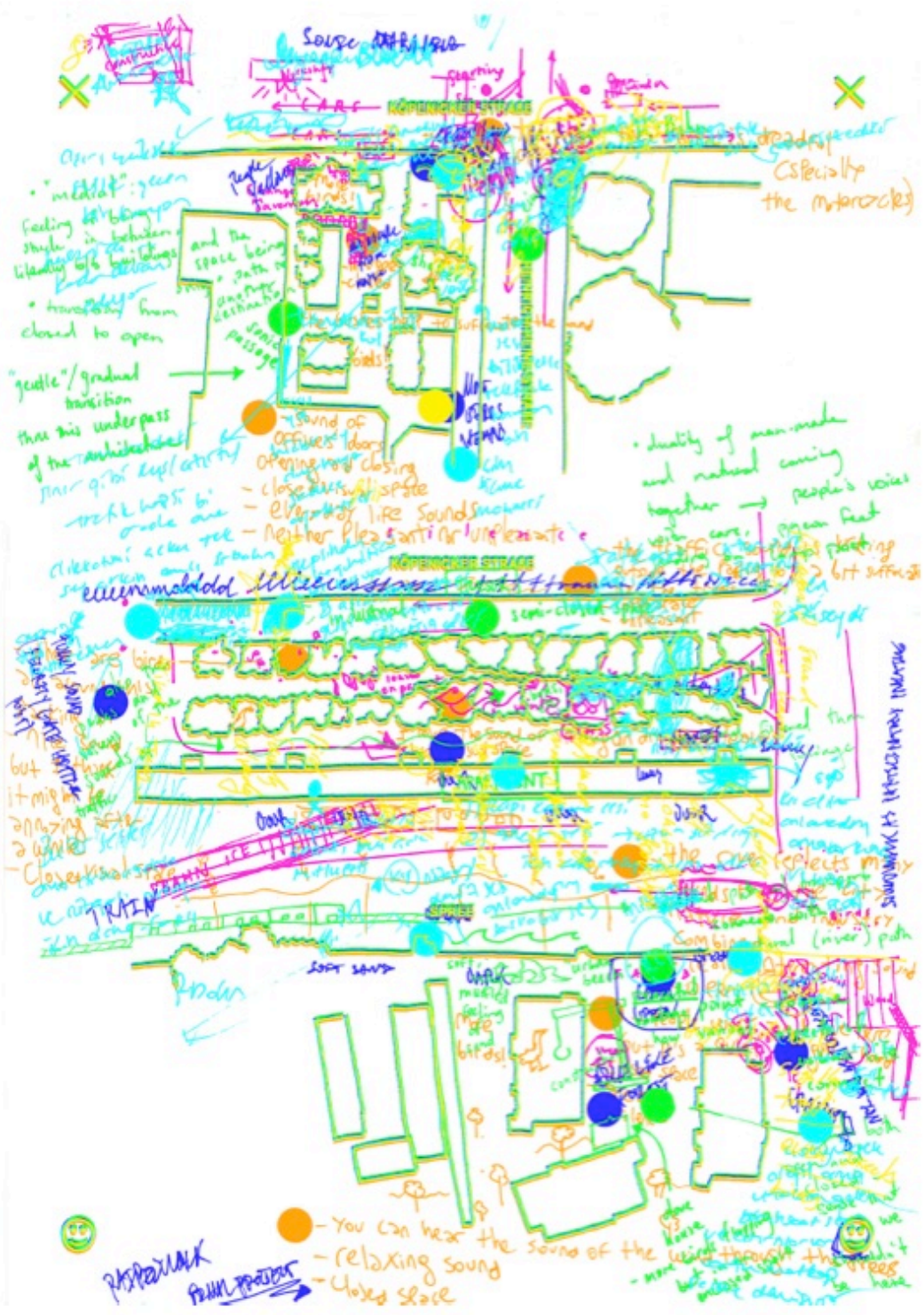


Image: Collective diagraming in Köpenicker Straße by the students of Berlin Sonic: Auditory Collective Explorations

Soundscape has been defined as the “acoustic environment as perceived or experienced and/or understood by a person or people, in context” in the ISO 12913(2014). Changing aural perception in a very heavily filled visual area can usher to new perspectives to understand, analyze and design for an urban area and foster new ways of thinking and making new connections for its architecture.

This exercise is a study to see and reveal the design possibilities of sound environment. It can be used to investigate new approaches of the urban design processes and its references. During the both excursion in different summer semesters, Berlin Sonic: Auditory Collective Explorations course at Humboldt University experimented this approach of Sonic Mind Maps and it is a proposal of a sonic pedagogical approach. In that sense, the students are considered as users of the selected urban space. Creating the sonic mind maps through their in situ experiences, the three urban areas with different visual and sonic properties can be a prototype for a participatory approach in designing urban spaces. It was expected that the students create their own mind maps using the sound as the determinant factor. In that sense, the empty maps have helped them to focus on what they only heard, then define their main reflections, observations and problems.

As a practice based thesis, it is important to reflect on the strength of the working with sound environment. It lies in its oscillating effect between art and science, pedagogy and education as a catalyst of the senses, times and spaces. Sound research varies the methodologies and forms a network of soundscape studies and its methods. From here, the interdisciplinary view leads, for example, to the more comprehensive and media-related sound studies of the Berlin University of the Arts. The participatory character of sonic mind maps can be proposed as a method for urban designers. Rather than conventional interviews and round table meetings, soundwalk and sonic mind maps have a big potential on understanding the needs of users and residents as well great tool for analyzing the urban space.

The sonic as a reinforcing tool is relevant to understand the demands and the possible futures. Listening is a way of thinking that moderates attention and experience. Various methodologies and ideas have been introduced that could constrain and emphasize new awareness and experiences by listening and interpreting the aural into the urban space. The urban sonic requires a transdisciplinary approach and understanding of pluralities among different fields for transforming perceptions related to architecture and urban design, psychology, culture, politics and gender studies, among others.

2.3.4. Notes on silence during Covid-19 Pandemic

In her book "A Listener's Guide's to Everyday Life" Marcia Jenneth Epstein proposes readers to understand the sound and noise in the context of daily life. The author focuses on the auditory stimuli effect both individuals and communities with an interdisciplinary point of view. Epstein examines noise in a variety of circumstances, such as a threat to one's health and peace of mind, a motivator for social solidarity, and a powerful method of communication and manifestation of power. She synthesizes and explains these findings to evaluate the ubiquitous effects of sound in everyday life, drawing on a wide scope of specialist literature from fields as diverse as nursing and neuroscience, sociology and sound studies, acoustic ecology and urban planning, engineering, anthropology, and musicology, among others. Epstein analyzes the physical and cultural components of speech and music, as well as noise. Finally, she argues for an active public debate about sound, based on a shared foundation of critical listening, and she lays out the groundwork for all of us to participate and be heard in such a debate (Epstein, 2020).

"Preface in the Mid-Pandemic" in Epstein's book explains how authors idea and plans for the research influenced by the pandemic and the changes is in sound environment. This thesis

agrees her observation about the urban environment and the sonic experience. Epstein comments that at any other time, where she would be a suburban rush-hour, with a variegated soft whooshing roar interspersed with the rumbles of trucks on a nearby freeway – somewhat muted by its distance from the downtown core but characterized by variegated soft whooshing roar interspersed with the rumbles of trucks on a nearby freeway. She mentions that there is silence today. She explains that the pandemic has kept us all at home and, in most cases, indoors, with businesses and schools shut down. While traffic is sparse and irregular, and planes have been almost missing for nearly two months, one can hear the nature in a different way. Crows and magpies, sparrows and robins and chickadees, even the occasional soaring hawk, whose sounds were once relegated to an instinctual background, are now easily audible.

As the whole world population experienced between 2020 – 2022, the pandemic opened up new discussions about planning and acoustic planning, especially very much rated “silence”. There is something clear that the total silence does not exist. Humans, even there is not an outside sonic generator, we hear ourselves; breathing, internal organs, etc. As people can hear immediately if something is wrong in a room, in a square or on a street. With a full lockdown during the pandemic, every single person has encountered a new sound environment. Indoors filled with children’s voices and laughter. Cooking became more often, all kitchenware, dishes and washer were dominating the domestic sound environment. The abrupt interruption of human activity has created a new noise-free soundscape that allows us to develop a more intimate relationship with sounds, better our acoustic perception, and, possibly, increase all of our cognitive abilities in general. There is no one did not realize the changes in sound environment from their windows, balconies or gardens. The city became quitter while the sonic difference between day and night blurred.

This type of incident became particularly fascinating to a sound professionals, partially because of a professional distortion and partly because silence has long been a subject of inquiry in sound art and sound design. This thesis do not include silence or noise in particular because the fact that they have different qualities which should be discussed in a separate thesis. This research is interested about the sound environment and sonic qualities of daily life. The sound environment that the pandemic reshaped has a direct connection tothe American experimental composer John Cage's piece from 1952 piece 4'33", in which the artist placed silence at the core of listening in his— a composition that may be performed without instruments – altering the whole concept of listening to music. In this genuinely extraordinary historical moment, when the world appears to have come to a halt, a phenomenon is occurring that bears some resemblance to Cage's thesis. This newfound appreciation for silence allows users to rediscover the value of the natural world's sound (Lenzi, Sádaba, & Lindborg, 2020).

During second lockdown in 2021, Barry Truax taught an online course on soundscape for twelve weeks. He is Schafer's successor at the University of Burnaby near Vancouver, works as a computer composer and at the same time as a professor of Acoustic Communication. Truax embodies the central dialectic of art and science to this day, as a motif repeatedly redefined in the discourses of soundscape studies. He also developed the soundscape concept further into neighboring disciplines between linguistics and music, culture and society, technology and composition. His "Handbook for Acoustic Ecology " represents the quintessence of the WSP. He arranged terminological loans from physics, acoustics, linguistics, psychology, communication science and music into a network. Later, he outlines a continuum of systems of "organized sound", not only for communication, but also for the analysis of our present and future living world (Truax, 1978). Finally, he emphasizes manipulation, reproducibility, synthesis and simulation of acoustics through media and

computer technology. Truax (1978)also arrives at a model that connects many situations in his own award-winning compositions:

"Acoustic Communication attempts to understand the interlocking behavior of sound, the listener and the environment as a system of relationships, not as isolated entities" (Truax, 1978:48).

During the course, Truax focused on the ideas of sound environment and the listener. Barry Truax theorizes listening as an embodied interface to our auditory environment, based on the concept of acoustic ecology. Truax contends that acoustic places should be regarded as both real and imagined, and he explores how such dual perceptions can be found in both daily soundscapes and electronically mediated soundscapes. He claims that all stages of hearing are intertwined with memory, envisioning, and anticipation. These features of hearing are also employed to study and define the "acoustic community," which Truax refers to as the soundscape that arises as a result of collective individual imagination.

The input and the discussion during the course opened up more perspectives on design and planning qualities in urban space, especially acoustically. The sound of a single place or an entire city should not be left to chance. Acoustically consciously designed, coherent public spaces offer a high quality of life. A study and a working aid on the subject of sound space design should therefore encourage people to plan and design places according to acoustic principles.

If sound waves were only visible, planners would be able to see public spaces like bats (they rely on high-frequency echolocation calls to perceive the world, but also detect social calls and other environmental sounds at lower frequencies) by hearing and tackle acoustic problems much more easily. In contrast to the visual, sound in public spaces is usually left to

chance. Many people have experienced that a square or a street space does not sound as hoped, that a place has a different sound than the visual seems to suggest, or that a noise barrier does not have the desired acoustic effect that the calculation promises. Sound is invisible, intangible, omnipresent and - it seems - uncontrollable. In a way, sound is the injustice factor of planning.

Hence, with the pandemic, it has been seen that in designing acoustically, not all responsibility is on designer nor listener. There are ways in which the users or designers do not have control, just like the pandemic and lockdown. After the pandemic, it is true that at least some part of the population become aware of wider worlds than the ones they can glimpse through sound, as like the silence. Does it mean, is it possible that silence really exist? Are we more connected through sound? Do we listen each other more carefully? Do we appreciate our sound environment more than before? Are we listening more carefully? These are the questions that pandemic left to this thesis and would plan to observe if it is the "new normal".

2.5. Sound Art Installations

This section presents sound art installations that can be seen as design tools in urban space which have different approaches. The first approach is related to notion of ecology and assemblage. The vast network of cities includes the inter-related agencies as well as the bodies, referencing to Deleuze and Guattari's work on machinic assemblages (Deleuze & Guattari, 1980; Amin & Thrift, 2002:78). Those agencies presented as bodies including their reaction and reaction to each other. The meaning of body extended to human body, the building or the materiality of an art work. Therefore, urban space can be understood as "complex material systems" where the human body interacts with other nonhuman bodies

such as architecture, artwork, traffic flows, infrastructure, etc. In this regard, the notion of agency and how urban space is assembled should be considered in spatial analysis (LaBelle, 2018).

Venues other than galleries and museums were investigated as part of the process of identifying new performance possibilities and new means of recreating their work. Art can be understood as existing outside of delimited spaces, as sound can exist outside of static room acoustics. These concepts led to the creation of "Wandelkonzerte," or "promonade concerts," in which entire houses were performed in the 18th and 19th century. In 1968 and 1969, the German composer who is known with experimental and avant-garde music style Karlheinz Stockhausen performed Music for a House and Music for the Beethovenhalle, in which musicians performed works in different rooms (Tadday, 2008).

The definition of art has expanded since the 20th century to encompass media other than the conventional genres of painting, drawing, printing, photography, and sculpture. This includes performance, light, text, and sound, among other things. Up until the late 1970s, the term "sound art" was mostly employed in the avant-garde or experimental art movement to describe artworks that made unusual use of sound. Max Neuhaus, an artist most renowned for his work in Times Square (1977), is credited for coining the phrase in the first instance. Under a grate in Times Square, Neuhaus concealed speakers and homemade sound generators that would emit a droning tone as people went past. the widespread use of the phrase "sound art," which is best explained in this modern art form.

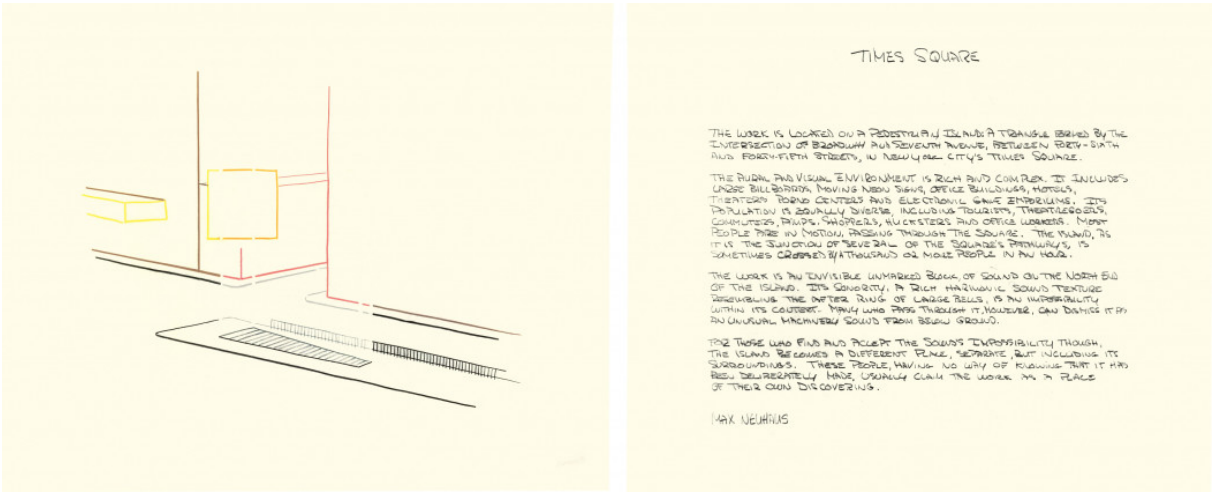


Image: Max Neuhaus, Times Square, 1992. (Source: www.www.max-neuhaus.estate)

However, since the early 20th century, artists have been utilizing sound. Between 1913 and 1930, Italian futurist artist Luigi Russolo created noise-making apparatus and published a manifesto titled "The Art of Noises." Italian artist Harry Bertoia created dynamic sound sculpture during the 1960s and far into the 1970s, advocating for a brand-new musical genre based on the sounds of industrialization. As an art form that did not carry the burden of centuries of historical dominance by men and could be understood outside of the conventional artistic structures, sound was another medium that women artists frequently explored. (Tadday, 2008).

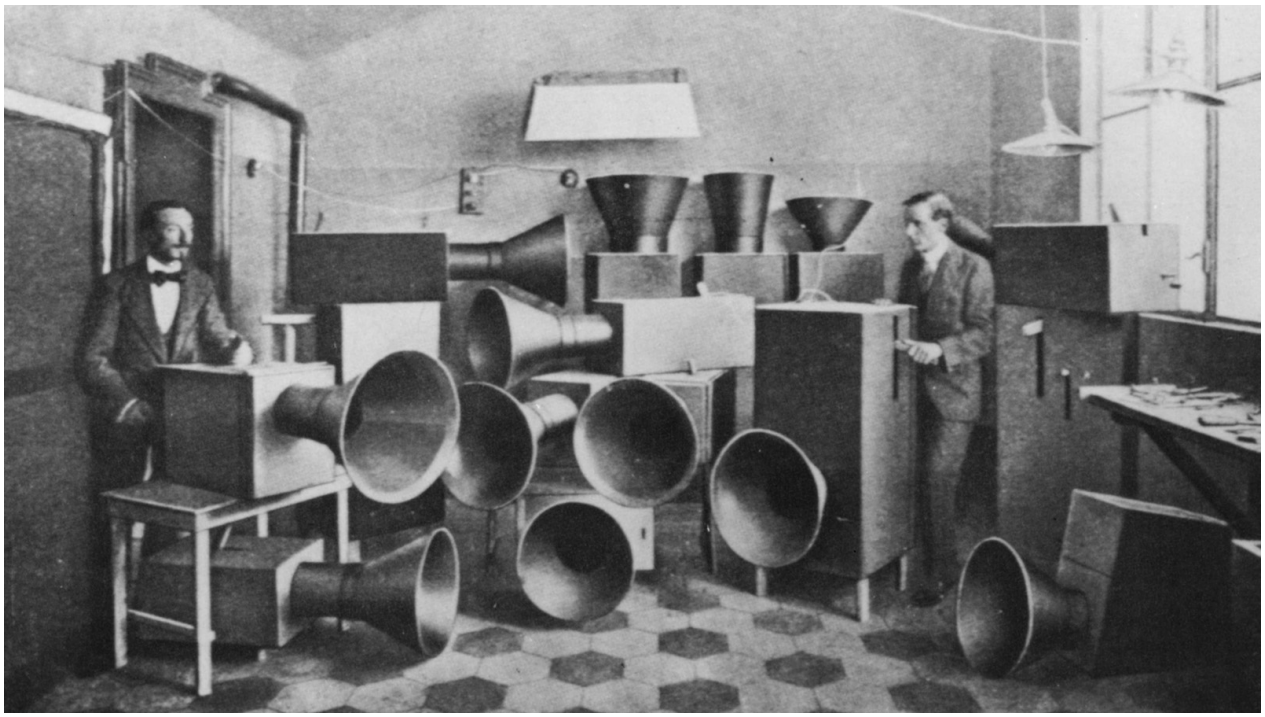
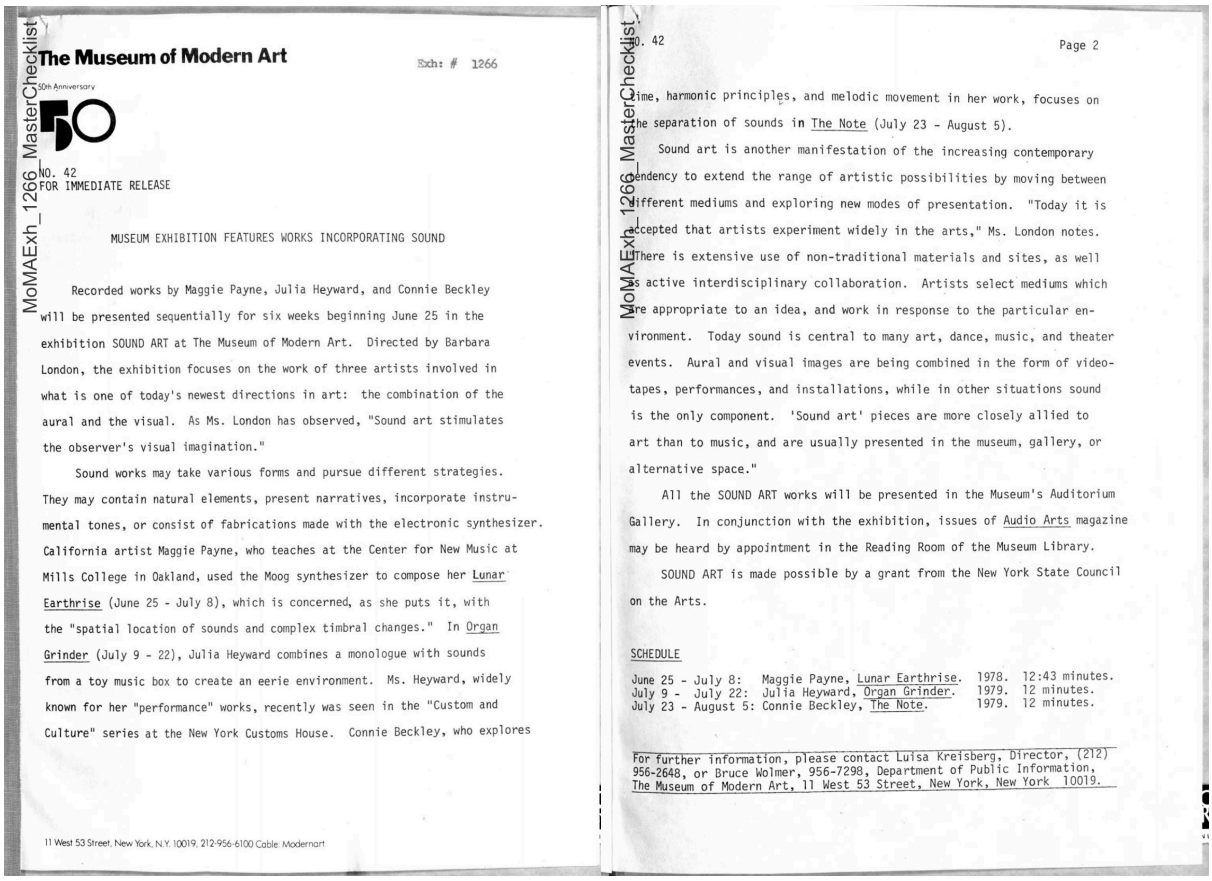


Image: Luigi Russolo with his mechanical orchestra, 1913. (Source: Art of Noises, 1967)

The first exhibition to use the term ‘sound art’ in its title was the 1979 MOMA exhibition, ‘Sound Art’, curated by Barbara London. Featuring the work of three women artists: Maggi Payne, Connie Beckley, and Julia Hayward. London solely selected female artists for the exhibition, despite the fact that exhibition were never mentioned as only "women artists" in the promotion. One could interpret this curatorial choice as a feminist statement in and of itself, especially in light of the fact that it had been traditional for decades to exhibit solely male artists. In 1977, documenta 6 exhibited first time art works that they adopted different media including video and sound.



The Museum of Modern Art

50th Anniversary

Exh: # 1266

NO. 42
FOR IMMEDIATE RELEASE

MUSEUM EXHIBITION FEATURES WORKS INCORPORATING SOUND

Recorded works by Maggie Payne, Julia Heyward, and Connie Beckley will be presented sequentially for six weeks beginning June 25 in the exhibition SOUND ART at The Museum of Modern Art. Directed by Barbara London, the exhibition focuses on the work of three artists involved in what is one of today's newest directions in art: the combination of the aural and the visual. As Ms. London has observed, "Sound art stimulates the observer's visual imagination."

Sound works may take various forms and pursue different strategies. They may contain natural elements, present narratives, incorporate instrumental tones, or consist of fabrications made with the electronic synthesizer. California artist Maggie Payne, who teaches at the Center for New Music at Mills College in Oakland, used the Moog synthesizer to compose her Lunar Earthrise (June 25 - July 8), which is concerned, as she puts it, with the "spatial location of sounds and complex timbral changes." In Organ Grinder (July 9 - 22), Julia Heyward combines a monologue with sounds from a toy music box to create an eerie environment. Ms. Heyward, widely known for her "performance" works, recently was seen in the "Custom and Culture" series at the New York Customs House. Connie Beckley, who explores

11 West 53 Street, New York, N.Y. 10019. 212-956-6100 Cable: Modernart

MoMAExh_1266_MasterChecklist

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time, harmonic principles, and melodic movement in her work, focuses on the separation of sounds in The Note (July 23 - August 5).

Sound art is another manifestation of the increasing contemporary tendency to extend the range of artistic possibilities by moving between different mediums and exploring new modes of presentation. "Today it is accepted that artists experiment widely in the arts," Ms. London notes. "There is extensive use of non-traditional materials and sites, as well as active interdisciplinary collaboration. Artists select mediums which are appropriate to an idea, and work in response to the particular environment. Today sound is central to many art, dance, music, and theater events. Aural and visual images are being combined in the form of videotapes, performances, and installations, while in other situations sound is the only component. 'Sound art' pieces are more closely allied to art than to music, and are usually presented in the museum, gallery, or alternative space."

All the SOUND ART works will be presented in the Museum's Auditorium Gallery. In conjunction with the exhibition, issues of Audio Arts magazine may be heard by appointment in the Reading Room of the Museum Library.

SOUND ART is made possible by a grant from the New York State Council on the Arts.

SCHEDULE

June 25 - July 8: Maggie Payne, Lunar Earthrise. 1978. 12:43 minutes.
July 9 - July 22: Julia Heyward, Organ Grinder. 1979. 12 minutes.
July 23 - August 5: Connie Beckley, The Note. 1979. 12 minutes.

For further information, please contact Luisa Kreisberg, Director, (212) 956-2648, or Bruce Wolmer, 956-7298, Department of Public Information, The Museum of Modern Art, 11 West 53 Street, New York, New York 10019.

Image: The checklist of ‘Sound Art” Exhibition at Moma in 1979 (Source: www.moma.org)

Bill Fontana known as his pioneering sound art examples. He examines the possibilities of developing acoustic artworks from sounds that were composed of both urban and natural sounds, building on Murray Schafer's concepts. Fontana saw the creative manipulation of so-called ambient noises as a way to bring sound content that transmits information related to everyday life into people's consciousness. This opens up a new way of perceiving art, which he sees as essentially lacking in his vision (Drees, 2008).

In his essay Fontana highlight the reasons in which he started to work with sound in urban space. The artists stresses the fact that it was frustrating for him to examine how people perceive sounds in their environment. He would then realize that the vast majority of people do not perceive noises at all. Starting with this idea, Fontana reflects on the consciousness of

people has always seemed to him to be asleep and he would like to wake them up. He would start with the idea that he want to make something that lets people realize how special the present moment is. Bill Fontana's practice focuses primarily on getting people to listen more carefully and be more aware of sound qualities and harmonies in everyday life and cultural production. With the help of constantly changing technical instruments and unfamiliar settings, he brings out the features of landscapes and man-made architecture and engineering while making immersive sound sculptures that are site-specific and rooted in the local area (Fontana, 1990).

As the last section clarifies, sound is strongly bounded with perception of users. Especially the visual and the auditory perception are inseparable, and the third important level of perception is the feeling of one's own bodily movement in the reception process. Thus, the art installations in public which use sound as one of the artistic elements can invite users to various experiences. In addition, sound art installations can reflect on this complex system of assembled agencies.

The second approach is public participation. In the past century, public art has positioned the public engagement and participation in the center of the discussion. Through the processes of "making art", the public event can be both temporally and spatially dislocated, and this has greatly impacted the relationship between public and urban space. Many critics and artists have explored the ways in which this condition of reproducibility affects the public realm. This section covers three sound art installations in urban space which reflects upon these approaches. Firstly, a brief statement about the relationship between public art and sound will be discussed while giving some examples of new directions in sound art and urban design. Later, sound art installations in urban space will be examined.

From Habermas to Agamben, public art projects aiming to interact with the audience in public spaces are produced and these projects bring people together from every part of society together, or at least aiming it. Art works produced in a public space are able to increase the awareness of the audience and to understand what is happening around them by transforming the space with an object or performance. In a most simple sense, the art work in the public space fosters the meaning which the person establishes a relationship with the field and the development or the psychological relaxation brought by the visual and sensual interaction. The art work, which is designed to serve such a purpose, refers to full participation of the public as the audience. It is necessary to act in full cooperation, both artist and the public, in the process of formation of the artwork in public space. With the intention of cooperation, the structure of the traditional artistic monologue is transformed into a collective structure through feedback from the audience. While the audience interacting with the art work, they can enjoy the public spaces and this moment can leave a lasting effect on the public space in memory.

The integration of art projects into urban design techniques is not a new field. The postmodern ‘production of space’ brings interdisciplinary works and collaborations while designing public spaces. Moreover, the public art step outside of its traditions and enhance the visual appropriation to a new sensual space by using sound. These works shows us the participatory, emancipatory and transitory character of the public spaces rather than just a visual environment with determent physical boundaries or a mere infrastructure. In that sense, the artist become the ‘aural architect’ who works in spatial dimensions focusing on public engagement while creating spaces and environments through sound.
Before analyzing the sound art installations in public space, three key approaches regarding the sound art and urban design will be presented in the next lines.

2.5.1. New approaches on sound art and urban design

Recomposing the City Sound Art and Urban Architectures in Belfast Northern Ireland founded by a musicologist/musician and an architectural historian/architect in 2013 Gascia Ouzounian (Music, University of Oxford) and Sarah Lappin (Architecture, Queen's University Belfast) were inspired by the increasing interests on sound art and architecture. The project began with seminars, workshops where they invited urban designers, planners, artists and decision makers. This collaborative work produced a handbook for decision makers called: The sound considered city. The publication consists examples of urban spaces in Belfast which has problematic acoustic prosperities. In order to overcome these problems, the authors suggest international and local sound art works in installation, performance or research format. The idea stems from the lens of urban sound art, where the authors argue that the city itself could be understood as being composed, and recomposed, through sound.

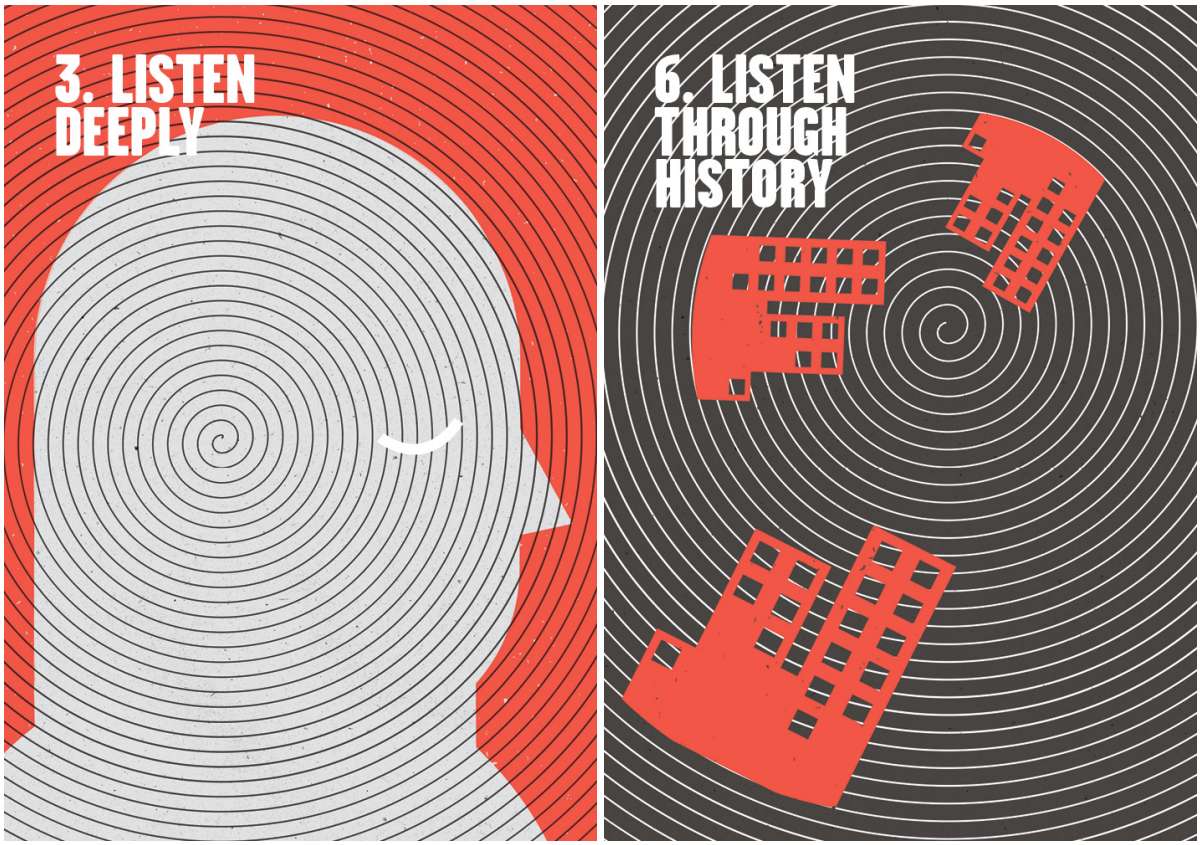


Image: Illustrations from Recomposing the City Project (Source: http://www.recomposingthecity.org)

Tuned City has a similar approach. Curated by Carsten Stabenow since 2008, is a platform that considers "sound as a tool and means of urban practice" (Pagels and Stabenow 2008: 98). Various editions have been already taken place in Brussels, Berlin, Tallinn, and Greece where artists and researchers were invited to work on specific local conditions and urban issues making connections to sound and listening.

Image: Tuned city publication/book, 2008 (Source: http://www.tunedcity.net)

Bonn hoeren: Curated by Carsten Seiffarth, the project has been interested with same topics since 2015. Bonn hoeren appoints a City Sound Artist every year to create sound works in and for the city of Bonn. The works vary from sound installation to performative interventions and invites public to understand public space through sound. The project opens up new relationships with the public which in turn led to a creative dialogue between sound art and urban space while cooperating with local government and institutions.

Image: Bonn hoeren flyer, 2011. (Source: www.bonnhoeren.de)

Regardless the selected area or city, these projects have same aim in the background as discovering acoustic prosperities of urban spaces. In that sense, the importance is in the production of the public focusing and collaborating with listeners (users). They lead users to think on sonic possibility of user's performance within the notions of openness, monumental and civic place.

In the following, five sound art installation will be explained. There are too many artists are working in the intersection of urban and sound, therefore a fair overview is impossible here, and only a few artists are mentioned. The consideration of practices related to the sound objects and sound sculptors in an urban space. Under the inclusive definition of sound art and sonic practices the works here include forms of installations and interactive approaches. Besides they are from Western world, the selection of the art works are not specific. They are

publicly situated non-/permanent art installations which have been attracted both local and international visitors. They are successful examples of creating public and collective listening while creating sensory relation between users and their environments. As it is suggested by Lacey (2014), they can be considered as sonic placemaking tool by urban designers and decisionmakers in order to produce new everyday experiences and interconnecting the users and urban spaces.

2.5.1.1. Untitled Sounding Sculpture

There are two approaches coalesce the idea of the sound sculpture. On the one hand it influences from the kinetic art. On the other hand, crafting musical elements turn into sculptural sound objects. In 1975, the Designer and sculptor Harry Bertoia has been commissioned by Standard Oil Company for the plaza of its headquarters building in Chicago, USA. The original piece "Untitled Sounding Sculptor" included eleven clusters of flexible copper rods sticking out of a granite base which settled at right angles to one another in a large reflecting pool. The rods are parallel to the skyscrapers which look like the continuation of the installation. In the breeze the rods collide with another producing variety of sounds depending their length, the velocity of the wind and the size of rod cluster. The sculptor is abstract and it is simple representation of interaction between, nature, industry, music, hearing and listening. The instrument perform without electricity or human intervention as they are activated by the wind alone. The technology-free and self-sustained idea ease the maintenance of the sculpture.

Image: Untitled Sounding Sculpture by Harry Bertoia (Source: www. http://chicagopublicart.blogspot.com/)

The sculpture's presence in a plaza in Chicago surrounded by skyscrapers which is a perfect meeting point, or to simply sit and listen to the music the sculpture makes. The social dimension of the sculptor is two folded. On the on hand it adds character to the plaza – a busy meeting point especially during lunch time – producing sounds that are appealing to the ear. It invites users from different backgrounds by creating joyful sonic environment. On the other hand, the listening experience is interesting but at the same time it is very complex while mixing with people's voice. The sound the sculpture makes do not appear as natural however it is neither man-made. The proximity to sculptor is very crucial in terms of bodily experiences. Sitting on the ground nearby includes the vibration into the hearing. Whereas the sound becomes the soundscape while passing by. In addition to that, the sculpture invites

users to experience the sound by touching and creating their own sounds. One can easily feel connected and involved with the piece. In a big city like Chicago, the sculpture interrupts the chaotic mayday of the city with the sound it produces and creates an open space which invites users. The cultural dimension is the reflection of change from industry to services. Firstly, as it is located in front of financial skyscrapers which used to be headquarters of industrial companies, the users are invited to think about the history of the city. The used material copper supports this argument. However, the reflection of the pool, trees and vegetation add to the natural vibe to the sculpture and its surroundings. This brings second argument about the positive change in economic turn and cleaning the industry from the city center. At the same time, environmental problems are caused by industry is still exist and the decisions are made in those skyscrapers.

Nature in the city, sustainability and participation are part of urban politics which is represented by the sculptor. With this perspective in mind, the soundscape cleverly combines recreational life and urban sustainability with an daily life experience (meeting friends, spending lunch time, etc.) in an urban area. With that, it involves the broader and complex political issues at stake in USA and whole world.

2.5.1.2. Sea Organ

Waves lapping to the beach, pier or harbor creates the sound of the water. Sea Organ is using waves and produces sound which is like a live concert. Sea organ is an architectural sound art installation by the architect and acoustician Nikola Bašić located in Zadar, Croatia (Stamac 2005). It is a huge musical instrument which plays music by Adriatic Sea. The construction is completed in 2005 and it is since than active day and night (Kapusta 2007). The 35 organ pipes are built underneath a set of large marble steps by the promenade. Each organ pipe is

blown by a column of air, pushed in turn by a column of wave-moved water, through a plastic tube immersed into the water. Sea Organ is one of the most biggest tourist attraction in Croatia. The spontaneity and mystery of the created sound changes the acoustic environment depending on the season, time of the day, wind, etc. The visitors enjoy both the views and the sonic ambient. Like the Untitled Sounding Sculptor, it needs low maintenance and it is a sustainable construction.

Image: Sea Organ in Zadar (Source: www.architectuul.com)

The city have decided to realize this installation alongside the renovation of the harbor. In terms of social dimension, it is a successful example of public art which is accessible for anyone. The interaction between human and non-human bodies is present in a human scale;

users, their listening and hearing, their perception and the architecture or the material of the promenade.

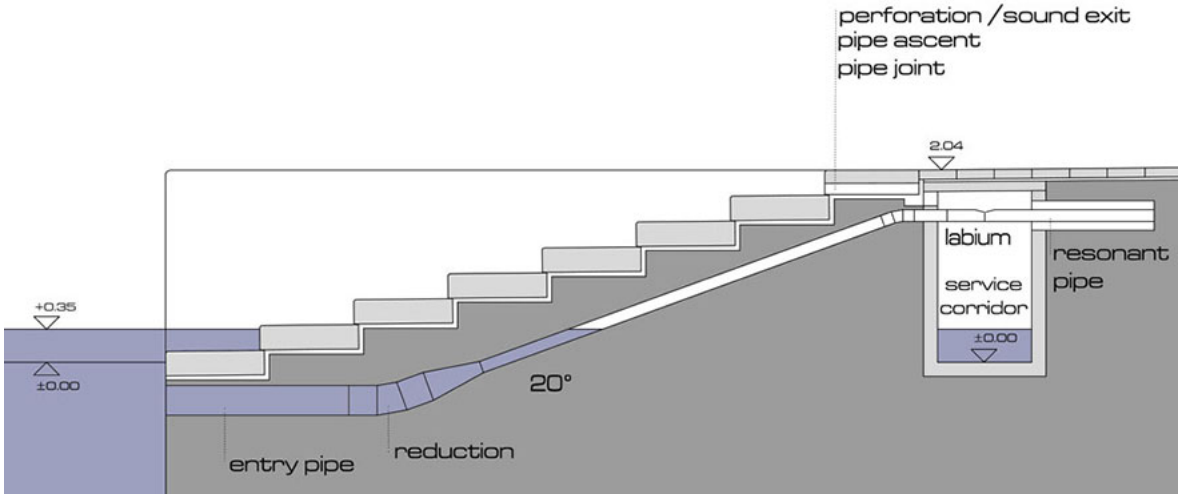


Image: Section modelling of Sea Organ (Source: https://www.insideflows.org)

In that sense, the interactivity is created by bringing users (tourists, visitors and locals) together in an open public space. These characteristics have been awarded by the European Prize for Urban Public Space in 2006. The cultural dimension is bound to the history. Zadar has a strong connection to the sea which was interrupted during World War II with a monotonous concrete wall. Construction of the Sea Organ was special for the whole country underlying the freedom one more time.

2.5.1.3. grundklang bonn (2010-2013)

In 2010, sound artist Sam Auinger appointed as first 'city sound artist' by the artist residency program Bonn hoeren. As a result, the artists created a work which consists two cubes positioned in the urban space in front of the main station. The area surrounded by stairs

became a permanent sound box with the with a live feed of sounds from the nearby streets and a feed from the nearby Rhine river.

Image: grundklang bonn installation by Sam Auinger. (sournce: www.bonnhoeren.de)

With the newly added sound into the urban space, sonic ambient of the location changes, so the perception of the user. The elevation of the square and the location of the concrete boxes transforms the traffic flow (both human and car) into a new audible experience. The installation invites users to stay longer and enjoy the open urban space. It is a crucial example of an acoustic intervention which is strongly bounded with the social dimension. An passer-by area have been started to use differently with the installation of the art work. Sam Auinger (2013) mentions the relation between the bodily experience and the listening experience of the users is changed. These sound box has created invisible borders, in other words, a safe space for the users. As the use of the this urban area change, the meaning of the space is open to discussion. In that sense, the cultural dimension should be highlighted in a city with an

industrial background. The mixture of the nature and everyday sounds embody the situation of Bonn – a in-between city between industry and nature. The installation initiates a discussion on awareness of the users. It establishes a third space between the pre-recorded virtual soundscape and the actual bodily presence of the visitor in the real-time urban environment.

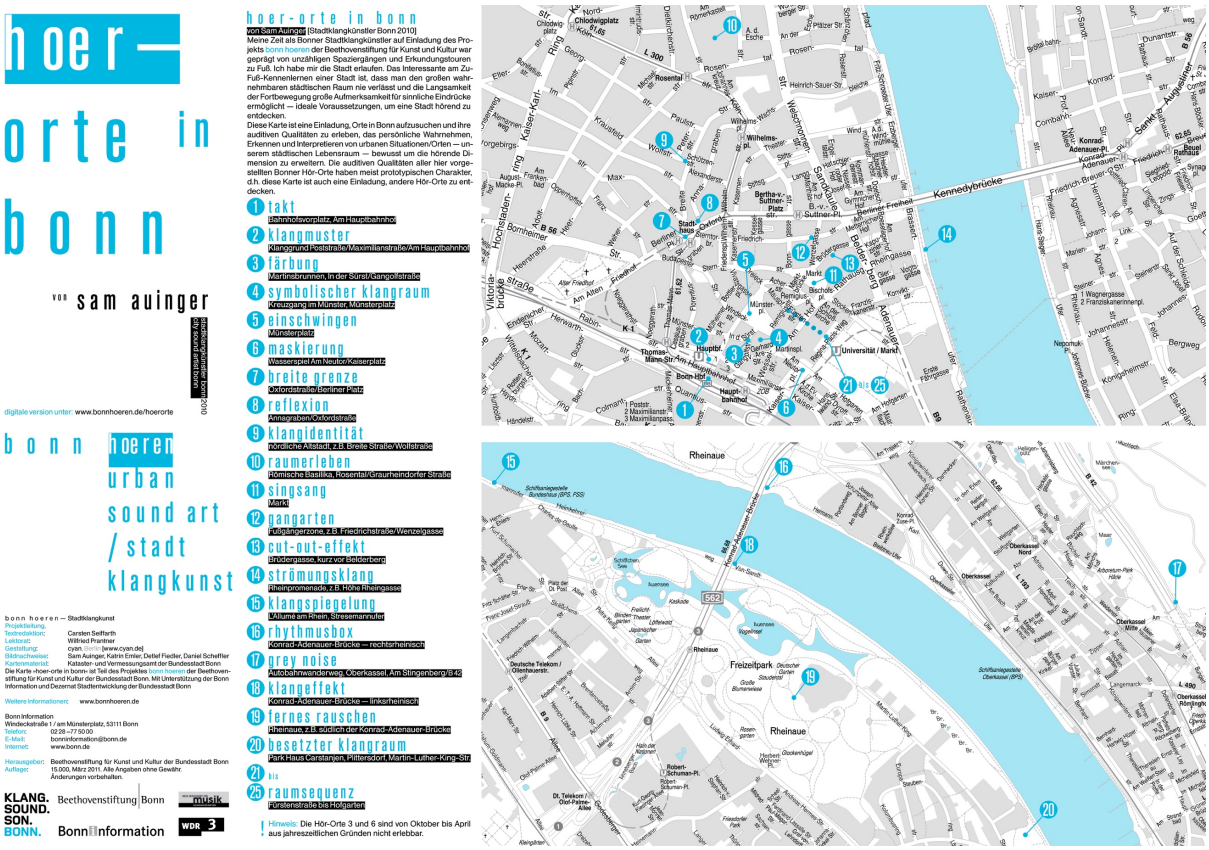


Image: Sound map of city of Bonn by Sam Auinger during to the installation. (Source: www. http://samauinger.de/)

2.5.1.4. Transition

Transition – berlin junction: a sound situation (2001) is interactive sound installation by Berlin-based sound artist Georg Klein which is situated at the in front of the entrance of the concert hall Philharmonie in Berlin, in Richard Serra's sculpture berlin junction from

1987. Four loudspeakers and eight sensors installed in the ground between the two curved metal plates of Serra's sculpture. The sound in the installation is derived from different frequencies of sine waves, generated by six computer-based sinus generators which installed in the Philharmonie's foyer. When people enter the space between the rusty metal plates, the static sound of the sine waves changes gradually in correspondence with a computer system, as well as the fragments of sentences and spoken words from a poem by Bertolt Brecht. It also uses the acoustical prosperities of the two metal plates where the echo intervenes the soundscape (Klein 2003). Groth and Samson (2013) highlights several dimensions are worth the consider. First of all, the social dimension of the installation which is bound to social flows in the urban surroundings with the activation of the sensors. It is an interruptive intervention which successfully integrated with the ordinary urban space outside of the Philharmonie, the sculpture, the soundscape and the users. Klein explains (2012) how people were singing or dancing in between those two metal plays; a woman was showing her friends the sound of the wind makes, or the children were discovering the interactive possibilities. It is clear that the Klein's work invites users to different bodily experiences which is mentioned above. The meeting point of different users which is created by Serra becomes sensory and playful.

Image: “Transition” Sound Installation by Georg Klein. (Source: www.georgklein.de)

Klein (2012) argues that Serra’s sculpture was an expression of the status of Berlin during the Wall – two standing parts seem to fall into each other. transition brought a new flow, a changing society in an uncertain, ambivalent moment by including Bertolt Brecht’s poem Change of Wheel from 1953 describing a situation of transition: “I don’t like where I come from. I don’t like where I’m going. Why do I watch the changing of the wheel with impatience?” (Klein, 2012). The poetic phrases heard as fragmented sentences are not directly caught by the visitors as the political statement and the critique of Serra’s. It is more complex; the metallic soundscape was added as another layer or interruption into the existing soundscape; it was also interrupted by the spoken words themselves, which furthermore brought a new perspective to the piece: a political statement from the past resituated in a present situation (Groth&Samson 2013). Therefore, it creates the assembled situation in visitor’s body touching upon the political, cultural and social.

The environmental dimension is also elaborated in terms of user's perception. The installation is in a very layered and complex area in Berlin – Kulturforum– which is a concrete example of new cultural and economic developments blend with political history of Berlin through monuments or monumental architecture, mainly for touristic attraction. Klein (2003) explains that he relates the materiality of the sculpture with his own metallic sound and the sound of the sine waves (Klein 2003). As explained above, the artist also integrates the social, cultural and political layers as a complex assemblages through sound. It is not a traditional representation of a monument, rather an open suggestion which invites users to experience freely. In that sense, transition is an intervention, an open process, an interruption and a complex mechanisms which can be activated by the user's participation.

Image: "Transition" Sound Installation by Georg Klein. (Source: www.georgklein.de)

The process of "listening" to sound installations is a personal one that exhibits social characteristics, among others, as a result of the subject's placement in a social setting and the sound's historical connotation. An attempt has been made to explain this, mainly by way of

the theoretical considerations on "hearing" and “listening,” and their transfer to the presentation of these installations, using some of the sound art works as examples.

„From questions of orality and audition, and aesthetics based on technologies of interaction, to soundscapes, social habits of listening, and the musicality found in urban environments, sound art promotes consciousness of the often overlooked and underheard.“ (LaBelle, 2015:292)

Questions developed here regarding sound and its typical perception, space and its sound-technological extension, as well as sound art in the form of an analysis of publicly accessible sound installations, as Brandon LaBelle makes evident in the above quotation. Always, the emphasis is on a thorough presentation of the topic and on the subsequent connecting of the many thematic points.

For the time being, we may agree with the work's basic thesis that the act of "listening" is made up of a variety of components and that sound installations might serve as the auditory beginning point of this relational process. The dimensions of the urban environment play a role in the social embedding of the directed listening process, as do socially developed modes of perception, which were previously included under the concept of participation. However, the lack of empirical data, which undoubtedly would have advanced this work, creates some difficulty in identifying the social and political implications of listening to sounds in urban settings that are generally applicable. The ensuing discussion of music and composition will therefore explore some already thematized social implications of listening in addition to the work's already defined results. This is clearly a call to creativity for the urban environment, which is made up of rhythms, codes, flow, and a particular sonic composition.

3. The Urban Designer DJ

This chapter attempts to investigate about the urban space and its similar process of techno music DJ'ing. Taking into account the author's background as an artist, researcher, producer and DJ within her education in urban planning and design, this chapter aims to create a new mode of analyzing and thinking about urban places for urban designers, which can complement conventional approaches to urban problems in everyday professional practices. It is not necessarily about the author's own artistic work but it is the methods that she uses which merges electronic music production, techno DJ'ing and urban design. The artistic practice of the author which can be found in the documentation which is submitted with this thesis consists examples of how the author incorporates these disciplines.

Before examining the ways in which techno music Djing can be useful tool to analyze the urban space, as next this chapter look at the Berlin's urban space and what kind of events are happening which utilizes sound and music. While analyzing some urban events, it is clear that Berlin's urban space is an open stage for celebrations. It is important for this thesis to give background what it really happens in urban space, what kind of communities are occupying some specific areas and neighborhoods; their social, political, cultural relations and connection to the noncontrollable financial changes with gentrification.

3.1. Berlin as stage

In cities we are surrounded by sounds that shape our perceptions of public space. In that sense we inhabit the "soundscape" of the city. The composer Murray Schafer introduced the concept of soundscape to refer to a merging of sounds of nature with the cacophonies of modern life (Schafer, 1993). Blesser and Salter (2007) suggest that "...listening is a means by which we sense the events of life, aurally visualize spatial geometry, propagate cultural

symbols, stimulate emotions, communicate aural information, experience the movement of time, build social relationships, and retain a memory of experiences" (Blesser&Salter, 2007:37).

There is also a continuous flow of movement in urban public space as people move through the city. The pace of this movement changes over the course of the day and the week. These changes that occur on a regular basis create the rhythm of a city, a rhythm that is both created and expected by its residents. In his book Rhythmanalysis, Lefebvre (2004) recognizes this phenomenon, noting that life in streets follows rhythmical patterns and sequences. He points out that it is our lived experiences of spaces as well as our performative activities that create the rhythms of a city's everyday spaces. Rhythms create a fluid relationship between humans, the topography of place, and perceptions of urban public space (Lefebvre, 2004).

As described by the Situationists, special events held in urban public spaces disrupt everyday routines, changing the rhythm of the city and shaping people's perceptions of space in new ways (Debord, 1994). These changes in perception caused by special events may change people's perceptions, enabling them to see their surroundings in new ways and allowing different voices to be heard (Jakob, 2011).

During large scale, special events, such as celebrations, public space is used as stage, interrupting daily routines and transforming spaces, albeit for a limited and predetermined period of time (usually a day, a day and a night, or several days). Roadways and traffic circles are likely to be closed to traffic and traffic rerouted so participants in the celebrations can use those spaces. Stages, food and vending stalls, and information desks are placed in these public spaces. The everyday soundscape is changed as well as participants in the event chant and shout, as they play live music and as recorded music is played by DJs.

Many such special events take place in Berlin. Its wide avenues, spacious traffic circles and significant symbolic sites offer excellent locations for celebrations, free festivals, and similarly large-scale spectacles. Not surprisingly then, spaces planned and designed for vehicular and pedestrian circulation become stages for these events. And, for the most part, Berlin's city government has been supportive of these temporary uses of the city as a stage. This chapter aims to reveal how these special public events generate new routines and rhythms and create new sound environments.

In this part of this chapter three such celebrations are described in detail: Myfest which is both a festival and a political protest; the Christopher Day Celebration (CSD), a social performance; and the Carnival of Cultures, a cultural performance. In each case people's voices, screams, shouts, and laughter as well as live and recorded music join the ongoing everyday sounds of the city. Particular attention is paid to the locations of these celebrations and the sounds they create. The chapter ends by exploring the increasing commercialization of these celebrations. Information about the celebrations is drawn from the author's field observations of Myfest on May 1, 2019 and 2020 the CSD Berlin Parade on July 27, 2019, and the Carnival of Cultures on June 10, 2019 as well as from archival sources. These include videos from the official websites of the organizations as well local and international TV's online channels, and on-line materials i.e. newspapers, magazines, flyers, posters, and fanzines.

3.1.1. Myfest: A Street Festival and a Political Protest

Public space in Berlin is full of political expression. Political statements in the form of stencils, graffiti, banners, posters and stickers appear throughout the city. And political

protests are frequent as well, especially in neighborhoods where guest workers from different countries live as in the case in Kreuzberg. This neighborhood, formerly a workers' neighborhood, has become increasingly gentrified. As a consequence, the workers and their families are being pushed out. The diversity of cultures is still visible but every year the neighborhood is losing more of its multi-cultural character. Kreuzberg is located on the edge of what was previously West Berlin and is now one of the most popular tourist destinations in the city. In that neighborhood what started out as a yearly protest has now become a lively street festival as well as a political protest.

3.1.1.1. History

On May 1, 1987 leftist groups marched in Kreuzberg for the first time to demand better working hours, higher salaries and improved working conditions and to protest capitalism in general. In the daytime it was a peaceful celebration but turned into a rioting in the evening. Police provoked the protestors who then burned several supermarkets, shops and cars. The police viewed this first Revolutionary 1st of May Demonstration as a street riot (Rucht, 2001). Ever since 1987, this march has occurred annually, always creating tension between protestors and the police. The police banned the protest in 2001 for security reasons. Over 2,000 people joined the demonstration in 2021 expecting to follow a four hour route. However, at the end of the second hour, the police intervened, and ended the protest because Covid regulations were not being followed.

In 1987, the protestors' slogan was "Onwards to the revolutionary 1st of May" along with a quotation from Rosa Luxemburg, the German revolutionary: "The revolution is great, everything else is quark." In 1990, the year of reunification, the slogan was "Rather on the street than home to the Reich!" In 2021 the slogan was "No piece of the cake, baklava for

all!" next to "Go for it! Class Struggle", a critique of politicians for ignoring immigrants and issues related to them, especially police violence and racial profiling.

In 2003, to counter the repeated violence between the police and protesters in Kreuzberg during the Revolutionary 1st of May Demonstration, local residents and shop owners organized an annual street festival called Myfest, which they and other people view as a working class celebration held by Turkish immigrants. Ever since then it takes place in the afternoon in streets, parks, and other public places in Kreuzberg. Similar, smaller celebrations take place in other districts, but they have never attracted as many as visitors as the one that is hosted in Kreuzberg. Then the Revolutionary 1st of May Demonstration starts at 6 pm. However, since Myfest continues into the evening, it merges with this organized, left-wing march.

As a result of Covid-19, neither Myfest nor the demonstration took place in 2020. Myfest was cancelled again in 2021 but the Revolutionary 1st of May Demonstration went ahead. That year, for the first time, the demonstration was co-organized by antifascist groups whose members were immigrants. Then German radical leftist groups took over the demonstration, criticizing the unions and immigrant groups for not giving attention to the struggles of the working class that consists mainly of immigrants. Remarkably the slogans of every year (except 2021 as the Myfest is cancelled) were the same for both the celebration and the demonstration reflecting on the struggles of the working class.

3.1.1.2. Space and Sound

The city government uses police cars and moveable barriers to close the streets of Kreuzberg for Myfest. Around midday people slowly fill these streets, getting ready for the city's largest open air party of the year. The crowd is a mixture of people, both locals and visitors,

including the younger generation and families with children. Most are casually dressed. Towards the afternoon, the streets become crowded and sometimes chaotic as more people arrive. Music starts at noon on stages placed in the streets that have been closed to vehicular traffic as well as in parks and small squares.

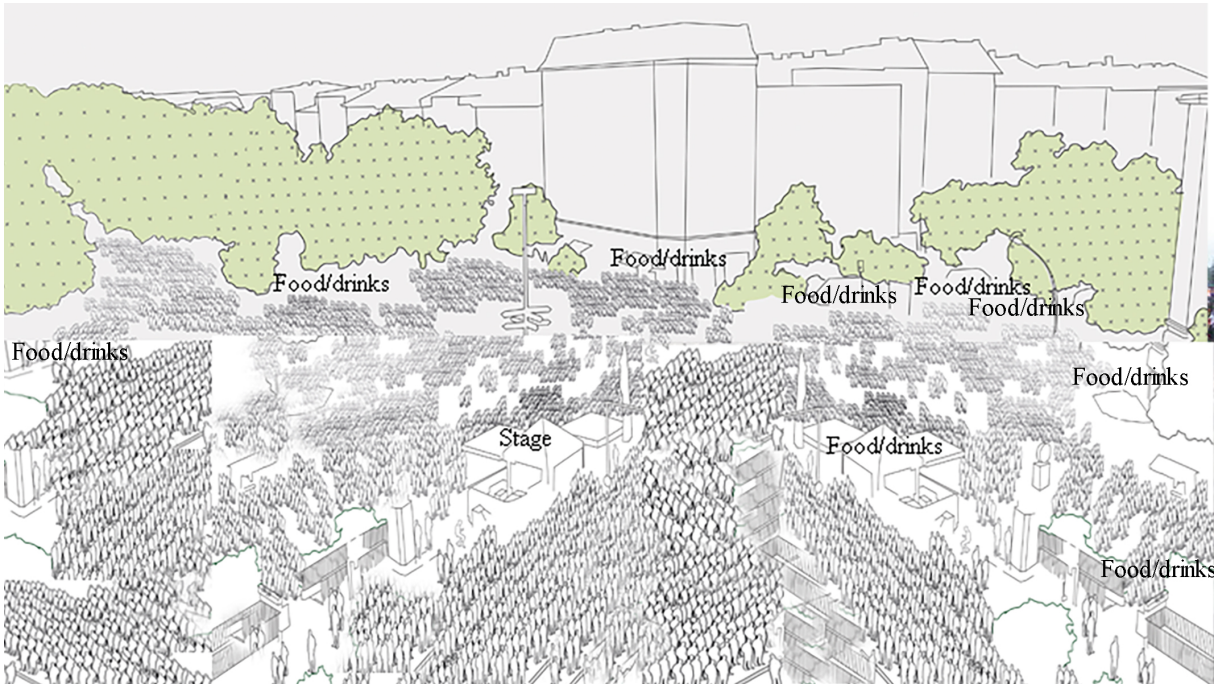


Image: Illustration of localization of crowd and services during Myfest, 2019 (Source: Author)

Around the Kottbusser Tor local restaurants set up stalls for selling food and bars for selling drinks on the sidewalk right in front of their establishments. On Oranienstrasse restaurants and bars also install stages in the roadway, now closed to traffic, 50 meters apart. The restaurants determine in advance whether they would like to participate in the celebration in those ways and, if so, they register the food vending stall or the stage with the Myfest organization. On these stages DJs play recorded music and bands play live music. On the stages, two to three meters high, speakers and sub-basses are attached to the metal structure of the stage. Once the celebration starts, and traffic is banned from most of the main streets,

they become dance floors. Buildings and windows also stand out: banners, posters and slogans cover the façades.

With the closing of streets, traffic noise is reduced and the soundscape changes from the sounds of traffic jams to music, laughter, and people speaking and singing in different languages. Areas of varying size from parking lots to small gardens and parks are full of people having picnics and enjoying the music. Some music emanates from small, illegally installed stages mostly installed in and around the Görlitzer Park. As the police are very busy with the protesters and the security of the street festival, they overlook these illegal stages. These non-registered, illegal stages generally have two speakers with a stand on the floor in front of the DJ's console to achieve maximum volume.

As Berlin has a popular electronic music scene, each year the public expects to see the most famous DJs for free during Myfest. The most popular bar is likely to invite Berlin's most famous DJs. An ethnic restaurant invites traditional musicians to play live music from that culture. The music changes from stage to stage. Other streets host non-choreographed dance performances by participants in the festival. It is very moving to see people dancing to electronic music while fifty meters away Anatolian folklore dances are performed. Many other streets also fill with people drinking and dancing, making the entire neighborhood a large music club.

In fact, everyone who joins this street festival performs in some way: sitting, eating, drinking, and dancing. Many people are on the move. These activities demonstrate key features of public space: its openness, its accessibility, the freedom of choice it affords, and in this case creating a special relationship between users and soundscape. The music from the different stages mixes together and together with people singing, laughing and chanting. Since there is

no single kind of sound, there is no single, cohesive sound environment. Instead, there is a rich mixture of sounds -- of people, singing, laughing, and chanting. The mixture of barbeque smells, music, and other sounds sets the mood as the city welcomes spring weather after all the grey months of winter.

The age range of participants is wide. The younger generation is drawn to the electronic music played by the DJs on stages The older generation enjoys the live music. However, since electronic music dominates the entire festival, some parts of Kreuzberg appear to be a student festival with music, food, and a hedonistic atmosphere.

At 6 p.m. Myfest merges with a demonstration when the annual Revolutionary 1st of May starts. Participants in the demonstration organize themselves into different groups: anti-globalization movement, various antifascist groups, anti-capitalist organizations and workers unions according to a sequence set by the sponsors of the demonstration. A truck with loudspeakers precedes each group.

Until 2021, the so called “Black Block,’ known for the aggressive behavior of its members, was the first group in the parade. Members could easily be identified since they dress all in black and cover their faces with scarfs and face masks. Radical groups and other organizations followed. With an average of 10,000 visitors a year, this demonstration is considered the “radical ritual” of May 1st. Violent clashes between protesters and the police usually take place while Myfest street festival continues. During this time, the situation is chaotic.

The demonstration usually starts in Görlitzer Park and ends in Oranienplatz. Organizers of the demonstration determine the route some days before and every organization or group that takes part announces the location of the protest on its webpages and in social media. The

route changes slightly every year so that protestors can avoid construction sites. The reason for this is that if the police attack the protestors, the construction makes it difficult for protestors to escape.

In 2021 the Revolutionary 1st of May parade was co-organized by several immigrant groups. Their first aim was to hold a peaceful demonstration and for the first time these groups led the first section of the parade. They also banned alcohol to reduce the possibility of aggressive behaviors. In previous years, there had been excessive alcohol consumption during the demonstration which escalated the violence between protesters and the police. Another reason for the ban was to respect religious beliefs since most of the immigrant groups are Muslim and do not drink alcohol.

In 2021, over 20,000 people gathered in Hermannplatz at five o'clock in the afternoon and then started to march towards Hermannstrasse. Music, slogans, and shouting filled the air. The presenters leading each group were continuously announcing the Covid-19 hygiene practices that were in effect while also inviting groups and individuals to make speeches as they marched. The speeches were in different languages: Turkish, Kurdish, Arabic, German, Hebrew, etc. The sounds of different languages, the music they were playing in between the speeches and the announcements of the presenters created the soundscape of the demonstration. In the middle of first section, I was walking without seeing the horizon, but the sounds were helpful to guide me.

Around 6:30 p.m. the police entered the parade between the first and second groups and stopped the parade and many participants waited to begin marching again. Finally, at about 8 p.m. the police announced it was canceling the demonstration and started to hit protestors, push them to the ground and arrested over 150 participants. The reason given for the

cancelation was that members of the Black Block were not wearing medical Covid-19 masks, the required hygiene practice. In fact, they were wearing blue and sometimes black medical masks under their own black masks that covered their faces. They even showed the police that they were wearing the required masks but that made no difference.

The expression of political demands makes both Myfest and the Revolutionary 1st of May march different from other public celebrations. On this special day in Berlin, the soundscape changes. Traffic noise turns into the sounds of electronic music, live music, slogans chanted by the demonstrators and people singing, talking, and dancing. Hearing the slogans and the chanting may well lead observers to recognize the needs of immigrant groups and to imagine a society that responds to those needs.

3.1.2. Christopher Day Celebration: A Social Performance

Every year, a celebration of Christopher Street Day (CSD) takes place in what was formerly West Berlin. It consists of one extremely large street parade with live music held on the last Saturday of July with additional activities taking place throughout the month. The first CSD in Berlin was held in 1979 with only 500 people participating. Since then, it has become one of the largest gay-lesbian celebrations in Europe. Over the past few years, thousands of people from all over the world have traveled to Berlin to participate in this parade and the after parties.

Formed in 1999, the Berliner CSD e.V. (Berlin LGBT Pride Association) is responsible for organizing CSD Berlin, also known as Berlin Gay Pride. The volunteer board consists of five people elected by a general assembly. Each year, before the event, the association organizes Pride-Forums, a series of events open to the public. During the Pride-Forums, the Berliner CSD e.V prepares the theme and the motto of that year's celebration that reflects their

political approach and stance for that year. For example, the first CSD Parade in 1979 resonated with its motto “Stolz auf Schwulsein" (Proud of being gay). In 2019 the motto was Stonewall 50 - Every Uprising Starts With Your Voice as it was the 50th Memorial of Stonewall events in New York City. With the rapidly increasing number of participants and visitors, the organization creates several subgroups to help in with the increasing scope of the work. Each group is assigned a particular task ranging from finance, sponsorship, public relations, and governmental permits.

3.1.2.1. History

In the 1920’s, gay life in Berlin was both accepted and vibrant as evident in the many cabarets, restaurants and clubs that catered to homosexual men and women, both singles and couples. During the Nazi regime, homosexuals were often arrested and sent to concentration camps since Paragraph 175 of German criminal law, adopted in 1935, made sexual contact between men unlawful. Lesbians were ignored (Gordon, 2000).

After Germany was divided into East and West in 1945, the governments of each side slowly modified Paragraph 175 but largely kept it as it had been in the Nazi-era (Whisnant, 2016). Paragraph 175 in the German criminal law demanded penalty for sexual contact between men, which made homosexual interactions private. In East Germany, the favored meeting place for gay men was public toilets (Whisnant, 2016). The Stasi, the secret police of the German Democratic Republic, prosecuted and sentenced many people associated with gay activism because the Stasi believed they were working with intelligence services of the enemies and because they believed that homosexuality damaged the image of Communism (i.e healthy families with high birth rates and heteronormative conservatism). With help from Protestant

churches, lesbians and gay men in East Germany were slowly granted some rights but remained under surveillance of the Stasi (Huneke 2019).

From the early 1960's to the late 1980's people in West Germany fought for gay rights. Socio-political changes and the rise of the student movement, the participation of Social Democrats in coalition from 1966 onward brought changes in the criminal law concerning homosexuality. In 1969, punishment was removed and sex between two adult men was accepted. Arens (2007) points out that this success was because early gay and lesbian groups, along with the left wing student movement, portrayed homophobic repression as a form of general oppression. For the first time in 1972 a group of lesbians and gay men with their signs and posters joined the 1st of May demonstration as a distinct group and also for the first time they referred to the government's "oppression' of gays and lesbians.

In 1979, the first CSD was organized in West Berlin as a solidarity action to recognize the gay and lesbian uprising following the police raid on the Stonewall Inn (a gay bar) in New York City that took place in the early morning of June 28, 1969. This sparked demonstrations over the subsequent days with more violence by the police and is considered a key event in the emergence of the gay liberation movement. The first Gay Parade in Berlin in 1979, with its motto "Stolz aufs Schwulsein" ("proud of being gay"), acknowledged Stonewall-type events all over the world although the participants did not demand any political action. Instead, the intention was to create a platform for all gay, lesbian and transgender communities to express their sexual identities freely. After that, the gay scene flourished in West Germany. New gay and lesbian bars, restaurants, bookstores, and discos opened. The number of gay publications and magazines also increased. The presence of lesbians and gay men in public space was gradually accepted by the public. New gay and lesbian neighborhoods and districts also appeared such as Schöneberg and Kreuzberg in Berlin (Whisnant, 2016). After the unification

of East and West Germany in 1990, the visibility of gay men and lesbians in urban space increased. However, Paragraph 175 remained on the books until 1994.

3.1.2.2. Space and Sound

In a month-long celebration starting in mid-July, the Berliner CSD e.V organizes various activities. Other events are sponsored and organized by other groups including museums, clubs, and gay and lesbian bars and shops, particularly in Schöneberg which is known as the gay neighborhood in Berlin. The highlight of the celebration is the CSD Berlin Parade that is the closing event of the month. The parade starts on a Saturday at 12 noon on Kurfürstendamm and follows Joachimsthaler Strasse, Nürnberger Strasse, Lietzenburger Strasse near by Wittenbergplatz. It passes through Schöneberg, Nollendorfplatz and Lützowplatz. It arrives at Siegessäule (Victory Column), which is a symbol of gay and lesbian community. The parade ends at Brandenburg Gate where a final rally takes place at 5 p.m. People take various means of transportations to travel to the parade route to find a good location along the route. On the day of the parade in 2019, I was on the train with numerous people who were going to attend the parade. All the U-bahn (train) cars were full of people in colorful costumes i.e frilly hats, fur scarfs, sheer tops, short skits, drag queen outfits and glitter make-up. The most frequently used material is glitter: glittered drink glasses, sunglasses with glitter, glittered handmade posters with glitter. At the end of the parade, everyone gets a bit of glitter on their faces. When the train became more crowded, I could hear “Vogue” by Madonna mixed with laughter, conversations (in different languages) and a happy hum.

Image: Crowd during CSD 2021 (Source: Author)

Hundreds of thousands of people line up along Kurfürstendamm to watch the parade. Groups of people dance to recorded music emanating from trucks and double decker buses decorated

with flowers, colorful posters, and pieces of fabric, with the dominant color being pink. The trucks drive slowly. Performers follow the vehicles and the audience for the parade follows the performers. Many onlookers surround the vehicles and the performers while others observe the parade from the sidewalk.

DJs on the different trucks and buses play different kinds of music so participants choose their spot in the parade according to the music they prefer. Then they follow the vehicle that is playing that music while they dance, sing and drink. The number of people following a truck or a bus depends on the popularity of the group in the vehicle. For example, more people follow the truck of the queer magazine *Siegessäule* than the trucks of political parties. The second, open air level of the busses are filled with performers and participants, who are there by invitation only. These participants dance, sing, and drink in the bus and throw stickers, flyers, and condoms to people on the street and sidewalk. The trucks and busses are at least 100 meters apart.

In the CSD Parade, DJs play recorded music from both trucks and buses. The volume is very high. Most of the trucks are tall with the speakers on top of them so the sounds from the vehicles disperse to a large area. The music mixes with people singing, clapping, cheering, and playing small instruments like small drums or bells. The professional dancers make sounds with their bodies when they clap, hit or slap their arms and legs. The soundscape is vibrant,
and dynamic.

CSD is a platform for expressing and celebrating all sexual choices. The parade displays the history of homosexuality by referring to significant past events. Each year to advertise the parade organizers choose a theme that refers to a past historical event. In 2019, the theme

referred to the 1979 uprising that occurred after the attack by the police on the Stonewall Inn in New York.

The CSD demonstrates that when users bring their own sounds and movements to a space, they transform it. During the CSD, they do so by moving along in the parade, by walking or dancing or standing by, and shouting, singing and applauding. There is no plan or choreography other than the alignment of the vehicles. People participate in any way they choose. CSD, like all festivals, changes the everyday, routine soundscape of the city and routine patterns of movement. In these ways it generates new experiences and increases people's awareness of history and stimulates thoughts about the future.

3.1.3. Carnival of Cultures: A Cultural Performance

Since 1996, the Carnival of Cultures (Karneval der Kulturen) has taken place every year at the end of May – Pentecostal weekend – to celebrate Berlin's cultural diversity and its ethnic minorities. It brings together diverse cultures, music, handcrafts, and cuisine on an annual basis, attracting both locals and visitors. This celebration gives Berlin's ethnic groups an opportunity to make their cultures visible and for the general public to see this cultural diversity through the costumes, dance, and rituals of the participants. From the very first one the Carnival of Cultures has drawn attention from the media and the public. Unlike the CSD, the Carnival of Cultures is a weekend-long event.

3.1.3.1. History

Berlin is a multicultural metropolis. One significant event in its history was the arrival of guest workers who came to the country after the 1960's, mainly from Turkey to work. Being a "guest" means that those workers would eventually leave. However, this was a naive

expectation. The German-born population with Turkish backgrounds is now in its fourth generation. And the arrival of immigrants to Germany has continued over the years. Another wave of immigration occurred in 2015 with the arrival of refugees from Syria, Iraq and Afghanistan. This has been called a "refugee crisis" in Europe. Hamann and Yurdakul (2018) point out that this reference to a crisis is related more to the humanitarian problems that this immigration caused in Germany because other European countries closed their borders.

Werkstatt der Kulturen (Workshop of Cultures) organizes The Carnival of Cultures and is supported by the Commissioner of the Berlin Senate for Integration and Migration. The organizers emphasize the importance of a "free and pluralistic society" while framing their event as an empowerment of the different cultures in Berlin. Its purpose is to reflect Berlin's cultural diversity. So far the emphasis has been on music and dance. It has been included in Berlin's cultural policy agenda and the tourism marketing strategies of the city. Indeed, policy advisers at the highest level have recognized that "the future of cultural policy is intercultural" (https://www.karneval.berlin).

3.1.3.2. Space and Sound

The Carnival of Cultures takes place at the center of the Kreuzberg neighborhood where most of the immigrant population lives. The festival consists of two events: (1) four days of a street festival in the Blücherplatz in the Kreuzberg district and (2) a large parade on Pentecostal Sunday in Kreuzberg.

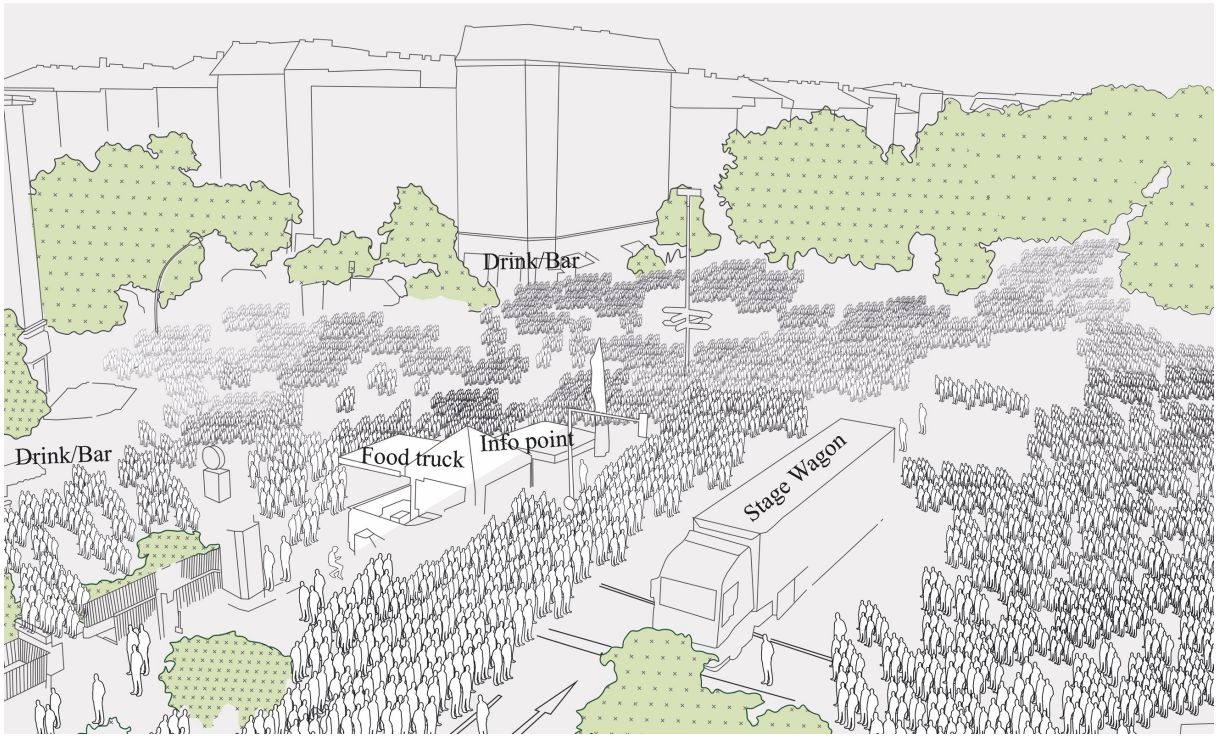


Image: Illusttration of audience and services during Carneval of Cultures, 2017 (Source: Author).

For the Carnival of Cultures food stands and drink stalls are placed in the selected streets which are closed to traffic.in Kreuzberg during the first three days of the festival. There are also benches and tables for visitors to sit and enjoy their meals. Other vending stands offer ethnic garments, hand-made jewelry and souvenirs. (Berlin is particularly famous for its Turkish open markets.) The designated streets become an open air market selling food and many other items. The organizers prepare a schedule for musicians and dancers inside the market areas. The Carneval of Cultures displays more cultural variety than other Berlin festivals. The Carnival of Cultures festival is also more relaxed than Myfest because people stroll along various streets.

During the Carnival, families, people of different generations and visitors of various ethnic backgrounds are also more visible in the streets than at other times. Knecht and Niedermüller (2002) suggest that the success of the Carnival is similar to the popularity of other urban carnivals like the Notting Hill Carnival in London. The costumes, food, smells and music play a significant role in its popularity. The music and other sounds may well engage people's imagination, becoming a transformative agent by encouraging people to think about possible changes in society

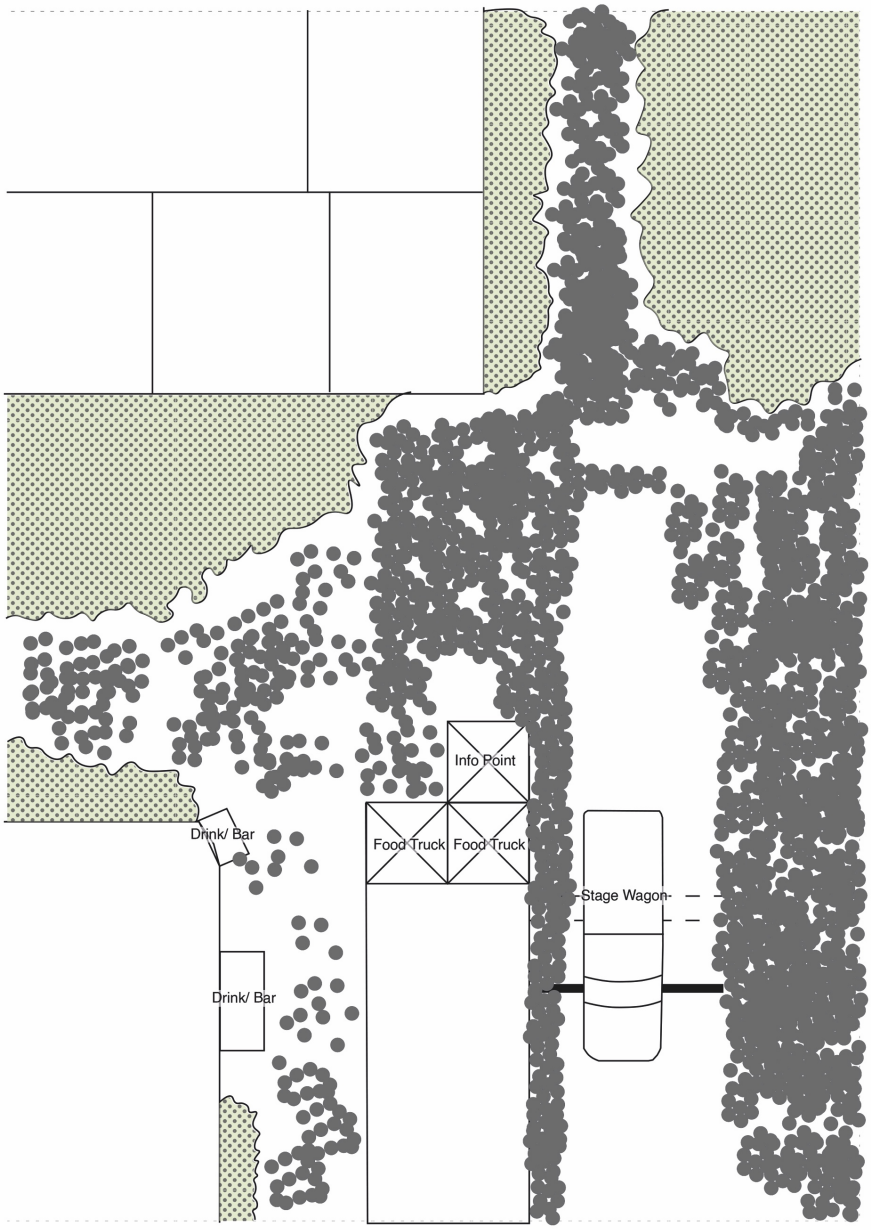


Image: Site plan during Carneval of Cultures, 2017 (Source: Author)

The parade on Pentacostal Sunday starts at noon at Hermannplatz in Neukölln and moves east on Hasenheide and Gneisenaustraße towards Yorckstraßewhere it ends. According to Werkstatt der Kulturen (https://www.karneval.berlin) about half a million people from all over the world join the parade. Dancers and musicians participate in the parade. And make-up artists and hairdressers from many different countries offer their services on the adjacent sidewalks. Dancer and the musicians wear the traditional costumes of their countries. Brazilian Samba dancers, Irish folk singers and a Chinese dragon dance group follow each other, keeping a hundred meters apart. The music played in the parade is international as well. Afrobeat, reggae, funk, samba, Jamaican dancehall music, and soca can all be heard. Elaborately decorated floats and large puppets are also part of the parade. In 2019, about 5000 dancers, musicians, and make-up artists from over 70 countries participated (https://www.karneval.berlin). Onlookers sourrounded the trucks, the musicians and the performers. Others observed from the sidewalk.

3.1.4. Using urban spaces for the public celebrations

Berlin is home to a variety cultures and minorities. However, in daily life these cultures are not apparent in its public spaces. Knecht & Niedermüller (2002) note that Berlin's streets seem more diverse during the Pentacostal parade than at other times. The different kinds of music played, the singing, shouting, and clapping by those who join the parade and by those who observe it create a soundscape that is dramatically different from the everyday soundscape of Berlin creating not only a different soundscape but also one that is multicultural.

Festival-like events benefit cities in various ways, making them attractive to festival participants and to local and foreign visitors who have opportunities to learn more about the city where the events are held. During and after the events, wandering around the city allows

people to discover different neighborhoods and urban situations. Each festival is a manifestation of a culture and a political statement, . Festivals also give spectators and participants opportunities to observe urban space and to discover territories they did not know about previously.

The observations of festivals in Berlin reveal several effects of such festivals on urban public space and consequently on people's experiences of the city:

1.First, both the closing of areas to traffic and the massive number of people the festivals interrupt people's usual patterns of movement. As a consequence people move in patterns that are different from their everyday patterns of movement. And so they may enter neighborhoods they have never experienced before.

2. Second, the absence of traffic gives pedestrians the opportunity to experience urban public spaces differently and to look at their surroundings differently.

3. Third, the festivals rely on important temporary structures: mobile food stalls, tents, stages, and decorations and lighting along streets and on buildings. The uses of these temporary structures for cooking and serving food, for playing music and the new decorations and lighting activate new visual, olfactory, and hearing experiences.

4. And fourth, the routine sound environment of the city, the one people become accustomed to since they experience it every day, is dramatically changed. The sounds of traffic are eliminated and the festival generates new sounds: the music played by both spectators and participants and the shouting, cheering, and chanting of spectators.

Recently the festivals that take place in Berlin have been criticized for becoming purely commercial events. Bar Luzia, which is one of the most popular bars in Kreuzberg, was an active organizer of the Myfest until 2016 and always had the most popular stage during the festival with invited famous techno music DJs from Berlin. However, in 2016 Bar Luzia announced that they were not taking part anymore in Myfest and boycotted the organization for becoming a commercial event, fostering gentrification, losing the idea behind the celebration, and not producing any political arguments. During the Myfest 2016, they placed a banner with "1st of May is over (Der 1. Mai ist vorbei)" in front of the bar covering the storefront. It was a strong statement because everybody who came for Bar Luzia's stage saw the banner.

Image: Illustration of the banner "1st of May is over" protest by Bar Lucia, 2016. (Source: Author)

Over the last few years various political groups and activists have criticized the CSD, claiming that different political parties and countries were using the event as "pink-washing" -- to advertise certain products, individuals, countries and organizations in order to appear

modern, progressive and tolerant so that what remains is conservative and exclusionary. For instance, during the CSD Parade in recent years, traditional costumes worn by Germans and other Europeans (i.e Brazilian Samba or African dancer costumes) were described as cultural appropriations and a continuation of colonialist history. And the Carnival of Cultures is mainly being criticized for giving space and voice to the ethnic minorities just for one weekend (Frei, 2003).

The festivalization of cities has been criticized for being purely a means excuse, for marketing, like pink-washing and greenwashing, to regenerate urban spaces without consensus by the public and to use them for entertainment and consumption by the middle and higher class which is directly related to gentrification and eviction of disadvantaged populations (Jakob, 2012). For example, big corporate companies support the revolutionary 1st of May but the working conditions for their employees might not be improved or remain very bad. Regarding the LGBT rights, during the pride month everybody uses the rainbow flag, but nobody seems to know what exact the flag stands for. These kinds of critiques are important to take into account in a city like Berlin which is suffering from gentrification, neoliberal investment and displacement. As all these examples show that the manifestation of cultures in the cities enables the collective expression. But given the difficulty of defining what culture is and to whom it belongs, it is likely to be appropriated by those in power and so can result in both the commercialization and homogenization of urban space, thereby serving only one part of society (Bianchini & Parkinson, 1994).

3.2. City as recorded set

The urban sonic environment is a complex phenomenon created by many interconnected components. Spatial quality, content, and temporal characteristics are all factors that

contribute to and influence the overall and unique character of urban sound. All these connections can be analyzed both in creating a DJ set or urban design project. This chapter is aims to add complementary tools and strategies for dealing with sound environment. The strategies or similarities below can be used in urban design projects. As a result of this chapter, the author decided to produce the vinyl.

Urban design appears to have a very broad definition and implies various meanings. While some regard it as a distinct discipline in its own right, others see it as simply a "interface" between other disciplines. The most widely accepted definition of urban design is the interface between urban planning and architecture. In this way, it acts as a bridge between two major disciplines involved in the urban realm, albeit at different levels and scales. Furthermore, the latter deals with the physical built form in unitary particles, whereas planning deals with more 'abstract' concepts like zoning, functions, transportation networks, and economy. As a result, urban design focuses on the urban space created by planning effects and realized through the physicality of architectural buildings.

Cities have a significant role in modern civilization. The things and characteristics that define city life become the national and international life since cities are the principal generators of "technology, trade, arts, marketplaces, and cultural practices" (Jacobs, 1984). Cities support the economy, house families, create jobs, and foster creativity. On the other hand, urban issues are becoming more and more complicated. Urban problems are getting harder and harder to tackle as a result of population increase, rising global economies, and new environmental concerns. The solutions to these problems have not kept up with the changes in urban conditions. Urban problems have traditionally been analyzed by conventional modern city planning as "problems of simplicity" and "disorganized complexity," with the goal of finding solutions through the study of variables or statistical behavior. In this method, the

cause of problems is typically attributed to one part of the city, such as traffic or housing. Although cities "do not show one difficulty," rather, they "may be analyzed into several such problems or segments which, are also associated with one another," according to Jane Jacobs, the problem of cities cannot be solved simply because cities are problems in "organized complexity" (Jacobs, 1961). Rigid designs and straightforward solutions cannot address the numerous and dynamic processes and intricate networks that make up cities. Urban designs must accommodate evolution, change, and adaptation in order to address the pressing issues surrounding cities. Taking into account Jacob's observation about the urban life, the urba designers should consider all the variables of the working area and try to connect different networks. For this connection, urban design new methods.

During the urban planning and urban design education, the author fulfilled the role of a true interdisciplinary interface in which urban design should be thought of – and taught – as a multidimensional activity. Other seemingly independent disciplines play equally important roles in the study and/or creation of cities, in addition to planning and architecture. Landscape architecture, communication and transportation engineering, but also disciplines such as sociology, economics, group and individual psychology and behavioral studies, and art and the humanities, are some of the poles that shape the urban environment and give it its inherent subjective qualities. Author's M.A thesis in Urban Design and Public Spaces program at Barcelona University in Fine Arts Faculty discusses how urban design can and should serve as a bridge between all relevant specialties dealing with humans and their environments, both objective and subjective. As a result, urban design should function as a multidimensional interdisciplinary interface, with the responsibility of managing and transforming the interactions of various aspects of urban life into a physical and/or usable form.
Urban design education facilitates the interdisciplinarity in other projects after the studies. Because urban design is a territory of holistic synthesis, the "overall view" that it is only

possible through the collaboration of various sources of knowledge, professional and nonprofessional user knowledge. The depiction of design actors (whether other professionals, urban decision-makers, or users) is embedded in research and teaching culture. This line of work in design studio instruction is motivated by a desire to better comprehend uncertainty as an element of urban transformation, the value of collaborative and reflexive processes, and the importance of actors' roles in urban design practices. Klein (1990) states that interdisciplinarity is a method of addressing and answering problems and questions that cannot be handled and answered using only one method or approach.

Studies on urban design demonstrate the immense potential for knowledge, analysis, quality assessment, and design of urban settings that exists when diverse disciplines' perspectives are combined (Wunderlich 2013). Author's artistic practice utilizes sound as the primary medium. DJ'ing has been started as a hobby and became author's job and later producing. In that sense, this chapter involves using and considering all variants and knowledge of the author. This chapter will outline the methods that Urban Designer DJ would adopt in their work. In the second chapter, besides of methodological approach to place-rhythm analysis, the thesis argued about creating a new framework of looking at urban space. Soundwalks, sonic mind maps and sound art installations have been given as examples. In that sense, the research idea challenges the conventional perspective on place and place-making addressing the continues act of urban design with its elements and its users.

Wunderlich (2013) observes several public spaces and analyze the "soundscape" and music (provided by street musician). The author creates a new agenda for urban design investigating how time is expressed and represented in everyday urban spaces, and highlighting the importance of understanding the sense of time in the fields of urban place-making and design. The author proposes that the sound environment play a crucial role while user's perception is

very much related to the listening and hearing. The focus is on place-temporality and its experiential attributes, and the relationship between the sense of time and social and spatial-temporal attributes: place-rhythms of everyday urban spaces. Overall, it examines how the sense of time varies and expresses itself according to the places' distinctive sonic aesthetics (Wunderlich, 2013).

Certain concepts found in different academic and artistic works where the idea treats urban space and cities as systems, relating to perceived notions of space and time (e.g. Koolhaas 1994; Foucault 1986, Eisenstein, Cunningham), may be of use in describing the chapter scope. Over the years, there have been number of work researching the relationship between music and architecture. The majority of scientific articles and reports focus either on music and rhythm in the city or on music business and culture in context of urban transformation and the linkage of those with urban regeneration, integration, vacant areas. Other literature refers also to the music, performance and urban space might affect people's emotions or performances on some activities (e.g. sports, creativity, reading etc.).

This chapter is a proposal to see possible connections between, sound, urban space and performance. In that sense, Techno DJ'ing can be considered as the performance. To start to understand the relationship between performance and urban space, one might first consider the space between the moving bodies. Merce Cunningham, the American avant-garde artist, considered one of the most important choreographers, invents a lexicon of gestures that range from the most routine of urban-inspired activities to startlingly original, virtuosic sequences. The Cunningham Technique is known for including an element of chance and also working with the idea that dance and music should be able to exist independently of each other while sharing the same time and space. Without a conscious awareness, people perform everyday life alongside others, consequently defining the order, pace, and rhythm of places.

Within the context, electronic dance music scenes – which are mainly referred to by the public as the techno or electro scene – have often been the subject of social-scientific research. The main focus of these studies were mainly related to issues of community formation, politics or the music itself. However, no research has examined the way techno music overlaps the way urban designers perceive, experience and/or feel about urban environment. The rest of the literature negotiates more innovative ways of adding music in everyday life, with contemporary means of technology, generally more "artistic" ways, through urban sound interventions. The apparent adequacy of musical aesthetics as a reference in the understanding of urban environment inspired and encouraged this research to pursue an analogy: It is between music and urban space aesthetics; as further understanding on aspects of the experience and representation of urban space through sound.

3.3. Techno music

At the end of the eighties the Detroit techno group Cybotron made the single 'Techno City'. The song was intended to reflect the post-indus-trial transformation of their city by using new sound technology. To interpret the dying auto-industry Cybotron used subliminal funk pulsing among their crisp-and-dry programmed beats to reflect the shift in atmosphere in Detroit (Reynolds, S. 1998). With their work Cybotron showed the world how musicians, by using new sound technologies, can create new 'sonic' spatialities in which listeners can detach themselves from the physical city. According to Juan Atkins, one of the members of Cybotron, techno pioneers were not looking for the soul or identity of the Detroit, but rather for a distinct flavor as an auditory response to the people's blindness for the changing city. (Robb, 2002).

In recent years, key reason for Berlin's development can be found in its dynamic subculture. In the 1990s the club and music scene thrived, in particular in the deindustrializing inner-city areas, thereby paving the way for large media and music corporations to move to Berlin. The rise of the Berlin techno and electronic music scene is closely connected to the urban transformation since the fall of the Berlin Wall, as well as to the increasing importance of the 'creative class' in the local economy. The relation between subculture and the music industry, however, cannot simply be described as a commodification of underground and its use as a brand name. Rather, it highlights the fact that flexible integration of the creative districts of subcultural music production is becoming one of the new organizational models of the industry (Diederichsen, 1996). While techno has been a global phenomenon of musical youth culture since the early 1990s, nowhere has its impact been greater than in Germany. This is reflected in the pop mainstream as well as in the academic field of cultural studies. To what can we attribute this? Germany is universally acclaimed as a creative powerhouse in world techno. Such a position is new in the history of pop music, in which Germany does not have a reputation as a pioneer. Rock n' Roll, hard rock, punk and latterly hip hop have all been American or British imports. With techno, however, the voiceless, computerized machine-music of the 1990s, the balance would appear to have altered (Robb, 2009).

Robb (2009) explains that Love Parade was the event that symbolized a new, hedonistic youth culture that was influenced by the do-it-yourself ethics of punk and the celebration of joy and excess displayed by the rather big gay scene of West Berlin, which in today's terminology was very queer. Love Parade was basically a moving party, a loud demonstration of fun and noise. Which is also the reason why it could be transformed into a gigantic festival of consumerism within just a few years. It became mainstream, and its image became less extroverted and transgressive, more heterosexual and 'normed' Robb (2009). According to Robb (2009), in no other city was techno culture as successful as in Berlin. It created a whole

network of clubs and a certain kind of musical subculture that has become something like a brand. This is related with the urban situation where there were no restrictions after the wall felt down, searching for a new life style and having abandoned places to organize rave parties.

Felix Denk and Sven von Thülen conducted interviews in their book “Der Klang der Familie: Berlin, Techno und die Wende “(2014). The authors presents the events surrounding the rise and fall of the Berlin techno scene in the decade from the mid-80s onwards. by contemporary witnesses. As an East-West portrait emerges, drawn by the many voices of influential characters such as Dr. Motte, Mark Reeder, Kati Schwind, DJ Jauche, Cosmic Baby, Mijk van Dijk, Wolle xdp etc.. They describe how the first all-German youth movement emerged from the clash between the West youth, who longed for an awakening after the post-punk lethargy, and the liberated East youth with their infectious euphoria, and how this developed from an exciting underground movement to commercial exploitation (Denk&von Tühlen, 2014). Acid house's hypnotic and machine-generated noises, as well as Detroit techno's raw sound, are spreading in Berlin because this music is understood in Berlin like nowhere else. They complemented the ambience of the abandoned condemned buildings, factory halls, and lofty bunkers where raves and clubs are held. As a result, techno becomes the music of the “Wende” youth, and the classic Berlin techno sound emerges, with Detroit as a reference point (Denk&von Tühlen, 2014).

In techno music DJing the most important is to create an overall mix that has a story behind and move the audience with itself. The use of embellishment and ornamental sounds in Techno is typically rejected upon because it can distract people from the overall smoothness of the mix. The music's inter-compatibility intensifies this sense of the "overall mix" – the relation between previously heard with the now-hearing is very crucial. The energy of the sounds felt by other organs through the thriving pulse of drums and deep tones is essential in

the composition of techno. While creating the techno set, DJ focuses on multi-measure rhythmic patterning, timbre, layered texture, modular structures, equalization and volume.

This chapter discusses that urban rhythms can be read, understood explicitly and ultimately render that understanding into the built environment. The Techno DJ's approach to create a journey for the audience here parallels the urban designer's making of urban space.

3.4. Urban Designer DJ

A set is a combination of a selected tracks. As the constructor of a set, the DJ represents a concept in which music is created by fine-tuning this particular equilibrium. With enough practice, the DJ's start to create a longer sets in which combining tracks, maintaining smooth transitions between tracks, layering beats, tuning and de-tuning harmonies are the main characteristics. At the same time, DJ is the active actor who is continuously aware of the audience and adjusts the rhythm aspects accordingly to create moments of tension, release, and bliss. Techno music DJ's want their music to mean something to the audience and change the way they experience the space. "Creating a journey" or "Getting into the zone" are the terms to identify a successful techno set.

Urban Designer provides the conceptual and project framework for how to make cities holistic, with a view to achieving not only sustainability, but also investment and technical efficiency, aesthetic harmony and the realization of participatory democratic justice. During the design process the urban designer observe, analyze, test and finally apply.

DJ'ing starts with collecting vinyl. With two turn tables, DJ tries to find the matching notes and as well as the beats. As a start this is the bridge to the Urban Designer DJ with collecting

information a.k.a vinyl. The dynamic character of techno music can be seen as the cities or urban areas. In that sense, the Urban Designer DJ can start working on the selected urban space and analyze the dynamic elements. Techno music and urban planning share features such as composition, rhythm, repetition and reduction. Acoustic data encoded from the built environment provides a valuable information for the design process as it shown in the second chapter with sonic mind maps. This thesis proposes that the cognitive process of analyzing today's chaotic urban space can be augmented with cross-modal understanding just like in techno music DJ'ing.

As it clearly stated in second chapter that life on the street, according to Lefebvre and Régulier (1996), follows rhythmical orders, patterns, and recurring sequences. This viewpoint resembles a map with movements and sounds. It provides a perception of patterns and flows, the ability to track people or groups in their movements in some situations, and a sense of rhythmical patterns of traffic flows and intensities throughout the day. Lefebvre began constructing rhythm analysis from the standpoint that the city is a rhythmical order based on this initial debate. Conflicts and relationships between ecological, social, economic, and cultural rhythms, between cyclical and linear, dogmatic and dynamic, collective and individual, outward and interior rhythms, take place on a daily basis in urban environment. Cultural contexts influence and shape these rhythms, which performatively reproduce and change culture. Participating in a culture entails integrating its rhythms into a fluid interaction between physical senses, location topography, and map perceptions (Lefebvre & Régulier 1996).

Techno is distinguished by a consistent rhythm, a 4/4 time signature, and only minor structural changes over time. It is similar to the grid system in urban design, where streets run at right angles to one another to form a grid. The DJ is constantly aware of its audience and

mixes elements accordingly to create moments of tension, release, and euphoria. The "designer DJ" adds rhythm to both static and dynamic elements in the context of the urban area. The resulting mix can be seen as reflecting and possibly challenging these states, rendering the mobile motionless and vice versa.

The author's art practice translates this idea into the work while adopting both DJing and urban design. The main difference here between the practice of DJ and urban designer is temporality. This productive difference has been taken into account as mechanism to create a new methodology and used for an artistic investigation. As a final result of this artistic investigation a double sided vinyl has been produced. The vinyl consist of one trach in each side. The track in the A side called Sonic Journey. This track has been made only with the field recordings from Köpenicker Straße. The track in the B Side called Transit contains both field recordings and production tools which will be explained below.

In the production process the main difference temporality was on the focus. The place-temporality and its experiential attributes, and the relationship between the sense of time and social and spatial-temporal attributes: place-rhythms of everyday urban spaces served as guidelines to constructing the tracks. The field recordings have been recorded in different times of the year and the day. After the recordings, as Urban Designer DJ, I had to find the ways to examines how the sense of time varies and expresses itself according to the places' distinctive sonic aesthetics in the case of Köpenicker Straße. Therefore, I analyzed the rhythms of the recordings and created a daily sonic environment in both of the tracks. The first track consists also field recordings from author's hometown Adana. The urban experience cannot be separated from our sonic memory. Therefore, the first track is the presentation of the sonic memory of the author as a user, urban designer and DJ. The second track is focusing on environmental issues. The car is passing by rain and this organic sound

becomes more metallic but also melodic. By this track, the author points out the interrelation between the human and non-human relation and everyday objects like cars or situations like traffic. The vinyl is submitted with the thesis and digitally it can be listened from this link, as well with the QR Code:

https://on.soundcloud.com/e4fn2

Image: QR code for digital files of the vinyl production which submitted with the thesis.

As next, DJ'in and Urban Design will be examined in various stages in this chapter: preparing/analyzing; mix; beat matching; equalizer; effects; volume attenuation.

3.5. DJing techniques into design

Before highlighting the technical similarities in both profession, there is one important the characteristic which is that it is not about you, it is about the party/audience and needs of the users. In the beginning of author's DJ career, it was necessary to understand that people come to partying to listening to music and see DJ's performance. It's all about making the audience

dance with techno music. It applies to also to the urban design practice. The client and the users expect from the urban designer to perform in a certain context. Urban designer need to know the request and find a solution without putting too much personal opinion. In that sense, keeping the DJ or the designer ego away from the set or the project is very important.

Preparing a DJ set can thus be a useful guide to a design methodology based on the dynamic states of a city. More than creating a solution, urban design should propose the articulation of a problem on urban spaces as sites of communication, confrontation, discussion and social reflection. Urban designers use several data in order to create a whole plan with respect to time for example researching on history, memory and projection. A Techno DJ mixes to the separate track in (two to four or more hours) to create a whole DJ set/ journey that is often with no defined beginning, middle or end. This journey parallels the urban designer's making of urban space.

3.5.1. Preparing/analyzing

The approach of a DJ to producing or performing begins with the selection and analysis of a certain amount of "material" (vinyl in the case of DJ'ing with turntables or digital tracks in case of using CDJs) from which a good mix can be made. The analysis is primarily done through listening: evaluating rhythms, considering stylistic elements, and speculating on possible mixes with the selected material. This listening also has the distinction of employing a type of aural "mapping," in which items are noted and compared for their timbral qualities like the note, beat, kick, heads, etc. - as well as their locations within the track. Breaking down tracks into these fundamental elements, both in time and space, is perhaps the most important aspect of DJing. As this knowledge expands, so does the DJ's ability to combine tracks while maintaining Techno's critical state of seamlessness–for example, through mixing.

It is always good to know in which context you are DJing. Knowing the club and the environment could help to preparing your set. If it is possible, it would be useful to visit the club or the venue. At least convers with other DJs about their experiences. Even though the crowd would not be the same the following event, it gives a good idea of what to expect. Therefore, one can make the selection of depending this initial information. This is very similar to user research in urban design. Designer empathize with the users, try to figure out what is the actual requirement. As it is the responsibility of the DJ to keep the crowd happy throughout the night, just as it is the responsibility of the urban designer to keep users content while completing tasks on certain design projects.

3.5.2. Mixing

Mixing is another essential part of DJing. In that sense the mixer is an important gear next to the turntables or CDJs. DJ counts the BPM (Beats per minute) which than allows DJs to calculate the beats of songs and compare them to others in order to mix or intervene. DJs can use a mixer to combine different songs and secures the continuation of the set. For urban design, it is important to mix different uses in one place. Jane Jacobs (1961) argued that urban space must be used by a variety of people at different times of day and for different purposes. Parks, like diverse, vibrant streets, must have diverse users and activities that expand the interactions that occur with the urban space. In that sense, even there is no gear such as a mixer, different urban uses should be mixed for a variety of options. The continuous DJ mix is depended on DJ's beat-matching skills.

3.5.3. Beat-matching

Learning the art of beatmatching is one of the first steps in learning to DJ. It is a technique that involves matching the tempo of an upcoming track to that of the currently playing track

in order for them to hit key points at the same time. It is very important for keeping the same tempo especially if we think about the dancers to make them move at the same pace. In urban design different elements like buildings, public spaces and infrastructure should match to each other to create a user friendly urban space. As it is the beatmatching the designer should keep in mind the previous design and apply the same for the future design. While beat-matching DJ uses equalizer in the mixer to adjust the different elements of the songs, i.e. clap, high head, drum, etc.

3.5.4. Equalizer

EQ is an abbreviation for Equalizer. A DJ mixer's EQ controls adjust the loudness in decibels of low, mid, and high frequencies within the audio spectrum. Each channel's EQ filters are controlled by three or four dedicated knobs on a DJ mixer. It enables control over the frequencies of each music track playing on each turntable or CDJ. Designer also adjust the design principles in order to create a new urban design. As we are living in already highly constructed cities, designers should respect the pervious use instead of tearing down and building up all again. In that regard, equalization can be seen as adjustments after deciding preliminary design concept. Especially in a club environment, keeping the volume in same level is necessary in order to not damage both the speakers and audience ears.

3.5.5. Volume attenuation

Learning how to properly set the volume, also known as gain structure, of your DJ equipment can mean the difference between sounding amazing and sounding like a complete novice. With so many different places to set your volume – your PA speakers, master output on your controller, channel gain, and volume fader – it's worth taking the time to learn the proper settings for each so you can sound your best. Especially with techno tracks there is a certain

energy you want to transmit to the audience. While mixing, if DJ loses the control of volume, the transition becomes more difficult as well the featuring the best part of the track. Volume control can be done differently from the amplifier gain, master output gain, channel output gain or input gain. The designer's approach in keeping the balance between design solutions and user needs as much as important the adjusting the volume. In this context, I see participation as a negotiation tool between different actors. In this process the designer DJ, use different methods to stabilize the needs and the requirements.

Some of the presented tools, techniques, and strategies have proven to be more important and relevant than others, and could be used in the work of professionals and other disciplines involved in the creation of sonic urban space. Sharing knowledge and relating different disciplines may have a positive impact on design-strategic decisions in urban contexts. This chapter is a proposal for a better sound environment while fostering imagination through techno music and DJing and it aims to draw attention on the issue of having a more integrated and comprehensive approach to sound in urban space. It is as well can be seen as an interface for creative and practice-based methods of description, process and operation that may be relevant for practitioners working with the design of urban space at various levels.

In the following, the sonic analysis of urban space from a designer and user will be explained. In addition to that, various hands-on interventions that can help to improve the sound environment will be proposed.

4. Suggestions for a better sound quality in open urban space

Sound is integrated to our everyday urban life and it is an existing element rather than a precondition. It has strong ties to construction of physical space as well as the social conditions. It does not only bothers us in the form of noise and concern us because of its negative attribution. It is also relevant to our physical, mental and cultural orientation. (cf. Truax 2001, pp.65). This chapter is interested with sound as the end result of constructed environment. Sound is affected by the physical space and it is the result of the way how we design , build, organize and inhabit our living environment. In order to examine the topic, the chapter will present different construction interventions.

The proposed interventions are a collection from various and completed studies on urban design and sound. First one is "The Sound Considered City, A Guide for Decision Makers" by the founders of Recomposing the City Sarah Lappin, Gascia Ouzounian and Rachel O'Grady from UK. In their work, the authors draw attention to sound in order to create the sustainable and the vibrant urban space. The guidelines approach the sound not only as noise or noise pollution but an urban element which small interventions can control. The main question under consideration is how sound can help to improve urban areas (Lappin, Ouzounian& O'Grady, 2018). The main critique of the publication is about the categorization of noise policy which even noise is explained in a limited manner (environmental, neighborhood and neighbor noise). Nonetheless, the guidelines is based on soundscape studies starting with The Soundscape: Our Sonic Environment and The Tuning of the World (1977) by R. Murray Schafer, where they think about an urban space "in conjunction with noise levels in order to imagine the positive as well as the negative potentials of sound in environment" (Lappin, Ouzounian& O'Grady, 2018). Therefore, the guidelines follows their objectives about to "promote and enhance positive and distinctive aspects of the local

soundscape rather than only for eliminating or blocking out what is perceived as unwanted noise" (Lappin, Ouzounian& O'Grady, 2018). The concepts by this publication have a parallel approach to this chapter. However, the guidelines are related one specific city, Belfast, UK, proposing mostly sound art in different scales as solution. This chapter takes into account the concepts by this publication but has an intention to propose an universal design language not only focusing on sound art.

The second influential work is "Klangqualität für öffentliche Stadt- und Siedlungsräume" by Trond Maag, Tamara Kocan und Andres Bosshard (2016). This publication proposes a design methodology which considers sound as a crucial element in urban space and hearing as an important act while designing urban space. Different than latter publication, it focuses structural changes in urban space in order to create long-term and user friendly living areas. The structural suggestions brings together the small architectonic interventions, different material usage and vegetation considering the user's perception as an individual experience rather than a measurement. The publication is a result of years long investigation and workshops done by the authors. The case studies are different cities in Switzerland. For each case study, there is an analysis and there after a proposal. Likewise the latter publication, the proposals exemplifies different scales and there is not a structural order. This creates a difficulty to understand which analysis and proposal is best to be choose. This chapter follows the methods for the analysis of the urban space by this publication. However, for creating an universal design language and make it easier to understand for the designers and decision makers, the proposals will be slightly different. The categorization will be done vertically and horizontally while giving the opportunity to choose the proposal depending on the need of the urban space.

Before starting to propose various methods, the determination of noise should be discussed in order to position this thesis' perspective on the notion of noise. According to Schlüter (2011),

noise is an ambiguous concept. Noise in the urban space is strongly related to the traffic; the by-product of transportation including cars, trains, airplanes within the people. It is a continuous and never ending situation during the course of the everyday life. It is, as it mentioned before, the result of our decisions in transportation. However, people still continue to live in cities and enjoy the open urban space; squares, markets, streets even there is the traffic. Schlüter (2011) highlights that classify the sonic environment in urban space with a single term as noise is not appropriate and would not support any further analysis of the urban sounds. The author explains that hearing the engine of the airplane noise is a complex incident if we think on vibration of the air, the speed and many other environmental conditions. Therefore, the sound source is not the engine itself, it is the whole situation that has been perceived and distributed across the space and time Schlüter (2011). The author suggest to approach the traffic sounds (and all other noise) as more complex relation than human and non-human interaction in urban space and suggests to use sonic agents as term in order to explain these *assemblages* (Schlüter (2011).

This thesis takes into account that the noise is an unwanted condition and affect people's well-being. It has strong connection to the traffic and transportation. However, it is not caused by the one specific engine rather it is an assemblage, result of a whole urban planning decisions in urban space. The interest and approaches of designing the urban space acoustically has increased significantly in recent years. The regulations, rules and using new technologies open a new field of work for urban designers. While the solution consecrates around the finding adequate instrument, the proposals cannot extend beyond to have a toolbox for measurements. In oftentimes, it is only blocking the noise with wall a like construction element. As it is further discussed in the other chapters, planning and designing urban space against noise is not as simple as building walls. Therefore, the understanding of noise should be contextualize in a much more complex action. In order to change the discourse on noise by

regulations, the implementations considers the user's perception, imagination and fosters a collective approach to sound environment. In that sense, for urban designers, it is important to keep in mind that the user's perception and experience should be the main point of their study. Nonetheless, this chapter proposes methods that can be considered as small or larger scale interventions which can be integrated to the existing design of the urban space or during the process of the design.

4.1. Sound as an construction element in urban design

Sound is the oldest form of communication. Talking or creating noises, utilizing human and non-human voices and sounds are some of the oldest means of human communication. Sounds keep us updated about what is going on around us at all times. In ancient times, making low- or high-pitched sounds like moaning or guttural sounds could suggest social communication or be a warning indication. Drums were one method of communicating with neighboring tribes and organizations. The sound of the drumming patterns would alert people to important concerns and events. With the evaluation of human settlements, use of sound have also evolved. In nature, one can observe the ever-changing environment with the splash of rain, a cat's purr, the wind's whistling, sirens' wails, thunder's boom, and other such sounds which keep us up to date. In urban area, silence, or the lack of sound, could also be used to communicate. The absence of noise on a street implies that there is a changing situation in our everyday life. Nevertheless, our surrounding, materials and built and non-built environment influences the relation to the sound.

In Sound Material: A Compendium of Sound Absorbing Materials for Architecture and Design by Tyler Adams (2017), an acoustical engineer based in Los Angeles, provides a visual dictionary of sound-absorbing materials. In the book, each material is profiled with color photographs and illustrations, reference projects, manufacturer contact information,

technical specifications, and sound absorption performance data. It is a reference book for architects, designers, acousticians, engineers, students, and creative professionals. At the end of the book, there are interviews with materials scientists about developing materials and acoustical engineers and designers about how these products are used to solve design problems.

Blesser&Salter (2007) define science of sound by stating that sound is produced by the vibration of a body or object. The vibration generates a sound wave, which is transmitted to our ears via a medium such as air, causing the eardrum to vibrate. The vibrations send impulses to the brain, which interprets them. Like all waves, sound waves have a wavelength, amplitude, and frequency. The wavelength is the distance that the wave's shape repeats over. The amplitude of an oscillation is the maximum displacement measured from the point of equilibrium. The number of vibrations per second is referred to as the frequency. The frequency range that a healthy human ear can hear has been determined as 20-20000 Hz (Hertz). The frequency of the sound and the pressure it creates are important factors in determining the loudness. The frequency of the sound determines its pitch, or how high or low it is. The pitch of the sound produced increases with frequency (Adams, 2017).

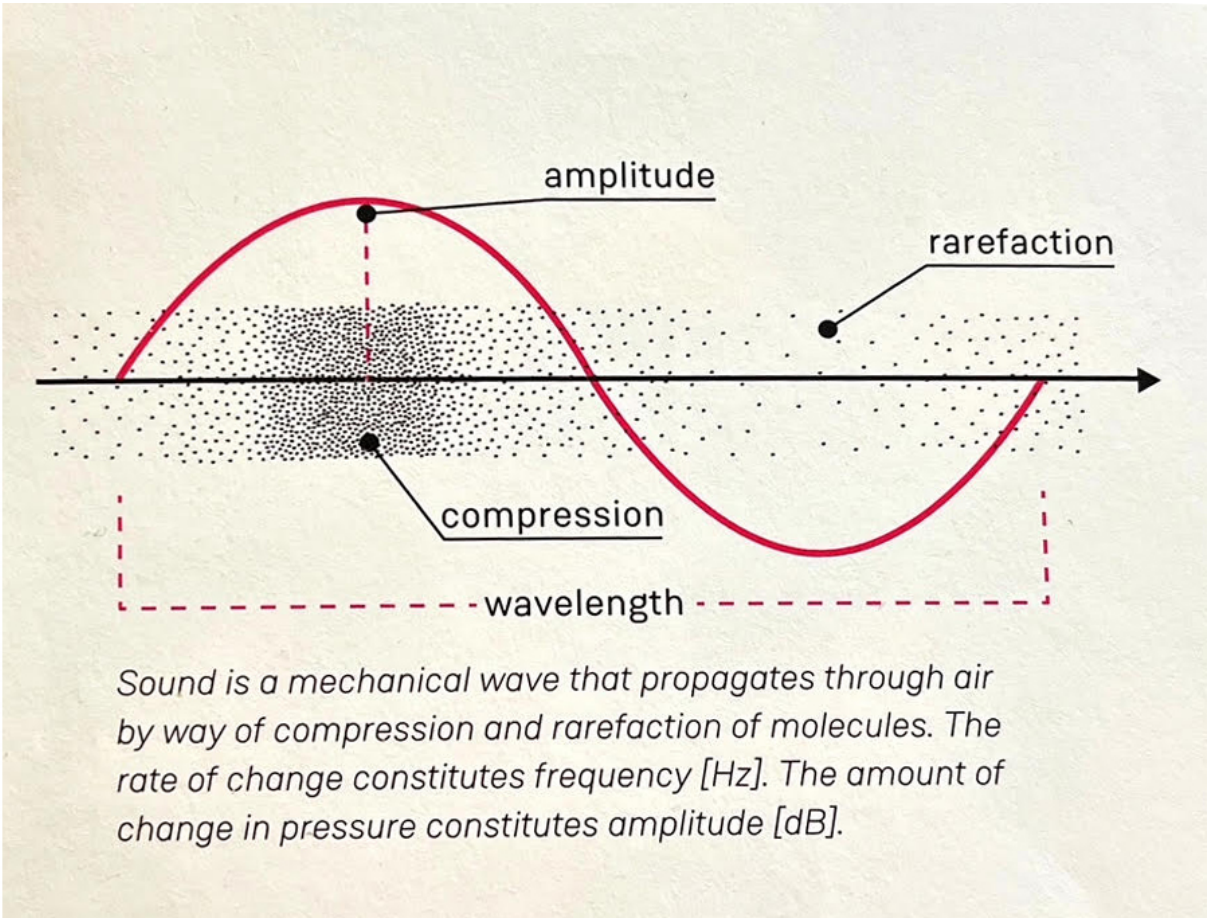


Image: Graphic showing how sound moves and its relation to wavelength. (Source: Adams, 2017:8)

Understanding wavelength is important, according to Adams (2017), because the degree to which an object or surface interacts with sound is determined by its dimensions in relation to wavelength. For example, the author explains that the absorption performance of porous materials is directly related to material thickness in relation to wavelength.

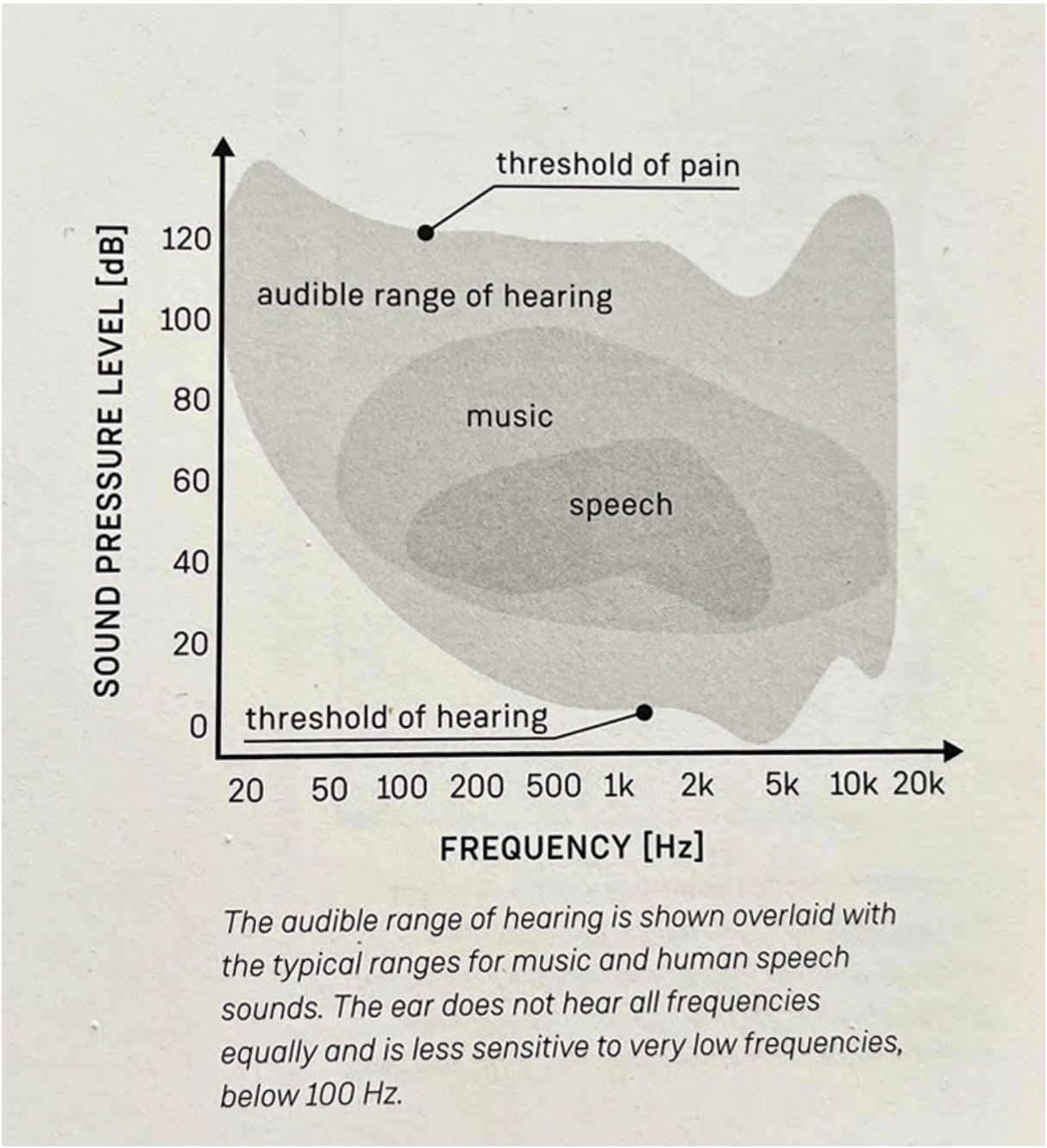


Image: The relation between frequency and audible. (Source: Adams, 2017:9)

Accordingly, sounds below 20 Hz are defined as infra sound, and sounds above 20000 Hz are defined as ultra sound. For a speech to be intelligible, it is expected to be in the range of 200-5000 Hz. From a musical point of view, it is in the range of 30 to 10000 Hz. The frequency range that the ear is most sensitive to is between 3000 and 4000 Hz. Another important quantity used to determine the characteristics of the sound as well as the frequency is the

frequency is power. In determining the power of the sound, the sound pressure level is used as a scale and is expressed in decibels (Adams, 2017).

Since the sound from a source is a multiple of the audible sounds, this sound expresses the decibel value. When the level of decibel values increases, it can be harmful to humans. This creates noise. Noise control is required to protect people from harm. Noise control basically; reduce noise at its source and reduce noise in its propagation area.

In areas where intense sound occur, sound insulation applications are made to reduce the power of the sound. A person may encounter sound problems in many areas throughout his life. In this sense, examples such as transportation noises such as highways and airlines, noises originating from industrial machinery and engine rooms, vibrations, noise of ventilation ducts, construction noises, noise of sports fields and entertainment centers, noises caused by loud advertisements and music broadcasts, natural climatic events and rain noise can be given.

The terms can be specified:

Pitch - the highness or lowness of a particular sound.
Note - A pitched sound.
Harmony - in architecture by achieving a unified balance of parts.
Rhythm - A strong regular repeated pattern of movement or sound.
Acoustics - the properties or qualities of a room or building that determine how sound is transmitted in it.
Texture - the feel, appearance, or consistency of a surface or a substance.
Ornamentation - the action of decorating something or making it more elaborate.

This terms are important for this chapter in order to analyze the urban space and its sounds. In addition, this terms will be also used in the last chapter while creating connection between techno music DJ'ing and urban design.

Depending the pitch, while some sounds have a relaxing effect in our daily life, some sounds can cause discomfort. This is because decibels values are different and it is harmful as the level rises. Various acoustics to reduce said noises materials are preferred. These acoustic materials are sponge, rubber, melamine etc. with different forms. can be in structure. This A better quality environment can be provided with acoustic materials used for sound insulation in areas. Many different methods are used to reduce and prevent the noise.

As it is mentioned in the introduction, one of the important aspect of this thesis is including human perception. In that sense, for this chapter, I position myself as user as well as the designer. Through observations and analysis in different urban spaces of Berlin, I aim to show the relationship between everyday urban space, architecture, materials and sound. For me wherever there is urban space and architecture, there is sound and they influence each other (Blesser&Salter, 2007). Sound is a non-visible but physically apparent aspect of space. Each urban space has its own rhythm and harmony. As previously stated in the beginning, despite the fact that much of the discourse in architecture and urbanism focuses on the visual aspects of space, sound is an important component of urban space. It has a significant impact on the quality and perception of space,
and it has a significant impact on our daily lives. While changing the textures with different materials, it is possible to create sonically comfortable places.

Although, it is clear that this thesis is not interested with measurements, the fact that urban space is surrounded with buildings and accommodate different materials, I decided to add this chapter. I see this chapter as ornamentation of sound through built environment. This thesis considers sound and listening as alternate ways of responding to and comprehending the spatial environment. In relation to the acoustic phenomena of echo, resonance, and reverberation, this chapter proposes a listening practice within the urban space and the architecture. It engages subjects in methodical and embodied modes of thinking-through-sound as a way to create sonic knowledges of the architectural and urban environment. These phenomena are positioned as different materials, the position of objects and buildings, as well how the listening affordances for interacting with the built environment in works.

The built environment can provide sound absorbing and sound insulation of the source causing the noise. Coating with absorber materials, rubber in order to dampen the vibration at the points where the vibration occur are some of my examples and will be explained in detail in this chapter. The built environment influences the sound environment of the city, which is composed of all dynamics of the everyday, and vice versa, the sound environment of the space influences the spatial character of space. Although I looked at some of the aesthetic aspects of sound that belong to the sound art, sonic research and audible connections, I am also very much interested with the sound on space related to architecture. In this chapter, I focus how the physical character of space affects perception of space through sound and which elements and materials sonic spatially define the urban space. In other words, this is chapter is merges sound and architecture and presents the term that I choose “Sonictecture”.

With this term, the thesis concentrates on incorporating the observer, who - from the standpoint of sound - is the vanishing point, the center of the space. The observer is a critical 'object' of the immaterial realities of the sonic field, an active receptor as well as an active

producer of the sound environment, and aural architecture would not exist without it. As a result, aural architecture, as an immaterial matter of space, is dependent on the construction of architectural realities (Blesser&Salter, 2007). In order to grasp the places in which sound manifest, Sonictecture engages subjects in diverse ways of listening through, or sounding and listening in response to them. This term sits between a body of sound works that deal with acoustic phenomena and a body of spatial practices that deal with listening configuration. It contributes to the other chapters in a unique way by involving materials and built environment in reflexive ways of sounding and listening that are dependent on the perception of acoustic events.

4.2. Sonictecture: Suggestions for a better sound quality in open urban space

4.2.1. An example of urban sound analysis

Analyzing and understanding acoustic prosperities, sonic fields and sonic agents are crucial in creating the sonic environment. As in urban design, we should first analyze the area. In that sense, firstly, identifying the acoustic qualities of the materials on hand can be suggested. Hence, the acoustic features and opportunities of the city are given attention in this thesis. It has been thought as handbook for the urban designers, planners, architects, etc. as well as city residents and users who are concerned about sound. This chapter proposes solutions that integrate architectural, design, and urban planning concerns. The considerations are not intended to be construction specifications or mandatory instructions. They are there to ensure long-term sound quality and to add future city planning steps. They are based on my own observations that individual small, doable steps at various levels have a significant impact and contribute to a better acoustic environment. In this way, conditions for achieving good sound quality are devised and implemented into planning and design. Because we are well aware that sound quality has a significant impact on the city. The user perceives sound quality in a

specific location. Sound quality is thus a subjective listening experience rather than a metric. Keeping in mind that the user's personal experience, background, the state in the moment is crucial, the listening experience is also related to the location's physical conditions. In open urban space, materials, surfaces, vegetation and all of their positions interact acoustically and create the audible experience of the user. It is an assemblage of the conditions, positions and processes.

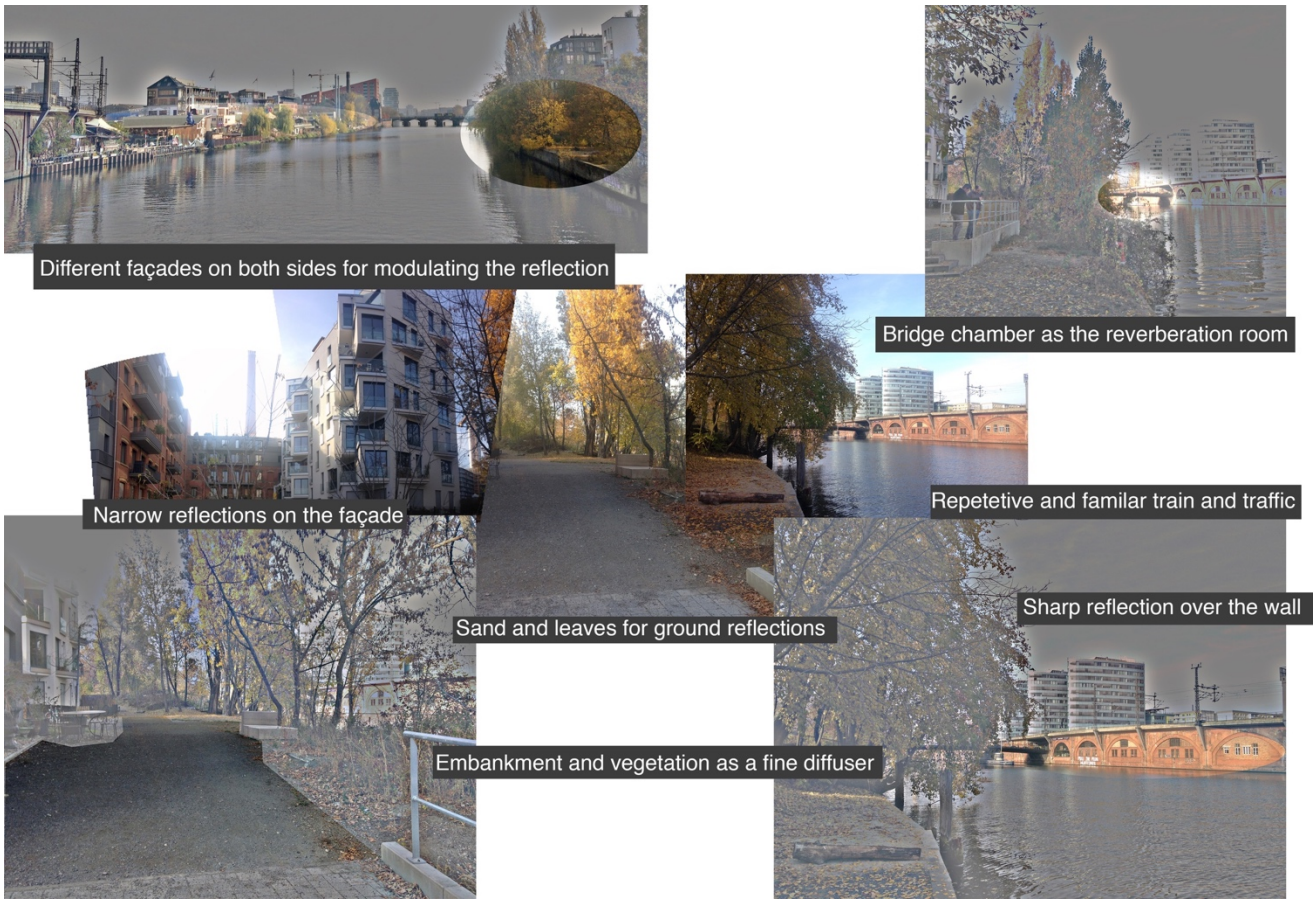
All acoustically effective properties of a material, such as surface, texture and shape, density and composition, size and extension, distance and position to other materials in the space, are important. They should have a positive effect on auditory perception, resulting in a better listening situation. This concept of sound quality necessitates careful consideration of all acoustic qualities in city planning, design, construction, and maintenance.

In order to explain the suggestions for an advances sound quality, the area in front of Spreefeld has been choosen as residential area with public access for a sonic analysis. In the example, the physical properties of the materials at the seven points shown are responsible for the sound environment.

4.2.2. Analysis of an urban designer

The bricked building façade below to rail way in the picture on the top right reflects the road noise which produced by the surrounding roads and the rail way. The reflected sound than arrives to the vegetation and embarkment on the left where a fine diffusion happens. The façade of the building on the left supports the diffusion and creates ideal conditions for the reflection of the water. The trees which touch the water on the left, create a playful continuous

water and wind sound. Also, the smooth hit of the water to the edges merges to other reverberation that happening at the same time. This situation forms the acoustic base for the echo reflections of the buildings that are around. Thus, both sides of the river are enabled as acoustically comfortable open urban space. The place is limited by the bridge and its reverberation which is another game changer. The acoustic depth of the space is intensified by the distance between two sides and length of the building material, as well as the vegetation. The sand floor on the left, reproduces another sound with each step and creates a masking effect which would change the sound experience of the user. All these horizontal and vertical elements mechanically amplify the frequency, resonance and reverberation of the sound that correspond to the audible experience of the user. The area is sonically busy but comfortable. The diversity and abundance of different materials on the ground and the façades able the user spend time in that particular area. This short structural analysis of the sonic environment can be applied in different urban spaces as an addition to previous methods that shown in the second chapter.



4.2.3. Analysis of an user

The user is standing in between two buildings at the end of the walkway that it arrives to the Spree. The area is covered with gravel that has also mixture or sand and stones. Walking over here from the Köpenicker Straße and it is easily noticeable a clear difference in sound quality compared to the noisy streets. The terrain is a little lower here, the urban soil changes from asphalt to gravel, wood, earth and stone. Under the trees, the water flows in front of the user. As it shown with the sonic mind map workshops in the second chapter one can have a good conversation here. And exactly from the same spot, one can listen to the city without getting tired. There is a special sound quality here, which it is worth to show the reasons and connections as an example.

There are different building façades standing behind the user. The stone façade on the right the reflects the sounds directly to the open area. However, intended façade reflects the sound while the shape help to break the sound. The different façades on both sides modulates the reflection. The sound-reflecting edge vegetation in the garden of the buildings works together with the fine diffusion of the embankment on the right. The overgrown natural ivies and plants in front of the Spree supports the diffusion of the embankment and creates ideal conditions for the modulating reflection surface of the water with its currents. The stones in the water near the pedestrian create a playful steady water noise that forms the acoustic foreground for the echo reflections of the buildings further away, thus enabling an acoustically perceptible spatial depth. This is same in the other side of the area. The spatial depth is determined by the reverberation chamber under the bridge and captured by the resonator – the length of the Spree along with the train rail. The floor reflections of the natural stone slabs contrast in close proximity with the sounds of the water and the train. The gravel floor forms a resonating body. While working it smashes under the feet and whole body feels the sound that it creates. It amplifies all frequency components of the sound that correspond to the resonance frequencies of body. The depth of the area is intensified by the reverberation of the bridge and the train rail. The reflections of the wall below train rail also works as resonator. The mixture of floor material and intended/unintended plants allow the reflection of the sounds and footsteps in a way that is clearly audible to a pedestrian. All the acoustic properties just mentioned interact here in such a way that the sounds produced by the pedestrian form an audible foreground and give that person the acoustic impression. The interaction of all acoustic properties is responsible for a clearly perceptible sound quality of the place.

4.3. Suggestions for Sonictecture

When we think as a whole, the structural modifications and interventions of these materials can help the improve the sound quality and affect the listening experience of the user.
As it is shown in the example, surfaces, floors, façades are important actors of the sound environment. They create the sonic field with different sonic agents like cars, train, other transportation as well as people. Sound would be reflected on the building material which is located horizontally (buildings, walls, etc.) or vertically (floor). The open urban spaces determined physically by the buildings, construction elements and the floor. This air-filled space is acoustically stimulated by human activity and climatic events which can be described as the sonic field. The terrain form a coherent resonance in the space and interact with the building façades, roofs, floors and the grounds. All these interactions coalesce with the reflection from the surfaces, masses and voids and create the sound environment. The materials and shapes of the buildings influence the perception of the user. Any change in the surface (horizontal or vertical) therefore offers opportunities to improve the sound quality. Surfaces are sonic agencies that articulate the sound, altering it in volume and frequency, absorbing, amplifying and reflecting certain sound components, guiding the sound while the sound travels between objects, and mixing them all together and finally sum up as the sound environment.

In order to assess the sound environment, some details should be clarified. For analyzing the urban space, first of all, the horizontal materials – material of terrain, floor and grounds– should be reviewed. In addition to that, the vertical materials should be examined. The sizes and ratios of the acoustically relevant surfaces and properties of the building façades should be indicated. Secondly, any small objects that can audibly interact as design elements and any larger design elements that intervene in the acoustics of the location should be noted. Later,

the people's movement should be analyzed in order to determine the areas which they heavily use or avoid. This structural and material revision is the different steps for the sonic analysis. While these steps completed, the repetitive, usual and specific sound qualities should be observed in order to understand the users' perception.

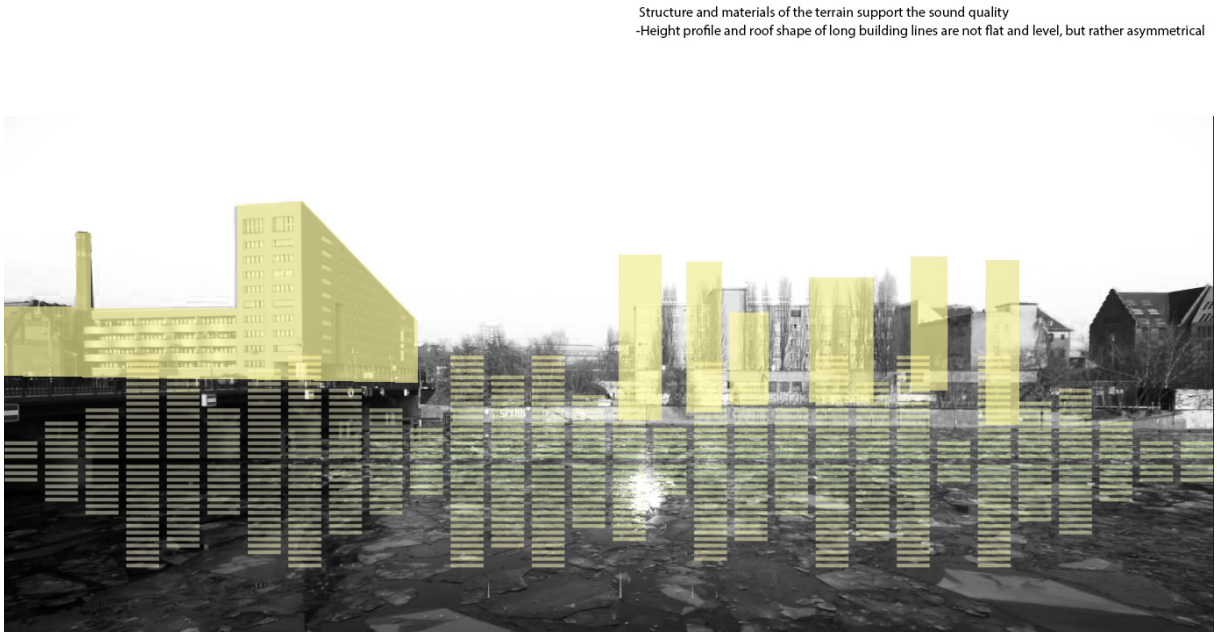


Image: Illustration of different façades and reflection. (Source: Author)

Each section contain useful and complementary approaches for the acoustic design of urban areas. For each suggestion, a planning and design approach is presented, and the relevant acoustic improvements are explained; as well exemplary applications in urban spaces are illustrated. All proposals can go hand in hand with ongoing projects or be implemented independently.

4.3.1. Horizontal Background

4.3.1.1. Using different floor material

The city floor is a sonic agent that creates sound when walking and driving. Being able to hear yourself in the city while walking is an important quality feature of good sound quality. The diffusion and absorption characteristics of the urban floor is determined by its material diversity. It breaks up the monotony of noise, promotes a variety of audible reflections, and so creates the conditions for audible quality in urban areas. The differences in acoustically relevant qualities evaluate the impact of floor materials. The more varied the floor materials and their qualities, the better for the individuals who are present (Maag, Kocan, & Bosshard, 2015).

Materials such as loose gravel support this quality better than sealed asphalt surfaces. Therefore, the density of the soil material and its vibration are particularly important. Highly reflective and poorly absorbent floors, such as asphalt, reflects the traffic noise into the urban spaces. If a large part of the floor area is covered with the same asphalt, then the entire sound environment would be monotonous and one-sided. Loose materials such as sand and gravel are more permeable than sealed and hard materials such as concrete pavement and asphalt. In one hand, they have a sound-absorbing surface that reflects less strongly than asphalt surfaces. On the other hand, because of the fact that their density is fluid, they make a sound while walking and one can hear their own steps. This situation creates a masking affect which can change the perception of the user in a street with highly dense traffic. The material diversity of the city floor can be improved by differentiating the pavement material for the pedestrians and cyclists contrasting the roads. For that, pebble coverings and soft, loose and permeable soil materials such as gravel and marl can be used. At the same time, this can reduce the use of asphalt and concrete pavement which reflects the traffic noise. In that sense, if there is an existing natural floor material in the designing area, they can be preserved or

some small additions like gravel and crushed stone can be applied in order to create the masking affect.

When a considerable portion of the floor is covered with the same asphalt, the overall sound environment becomes repetitive and one-sided. When urban spaces are created with plantings, solid gravel surfaces, and soft, loose, and porous ground materials like gravel and marl, the material diversity of the urban floor is improved. As a result, the amount of asphalt used is reduced, as is the undesirable amplification of traffic noise. Furthermore, one's own footsteps become audible. In public situations, being able to hear oneself is a crucial quality. As a result, existing natural floors should be preserved. The spaces for pedestrians and bicycles should not built in the same way as streets, and their material features should differ. Good sound quality is defined as being able to hear yourself while walking around the city.

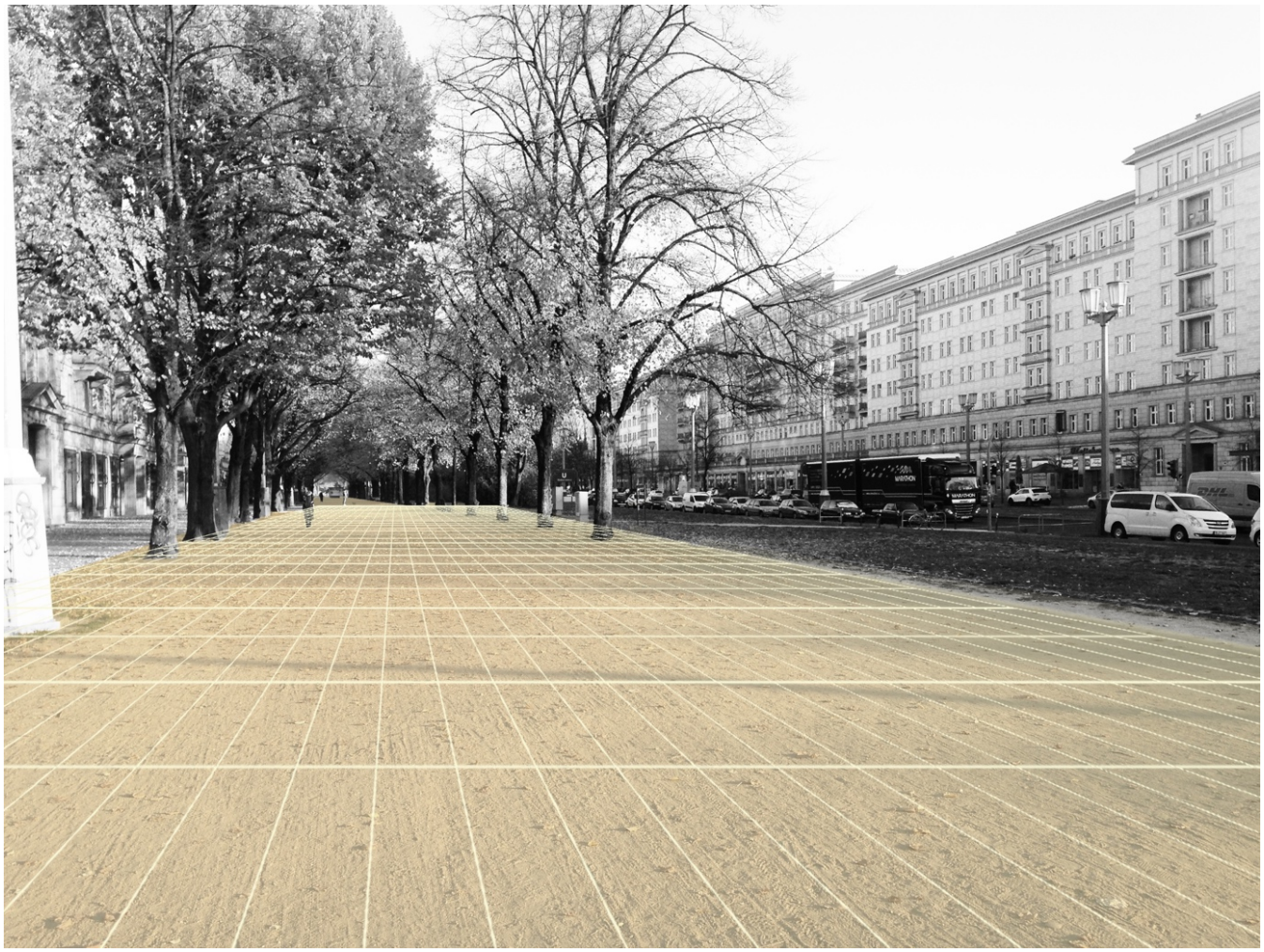


Image: Illustration of different floor material use (Source: author)

This quality is effectively received by loose gravel than hardened asphalt surfaces.
It is also important to create porous and soft ground surfaces, such as gravel floors with greenery. When it merges with nature and trees, they provide acoustic properties that users perceive as an area worth listening to, walking to and using for a break (Maag, Kocan, & Bosshard, 2015).

The effect is created by the loose and porous material is called masking. The sound that it happens when we walk it can block the other sounds. This can be seen as strategy to create different sound environment for the users. I aims at achieving attentional auditory masking for hot spots where traffic noise reduction is not easily feasible. The sound-pressure level of a

walking sound on a platform covered with gravel reduced the traffic noise for the users. This way, the sound quality and acoustic comfort can be increased. As a passive sound source, the floor material could help reducing the perceptual effects of traffic noise. Therefore, it is reasonable to use this solutions and provide energetic as well as attentional masking for the unwanted sound source.

4.3.1.2. Dividing floor material depending on use

By arranging and distributing the floor materials – the horizontal sonic agents – in the area, the acoustic diversity of the floor materials becomes effective. The acoustic diversity of the materials is efficient due to the arrangement and distribution of the floor materials in the area. The sonic impacts of the floor, and hence the sound quality of urban environments, are determined by the size ratios of the surfaces considered (Maag, Kocan, & Bosshard, 2015).

Large surfaces with the same material in the same pattern appear neat and aesthetically convincing at first glance. However, we always hear the same patterns, thus monotonous floor surfaces with no variety become tiresome and unpleasant with time. It creates same sound, reflects same amount of sound while spreading the noise. If there is no variety of the floor material, dividing this large areas can improve the sound environment and change the homogeneity of the sound. The sound can be reduced depending the material. Therefore, the reflection will also vary. Therefore, large squares, parks, streets, and open spaces should consequently be separated into different-sized zones (Maag, Kocan, & Bosshard, 2015).

The asphalt surface should only be used when it is absolutely necessary like for the traffic. Using cable stones in small streets would bring heterogeneity of the produced sounds by cars.

Bike lanes, cross passages and public transport stops with different pattern or material can foster that division. Vegetation around the tram lanes separates the road while reflecting the sound of the trams and the cars (Adams, 2017).

It is better for the ear when more areas for pedestrians that differ from the regular road surface. The influence of material variety on sound quality is favored by a proper balance of various materials. This results in an auditory improvement in the urban space, as witnessed on sonic mind map workshops. In urban areas, we mostly see asphalt as the traffic is expanded. However, users appreciate more on surfaces that are not visually occupied by asphalt. The division of material would bring playful approach to urban design while enhancing the sound environment by different the auditive qualities of the various materials.

An acoustically differentiated design can be achieved by dividing the urban floor, specifically by varying the design of city squares with differently processed and constructed stone floors, concrete surfaces, wooden floors, vegetation and steel elements.

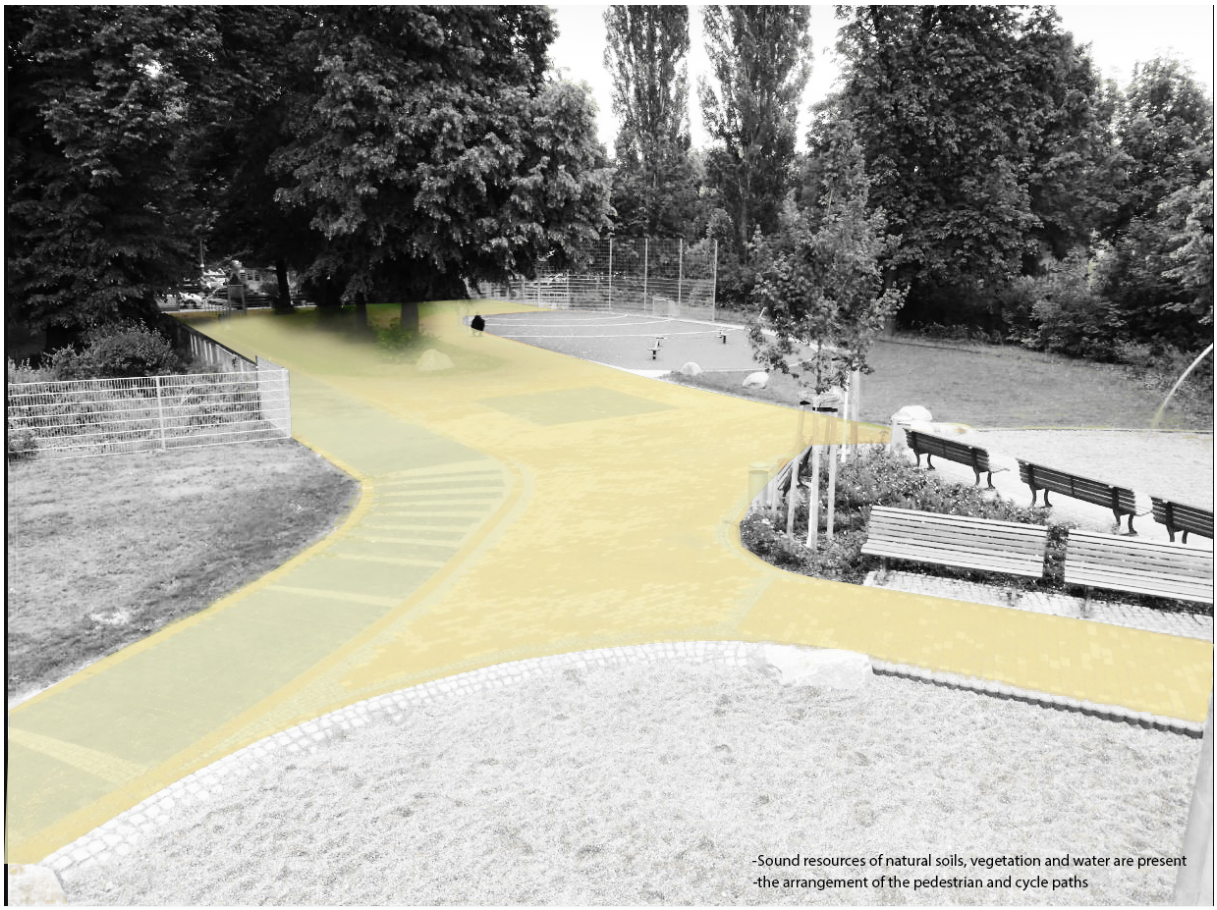


Image: Illustration of using different floor material. (Source: Author)

Gravel, lawn, stone, and sand have been used as floor materials in the image above. The unusual material combination promotes sonic diversity. A diverse floor material selection and a structured surface improve the listener's acoustic proximity, but low frequencies and loud traffic noise cannot be reduced or prevented from propagating with them.

For the pedestrian areas like squares and recreation areas, various stone floors, concrete surfaces, wooden floors and steel elements can be use as dividing element. Large sidewalks and footpaths can be paved with lawn, sand, gravel, natural stone, wood chaff and rubber. This division and variety of material reflects the sound differently (Adams,2017).

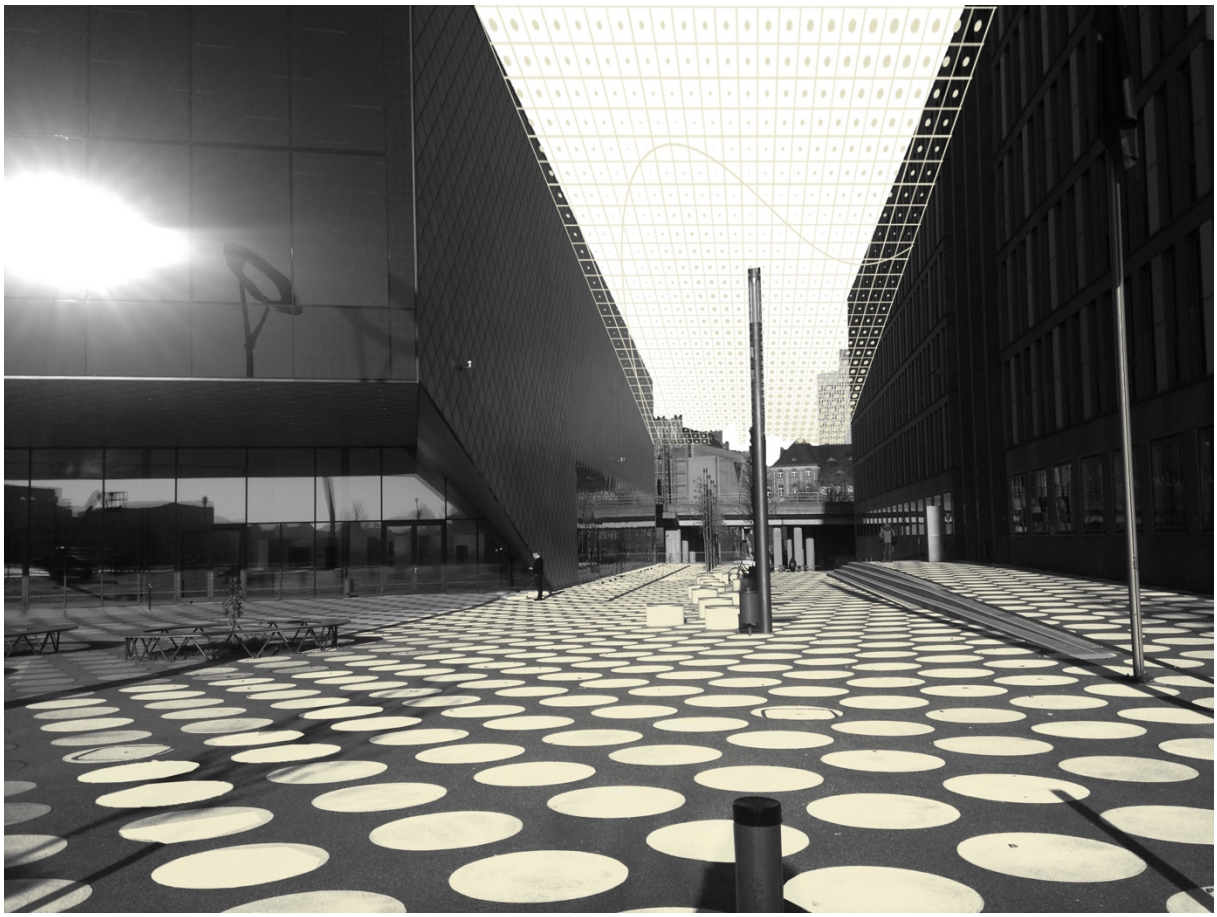


Image: Illustration of using different floor material. (Source: Author)

Using recycled plastics or rubber for footpaths and recreational areas in parks, front and court yards of the buildings could pretend reflection from the buildings. In the image above, the plastic floor material have been colored and different shapes have been used. While the space divided visually, the reflection from the buildings is absorbed by the floor material. Material variety and articulation on the floor are important requirements for vertical plane surfaces and objects like façades to scatter and reduce sound (Maag, Kocan, & Bosshard, 2016).

Image: Illustration of using different floor material and elevation. (Source: Author)

The square above square is surrounded by asphalted street intersections. The gravel and lawn surfaces in the square create a lively environment. Their acoustic properties are perceived as inviting, and they are visually associated with less traffic. As a result, such details in urban space have potential to change user's perception.

As it shown in the image below, dividing large inner-city squares into various sections using sculptures and fountains could help with the acoustic properties. In a large open space, it is difficult to control sound. Large squares on main roads transmit unpleasant low-frequency sound components of cars and trucks due to the reflective properties of the ground. A sound sculpture or running water from a fountain can block and mask the other sounds.

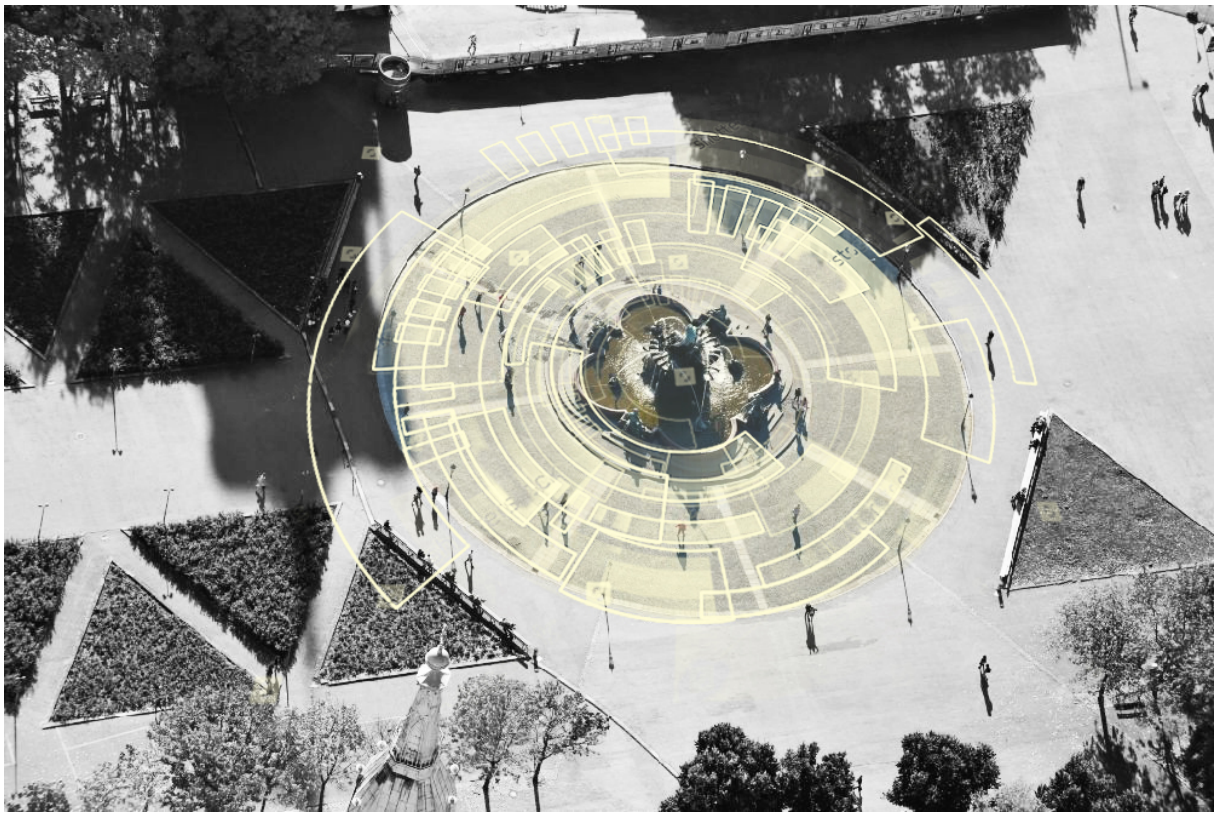


Image: Illustration of using different floor material and design. (Source: Author)

Another proposal is to green the tram lanes, as well as the areas between and on the sides of the roads. This will also help to reduce tram and car noise reflections. The traffic becomes quieter, and the noise in the street section is not amplified (Maag, Kocan, & Bosshard, 2016).

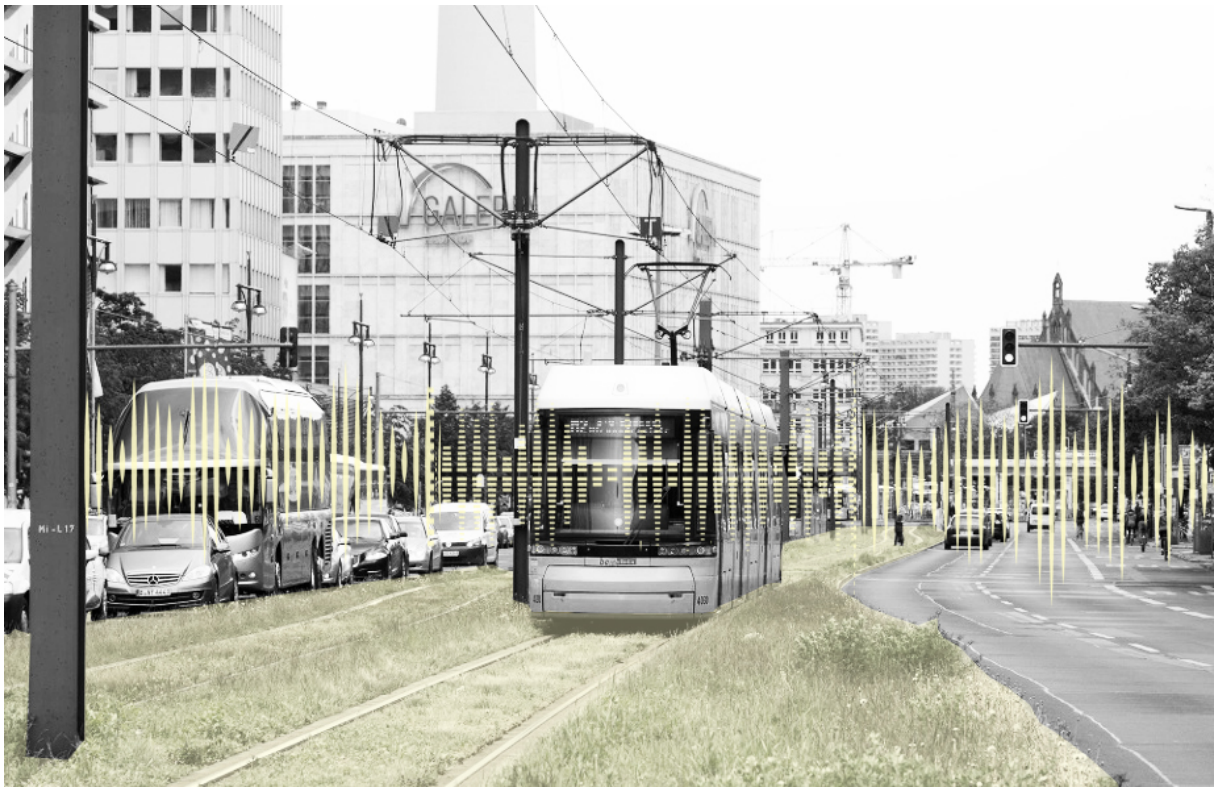


Image: Illustration of using different floor material, design and infrastructure. (Source: Author)

4.3.1.3. Modelling the floor design – lowering and caving

Another suggestion for achieving different levels of sound reflection and dividing the floor is to model the grounds with different inclinations and height levels. These changes can be thought of as sonic agents, with masking, filtering, and reflection being physically and spatially perceived. The auditory experience of users can vary depending on their location thanks to this spatial elevation.

The monotonous and repetitive sound can be divided by the inclined and leveled urban space. The auditory experiences of users at the top of this elevation will differ from those on the lower level. The greater the height differences, the greater the difference in auditory

experience for the users. This would entail constructing arena-shaped urban spaces in which each floor has the same auditory characteristics but varies in intensity (Maag, Kocan, & Bosshard, 2015).

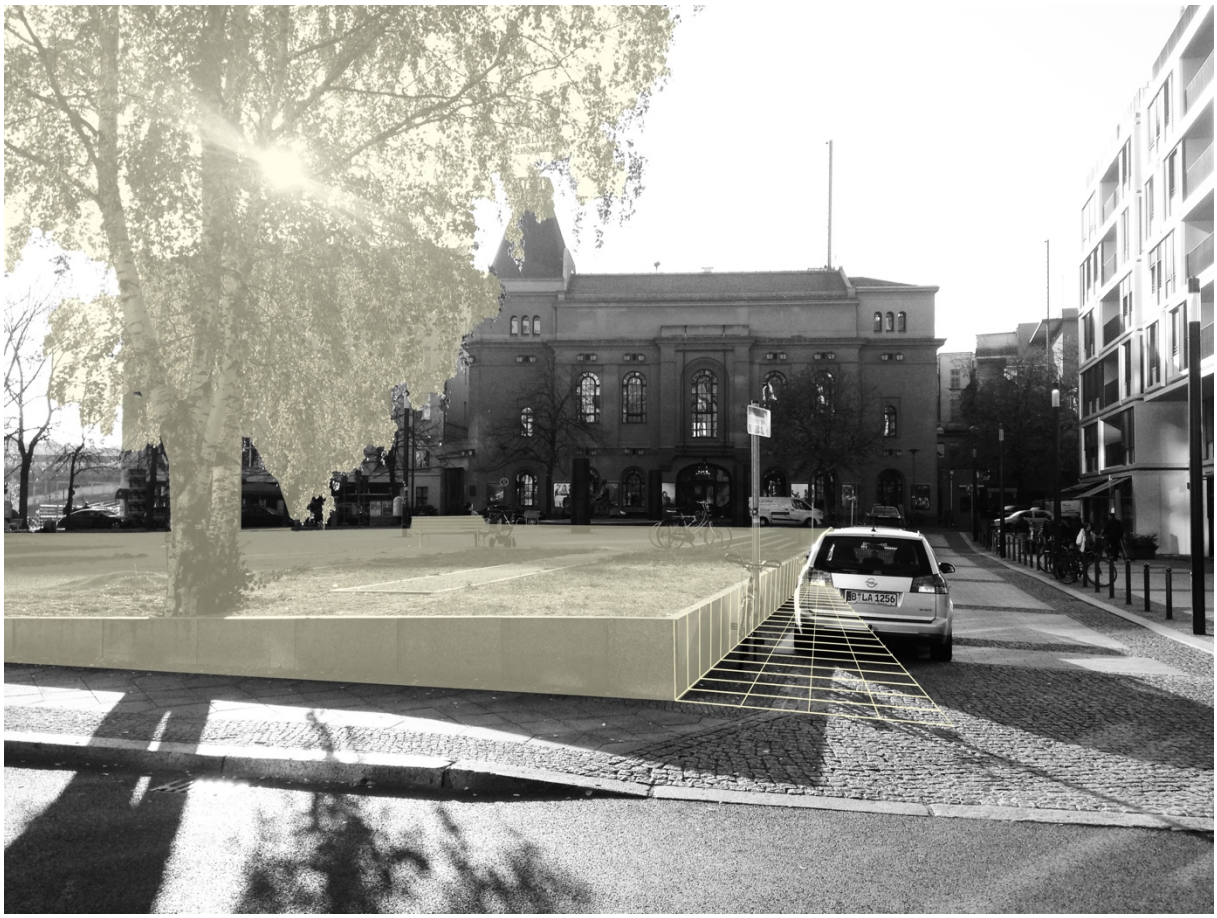


Image: Illustration of designing the floor: elevation. (Source: Author)

Lowering the terrain places the user in a spatial situation surrounded by different heights. They build small areas within each level that are not completely disconnected but have their own frequencies. Depending on how they are used, some of the areas may be quieter, more comfortable, or louder than others. Ground pavement with different materials as it suggested

above and surrounding with vegetation and sitting elements can add different acoustic characteristics to each level (Adams, 2017).

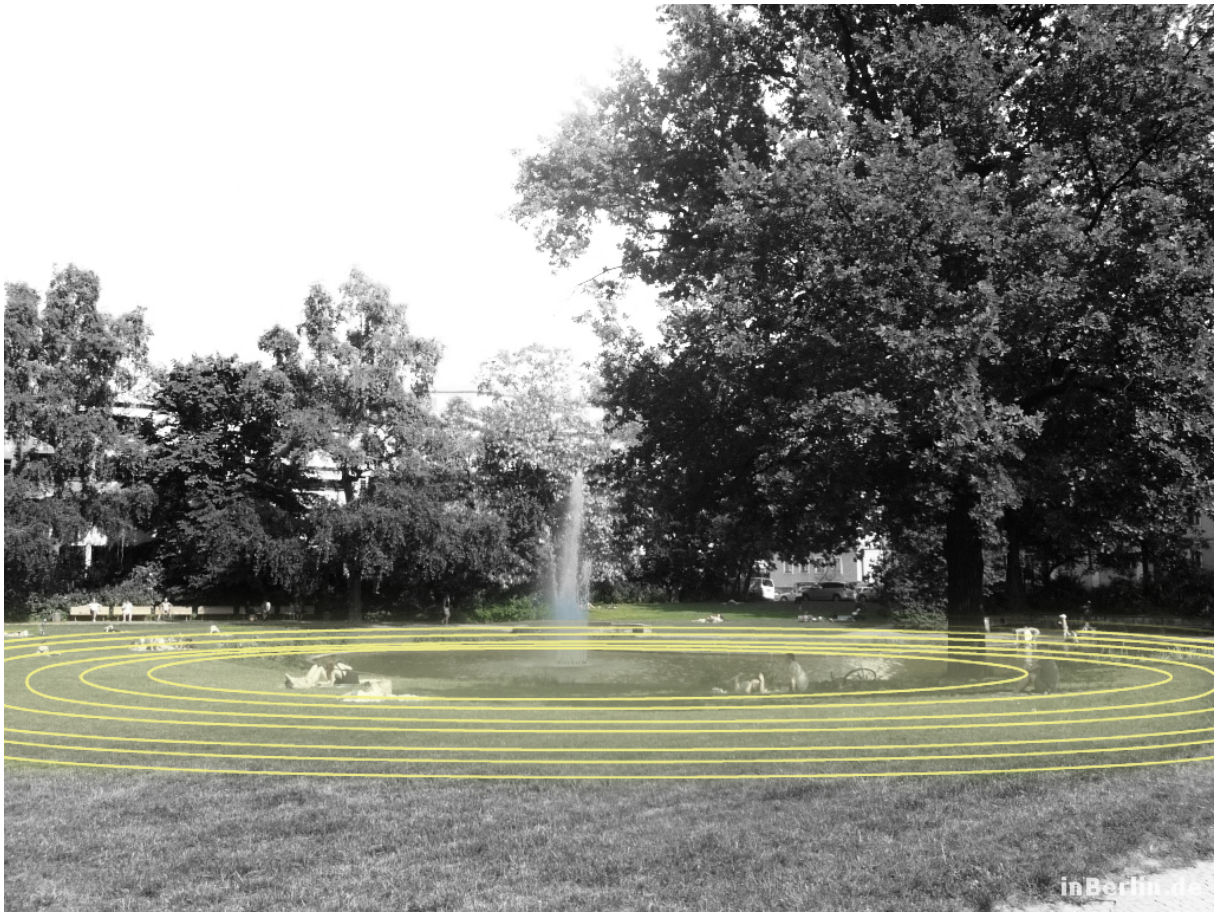


Image: Illustration of designing the floor: inclination. (Source: Author)

Inclination also help to separate the uses. For example, the playground's location on the lower level improves visual separation and keeps noise away from areas where people spend time. A pool and other water elements in the lower levels would be another addition. In this sense, water acts as a sonic agent, increasing the diversity of the sound environment. In larger areas, the lower part of the structure can also host a sound art installation. Other opportunities in the sound environment, such as reverberation, reduction, and masking, can be found in the middle and upper levels of vegetation and sitting elements.

These kind of inclinations and elevations create the “pocket parks” and allow the users have various auditory experiences, depending on whether they are up or down.

4.3.1.4 Using small objects to differentiate the sound quality

Individual objects like small walls, seating elements, and plants have an impact on the sound environment. These objects transform into sonic agents capable of reflection, reverberation, resonance, and masking. Their localization, composition, and accumulation are critical for being affective in a sound environment. Implementing small walls around busy roads will diffuse the sound, causing traffic noise to be distorted and non-monotonous to the user. Some examples include strewn wood panels, stone-filled baskets, and vegetation-covered surfaces. In this sense, various compositions and styles of sitting elements can function as a diffuser (Maag, Kocan, & Bosshard, 2016).

Image: Illustration of designing the floor: sitting elements. (Source: Author)

As very much useful sitting element in urban space, long-back bench create playful design while becoming wall-like element where sound can partly blocked. Using different materials which can create porous surfaces for the sitting elements can support reflection, and block or break the sound. In addition to that, platforms and rising elements can be created. They can act as a sonic agent and help with the reflection while it can be used as a sitting element. As suggested previously, these objects can also help to create different inclinations and elevations (Maag, Kocan, & Bosshard, 2015).

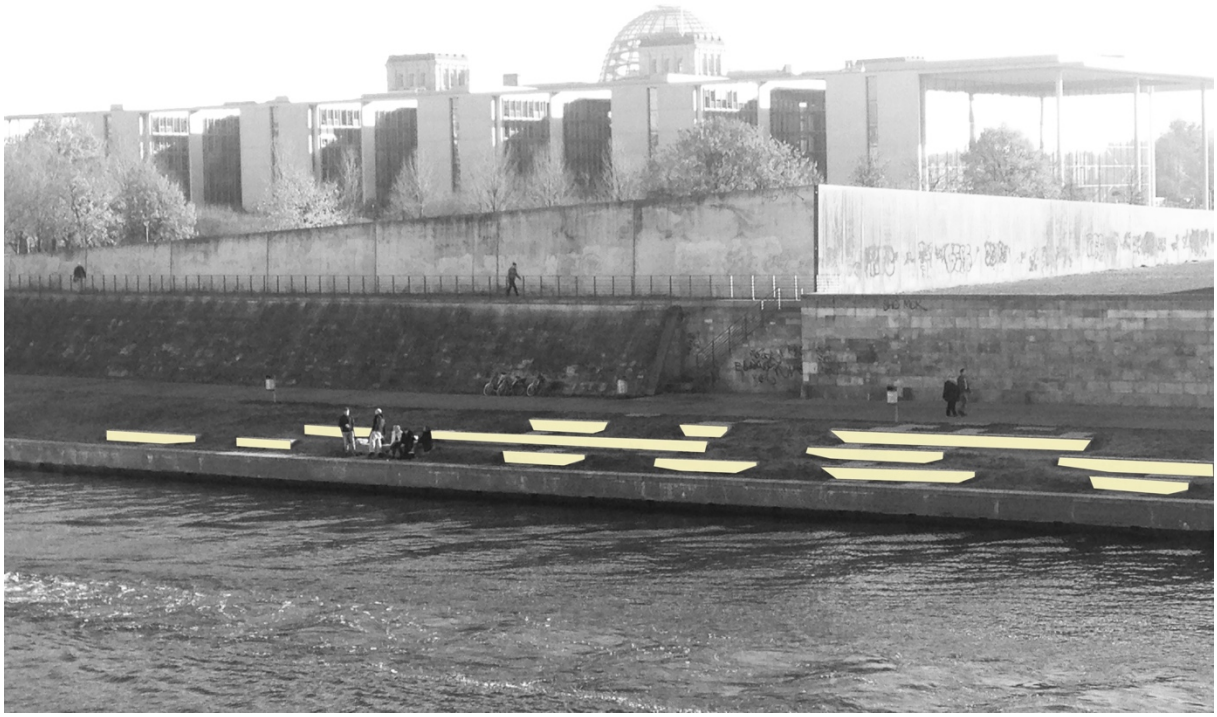


Image: Illustration of designing the floor: sitting elements. (Source: Author)

Vegetation is another important application for blocking, masking, or shadowing sound. The vegetation acts as a sound diffusor while also absorbing it. It can combine with other small objects to form green areas while influencing the sound environment. While grass on the ground can reduce reverberation, small bushes, flowers, and wild vegetation, among other things, can absorb sound. Another important vegetation that will be discussed in the vertical background section is trees and ivy. The overall design and additions allow the user to have a variety of sonic experiences (Maag, Kocan, & Bosshard, 2016).

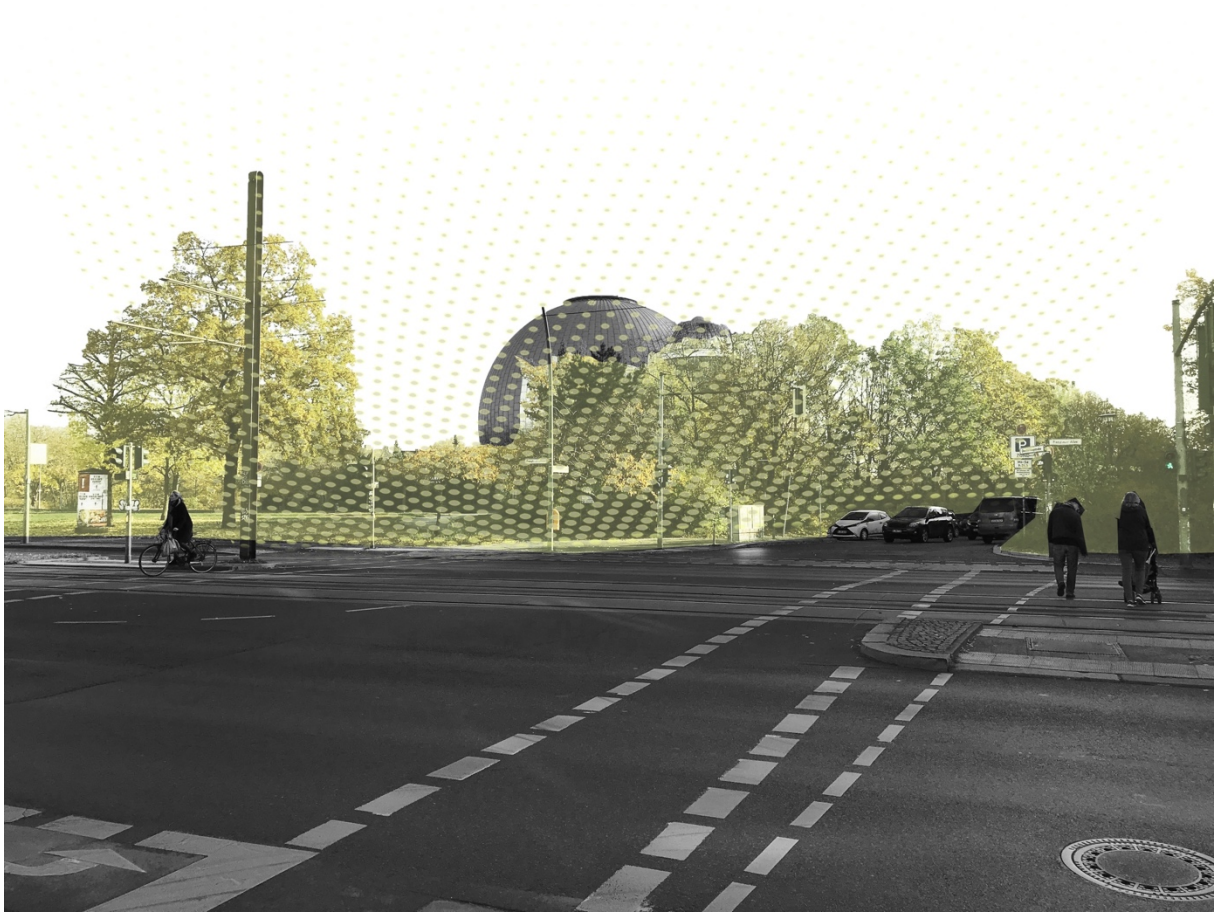


Image: Illustration of designing the floor: vegetation. (Source: Author)

4.3.1.4. Optimize the sound quality with massive objects

An empty urban space only filled with buildings may have poor acoustics. Large size elements in urban space can foster a sound environment, depending on the size of the urban space.

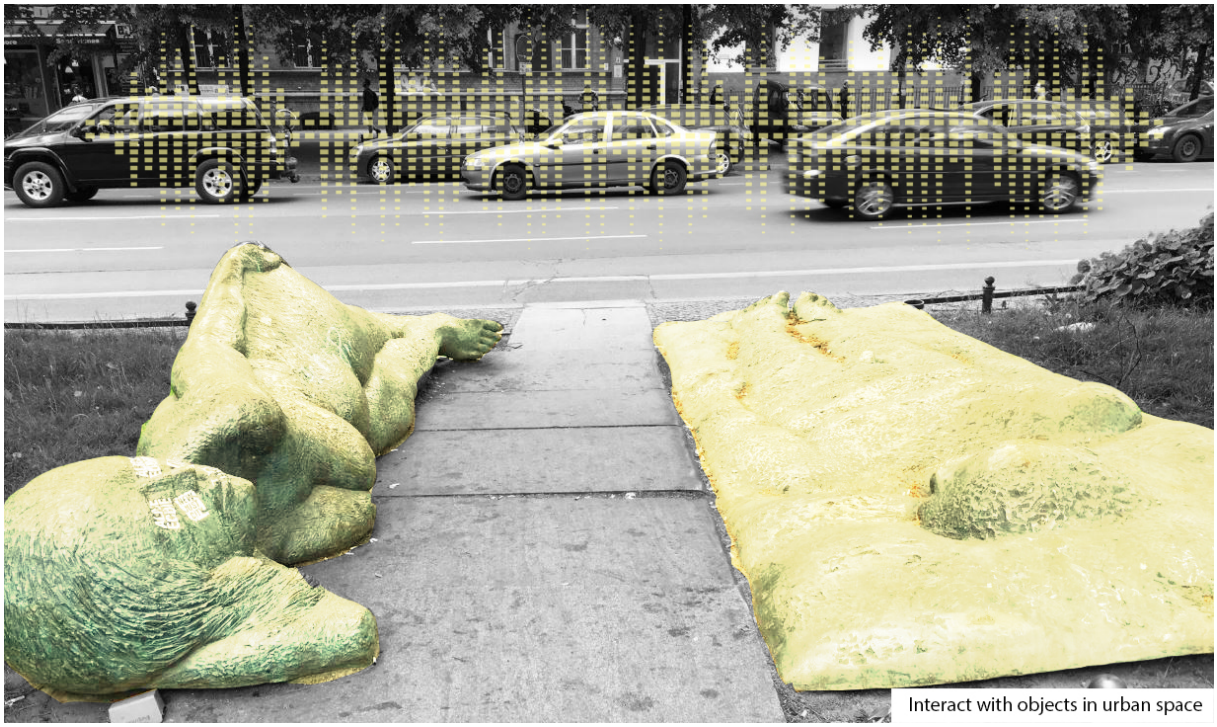


Image: Illustration of designing the floor: objects. (Source: Author)

Their large surfaces can affect sound reverberation, reflection, and diffusion. Individual objects such as sculptures, kiosks, pavilions, public transportation stops, and bridges intervene in an urban space's acoustic dynamics. They play an important role in sound reduction and absorption. Small green areas, pocket parks, and large trees are examples of large size elements (Maag, Kocan, & Bosshard, 2015).

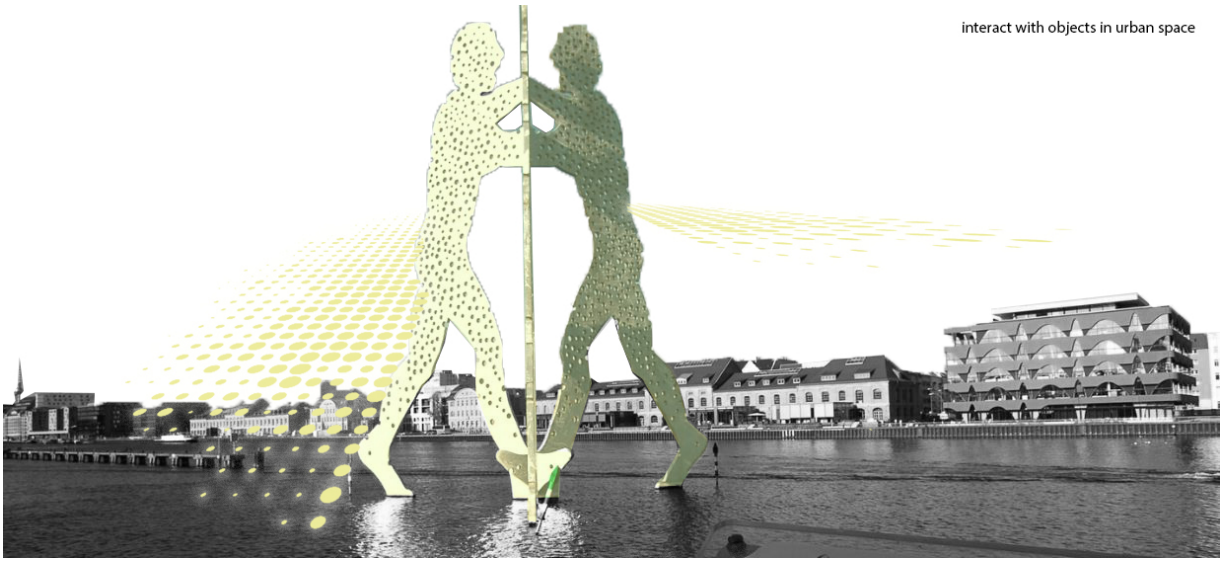


Image: Illustration of designing the floor: objects. (Source: Author)

Buildings and most objects in urban space have flat and straight surfaces and rather square shapes. They, together with the hard ground i.e. like asphalt, make the urban environment unpleasant and dismissive. A sound art installation or kinetic sculpture can foster the sound environment of an urban space while influencing the perception and auditory experiences of users. They also create small gathering areas around them which can encourage the use of the public space (Maag, Kocan, & Bosshard, 2015).

4.3.2. Vertical Background

Building façades are important sound agents of the urban space and play an important role in the sound environment in terms of reverberation, reflection, and diffusion. The sound hits the façade and propagates differently depending on its length, shape, and material. Tall building façades with a flat surface in narrow streets, for example, can create a sound canyon in the vertical dimension due to reflection as sound rises towards the sky. At the same time, if there is enough space between the buildings for sound to move, the higher façades can amplify the sound of the street. Because of reverberation, relatively short buildings in wide urban spaces

can create a roaring sound environment. As a consequence, just as with the floor material and shape, it is critical to consider and plan the façades for the sound environment (Maag, Kocan, & Bosshard, 2016).

The majority of building façade research focuses on thermal and moisture behavior, daylight, and fire control. Acoustics is frequently associated with comfort issues, and it is easy to forget that noise has an impact on people's well-being and human health. When considering the acoustic properties of building façades, the most attention is paid to their sound insulation properties, as these are directly related to the residents' indoor acoustic comfort. The impact of building façade sound absorbing properties on urban sound has received less attention, and research on outdoor noise has been limited to aspects of street width, shape, and meteorological factors. However, the emerging use of new building materials, such as tensile structures, various types of structural skins, green façades, and the installation of kinetic shading elements on building façades, raises new questions about their impact on noise conditions both outside and inside (Adams, 2016).
As it suggested for the horizontal background, we can apply the same proposals in vertical background.

4.3.3. Variety of wall materials on the façades

Every material and surface (windows, balconies, design elements, etc.) contributes to the sound environment. Designing a façade with overhangs, protrusions, recesses, and parapet type can be an alternative diffusion strategy. When compared to smooth and flat concrete, a recessed façade produces acoustic changes. Sound can move around instead of hitting the surface and propagating when wood, porous metal, and vegetation are used. Steel, glass,

brick, artificial or natural stone, and other materials can be used to support the variety of the façade (Maag, Kocan, & Bosshard, 2015).

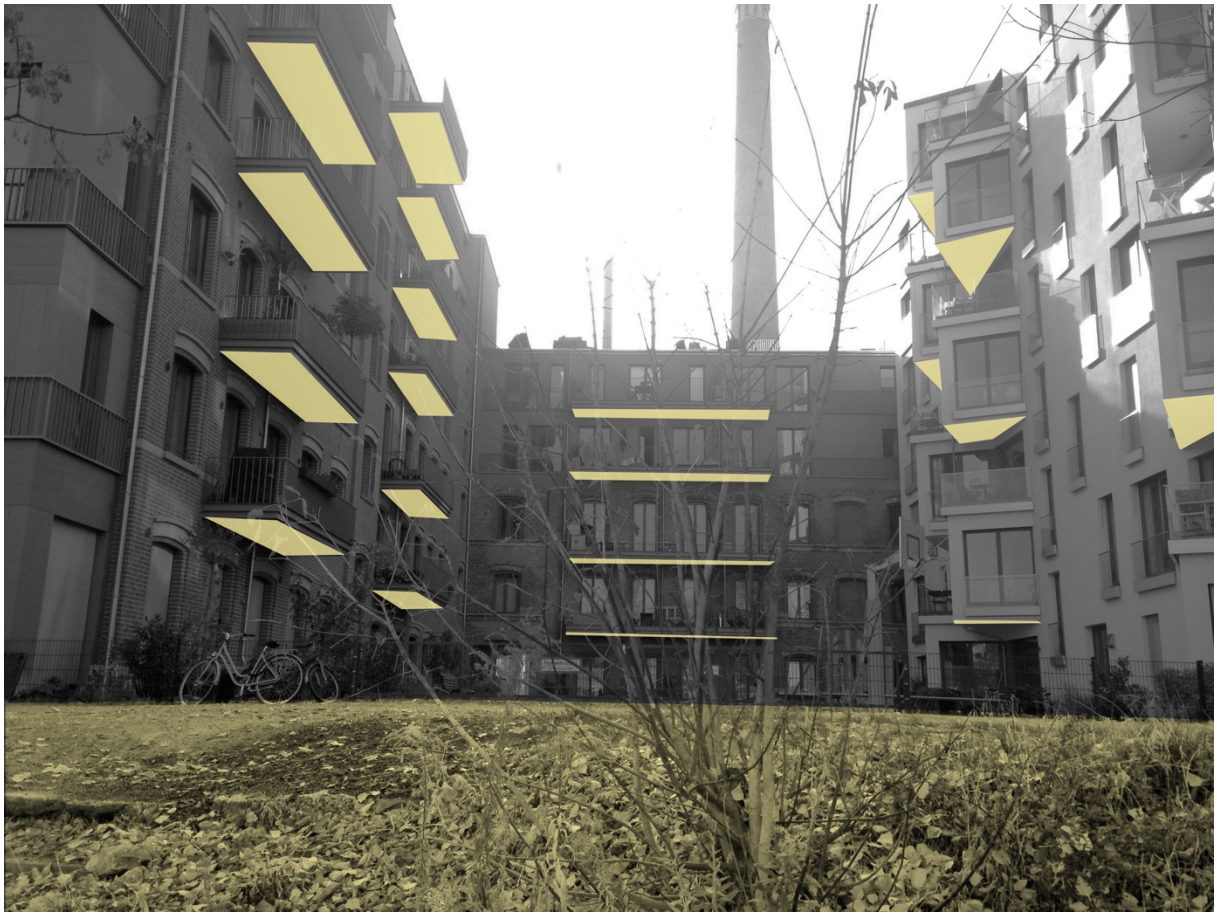


Image: Illustration of different arrangement of façades (Source: Author)

4.3.4. Dividing The large wall surfaces

The arrangement and distribution of the building materials on the façade promote the acoustic diversity. The proportions of the materials determine the sound effects of the façade and the sound environment. The subsequent greening of an existing façade improves the diffusion and has a positive effect against acoustic monotony. It can be resulted as a visual change while changing the sound environment. In that sense, the self-climbing plants and ground ivy can be

suitable for residential and office buildings. For growing the vegetation, metal nets, wood additions or any kind of hanging material can be added (Maag, Kocan, & Bosshard, 2016).

Image: Illustration of different façades' materials (Source: Author)

The façade's arrangement and distribution of building materials promotes acoustic diversity. The material proportions determine the sound effects of the façade and the sound environment. The subsequent greening of an existing façade improves diffusion and mitigates acoustic monotony (Adams, 2017).

Image: Illustration of different façades and vegetation (Source: Author)

While changing the sound environment, it can result in a visual change. In this regard, self-climbing plants and ground ivy may be appropriate for residential and office buildings. Metal nets, wood additions, or any type of hanging material can be used to help the vegetation grow. Another option would be to use panels made of different materials to divide the large façades and surfaces. Creating green walls can be visually and acoustically effective. Windows and balconies can also have an impact on the sound environment by breaking the sound or the reflection of a sound (Maag, Kocan, & Bosshard, 2015).

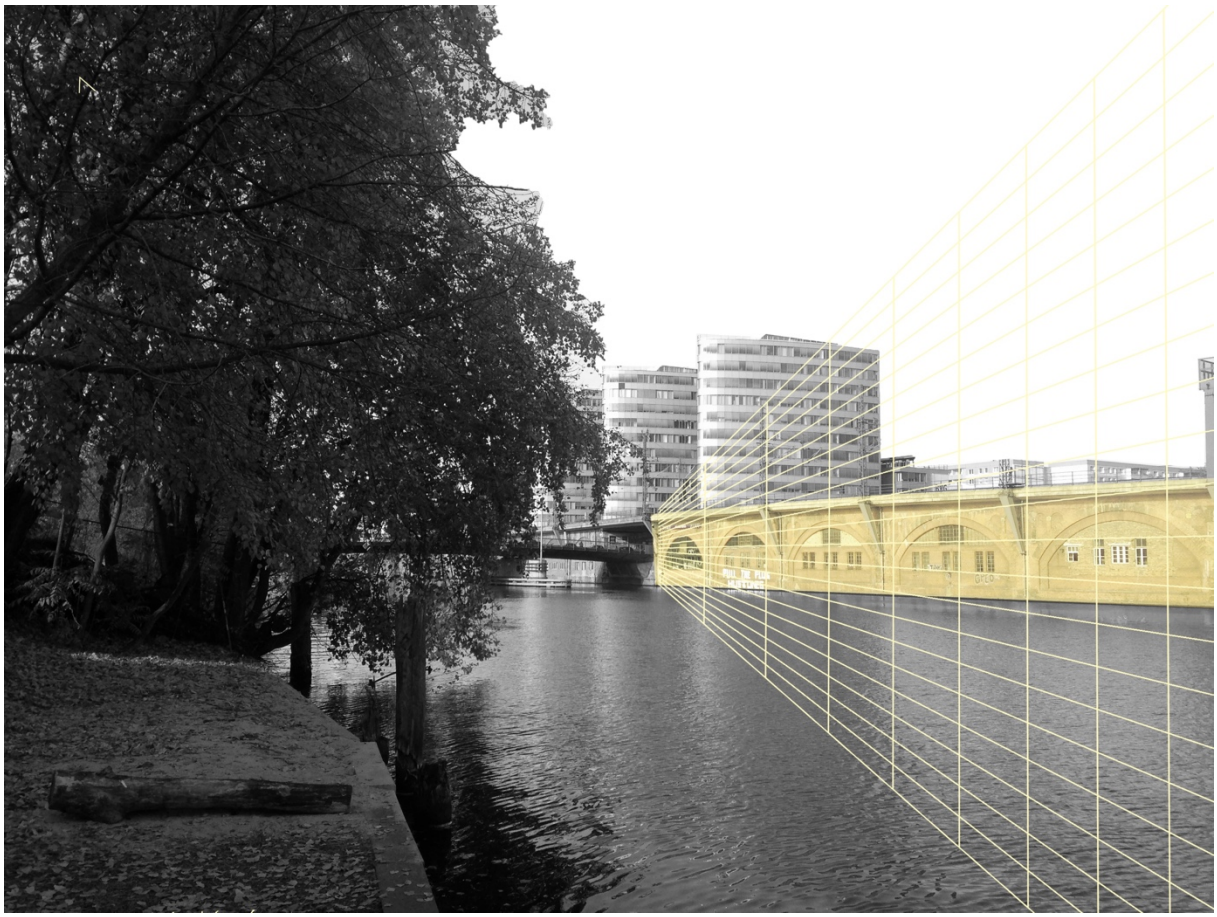


Image: Illustration of façades and reflection (Source: Author)

4.3.5. Surface

In urban spaces, streets mostly constructed with two parallel opposing facades which reflect the same sound. Sound touches one façades, reflects to the other and again goes back to the first façade. They façades bounce the sound from wall to wall, raising the volume, directing it through urban areas. In that sense, building material, and geometry of all surrounding façades play an acoustic role. Even façades in the second and third depths contribute to overall sound and thus sound quality. Changing and building new façades won't be realistic. In that sense, facing walls and façades can be relate to each other. At no point should the opposite façades share similar or even the same materials and dimensions because the reflection or absorption

would be the same. Small additions like, nonparallel Creating different façades as like the floors would improve acoustic properties (Maag, Kocan, & Bosshard, 2016).

Image: Illustration of different façades and reflection. (Source: Author)

Two parallel opposing facades reflect the same sound very often. They throw the sound back and forth from wall to wall, rocking up the volume, leading it through city and settlement areas and, in the case of openings and gaps in the rows of houses, heating up the depths of the building. That's why the structure, construction material and geometry of all the surrounding walls play an acoustic role. Even facades in second and third depths are involved in the overall sound and thus in the sound quality (Maag, Kocan, & Bosshard, 2016).

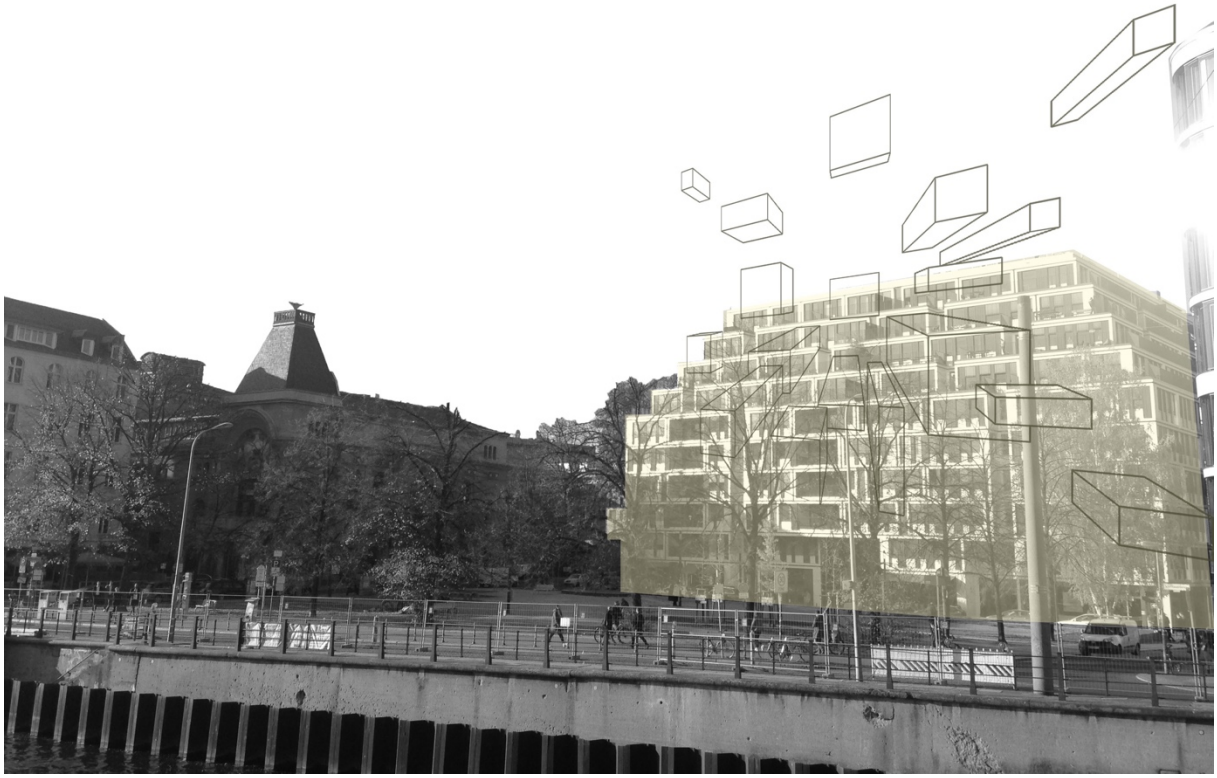
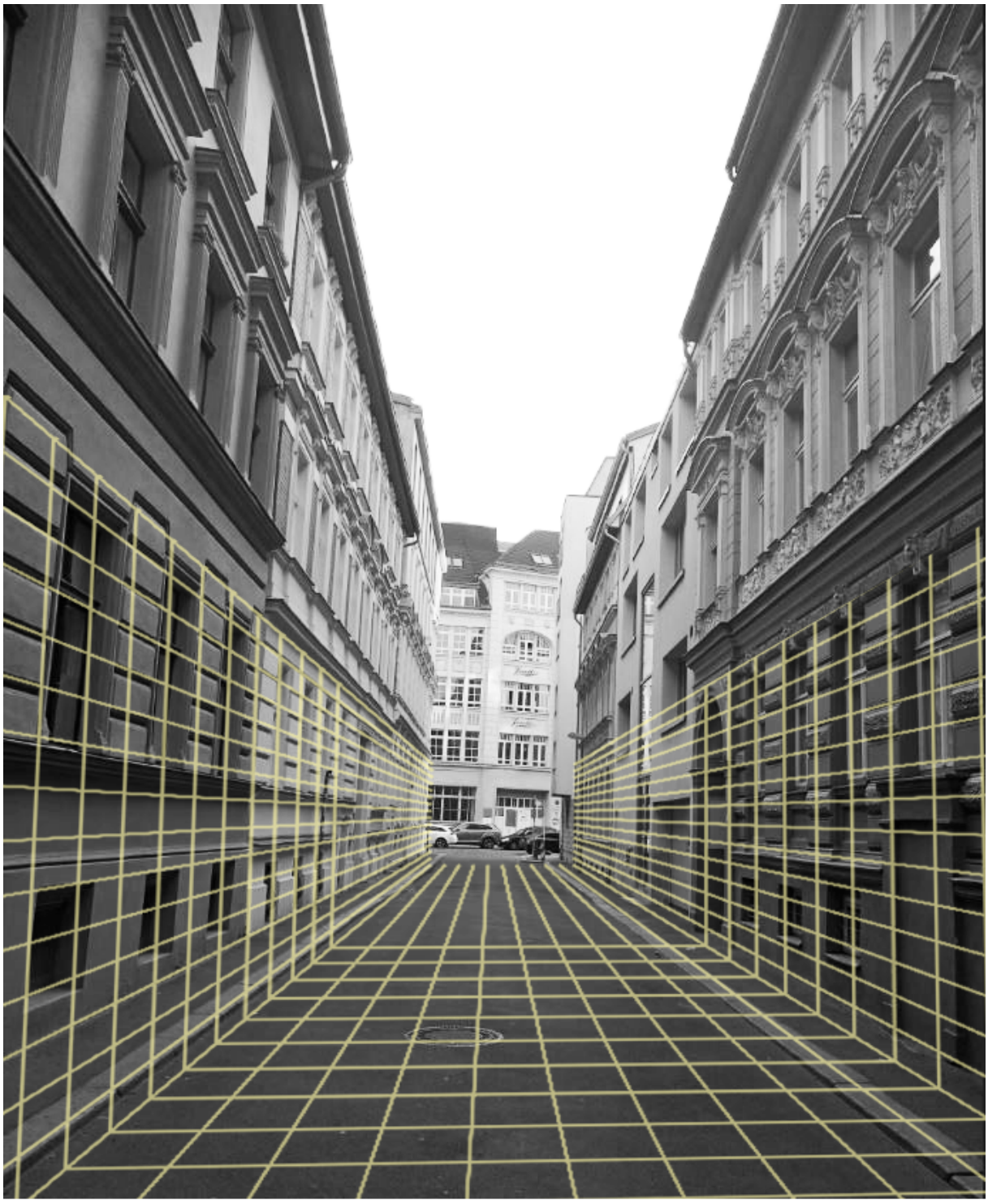


Image: Illustration of different façades and reflection. (Source: Author)



Measures at the edge of the settlement and at the footpaths create the acoustic transition to the street

Image: Illustration of different façades and reflection. (Source: Author)

5. Future Perspectives

Sound is such an important part of our cities which influences the urban life and users' health and well-being. However, it is all too often ignored. The architect Juhani Pallasma lamented the 'Ocularcentrism' of culture and design, which prioritizes sight over other senses.
In "The Eyes of the Skin: Architecture and Senses" architect and philosopher Juhani Pallasmaa (2005) criticize the "ocularcentrism" of the recent architecture and architectural theory which can be also seen in urban planning and design. According to Pallasma (2005):

"The hegemonic eye can be narcissistic, architecture is solely as a means of self-expression and as an intellectual-artistic game detached from essential mental and societal connections. It can be nihilistic [deliberately advancing] sensory and mental detachment and alienation, which instead of reinforcing one's body-centered and integrated experience of the world… disengages and isolates the body, and instead of attempting to reconstruct cultural order… makes a reading of collective signification impossible. The world becomes a hedonistic but meaningless visual journey" (Pallasma, 2005:22).

Ocularcentric refers to a worldview in which visual perception predominates over other modes of perception; in other words, Pallasmaa (2005) envisions a society in which people primarily rely on their eyes to take in their surroundings.

„Sight isolates, whereas sound incorporates; vision is unidirectional, whereas sound is omni-directional… Sight is the sense of the solitary observer, whereas hearing creates a sense of connection and solidarity." (Pallasma, 2005:49)

According to Pallasmaa (2005), hearing is just as important as sight. The use of one's other senses is little acknowledged. The fact that he's an architect, a profession that relies heavily on the sense of sight, makes this statement all the more shocking.

„The hegemony of vision has been reinforced in our times by a multitude of technological inventions and the endless multiplication and production of images – 'an unending rainfall of images,' as Italo Calvino calls it. 'The fundamental event of the modern age is the conquest of the world as a picture,' writes Heidegger. The philosopher's speculation has certainly materialized in our age of the fabricated, mass-produced and manipulated image." (Pallasma, 2005:21)

Sound and space, whichever these concepts are defined, are inextricably linked on both a phenomenological and ontological level. After all, sound is constantly in flux as it emits, spreads, reflects, canalizes, is obstructed, escapes, and so on. Whether one thinks of sound as something that can only be heard or as a vibration at a specific frequency, the close relationship between the two remains the same.

In "Music, Sound and Space: Transformations of Public and Private Experience" Anthropologist and Musicologist Georgina Born (2013) focuses all audible aspects of the space. The author examines the effects of technology's expanding role in the creation of modern sonic environments and to shed light on the myriad sonic forces that are reshaping our culture. Here, multiple schools of thought converge, from musicology to sound studies, anthropology to cultural studies, and from aesthetics and music to media studies.

„If sound studies and the anthropology of sound have drawn illuminating links between sound and space, how have the music disciplines understood the relations between music and space?

While ‘space’ has often been used in ambiguous and metaphorical ways in relation to music, it is possible to distinguish three broad ways of conceptualizing space in/and music in these literatures: three distinct lineages of practicing and cognizing musical spatiality.” (Born, 2013: Introduction)

To begin, Born articulates the study of music that involves a wide range of lifestyles that are frequently misunderstood for the realm of sound. Thus, the book serves as a jumping-off point for discussions about sound and sound studies. In addition to that, the author considers music to enter all facets of modern life. It's as if the entire foundation of our current forms of sociality and spatiality is being rethought as part of a global movement to set the world to music and/or give it a soundtrack. Lastly, Born emphasizes the fact that the realm of sound and music brings up significant sociopolitical concerns, especially in the context of the public sphere. The book paves the path for a critical phenomenology of our sonic environment, one that takes into account the cultural, historical, material, social, geographical, aesthetic, and subjective components of our modern experience.

The consideration of sonic approaches in the thesis exemplifies the kind of function sound may play in the ongoing production of urban space, both in terms of how urban places are felt and understood by their inhabitants and in terms of their experiences and sonic memories of those locations. That 'we have always known about the intimate relationship between sound and urban, even if we haven't stated it in quite the same vocabulary' is demonstrated here in numerous ways (Born, 2013:Introduction). This research, however, demonstrates unequivocally how the acoustic environment was not spontaneously generated by the sounds themselves. Instead, it developed in relation to other bodies. This was also mediated by other social relations, discourses, and structures. The reception of the acoustic environment, and

thus the continuous formation of social spaces, is linked to and influenced by the specific understandings and discourses of the time studied in the thesis.

The proposals and examples in the thesis are performative in the sense that they interfere with how these sound environments actually manifest in reality. For the listening body, sonic awareness explores how life developed in cities, influencing social interactions and the embodied attitudes of those who lived there. This thesis manifests physical acts and interactions (like sound art installations), communal displays (like the sonic mind maps), associations between other disciplines, and like a change in a listener's embodied disposition or mood (including urban design and Djing). The thesis takes place in a specific moment and place when concerns about the increasingly overstimulating character of life in the urban realm are growing in scope and fury, rather than against a neutral background known as the soundscape. There is no silence and according to this idea, this thesis first of all an appreciation of all sounds in urban environments.

"A social field, itself multiple, which via its behaviors generates a field or population of persons with various affective and cognitive qualities," as presented in such listening environments (Born, 2013:Introduction). The contextual happening of these sounds is mediated through a whole range of specific relations. Furthermore, the discourses around sonic agencies are able to moderate such sonically intensive urban space, rather than representing an unique register of social activity. Considering the situated nature of sound's occurrence within and its mediation through various social-material-political settings or conditions is crucial when thinking about how sound happens and its function in the ongoing development of urban spaces. The composition of urban space can be affected by a wide variety of factors, including intersubjective relations between sound sources and/or

listeners/users, temporality, listeners/users' needs/requirements, their social relations, urban design decisions and regulations, and the use of various materials and the built environment.

How should the sonic research continue? The intersectional approach in academic research (especially in feminist and queer theory) is growing since the last ten years. So, this thesis sees a big potential of adopting the idea of intersectionality into sonic research. One of the leading authors and professor in Gender Studies, Sara Ahmed highlights the importance of the body in the space. In order to provide an understanding of the ways bodies are "shaped by their dwellings and take shape by dwelling" (Ahmed, 2006:9), the author of Queer Phenomenology begins by reviewing phenomenologists like Husserl and Merleau-Ponty. Ahmed proposes: "What would it mean for queer studies if we were to pose the question of "the orientation" of "sexual orientation" as a phenomenological question?" (Ahmed, 2006:1). Considering Lefebvre's (1991; cited in Ahmed, 2006) conceptualization of space as orientated by posing the question of how it might also be orientating. The discussion in the book starts by pointing out how bodies are orientated in space and by space, while orientation provided by phenomenology. The author also highlight the importance of body by considering space as the "field of action" (Ahmed, 2006:65) where bodily encounters take place.

Ahmed's examination of queer theory ponders the ways in which the body can be more intersectional. That means everything that surround us is there not for us because it is the result of normative actions. So, when bodies encounters in such urban space there are already limits. In that sense, Queer Phenomenology is an invitation to inclusiveness while breaking the norms.

In that sense, this thesis see future of sonic research in the light of feminists and queer theory and suggests a sonic strategy which is workshop series that have been developed and performed by the author.

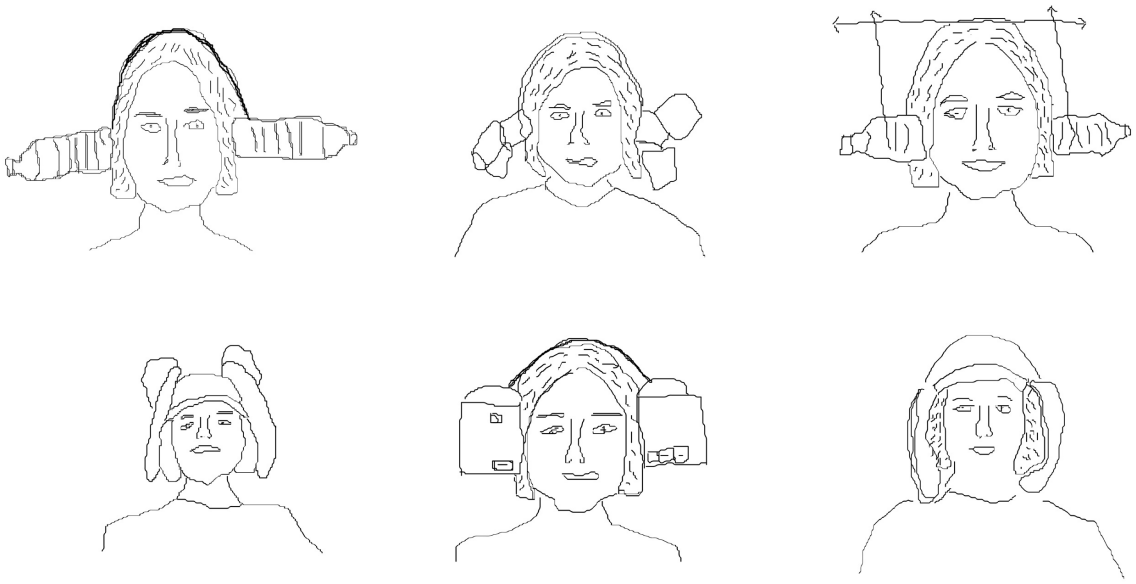


Image: Sketches of different headphones produced by the participants during Blocking the Sound Workshop series during IdeasCity by New Museum New York in New Orleans, 2019. (Source: Author)

The feminist critique of urban theory and planning that developed in the 1970s demonstrates how urban planners have created gendered environments that are predominantly suited to the needs of men and the heteronormative family. Following the rise of feminist theory and the second wave of feminist protests in the 1970s, planners have considered gender in their work since at least the 1970s (Sandercock &Forsyth, 1992). Initiated by feminists, the earliest work reconstructed the ways in which the man-made environment was the material manifestation of a patriarchal society creating gender inequalities. Therefore, it was obvious that there is a huge problem for women and communities like LGBTQIA*(Lesbian, Gay, Bisexual, Transgender, Queer, Questioning, Intersexual, Asexual, and Ally) in urban space, which should be clearly addressed.

While urban space has always provoked gender disparities, how we conceive of them is in flux. Despite the introduction of intersectionality into feminist theory, many feminist works still reduce gender to an essentialist or binary concept in which people can only exist as men or women (Beebeejaun, 2017). As we see with gay prides, women marches, and a continued fight against structural sexism, heteronormative urban space production does not function anymore. As a consequence, urban planners and designers have to adopt strategies for comprehensive inclusion (Doan, 2015b). In that sense, the idea of being queer as well as queer theory overthrows the heteronormative culture and breaks down power structures. It is also a very productive approach to reach out to the current social inequities in urban planning with queer theory and artistic work. Ahmed (2006) uses queerness as a framework to rethink how all historically marginalized people can be included in public spaces, rather than just people who don't conform to gender and sexual orientation norms. Over the course of the last two decades, queer literature has challenged white feminism and has adopted a more intersectional perspectives representatives of various people, rather than just one monolithic group (Ahmed, 2000).

Queer spaces as the fluid spectrum of identities related to non-normative gender and sexual orientations occur at the margins of society. They constitute a safe space for women and LGBTQIA* oppressed by the heteronormative nature of urban areas. Overlapping identities and oppressive systems exacerbate LGBTQIA* community's marginalization, resulting in unfair geographies and urban space that intertwine race, class, gender, and sexuality. For an intersectional urban space, it is time to acknowledge the range of gender identities that exist in the communities that we as urban planners and decision makers plan for, as well as the ways in which ethnicity, sexual orientation, disability, and class interact with gender to create safe experiences in public space.

There is a dearth of information in the literature about how queerness can be a solution for inclusion. In order to provide a framework, this article suggests that artistic interventions are crucial (Nusser&Anacker, 2013). One can start with the question posed by Dolores Hayden's seminal work, "What Would a Non-Sexist City Be Like?"(Hayden, 2005), in which Hayden asked readers to imagine how a city might be spatially organised if working women and mothers were considered the primary "clients" of urban planners and designers. The *Blocking the Sound* workshops aim to find an answer to the aforementioned question by focusing on the embodied method while including sound and soundwalk. It tries to understand and analyse the idea of queerness in urban space with a great interest in users' hearing and listening abilities.

5.1. Blocking the Sound

This part of the chapter aims to explore one way of considering non-sexist urban design strategies by analysing the ongoing workshop series *Blocking the Sound* organised by the author, which was started in 2019. In the context of sound, urban space, and participation, these workshops consider soundwalks and walking as a privileged act. While walking is one of the most performative and embodied actions in daily life, most of the users of urban space consider it an easy way of moving around. However, walking can be difficult, challenging, uncomfortable, and even impossible for women and communities like LGBTQIA*, minorities, migrants, people with disabilities, etc. This workshop has been devised after a number of soundwalks conducted by the author with different groups and participants in different urban areas.

Image: Soundwalk Blocking the Sound Workshop series during the exhibition “Politics of Design, Design of Politics” by Prof. Friedrich von Borries at the Design Museum Munich, 2019. (Source: Elif Simge Fettahoğlu)

As mentioned above, soundwalk has been used by various disciplines. The artistic contribution is one of the most interesting as it proposes multisensory and embodied ways to discover the social, cultural, and (sometimes) political geography. Brandon LaBelle explains soundwalk as “a practice that encourages a deeper, more sensitive approach to location based on actively exploring specific environments through walking and listening” (LaBelle, 2010:104). Pauline Oliveros, a feminist sound artist, proposes the “Deep Listening” practice. She encourages attentive listening – listening carefully –, which provides us with a new way of listening and considering our environment. Oliveros highlights the importance of attentive listening, which can take us into a transcendental community, if we listen hard enough not only to each other to each other but also to the environment that connects us (Oliveros, 2005).

Hence, Pauline Oliveros invites us to focus on one of our most important senses: hearing and listening.

The senses guide people through the city in everyday life. The visual approach in architecture and urban design eclipses hearing and listening abilities. Sound is one of the important elements that help users understand their environment (Blesser & Salter, 2007). The construction of the urban space, different materials, and everyday objects affect our hearing and listening as the different examples in the previous section have shown. Acoustic environment is not just the background sound or a specific soundscape, neither is it a question of noise pollution caused by traffic or daily activities. It is rather about understanding the auditory experiences and discovering the sonic territories in urban space through listening and hearing.

Regarding intersectionality, soundwalk can be seen as an inclusive tool for analysing the urban space. *Blocking the Sound* adopts this idea. The workshop starts with a soundwalk, during which the participants are asked to listen carefully to their environment while walking. They are encouraged to focus on various sounds, i.e. cars, people, machines, etc., rather than just the sounds of nature. The point is that it is a special moment for the group to realise that we can walk and at the same time listen and hear. The idea of walking and discovering the urban space relates to Walter Benjamin's "flaneur". Usually the "flaneur" is a white bourgeois male who wanders through the city, separating himself from the society as an observer. The critique from gender studies in the twentieth century of the denial of the female character in urban space (Wollf, 1985) started to change the understanding of the missing character of the female body in urban space. *Blocking the Sound* is an intersectional feminist approach to soundwalks and invites only women and the LGBTQIA* community, with queer theory guiding both the artist and the participants.

Image: Blocking the Sound Workshop series during Sound:Gender:Feminism:Activism by Crisap Londong at Tokyo Fine Arts University, 2019. (Source: Author)

The main point of the workshop is to expose oneself to the sonic violence (i.e. catcalling, swearing, verbal harassment as well as honking, pushing the car and engine to the limits, etc.) that mostly women, the LGBTQIA*community, minorities, migrants, people with disabilities, etc. are confronted with. With such a rupture, walking becomes very problematic and difficult. One of the most common forms of protection/isolation is using headphones – even if everything can be heard, it is easy to pretend not to hear anything. After the soundwalk, the workshop invites participants to create different headphones. They produce, design, create several headphones using recycled or used material. These headphones are provocative rather than aesthetic. The reason is two-folded: first, to highlight the political possibility of design.

Design is political and provocative, design sexualises, design also colonised, design manipulates, design segregates. Design objects are related to a political context and in many cases, there was/is a socio-political intention behind their development. With these self-designed headphones, the workshop aims to initiate a conversation with and for women and LGBTQIA*. The designs look like headphones, but it is safe to say that they are not meant to be used for hearing or listening. They are colourful and eye-catching. While creating them, the participants were encouraged to think about the use of headphones, and they also start sharing their personal experiences and strategies for dealing with sonic violence. Second, hearing and listening are totally different notions. Working with both these challenges can teach us "attentive listening" (Oliveros, 2005), which can have a great impact on us in terms of creating awareness, understanding different perspectives, and enhancing our political imagination. A larger line of research can address the politics of sound, empowerment of women, LGBTQIA*, and minorities through sound, using the *Blocking the Sound* workshops as an example. In that sense, incorporating queer methodology and consider the needs of the queer community in urban space can be a useful tool.

Image: Results Blocking the Sound Workshop series during the exhibition “Politics of Design, Design of Politics” by Prof. Friedrich von Borries at the Design Museum Munich, 2019. (Source: Elif Simge Fettahoğlu)

Blocking the Sound is a first step towards think about the politics of sound. Overall, it is an urban analysis tool and the process of the workshop aims to create empowerment of women, the LGBTQIA* community, migrants, and any minority through sound. The workshop itself creates a safe space for the participants and it makes clear suggestions on how to transfer this to the urban space.

Contrary to urban planning policies and practices of the past that only consider heteronormative needs and requirements, *Blocking the Sound* explores how to create non-sexist urban spaces and how sound, radical listening, and sonic archives can contribute to this process. It is obvious in cities that the queer community is struggling with the top-down and

heteronormative decisions in urban planning. In that sense, projects like *Blocking the Sound* can change people's awareness of urban space. It can even promote the imaginative possibilities of the future, while fighting against patriarchal decision-making and promoting queer urban spaces (Sandercock &Forsyth, 1992).

Blocking the Sound workshops can be seen as a new way to mix different methods in soundwalk and as a productive tool for inclusion. Soundwalk should be considered as a participatory tool. Working with queer communities will allow planners to implement specific measures to support queer people in their local context (Doan, 2015a). It takes its stand from the cultural, social, and political connections of sound.

Up to this point, the thesis has introduced the concept of sonic urban design as a strategic tool for enhancing the agency of users and communities and described the author's efforts to establish guidelines for the widespread recognition of sonic environment, acoustic ecology and auditory explorations. Indeed, if designers, decision makers, and consumers lack aural awareness, then the act of changing the sonic environment of a specific location is pointless. For this purpose, sonic urban design might propose an innovative approach to measuring and tracking the qualitative characteristics of intangible features from both institutional and individual standpoints.

The HFBK PhD program's serious concern for interdisciplinary approaches and areas of research enabled me to conduct my research study on urban sonic research. I believe this thesis knowledge on urban design, sound environment and auditory explorations will contribute in in different academic and artistic fields. With this degree, I will continue my artistic practice, and to continue my activities outside of the academy in socio-political issues. My theoretical background, art and urban design knowledge, critical practice and

interdisciplinary perspective which has been gathered in this thesis make me a productive and beneficial component of the academia in and outside of Germany, contributing to the diversity and multidimensionality of the academic scene.

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A SONIC MANIFESTO ON URBAN AND ARCHITECTURE

Documentation of selected art works

Banu Çiçek Tülü
Matrikelnummer: 2446298

INDEX

“Are you listening?”[1]

This text is a proposal for sound-related topics within architecture, urban space and how we, as architects, urban designers and artists, include listening as an analytical tool and critical act in our projects. I aim to create a narrative between different disciplines, starting with sound studies that include acoustic ecology, soundscape, auditory perception, and sound art. The question at stake is how to conceive and analyze the built environment through the sounds in urban space and the notion of listening as a bodily action. To do that, the text focuses on my work and referencing also the projects of other practitioners. Sound is an interdisciplinary topic in which we engage my professional background, artistic practice and teaching experience. I start with the body itself, aurality, the sonic dimension of architecture and the built environment, as their futures are the main topics of this text. To clarify the difference between these three words: sound is the vibration, aurality is the sense of hearing, and the sonic belongs or relates to sound. However, I am aware of these terms' ambiguous use in sound research and adopt them depending on the context without withdrawing the literal meaning. For me, sound is the primary medium, bearing in mind that the act of listening is strongly linked to perception. Hearing and listening are continuous rather than static, which includes sensory perception as a dynamic practice. This text proposes to create an individual and collective understanding of space, with liminal, political, and cultural dimensions for negotiation through sound. Overall, the text focuses on how professionals of producing space - architects, urban designers and inhabitants - can benefit from sensing the aural in our living environment and everyday life. Therefore, I propose a **sonic manifesto** to discuss past/present/future sonic relations.

The current surge in sound research has motivated me to go further, working with sound using several factors. Among them, recent sonic approaches in architecture and urban space merge environmental psychology and studies of senses. Therefore, the content of this manifesto can be used as guidance. There is no specific order for the sections, but they are connected organically. Each section is related to our understanding of sound and our sonic practice. Different scales create the only order. The sections start focusing on the environment and dwindle to human scope.

Image: “People will not be shot but sonically violated” A proposal for a performance Up in Arms exhibition by ngbk, Berlin, 2019. Digital print.

“In future, people will not be shot in war but sonically violated. Sonic and ultrasonic weapons (USW) are weapons of various types that use sound to harm, injure, block, or kill an opponent. Sound has been used throughout history as a way of exerting power and control. The use of technology and its development brings the military production into another level. Military production becomes more and more hidden in terms of use of the new technologies and AI. Sound is one of these elements.
Bearing all of that in mind, this project focuses on the uses of sound as violence by the military as well as police in any resistance movement.”

Sonic Manifesto

A manifesto can be seen as a process to create awareness and develop strategies. It outlines the intentions, motivations, and/or views of a specific topic. The manifesto has a draft style of unfinished connections. This way, it is open to speculation, discussion and imagination. Thus, this manifesto can be read as separate sections where each section is related to another without any order.

This sonic manifesto summarises the sound-related topics' transdisciplinarity and attempts to create a sonic awareness with practical examples of critical listening workshops and soundwalks. It refers to the (possible) future while analysing the past (or ongoing present). We have adopted the manifesto format in an attempt to interrogate our understanding and relationship with sound. What does a manifesto mean in the contemporary world?

For example, “The Xenofeminist Manifesto: A Politics for Alienation” (2018) by Laboria Cuboniks[2] renders voices and echoes that look at the future. The manifesto is neither woman nor human-oriented. Although it proposes queer- and trans-inclusive communist feminism, which starts with our bodies’ entangled relationship to technology, the XF manifesto is interested in the assemblages through which social agents are embedded. In that sense, XF manifesto recalls Donna Haraway's "A Manifesto for Cyborgs," in which the author suggests destroying machines, identities, categories, labels, and relationships to break down the organic and inorganic. Rather than becoming a Cyborg, XF demands that we already are, and perhaps always have been, a cyborg creature. Therefore, in the sense of anti-essentialism, XF supports anti-naturalism which rejects the “natural” to present gender, class and race as historical categories of oppression and manifests “If nature is unjust, change nature!” (Cubonik 2018, 93).

In that sense, I also think that there is an alienation of sound in different notions. For instance, in research, sound is alienated while perceived only as vibration, but sound is an embodied experience and the act of listening goes beyond just the physical sensation. We do not use only our ears to listen. In the acoustic environment, sound is alienated while considered to only be measurable with tools. However, sound is registered through subjective experiences. In daily life, sound is alienated through contrast - silence and noise as good and bad. Noise is not necessarily perceived negatively all the time as it appears in music. At the same time, silence is not always appreciated; for example, in cases of loneliness or the changing rhythms of routine.

This manifesto scrutinises sound outside of its “natural” forms (referring to the previous examples), translates its perception for future suggestions and proposes personal experiences of listening to the sonic environment with a great interest in “attentive listening”, an approach created by Pauline Oliveros. She questions at which point in life we start to listen. It is hard to answer this question, yet, attentiveness while listening can have a great impact on us. This conscious act can incorporate all of the above in forms as varied as the “sonic meditation” and “listening exercise” in different locations, from adopting an established relationship with a particular site to an unknown setting.

Although Oliveros did not frame her book “Deep Listening: A Composer’s Sound Practice” (2005) as a manifesto, we can argue that it can be read as this. In the book, Oliveros highlights the importance of not only listening to “musical or speaking sounds”, including any “sonic formations”. She suggests that “deep listening”

practice expands our consciousness and “listening is survival.” Merging XF manifesto’s and Oliveros's approach, we believe that sound is more than a vibration. It becomes meaningful with its cultural, social and political connections.

Listening to our environment has been the reason for various manifestos during the last century. The painter Luigi Russolo wrote a futuristic manifesto in the form of a letter to his friend and futurist composer Francesco Balilla Pratella (Lanza 2004; Nowak 2015). Russolo’s idea of the noise study highlights the conscious awareness of listening to the everyday urban industrialisation of that time. His manifesto “The Art of Noises” (1913) remains a relevant aesthetic statement in which the author rejected the harmony of pure sounds, conquered the infinite variety of sound-noises and argued the potential of “subtle and delicate noises that produce pleasing sensations” (Russolo 1986, 25) In that sense, this futuristic manifesto was a provocation challenging the mainstream music style.

Another reference for us is “Sound:Space”[3] (1977) by Bernhard Leitner, a manifesto generating discourses on sound, architecture and the human body. Bernhard Leitner's approach to aural architecture advances a rational action that includes listening to the architectural discourse. Therefore, the sound is a part of producing architectural structures. As part of his artistic process, Leitner argues that “people need to learn how to listen to space, so that the brain does not respond to sound as music immediately” (Leitner 2016, 34). He highlights the spatial configurations that emerge and disposes of architectural terms such as line of sound, scale, acoustic stimulus and participating audience, with a specific interest in the listener’s perspective. Going beyond this, Leitner explains that sound travels around and inside the body. We take inspiration from this idea and acknowledge that the space created by sound has no defined form, and the form it has at any given moment is only created out of waveforms.

It goes without saying that we were influenced by many other manifestos that I have not mentioned here. As the writer of this manifesto, my own perspective derives in part from my artistic approach and professional background as an urban designer. The differences between disciplines that I am interested are instructive as well as crucial. To bring the discussion to a human scale in the following sections, it is essential to start with the sonic realm. We are surrounded by sounds all the time. We continuously hear but do not react or think further. Distinctly, listening is tangled; perception of sound is subjective. It is related to personal experience and memory, shaped by culture, society and politics.

The first section examines our outside world and sonic interventions into the background.

Image: “The Innocent Material” Site-Specific Sound Installation during 48h Neukolln at TOP e.V. Berlin, 2021. 4 X Dc Motor; cardboard box; metal arm; plastic ball; 1 X plastic, metal, ceramic and wooden surface; 2 X speakers./

“The innocent material” proposes to discern how our common architectural materials actually influence one of our senses, hearing and listening. This project looks at the materials innocently while they inform our sense of space, and improve communication in everyday environments. The spinning motor structures - the sonic objects - produce different sounds while touching plastic, wood, ceramic and metal. The recorded sound heard from the cellar has been produced using each performance of the sonic object. The rhythms which have been created take in mind that all materials play a big role in helping users understand their environment. In the context of the exhibition, the soundscape of the urban space adds one more layer as well as the other sound installations. All together they generate an acoustic territory that the building itself sounds, resonates, breathes and becomes the sonic agency.“

Sonic Background

Background music has been proposed as "sonic wallpaper" (Lanza 2004, 3) in different settings and locations. For Jonathan Sterne (in Nowak & Sakakeeny 2015, 71), it is “music that was meant to be heard, but not listened to.”. *Concret PH* (1958), besides being a masterpiece of electro-acoustic music by the composer and architect Iannis Xenakis (1922-2001), is an excellent example of background music. Xenakis produced a musical composition for the Philips Pavilion (1958) to accompany the sonic atmosphere as the audience was entering and leaving. Another example of background music is Tania Bruguera’s exhibition at the Tate Modern in 2019, where she used reverberating noise as the background to (see SONIC Embodiment). Artists, musicians, sound designers, and architects have produced background sound by relying on the atmospheric potential of sound to change the acoustic characteristics of a specific place. The implementation of background sound is not to capture the listener's full attention, but to draw an aural background, disturbing the acoustic interactions in the architectural space by concentrating on the emotional mediations of the users.

On the urban scale, background sounds continuously mask other sounds in the city. In two extremes, background sound can be perceived as noise or it can create an acoustically comfortable atmosphere; a relaxing moment and a specific place to spend time. One of the most common examples is the musical integration – disparagingly referred to as "Muzak" – for retail and transitional spaces such as corridors, train stations, and many other indoor uses. While bookshops play downtempo music, a teenage clothing shop bangs with loud pop music. It is not surprising that a store's sonic atmosphere affects the emotional state of consumers. As a new regulation, some train stations in several cities in Germany started to play classical music 24/7 to disperse homeless people in and out of the station[4]. Do all humans experience the sonic dimension of continuous background sound in the same way? The answer should be treated across various dimensions. For that, let us give some more examples.

The genre of furniture music, in French 'musique d'ameublement', was introduced by musician Erik Satie (1866-1925) in 1917. In his furniture music pieces, such as 'Carrelage Phonique', background music was initially played by live performers. All those previously mentioned intentions of background music are similarly accomplished in the more present style of 'ambient music’, a genre that originated in the United Kingdom in the 1960s and 1970s when new musical instruments such as the synthesizer (Lanza, 2004, 184) were being introduced to a broader market. Brian Eno's 'Music for Airports' (1978) was designed to be continuously looped as a sound installation, with the intent to defuse the tense, anxious atmosphere of an airport terminal.

As background sound involves such a wide range of socio-cultural, bodily, technological, and temporal dimensions, it is increasingly taken as a paradigmatic example for researchers who wish to explore human perception from this more relational perspective.

The next section aims to follow background music by discussing embodiment in light of different listening modes while exemplifying artistic work that uses sound to stage the idea.

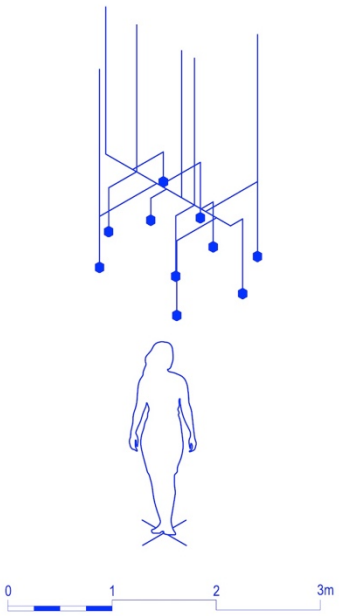


Image: “Sonic Body Map” Sound Installation with multi-channel sound composition. During the exihibition „A feminist Perspective for Berlin Today! What Could a Non-Sexist City Look Like?“ at Alpha nova& Galerie Futura, Berlin, 2020. 6 X speaker; 3X mp3 players;Metal,fabric, plastic construction. Duration: 4 min. (in the loop)

“The Sonic Body Map” is a room installation which consists multi channel audio work. The field recordings of the sounds of the steps, the heartbeat and the breathing of the artist while she was walking in the streets of Berlin in different days and time slots created the audio files. These sounds recorded in different parts of Berlin where there is a lack of safe space, verbal harassment and disturbing physical encounters. The composition is the sonic exploration of the body to the reaction of any kind of harassment in urban space. Each sound piece has different volume and speed, therefore the room will be covered with a background sound during the exhibition. The audience will enter the installation and will listen the artist’s own experience. At the same time, the installation creates a sonic cartography which is related to other works of the exhibition.

Sonic Embodiment

Sound is a form of energy and for this manifesto, an object of research. Sound is a physical process that occurs when molecules vibrate in a medium. Its propagation is affected by the medium used and the conditions present. Humans' aural perception is partly located on the sound wave transmitted by the outer ear via the eardrum to the middle ear. The pinna, which is the visible part of our ear, functions as a funnel to collect sounds and provides information about their direction and location. The pinna is one of the other resources that the human body uses to localise aural forms. Hearing and listening are among the most critical human actions to understand and experience everyday life. At the same time, sound can be inaudible for humans. The physical forms of sound affect a human's aural abilities, depending on the frequency. Humans' frequency response average is 20Hz to 20KHz and differs due to each individual's age or hearing impairment. This manifesto will focus on human entities without forgetting any other living entities that can perceive and relate to the sonic realm - animals, insects, and other life forms.

Regarding the differences of hearing and listening - as a meditative attentiveness process - we take inspiration from Pauline Oliveros who suggested “Deep Listening” as a tool to create awareness. She states that "sound carries intelligence". It triggers "ideas, feelings and memories" (Oliveros 2005, XXV Introduction). Oliveros was interested in the many possibilities offered by the difference between hearing and listening. We can provide a sensory awareness through constituting a memory from the audience's immediate perceptual engagement with their surrounding environment. The sonic discourse requires a constant "critical interrogation" (Nowak & Sakakeeny 2015, 3).

Background sound and excessive reverberation could be a source of anxiety - behavioural experiences can be found in the space design of Cuban artist and activist Tania Bruguera. In her 2019 work at the Tate Modern in London, Bruguera utters the experience of a community-driven response to the global migration crisis. Her interventions included a space to cry, where an organic compound in the air induced involuntary tears in visitors, and a large heat-sensitive floor inviting visitors to work together and use their body heat to reveal a hidden portrait picture of a Syrian immigrant. Besides this, she also collaborated with Steve Goodman a.k.a. Kode9 to install a sounding wall composed of 30 subwoofer loudspeakers capable of ultra-low frequencies. These speakers played a continuous drone background sound to create an uncomfortable sonic atmosphere and elicit anxiety from visitors. Ambient music cannot always be compared with the illusion of relaxation. From the perspective of background music, this sound intervention with continuous reverberations and hums do not leave the audience in peace, rather it constantly bothers, makes them think, or how Bruguera states “force[s] to empath[ise]”.

When we look at the history and practice of urban planning and architecture, they are mostly focusing on the visual aspects. I consider there is still too little research on the aural dimension. After all, listening is more complex than the individual perception of sound. It is related to personal experience and memory, which is shaped by culture,

society and politics. We can learn many things from sounds. We can realise what is going on around us, our needs as an individual, and how sensing sounds can help us collectively. For when it comes to ranking the senses in urban research, hearing comes after sight. Pallasmaa (2005, 42) classifies sound as an extension of the sense of touch. Simultaneously, as we have mentioned before, sonic understanding and memory are strongly dependent on personal experience.

The next section scrutinises the relationship between listening, hearing and the visual world.

Image: "Signals and Hums" Soundscape Composition. Sounds of Our Cities Group Exhibition, Roeselare, Belgium, October 2021/ What's behind that Silence? Sound Art and Public Space Group Exhibition, Sant Andreu Civic Centre, Barcelona, Spain, November 2021. Digital print with QR Code to link to the audio.

"Signals and hums is a soundscape composition which invites the audience to focus on perception. Are these sounds familiar to you? Does it remind you of something? Can you distinguish the urban sound and interior sound? The installation is a proposal to everyone to enhance their hearing and listening abilities. Sounds are related to our experiences, they guide us in everyday life through the city and sound is one of the important elements that helps us to understand our environment. Acoustic environment is not only the background sound or a specific soundscape neither a question of noise pollution caused by traffic or daily activities. It is rather about understanding the auditory experiences and discovering the sonic territories in urban space by listening and hearing.

They can be heard as signals, hums, or buzz in which we can relate if we listen carefully. This composition has been produced with different field recordings from Roeselare paying attention to different frequencies and pitches . It contains different cultures, languages, seasons, places, and people. Can you recognize what you hear and where could it be?"

Sonic Meaning

Acoustic space is a field of simultaneous relations. Sound is present, resonating and cohabiting with the human sensorium all the time. Brandon LaBelle stresses the acoustic territories as a political process (LaBelle 2010). In western aural culture, different sonic expressions have been "dominating" and pursuing territorial conquest in the history of "spatial acoustics" (Schaffer 1993, 42): from radio station broadcasts to religious communities' bell ringing, or even the factory's noise in the Industrial Revolution. Those are some examples that soundscape researcher R. Murray Schafer uses to show how space enters an aural society's consciousness.

There is significant potential in searching for sound in architecture and urban design practice. We argue that the architecture discipline needs to provide itself with more resources to enrich the dimension of sound. Therefore, as practitioners, we seek to find how sound can contribute to understanding the built environment. To do so, we should scrutinise the methodologies that foster sound as a participatory tool for us. In his comprehensive work on how architecture is based on other senses besides sight, architect Juhani Pallasmaa (1996, 2012) explored a fully embodied and sensorial architectural theory. Through his liminal approach to listening and sound-space related practices, Pallasmaa reviews the contexts where listening reinforces the interaction between humans and things within urban and architectural environments.

In my practice, I argue that there is no one particular method of listening. It happens intuitively. We hear continuously. There are various tools that can be incorporated with listening, allowing one to create their own method; for example, Oliveros' attentive listening. Listening usually becomes a reassuring element of the visual world. As we get used to the sounds around us, we do not pay attention to those familiar sounds. We lose our interest and unwittingly lose our connection to space itself. In this regard, listening is our bridge to everyday life and it is a bodily action. As Pauline Oliveros suggests, we need to focus on how it works. This can break the sonic routine and one can realise/create their aural awareness. In that sense, our primary research interest is to study individual perception and to design a collective approach for urban sonic environments to create aural awareness. We can be aware of what is around us by listening to our environment.

In our daily life, we discover our environment by listening. While walking, we have more time to listen. Hildegard Westerkamp defines soundwalk as "any excursion whose main purpose is listening to the environment" (1974). Soundwalk has become a tool for many practitioners exploring space, combining attentive listening and

walking as an aesthetic practice.

Image: “Sonic Activation”, Audio Performance/Stereo Sound Composition. Gossip,gossip,gossip: fleeting moments and performances, Public space in Ku’damm,Berlin, 2021. 6xBluetooth Speakers; maps for audio-diagraming. Duration: 1 and 2 min. in the loop.

“The soundwalk conceived of and conducted by Banu Çiçek Tülü focus on listening. Participants are invited to explore the sounds and their social and cultural context. At the same time, the participants will focus on their aural history and possibly change their perception of sound in everyday life.
“We will walk and listen to our environment very carefully. We will listen to any sound; near and far from us, continuous and discontinuous, in the foreground and in the background, sounds that we like and noises that we don’t like.“

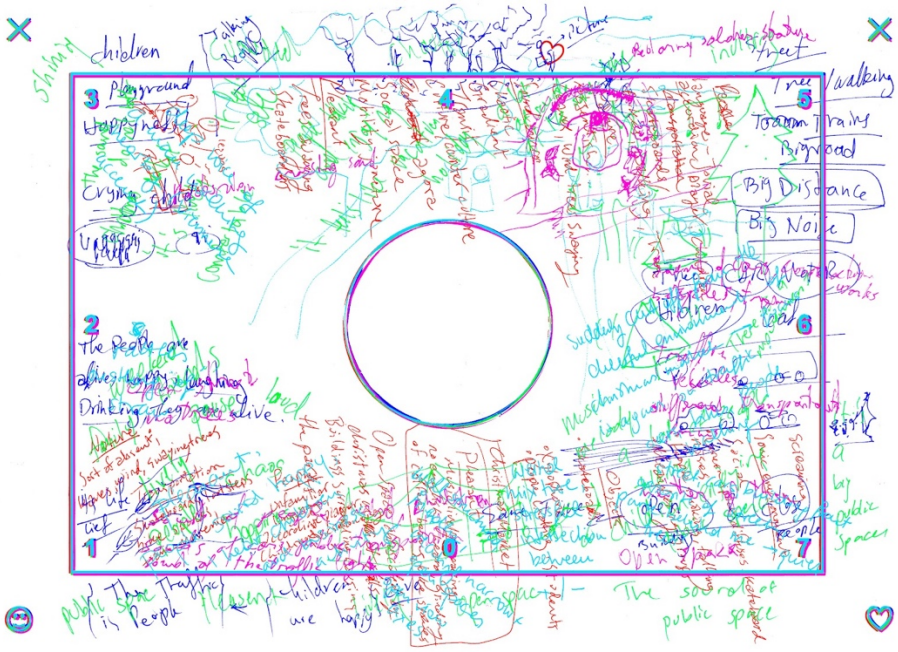


*Image: „Rhythmic Encounters" Workshop / Soundwalk. C*A*R*E* Conferences in Skuor - TU Wien. 2019-ongoing. Different Mediums.*

"Rhythmic Encounters" is an individual/collective sonic analysis of urban space using soundwalk method from Soundscape Studies and Lefevbre's Rhythmanalysis. Soundwalk is a multidisciplinary and qualitative approach through walking, in which listening becomes the primary source of information. In this active, dynamic and critical performance rhythms will guide the participants throughout the selected area(s) to discover and/or produce acoustic territories. In a game format, the participants will explore the sounds with attentive listening and audio diagramming techniques while considering their social and cultural context. A map will be provided as a score where the instructions will be stated. At the end of the workshop, the results were collected and opened to a collective discussion.

Sonic Walk

Soundwalk is a multidisciplinary and qualitative approach to walking, in which listening becomes the primary source of information - as an active, dynamic, and critical performance of sensing the body through walking. Architect and founder of "Stalker collective" Francesco Careri, who works with the notion of walking as an embodied act for marginalised urban areas, proposes a new way of mapping the city through walking. A new form of perceiving the public and private sphere of the outdoors, where walking becomes witnessing territories (Careri 2017, 25). Francesco Careri's practice refers to urban excursions: action through the construction of situations in everyday reality. In that sense, Careri's practice is based on the Situationists, Guy Debord or the male flaneur of Baudelaire and Benjamin, but disassociates itself as a cartographic mood. In her essay, Janet Wolff (1985) brings the invisible character to the discussion and criticises the absence of the female flaneur in 19th-century French literature. In a patriarchal society, the female and female-identified body is not allowed to be present, or take as much space as a male body. In this regard, philosopher Paul B. Preciado challenged the public through biodrag workshops and collective walks, in which participants were invited to wear drag king cross-dressing costumes and walk together on the streets as a group. With this action, Paul B. Preciado explored the public space of the male flaneur, non-existent for a body culturally encoded as female until that moment" (Preciado 2013, 373). In that sense, this performative act can be seen as a fictional norm that is not "fixed, permanent, or 'given'" (Cuboniks 2018, 15) through improvisation, repetition and invention (Preciado 2013, 373).

Max Neuhaus (1939-2009) started performing outdoor public walks in New York in 1966. They were excursions that encouraged individuals to listen to the city by discovering aural explorations of unpredictable trips to urban structures, and acoustical and architectural contexts. As a concert program, the artist invited audiences to follow a route titled "LISTEN"[5]. Those walks suggested for participants to listen to different situations, including noisy industrial areas, highways, and busy neighbourhoods. The city was Max Neuhaus' favourite grid to move around in and perform this participatory art project through listening. His listening walks discussed the environment and physical space in which sounds were located. Pauline Oliveros, in the description of the "Deep Listening" practise sessions, proposed in her workshops to attentively listen by walking "as slow as possible" (Oliveros, 2005, 3). Likewise, Hildegard Westerkamp, who is the founder of soundwalk practice, encourages participants to expand their hearing by listening to urban and natural environments while carefully walking. Christina Kubisch is an unusual example of soundwalk practices - she uses technology to reach environments that cannot be heard by humans. "Electric Walks" is a series of individual or group walks that require using special headphones created and produced by the artist. The headphones facilitate hearing electromagnetic waves, hidden in all machines such as ATMs, and the places they can be found (supermarkets, etc.). Christina Kubisch's practice became important in the field of soundwalks and the listening practices of the unheard. Katrin Emler is another artist who explores the acoustic spaces of the city in a guided walk format. Her practice discovers the sound variations of pavement

materials by using high-heel shoes. In her performances, the artist marks several rhythms to a group of participants, who follow her and listen to the sound captured by the microphone as she walks. Through her soundwalks, Emler resonates the materials, architecture, and built environment to focus on new sonic textures in urban spaces. Sound journalist and musician Peter Cusack describes that the soundwalk "is planned with the idea to listen while walking"[6].

In this active, dynamic and critical performance of soundwalks, rhythms guide participants throughout selected areas to discover and/or produce acoustic territories (see image 1). Simultaneously, this method becomes a participatory act in our projects in urban space because of the collective approach. I always try to find ways to include soundwalks as one of the methods in our workshops about critical listening.

Salomé Voegelin clearly outlines the exploration of listening "not as a physiological fact but as an act of engaging with the world. It is in the engagement with the world rather than its perception that the world and myself within it are constituted, and it is the sensorial mode of that engagement that determines my constitution and that of the world" (2010, 98). With all the sounds around us, we engage ourselves in the world. Therefore, we sonically participate in everyday life.

The next section considers sound as a participatory tool to further discuss common urban problems.

Image: “Blocking the Sound” during the exhibition “Politics of Design, Design of Politics” Die Neue Sammlung Museum, Munich, 2019. Different Medium.
“Blocking the sound” is a workshop series on violence through sound. This workshop looks at walking on the sidewalk as a privileged act. For this reason, the workshop kicks off with a sound walk, during which participants can think about the topic. A common means of protection from acoustic violence is the use of headphones. In the context of the workshop, participants are asked to design different headphones using recycled material.

Sonic Participation

For a long time, architecture and urban design have privileged urban spatial characteristics focused solely on visual perception (Zardini 2005). We are continually exposed to a superimposition of multiple sensory scapes that are all interconnected and simultaneously perceived (Pallasmaa 2005). Therefore, I demand that hearing and listening, one of the crucial senses for everyday life, should be considered in the design process of urban space. Concurrently, the design of urban spaces embraces the participative model, which can establish a symbiotic relationship between different actors of the city. For the last decade, tools for participation went beyond roundtable discussions and more playful approaches have been applied. Urban games are new formats invented for the involvement of local communities such as door-to-door invitations, focus group discussions, hackathons, open space methods, and collective mapping exercises. Urban games demonstrated that they can shift our understanding of everyday life and bring new meanings to human experience of urban space. Accordingly, I propose an urban game in which listening and hearing are the primary sources of information and data collection.

“Rhythmic Encounters” is a 90 minutes workshop in which the participants are asked to create individual sonic mind maps, and the results are shown as a collective sound map in the form of sonic diagraming (see image 3-4). The workshop enacts an urban game that can be used for sonic analysis of urban space using the soundwalk method from Soundscape Studies (1977) and Lefebvre's Rhythmanalysis (2004). In this active, dynamic and critical performance, rhythms guide the participants throughout the selected areas to discover and/or produce acoustic territories. Participants explore the sounds with attentive listening and audio diagramming techniques in a game format, while considering their social and cultural context. Although we use our common sense – hearing and listening – I ask questions such as: is it possible to measure space with sound?; can the repetitions help us to create alternative cartographies?; if yes, how do social, cultural and political rhythms shape our everyday life? My approach is to encourage participants towards “attentive listening”. We invite them to walk slowly and focus on a single sonic element in their surroundings. For example, traffic sounds can help us understand which kind of district we are in. If it is a busy area, or a centre. If it is quiet, maybe we are in the periphery. These sounds can also show the working hours of the people living there. During peak hours, traffic jams get more visible sonically. Changes in the acoustic dimension of urban spaces depend on spatial configurations. One can realise these changes while crossing a bridge or entering a courtyard. As the pavement changes while walking, we start using our feet to feel and this information merges with listening. “Rhythmic Encounters” scrutinises the relationship between the body, environment and sound.

Sound is a powerful tool for understanding specific environments just like sonic perception is relevant for understanding the sonic space. Listening to – more than hearing – spaces is an attitude in-between ourselves and the sonic atmosphere. Considering sound in the urban space requires acoustic intimacy as well as analysing quantitative and qualitative aspects. The methodologies of soundwalk and sonic

maps, including notification, create space-time to understand the urban sonic realm. Sonic participation and public engagement imply sonic epistemologies of understanding the plurality of the subjects, humans and non-humans, and diversity of settings. For that reason, I believe in the paradigm of shared knowledge that focuses on the aural. Different listening approaches will be further discussed together to establish other listening relationships.

Image: "The Aural Rupture" Multi-channel room sound installation. During the exihibition "Wild Frictions: The Politics and Poetics of Interruption" at Kunstraum Kreuzberg/Bethanien, Berlin, 2021. 2 rooms in each room: 4X speaker, 1X subwoofer, curtains with hangers. Metal and different fabrics Duration: 8 min. (in the loop)

Banu Çiçek Tülü's audio installation focuses on the role of sounds related to memory and migration. As a migrant from Turkey, Tülü proposes that sonic memory is an interviewing process rather than constructed from scratch and that individual sound archives and associations are the result of personal experience. "Aural Rupture" creates a spatial-aural topography that includes field recordings, traditional and electronic musical instruments sonically linking Adana/Turkey (the artist's home) and Berlin. This relationality is articulated via several curtains, a common tradition in Turkey but very rare in Berlin, that the artist remembers from both cities. The separation and rupture created through the curtains simultaneously establishes different stages: public-private, inside-outside, past-present, migrant-citizen, and so on.

Sonic Care

Architectural and urban design processes cannot be abstracted from our everyday experiences. They are strongly related to society and also very political. We believe in the power of sound. It plays a crucial role in constructing the political imagination. As much as sound can be a powerful tool in the creation of urban spaces, there are also unexpected or unwanted sounds. Verbal harassment is a reality constituted by threatening, yelling, insulting or cursing at a person. Any sound can be threaded with other sounds. Therefore, creating awareness is essential. “Blocking The Sound” project is the workshop series that intends to create a platform for learning processes about sonic violence, sonic memory, analysis of the participant’s sonic archive, and the strategies against them. This is an invitation for practitioners to leave their comfort zones and consider the unwanted sound in everyday life.

One of the most common methods of protection/isolation from sonic violence is using headphones – one can pretend not to hear or listen. The workshop starts with an introduction and follows with a soundwalk to begin creating awareness of any kind of sound, including sonic violence. After that, the participants are invited to create their own headphones using recycled materials (see image 2). These headphones are provocative rather than aesthetic. As Friedrich von Borries reveals (2018), we believe that design is political and subversive; design sexualises, colonises, manipulates, and segregates. With these DIY headphones, the project would like to initiate a conversation on sonic violence with/for women, LGBTQI* people and communities with migrant backgrounds. As I’ve mentioned several times, hearing and listening are different notions. Working with both of these phenomena is challenging, but at the same time can teach us “attentive listening” (referring to Pauline Oliveros), which can have a significant impact on us in terms of creating awareness, understanding different perspectives and enhancing our political imagination. While creating these objects, participants are invited to share their own memories and experiences of sonic violence. This is only possible by creating a safe space for the participants. Therefore, the workshop also extends the idea of care, which has recently become an important factor in different areas of research. Salomé Voegelin describes careful listening as a practice of inclusion.[7] Sonic care is essential for a sense of belonging. Listening to sounds open up the process of acoustic commons and listening as a practice of activism and inclusion of being.

I believe that these sonic investigations should be shared with a broader audience; for this reason, I work between academic and public spheres through sounding and listening proposals, that include sonic pedagogy.

The sonic as a reinforcing tool is relevant to understand the demands and the possible futures. Listening is a way of thinking that moderates attention and experience. The urban sonic requires a necessary transdisciplinarity and understanding of pluralities among different fields for transforming perceptions. I underlie those concerning architecture and urban design, psychology, culture, politics and gender studies, among others. I described various methodologies and ideas that could constrain and emphasise new awarenesses and experiences by listening and interpreting the aural into the urban space.

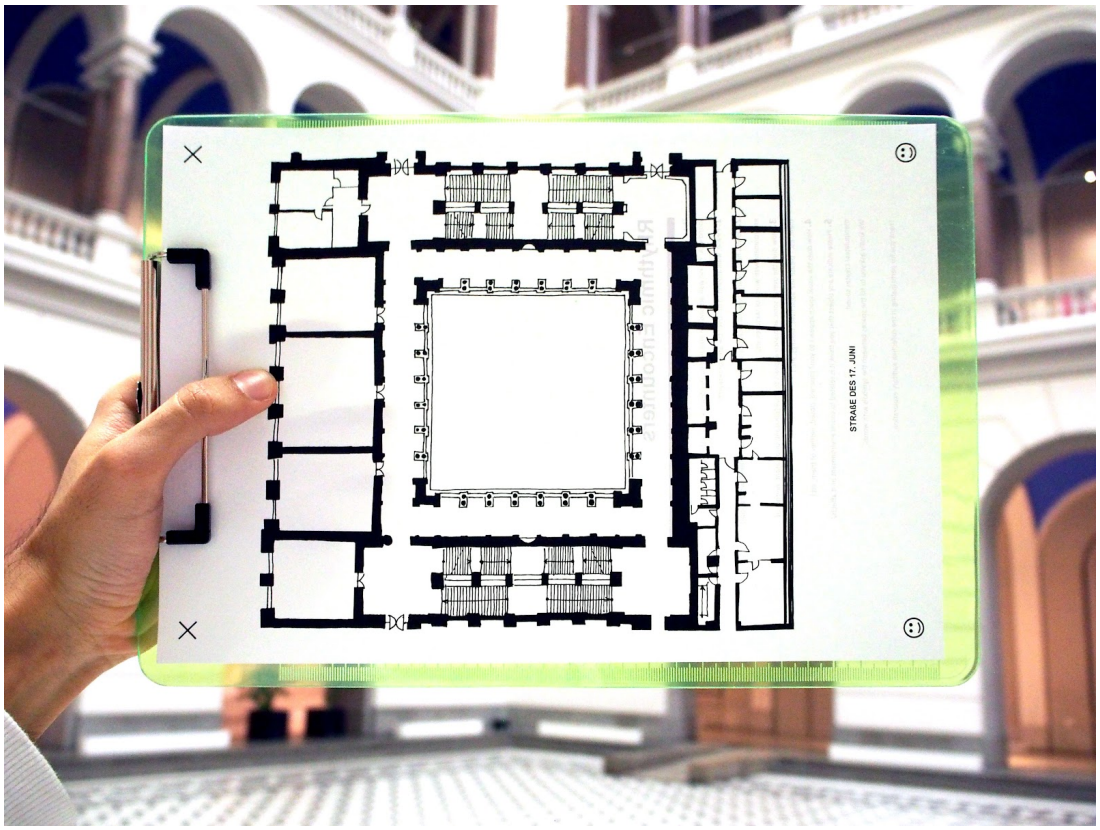
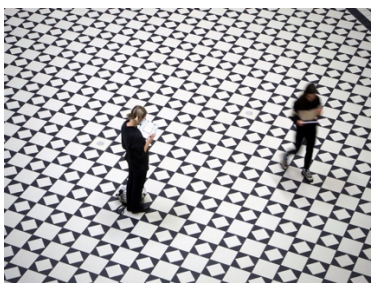


Image: “Berlin Sonic: Auditory Collective Explorations” Weekly BA and MA level course at Humboldt University Berlin, International Campus, Berlin Perspectives. Between 2019 -2021

“This weekly course explores Berlin’s sonic perspectives with an approach to architecture, urban planning, human and social sciences as well as art in our everyday life. In everyday life, our vision merges to our listening actions and therefore we continuously follow a rhythm which is created by our own actions and our surroundings. As an intuitive, non-cognitive and unconscious act, listening helps us to understand our environment. The listener creates individual and subjective images because of the fact that any acoustic format is visual. From the urban sonic perspective, every city and every urban space has a particular sonic identity for every individual. Central questions in the course are: What is the sound of Berlin? Which sonic elements in architecture, urban planning, art and cultural events have shaped berlin? How these projects are in relation to Berlin’s socio-political processes? In this course, we respond these questions through the interdisciplinary collective listening exercises with site visits, recordings, readings and discussions. We will examine cultural projects and develop, discover and analyze the urban environment with an approach that focuses on hearing and sound. We will draw a research line for exploring the city and understanding the current urban complexities with a specific methodology that considers the aural environment, acoustic ecologies and listening.“



Sonic pedagogy

Urban Space is indeterminate, an apparent paradox for its users and sound has a crucial potential to discern this liminality. Sound can be seen as the key of this indeterminacy to approach urban space, local actors and unexplored vibrational forms in the urban scene. Our understanding of sonic exploration can be understood as an alternative and interdisciplinary teaching tool, discovering urban space through sounds. For that, I want to introduce my teaching experience as part of this text. *Berlin Sonic: Auditory Collective Explorations* is an on-going research project and seminar in Berlin Perspectives module at the Humboldt University Berlin. The course is designed to enhance the understanding of the urban space for the international students while their temporary stay in Berlin with a syllabus that focuses on sound in the city and its cultural, social and political dimensions. The course aims to allow international students to explore the urban space in a new city through sound, gain strength, and develop knowledge and individual perspective research in sound studies. Coming from different backgrounds, the students are invited to apply/adopt sound as a learning tool.

The seminar is structured to collect site-specific projects that explore sonorities in the urban space and mediate sonic spaces that generate questions. The seminar aims to foster further exploration of the aural culture from the perspective of urban studies, architecture, and art. The seminar is participatory, open to contributions, but it is also very subjective as the auditory perspective is very personal. My understanding of the potential of alternative teaching techniques, creating blurred areas, discovering liminal zones by using sound embodies our pedagogical achievement. The seminar shows the relation between interdisciplinarity and liminality by proposing borderless learning and teaching methods which do not belong to any scientific department while proposing sound as an alternative pedagogy in urban research. The seminar is structured in different topics to explore Berlin individually and collectively. Throughout the semester, I do side visits and invite guests to share their own practice. Exploring the city's acoustic dimension teaches students that sound is a signal and a spectrum or vibrational form that includes the social, the cultural and the political. Including their own background and studies, students discover interdisciplinary research methods based on studies about participation, public space, sonic urbanism, sonic environment, acoustic ecology, collective listening, auditory diagraming, and environmental spatial justice, and urban activism. At the end of the semester, students realize an individual or group work in written or audio papers, sound compositions, sound collages, soundwalks, or performances concerning the city and their sonic environment.

Image: “Blocking the Sound” workshop during the conference Sound::Gender::Feminism::Activism(SGFA)Graduate School of Global Arts London(GA) conference at Tokyo, Japan, 2019. Different Mediums.

“Blocking the sound” is a workshop series on violence through sound. This workshop looks at walking on the sidewalk as a privileged act. For this reason, the workshop kicks off with a sound walk, during which participants can think about the topic. A common means of protection from acoustic violence is the use of headphones. In the context of the workshop, participants are asked to design different headphones using recycled material.

Sonic Awareness

I believe that sound can be used as a transdisciplinary research tool. In my research, I narrate architecture and the built environment from the perspective of sound and coalesce with awareness. Thus, I value soundwalks' contributions to urban research through hearing and eventually listening. Or in other words, analysing the urban space with other senses, rather than just focusing on the visual. I believe that this kind of individual/collective listening exercise can be used for urban design processes. Sound becomes an analytical tool. Soundwalks and sonic mind maps can help discover the relation between urban space and the sonic environment. By adopting sound with a participatory approach, these methods can help to find sonic territories and the sonic experiences of residents or users. Then, they can be adopted in decision-making processes. As a practitioner and user, I consider sound to be a relevant element in urban design - a critical agent in the spatial, participatory and qualitative research of urban spaces and their assessment by users.

I perceive sound as a pedagogical resource for discovering urban sonorities and engaging in sonic spaces. In an interdisciplinary context, sound has a significant potential to open up new paths of knowledge and imagination in education. I consider that sonic learning is crucial for all disciplines, next to architecture and urban design departments. It does not only belong to acoustic design, music theory or practice. In such artistic research, sound creates possibilities to perceive our surroundings through senses. From an audible perspective, one can observe the qualities of things beyond the dimension of the visible. As in Oliveros' (2005) or Lefevbre's (2004) works, my body is the tool that helps us understand the environment and my practice. My projects can be seen as examples of aural sensory training. It is challenging to work with hearing and listening, as subjectivity rekindles each individual´s sensory engagement with their perception and temporality. Each environment implies the relation without forgetting the understanding of each location's complexity and the association with it. With the proposed methods, individual perception can be integrated into the process of design and generate collective sonic action and discussion through attentive and critical listening.

FOOTNOTES

1 This question belongs to Pauline Oliveros, who is an American composer and female key-figure in the development of experimental electronic music. Oliveros formulated the term “Deep Listening” to describe a practice of radical attentiveness. In her practice, listening is an inherently empathetic bodily act.

2 https://laboriacuboniks.net/manifesto/xenofeminism-a-politics-for-alienation/ accessed 30.11.2020.

3 Leitner's manifesto first appeared in: Bernhard Leitner, SOUND: SPACE. New York University Press, 1978. pp.13-16.

4 Marie Thompson, “To Soothe or Remove? Affect, Revanchism and the Weaponized Use of Classical Music,” Communication and thePublic, 2(4).(2017):pp.272–283

5 One particular thing of this action was that the artist before the walks he was “stamping” the word LISTEN on the hands of the participants (Cooke 2005, 29).

6 Definition of soundwalk by Peter Cusack https://soundwalkingpankow.tumblr.com/walks accessed 23.11.2020. The event consisted of 5 soundwalks guided by Peter Cusack, Udo Noll, Martyna Poznańska, katrinem and Sam Auinger in the Berlin district of Pankow to take place in April, May and June 2019.

7: Mikhail Karikis; Salomé Voegelin, “Care-full Listening” Online Talk, Rupert, Vilnius, Lithuania, 10.12.2020

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CV

BANU ÇIÇEK TÜLÜ Surname, Name

Urban Designer/Lecturer/Activist

05.04.1984 Birthday
Adana, Turkey Birth place, Citizenship
Dirschauerstr 2 10245 Berlin Address
+491778717382 Phone

Education

2016 - 2023	Fine Arts Faculty Hamburg (HFBK Hamburg) (Dr. phil. in art.)
2012 - 2013	New Jersey Institute of Technology + Rutgers University, New Jersey, PhD in Urban Studies. (PhD) (not completed)
2010 - 2012	Contemporary Art Museum of Barcelona (MACBA) +Autonomous University of Barcelona Museum Studies and Critical Theory (MA)
2009 - 2011	Fine Arts Faculty, Barcelona University. Urban Design: Art, City and Society (MA)
2009 - 2003	Istanbul Yildiz Technical University, Urban and Regional Planning (BA)
2002 - 1995	Ismail Safa Ozler Highschool, Adana

Academic Work

2020	Sonic Design: Strategies to include sound into urban design process (PhD Thesis)
2012	Critical Spatial Theory in Barcelona (MA Thesis)
2011	Participation as an artistic practice (MA Thesis)
2009	Culture-led Large Scale Urban Projects and Cultural Industries:
	Sali Pazari and Silahtaraga area/Istanbul Golden Horn (Final Project of BA)
2009	The history and relation between Culture, Institutions and Politics (BA Thesis)

Teaching Experience

June - August 2023	Sonic Mind Maps and Design. Collage of the Arts, Windhoek, Namibia.
Sep - Oct 2022	Sonic Mind Maps and Design. Parsons Design School New York City, USA.
April - July 2020	fem*MAP BERLIN. Chair of Urban Design and Urbanization, TU Berlin.
April 2019 - July 2021	Berlin Sonic: Auditory Collective Explorations. International Campus, HU Berlin.
April 2018 - July 2021	Urban Activism Berlin. Berlin Perspectives, International Campus, HU Berlin.
April - Mai 2016	Design Theory. Istanbul Bilgi University, Turkey
Sept 2012 - Dec 2013	Architecture History I-II. College of Architecture and Design, NJIT, NJ.
Jan 2013 - Dec 2013	Urban History. Pratt Institute of Architecture, NYC, USA.

Fellowships

Summer/Fall 2021	Musicboard Berlin, Germany
Spring 2022	Akademie Schloss Solitude, Germany
Spring 2021	European Cultural Cooperation
Winter 2021	SAHA Association, Turkey
April 2019	New Museum New York Research Fellowship

Sep 2017	Heinrich Böll Foundation PhD Fellowship
Jan - Dec 2016	Pro-Exzellenzia Fellow, Hamburg Senat.
Aug 2012 - Dec 2013	New Jersey Institute of Technology.
July 2011	ICI Curatorial Intensive
Jan 2010 - Dec 2011	The Ministry of Culture of Spain/ MACBA.
July-Sep 2007	Cervantes Institute Istanbul, Turkey.
Sep 2003 - Dec 2008	The Council of Higher Education, Turkey.

Publication List (selected)

Jan 2023	"Berlin as Stage" in Design of Public Space and Street Celebrations When Space is Public…Routledge, NY. Available:https://www.taylorfrancis.com/chapters/edit/10.4324/9781003104421-27/space-sound-banu-%C3%A7i%C3%A7ek-t%C3%BCl%C3%BC
Feb 2022	"Queer Urban Sonic Analysis". We, the City, Jovis. Available: https://www.jovis.de/en/e-books/we-the-city.html
Sep 2021	"A Sonic Manifesto" Architekturos Fondas,Vilnius, Lithuania Available:https://apokalbiai.lt/en/talk/rhythmic-encounters-aural-architecture-and-sonic-interstices/
Sep 2019	The History of Sonic Urban Design and New Approaches" in the Second urbanHIST Conference: Interpreting 20th Century European Urbanism, Sweden.
Jan 2019	Social Design, XXI Art, Architecture and Design Magazine, Istanbul.
Nov 2018	Spatial Forms of Resistance, Interface Politics After Post-Truth Seminar, Barcelona.
Oct 2018	Positioning the theory on sound environment and their possibilities in urban design practice. The Global Composition 2018 Conference on Sound, Ecology, and Media Culture Darmstadt-Dieburg.

Workshops and Lectures

2022	Rhythmic Encounters workshop, Tbilisi, Georgia.
2021	Lecture Performance in The Path Project, Oyoun Berlin.
2021	Creating Safe Space with Sound, "Hack Sexism" – A Social Hackathon against sexism and sexualised violence at festivals
2020	Audio Testimonies Symposium, Crisap London/Bournemouth University, UK.
2020	"Aural Architecture and Sonic Interstices", ArchitekturosFondas,Vilnius, Lithuania.
2019	"Rhythmic Encounters" International Urban Studies Conference *C*ities, *A*ction, *R*esearch and *E*ducation, Vienna.
2019	**"**DIY Sound Blocking Objects" Die Neue Sammlung – The Design Museum Munich, Germany.
2019	"Rhythmic Encounters" Critical Geography Conference, Berlin, Germany.
2019	"Resistance through Music" WE, the City Festival, Berlin
2018	"Soundwalk as a political act" The Global Composition, Dieburg, Germany.
2018	"Urban in Social Context" University College Leuven-Limburg (UCLL), Belgium
2018	"The Sound Environment" Heinrich Böll Foundation, Berlin, Germany.
2017	"Sounding Ecologies" CTM Festival, Berlin, Germany.
2016	"Anger, Fear, Love through Sound" CTM Festival, Berlin, Germany.

Languages

Turkish (native), **English** (C2), **Spanish** (C2), **Deutsch** (C1), **Catalan** (B2), **Ottoman** (A1), **Kurdish** (A1), **Arabic** (A1).

Date Berlin, 05.10.2023