

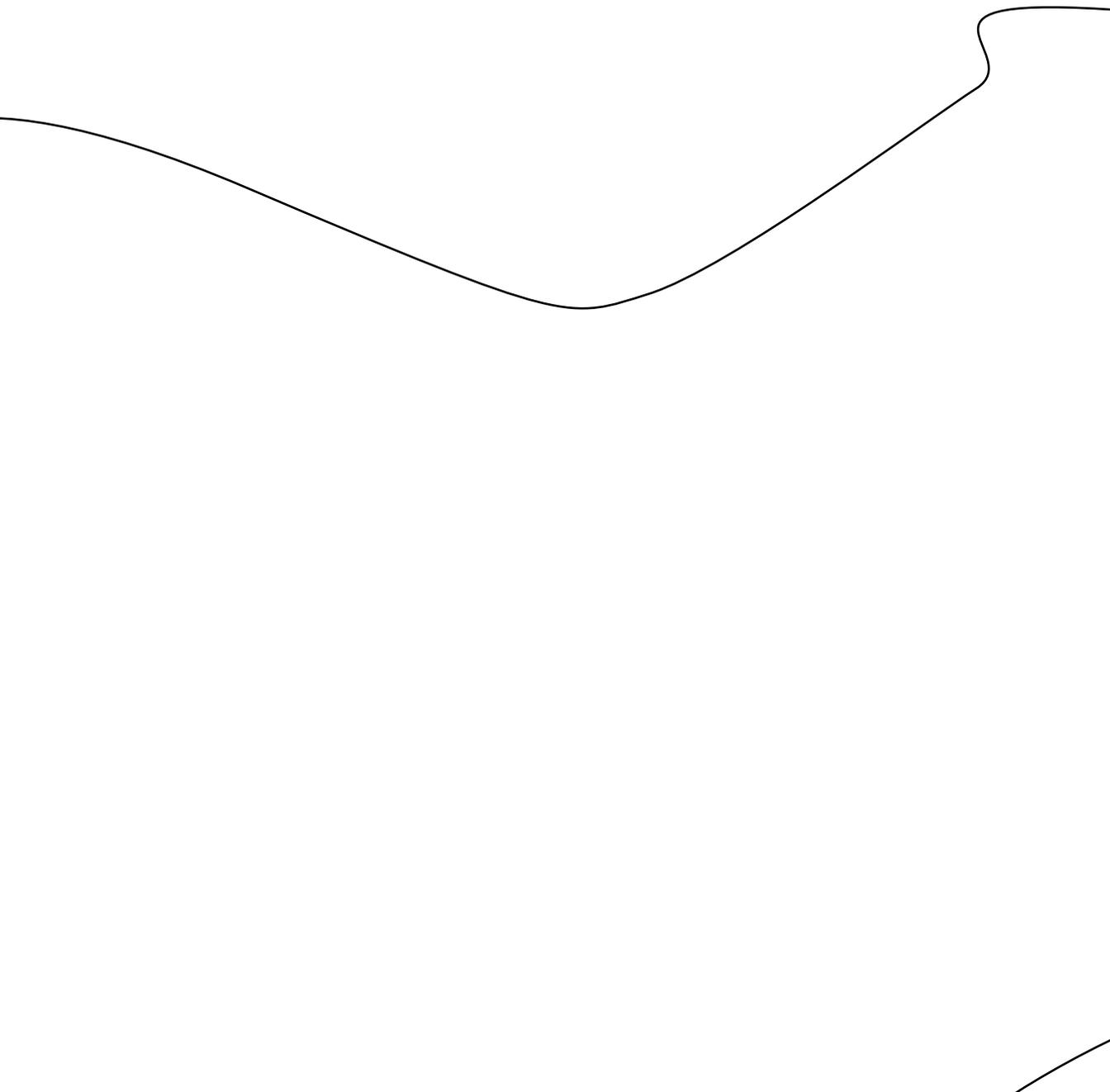
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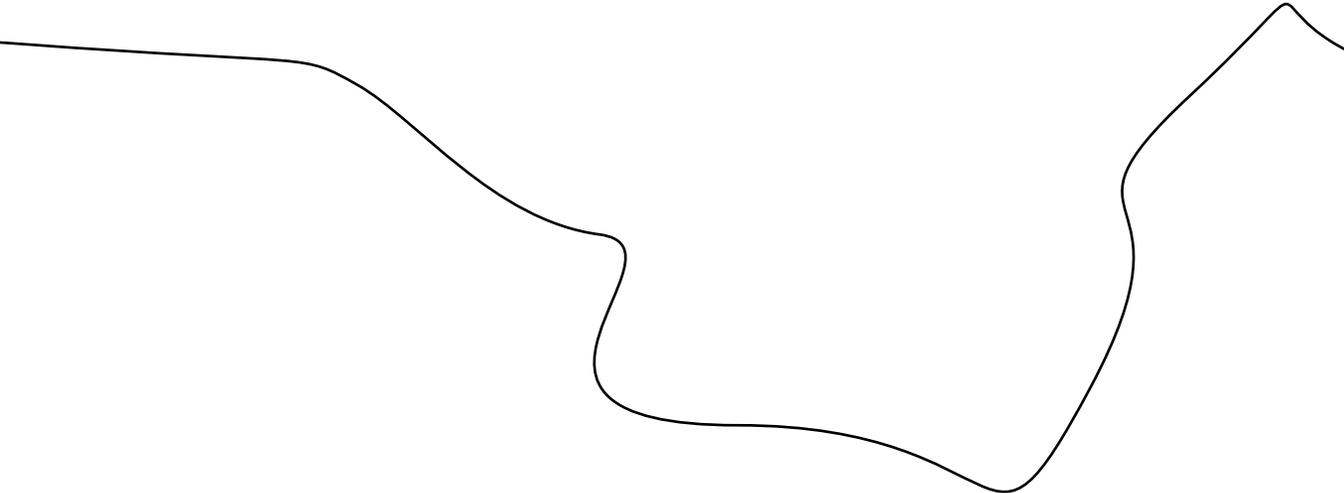
edited by
&beyond
for Theatrum Mundi

URBANISM





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&beyond**

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PREFACE

During &eyond's penultimate editorial meeting in the process of designing and editing this publication, a siren wailed past one of our windows in Berlin-Mitte. Connected, as we so often are, by Skype, the siren forced us to pause our discussion for a moment as it echoed through the digital networks that joined us and spread out into the sonic ecosystems of Porto, London and nearby Berlin-Kreuzberg. The sound was jarring, but it was also a forceful moment of sonic unity that felt apt in the wake of the weeks spent thinking about how sound works in urban space.

Sonic Urbanism is the product of these meetings and regular contact with the project's initiators, the education and research charity Theatrum Mundi, whose collaborative team mirrors our own disciplinarily-divergent collective. These essays and interview are pioneering an emerging academic field that bridges sound and the city, but also politics, architecture, acoustics, public space, noise, streets, music and infrastructure. The inroads their authors take to the texts are as varied as the future work they will inspire: from urban designer Sara Adhitya's composition of the city through musical tools to artist Sharon Phelan's framing of sonic communities. In between we encounter student experiments in sonic experience initiated and documented by their tutors, the sonic urbanist Caroline Claus and collaborative architectural design professor Burak Pak. The composer Frédéric Mathevet, meanwhile, muses on the sonic object the 'gaze of the microphone' and independent searcher Nathan Belval introduces us to the 1970s musical architecture of the Villa des Glycines. *Voi[e,x,s]*, an experimental

and ongoing performance project by Theatrum Mundi with Marta Gentilucci and Alexandra Lacroix, forms the centrepiece of the book, through an introductory essay by Theatrum Mundi's director, John Bingham-Hall, that is followed by a conversation between the project's authors.

In keeping with our ongoing efforts to transcend the widely perceived limits of publishing formats, &beyond have edited the texts of *Sonic Urbanism* for broad and open-minded audiences and the graphic design by &beyond's Diana Portela actively plays with visual signals veering between foreground sound and background noise. Borne out of eclectic and interdisciplinary approaches to the built environment, and a reluctance to fall into familiar academic tropes, this is a project befitting a collaboration between teams used to experimenting with platforms for performance, publishing and beyond. ●

&beyond

INTRODUCTION

Attention is increasingly turning to the soundscapes of cities as materials to be shaped through design, as cultural commons generating physical wellbeing but also as sites of conflict and violence to be regulated.

What we hear and what we see are different. Sound does not adhere to the same boundaries as light; it travels through and around space in different ways, it has physical as well as informational affect. The way we participate in the public realm through speaking and appearing might have radically different implications. For example, the banning of face coverings in some European countries assumes that visibility is a prerequisite to being a valid urban citizen. How would a city be shaped if audibility were the fundamental condition for participation in public? What if hearing one another rather than seeing one another was the basis for sociability? What if the acoustics of an urban space were more important than its appearance?

In *Crafting a Sonic Urbanism*, the 2018 colloquium that forms the background to this publication, we asked how the practice of urbanism could look beyond the soundscape as an object and build sonic concerns, methods and modes of thinking into its ways of working. A sonic urbanism, as we imagined it, would be one that uses listening, scoring and performing as tools for design processes. This would be an urbanism that relies on cross-disciplinary collaborations and challenges the visually-biased epistemologies that fundamental assumptions about urban design have been based upon.

This publication brings together people and projects that span these approaches, but it also forms part of a wider interest in sound that has taken diverse forms since *Theatrum Mundi*'s inception in 2012. Early workshops on the architecture of sound used discussions around design for music to reflect on the ways spaces can create acoustic focus or multiplicity. The 2018 symposium, *New Resonances*, followed this by asking how music itself is shaped by the public, politics, acoustics and memories bound up in the places in which it is composed and performed.

Another new project, *Scoring the City* in collaboration with Gascia Ouzounian, is bringing together composers and architects in a series of design workshops developing notational approaches in architecture. The recent *Acoustic Cities: London & Beirut* edition published in collaboration with Optophono and the Institute for Global Prosperity, UCL, collects audio-visual works interrogating the politics of sonic memory in these two cities following a three-day workshop in Beirut in 2018. The Atelier TM meetings in Paris¹ invited the performance artist Mercedes Azpilicueta to lead a workshop on translating soundscape recordings into bodily actions, the filmmakers Graham Thompson and Silvia Maglioni to facilitate a soundwalk and discussion focused on unlearning habitual ways of hearing, and the opera director Alexandra Lacroix to show how the voice could be used to explore the limits of acoustically sociable space at Chapelle Charbon, a wasteland destined to become a new public space. Some of these experiences are left only as traces in the bodies and memories of

¹ Atelier TM was a series of meetings that took place from 2016-2017 in partnership between *Theatrum Mundi* and the Collège d'études mondiales, as part of the *Global Cities* research chair held by Richard Sennett and Saskia Sassen, through funding from the CGET. They were coordinated by John Bingham-Hall and Vera Vidal and were attended by an ongoing group of sonic and spatial practitioners.

Theatrum Mundi

their participants, offering new embodied knowledge to be taken into their practices. Others have become creative endeavours.

Responding to our call to practitioners and scholars alike, asking what a sonic urbanism might look and sound like, the articles here draw on architectural and performance projects, pedagogy, and social analysis. Masterstudio L_28 and *Voi[e,x,s]* both show how long-term collaborations between the crafts of sound- and space-making can lead to learning in action, making an argument for a new a-disciplinarity in urbanism that opens it to transformational encounters with other fields. This collaboration though, as Nathan Belval shows, can highlight the limits of urbanism's capacity for sonic design. The Villa des Glycènes showed that a shared urban space can be composed with sound as a primary concern. Pitch, rhythm, and intensity, rather than the light and mass foregrounded by architects, become the preferred qualities in question, utilised via a design process involving a composer. But these sonic qualities are quickly lost sight of when they meet budget constraints and the demands of publics. It is not only architects whose ears need opening, but also developers, public authorities and inhabitants.

Caroline Claus and Burak Pak also point to the need for a typology of approaches to sound in urbanism: is it being understood as an issue to solve, a material to sculpt or the byproduct of design decisions? Or, as Frédéric Mathevet suggests, is sound a source of knowledge with which to speculate? Sound recording is already a challenge to the dominance of visual forms in

urbanism, such as photography and mapping, but as our Unlearning Listening workshop did, Mathevet aims to expand the possibilities phonography itself presents. He frames it as a mode of intervention as well as documentation. By piecing together the city through fragments of sound heard through cyborg configurations of ear and microphone,, shared meaning and structure, he argues, can be built from the incoherence of a noisy city.

This is echoed in the way Sarah Adhitya's urban design interventions enable acoustic spaces to be made and reconfigured in real time, whether through embedded instruments or recordings. This kind of epistemology – one that understands the city as a system of sonic communication whose meaning is changed as it is documented and remixed – demands new kinds of representation. Sound cannot be mapped in the way space can. It moves, fades, ebbs and flows.

Adhitya's approach to sonification finds means in the scoring of music to represent dynamic aspects of urban experience that do not fit within architectural drawings.

Sharon Phelan also frames the city as an acoustic communication system, revealing the sonic configurations within the public sphere of political discourse. She builds out from analysis of human microphones to the ways that acoustic notions such as having a voice and being heard can go beyond the metaphorical, with the ability for people to make sound in the city as the basis for political agency. This poses a provocation: sonic urbanism cannot just be about the making of cities that "sound nice", it must also be

a framework that amplifies the political power of voices and the disruptive potential of noise. ●



FOREWORD

The sonic city

There is a famous moment in Proust's *La Prisonnière* in which the narrator evokes the *cris* [cries] of Paris:

*j'entendais en eux comme le symbole
de l'atmosphère du dehors,
de la dangereuse vie.*¹

The cries are dangerous because the shouts of fishmongers, knife sharpeners and other tradesmen advertising their services or wares lured Albertine, the ambivalent lover whom the narrator hoped to hold captive. In their mixture, their cacophony, these voices from the street were to Albertine a siren call, representing her liberation from the narrator's control.

In fact, cacophony did not rule the sonic city. Each *cri* had to be distinctive and easily recognisable, if someone wanted to have a knife sharpened but was not interested in buying oysters that morning. The *cris de Paris* organised the street economically through sound. Socially these *cris* aroused nostalgia for a time of supposedly vivid street life in pre-industrial Paris, the city free on the ground. To composers like Marc-Antoine Charpentier and Reynaldo Hahn, the *cris* were generators of popular melody which could be transformed into high art. The *cris* composed an intelligible, cohesive sonic city, rather than a confusing, anarchic, and so alluring soundscape.

Put another way, the *cris* of this sonic city were made, rather than found, sounds. After Proust, artists drew on the distinction between the made and the found to emphasise the value of the found, in all its disruptive, liberating power. Duchamp's famous sculpture *The Bride Stripped Bare by her Bachelors*,

¹ 'I heard them as a symbol of the atmosphere outside, the dangerous life'.

Richard Sennett

Even uses sand, cracked glass and pieces of string – non-art materials which he thought would infuse a new energy into art-making. The random voices which appear in Joyce's *Finnegan's Wake* perform the same energising function. But the music of the twentieth century did not derive the same energy from found sounds.

Composers such as Darius Milhaud and Steve Reich did make use of the toots of automobiles or the exhaust roars of motorcycles but they did so self-consciously, as though these sounds were interjections from life rather than naturalised materials for art, as in Duchamp and Joyce. The sounds were always recognisable and intelligible – just like street *cris*. Even in an abstract piece like Oliver Messiaen's *Des Canyons aux étoiles*, the wind machine is meant to perform symbolically, transporting a listener from the depths of canyons up to the skies and down again, rather than simply as a whirring sound. In performing this piece, I have always found the symbolic sound less interesting than the texture of piano and orchestra, which take both musicians and listeners into truly strange and liberated realms.

The aesthetic challenge of the sonic city is to incorporate urban sound as energising just because it is found sound – to recover the arousal, the freedom Proust's narrator fears Albertine will experience on the street. In part, our project attempts this recovery of found sound – but the recovery encounters a difficulty.

If you listen to traffic noise hour after hour, as Jean Genet did from the barred, open window of his cell, you may, like him, succumb to mortal boredom.²

² The novelist, playwright and activist spent much of his early life in and out of prison.

Such street sounds lose meaning when repeated hour after hour. When I worked for the American choreographer Trisha Brown, we used found sounds we recorded in New York for her dances, but discovered that, like a powerful narcotic, we had to use them sparingly. An evening of dancing accompanied by slamming automobile doors, footsteps and coughing would, again, induce mortal boredom. This is the aesthetic problem with found sound; how to use it so that it energises the senses.

In this aesthetic challenge lurks the huge issue of how noise relates to music. How can noise become music? Not through Milhaud's self-conscious quotes, nor Messiaen's symbolisms; there must be another way.

Proust suggests an answer. Not only his famous madeleine, but all the physical objects in his realm arouse memories or associations with other objects. This overlaying, this palimpsest of sensations, are ways of creating depth. Stored within us neurologically are not symbols of what physical sensations mean but, rather, a train of associations, linking in memory one sound to some other sound we have heard before. Noise becomes music when a sound is selected and edited so that it arouses the neural circuits of association. A raw sound repeated over and over kills this associative process; it remains noise rather than material for music.

At least, this is what the work of Marta Gentilucci in *Voi[e,x,s]* suggests to me. She works with the raw, found voices of people in the community, people who do no more than speak their names; Gentilucci edits and then shapes the

voices so that sheer repetition of names does not dull the ear; the raw speaking voice becomes a musical voice.

Such an art is possible only because modern technology furnishes new tools for art. Our colleague Brian Eno has been experimenting during the last years with computer programmes that do the work of generating music. The composer sets the basic algorithms for the machine to follow; the computer programme then explores possibilities inherent in the initial pattern. Eno calls such compositions generative music, and is pleased that the computer comes up with voices and textures he never imagined. A further appeal to Brian Eno is more figurative: the presence of the composer recedes as the machined music emerges on its own.

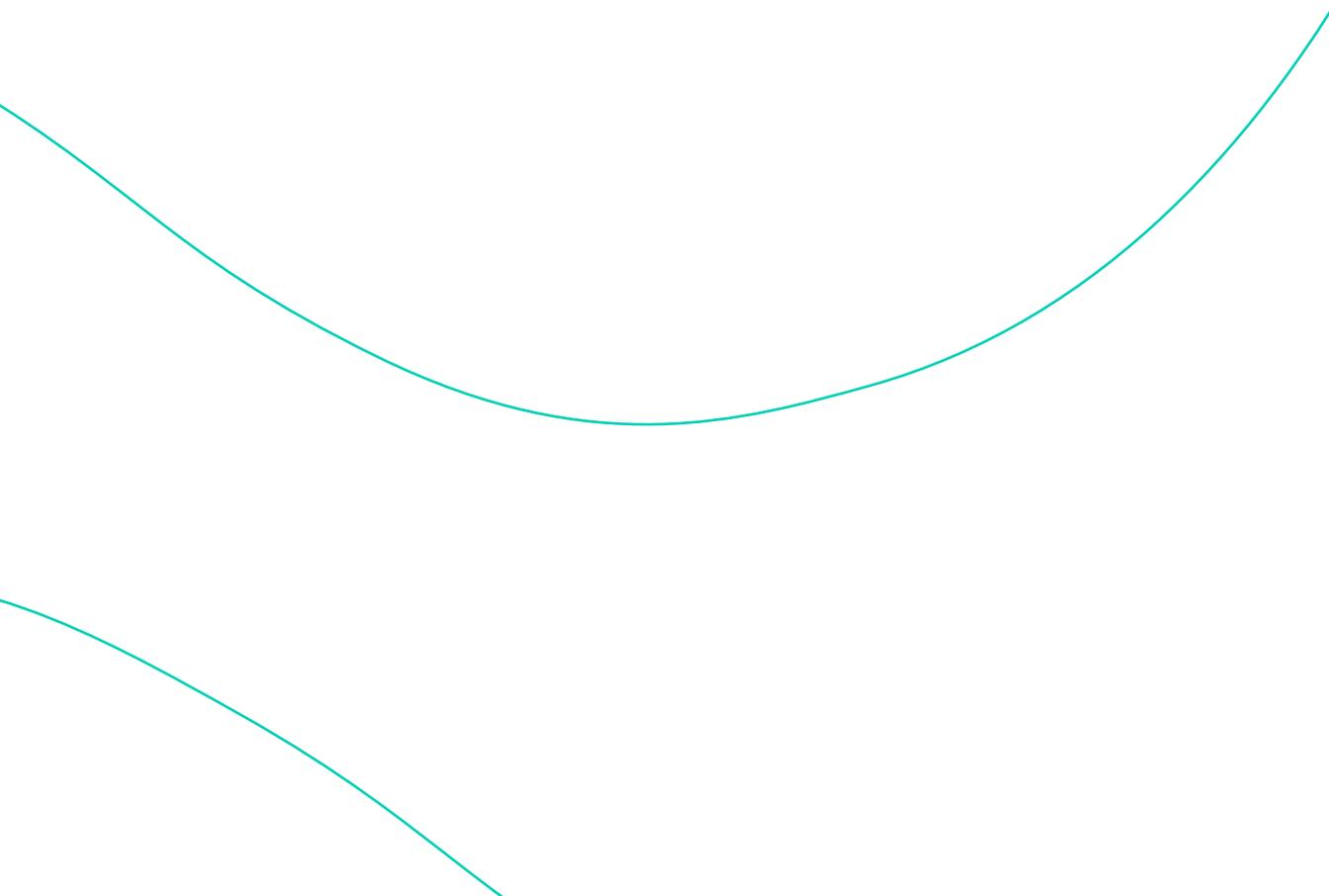
But it is not improvised music. Improvisation requires continual reflection on the player's part of the riffs, detours, and complexities which emerge in the course of improvising. The greatest error a listener can make is to think that the music is blindly, unconsciously, spontaneously created. The musician instead listens to him or herself in the course of improvising, revising ideas and feelings as new material emerges. But in generative music, he or she has disappeared as a self-critic; nothing returns once the composition is set in motion.

I don't say improvised music is better than generative music – but it engages the artist more and, I would say, is music for which the artist has to take a certain authorial responsibility. To Eno, however, the music is a computerised version of Roland Barthes famous declaration about the "death of the author". What is gained

or lost by erasing authorial presence?

Finally, I would like to say a word about social inclusion. This buzzword means involving people in art experiences who – because they are poor, immigrant, or otherwise marginal – are too often left out of theatre, dance, or musical performances. However, the art on offer to them is all too often condescending in its framing: simple tunes, images, or poems are served to them as accessible – horrible word! – as though high art is only accessible to a cultural elite.

Theatrum Mundi rejects this equation of low-grade art and social inclusion. We believe the public can be engaged with complex expression, and not simply as spectators. Projects such as *Voi[e,x,s]* engage a diverse public as participants in making a subtle piece of music theatre in a difficult urban space. This more largely is our artistic credo: to include but not to condescend. ●



COMPOSING THE CITY

Applying
music-making
crafts to
city-making
processes

If the urban soundscape is a reflection of our cities' social values, how can musical tools be used to recompose our surroundings? Sara Adhitya's essay draws us into scoring the sonic city.

The processes of city-making have traditionally focused on what we can see. They have been dominated by visual modes of communication such as the urban masterplan, architectural drawings and, more recently, computer-generated imagery. It is not a surprise then, that our other senses are often neglected in the design process. Sound is one element that has been neglected until recent years, perhaps because it evades visual representation. Yet it clearly has an important role to play in our urban experiences, allowing us to navigate and communicate, as well as impacting our health and wellbeing; from hearing damage to disturbed sleep and increased levels of stress. Beyond these acoustic concerns, a sonic understanding of the city can also allow us to understand the composition of society on a deeper level: socially, culturally and ecologically, as well as acoustically.

Our soundscape is a reflection of society: the way we live and behave; our comportment and our values.

Our soundscape is a reflection of society: the way we live and behave; our

Sara Adhitya

comportment and our values. It is an indicator of the life of a city and our relationship with it and as such can – and should – be integrated in the process of city-making itself. Yet the practical integration of sound in city-making processes remains largely restricted to its suppression through the regulation of noise levels, which does not adequately address the quality of the sounds, nor the cause of the sounds themselves. In this way, current sound regulation strategies can be seen as superficial, or “symptomatic” in their approach as they address the acoustic impact rather than the underlying cause – the functioning of society itself. Rather, in order to improve the quality of the acoustic environment, we must refrain from considering the soundscape as a product and instead consider it as an urban process. And as these processes continue to change due to advancements in technology and new ways of living, we must in turn reassess their sonic outcomes.

R. M. Schafer, founder of the discipline of Soundscape Studies in the 1970s, introduced the concept of the urban soundscape as being a ‘macrocosmic musical composition’.¹ As well as implying that the soundscape could one day sound more aesthetically musical, his definition suggests that the soundscape can be composed like a piece of music and, by extension, that music can offer us the tools and techniques to compose it. If we are to assume that urban soundscapes are inseparable from urban processes themselves, then it suggests that we can also use musical crafts to compose the city. This essay thus explores how we can apply the crafts of music-making to city-making processes in three main ways: first, by

1 Raymond Murray Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World*, Vermont: 1977, p.5.

interpreting the significance of these sounds through various modes of listening, aided by the craft of sonification; second, by approaching the city as a participatory performance utilising the craft of scoring; and third, by transforming the city into a musical instrument by applying the crafts of sonic interaction design. We conclude with a discussion of how integrating sonic thinking into the making of a city can encourage more 'musical' urban performances.

Listening and the craft of sonification

How we hear inherently determines what we hear and there are a number of modes of listening that we can utilise to unlock the various layers of information embedded in a city's soundscape. Whilst our physiology allows us to *hear* vibrations within a certain frequency range, it is our interpretation of these vibrations, which we call *listening*, that allows us to derive meaning from the city in various ways.

The role of listening at its most fundamental level has been for our survival: what protected us from wild animals thousands of years ago, now protects us from the self-imposed dangers of our concrete habitat. Our innate ability to listen "causally" means that we can deduce the cause of the sounds we hear, such as a car coming around the corner, and therefore react accordingly.² Ecological listening, also referred to as everyday listening in our day to day context, helps us to navigate the city safely on a practical level, allowing us to simply identify *what is*.³

As in music or languages, we also use

certain sounds to communicate with each other at an urban scale. And as with music or a language, these sounds have become loaded with layers of cultural and symbolic meaning which require interpretation.

The beeping of car horns, for example, may have been initially composed as a warning signal, but has become a sign of frustration or even aggression between motorists and can even be read as an indicator of a society's value of time and speed. Semantically listening to a city's soundscape allows us to understand what the city and its citizens are saying, without necessarily using words.

We can also listen to the soundscape in a musical way by appreciating the perceptual qualities it has to offer, such as its inherent melodies, rhythms and harmonies. This contributes to our experience of the city and influences how we may feel. It is no surprise that the blaring of sirens, the grating of construction work or the screeching of railways can make us feel stressed and lose sleep. Sadly, the unpleasantness of many contemporary soundscapes has meant that rather than choosing to listen, we isolate ourselves from the world around us through noise-cancelling headphones or other means, thereby further contributing to the degradation and decomposition of the soundscape itself.

Sound is clearly a rich carrier of knowledge in the city and listening to it in various ways allows us to access its various layers of knowledge. Yet whilst much can be learnt from listening to the acoustic city, the realm of the audible has its limitations for all of us, whether hearing-impaired or not. Sound is an indicator, but not the only one; just because we cannot hear an event, it

2 M. Chion, *Audio-Vision: Sound on Screen*, New York, 1994, pp.25–6.

3 William W. Gaver, "How do we hear in the world? Explorations in ecological acoustics", *Ecological Psychology* 5, no.4, 1993, pp.285–313.

does not mean it is not happening. Thus an awareness of the rhythms happening beyond our range of hearing, such as those that we can feel within our bodies, can empower us to understand the way in which our city moves us. This embodied way of listening is the fundamental basis of the theory of Rhythmanalysis that was introduced by French philosopher Henri Lefebvre in the 1980s: the understanding of the city through the experience of its rhythms.⁴

The urban rhythms which escape representation are often the ones which we fail to adequately design for.

It is not a surprise, however, that the urban rhythms which escape representation are often the ones which we fail to adequately design for. Here we can call upon the craft of sonification: the representation of data in sound.⁵

Commonly considered the acoustic equivalent of visualisation, sonification allows us to give voice to the inaudible design elements which inform our urban experiences – from light poles and bins, to benches and fences – thereby bringing their temporal composition to the attention of urban designers and planners.

In order to better understand the composition of urban experiences in Paris, we applied the craft of sonification to represent the more silent design elements of its streets. Each element was then assigned a unique sound based on its physical attributes, essentially transforming the colour-coded

legend of the traditional urban masterplan into a sonic one. The temporal medium of sound meant that their composition could be represented in time as well as space. Sonifying other urban systems such as activity and transportation systems also enabled the representation of the relationships between different systems. In this way, the musical craft of sonification and our ability to listen simultaneously to multiple streams of acoustic data, can enable us to better understand the composition of our cities, both in time and over time.

Representation and the craft of scoring

Armed with a greater awareness of the existing temporal relationships that define our urban experiences, we can begin to compose new ones. Yet in order to compose temporal experiences, we need the means to adequately represent them. The typical urban masterplan, used to represent the spatial distribution of activities and spaces on paper, can be criticised for being inadequate in this respect. Its two-dimensional, static representation of the post-industrial, planned city can be blamed for a number of inappropriate spatial design decisions such as unwalkable distances, incompatible urban activities and inadequate population densities, which have contributed to undesirable consequences such as car dependency, congested roads and dead urban spaces. In order to represent such temporal processes, so that we can achieve the urban experiences we desire, we require more dynamic modes of representation. Here,

⁴ Henri Lefebvre, *Rhythmanalysis: Space, Time and Everyday Life*, London, 2004.

⁵ Geoffrey Kramer, "Some organizing principles for representing data with sound" in G. Kramer (ed.), *Auditory Display – Sonification, Audification, and Auditory Interfaces*, Reading, 1994, pp.185–221.

the musical craft of scoring can help.

The musical score used to be the most common means by which music composers could convey their sonic ideas to future performers. In classical Western music, this was documented as a series of notes plotted along a staff, essentially representing the distribution of pitch over time. However, during the mid-twentieth century the singularity of time was challenged and the open score evolved, in which the element of chance was celebrated and multiple timelines introduced. The graphic nature of these scores also meant that they could be read from multiple points of views, much like a painting. These changes brought the musical score closer to the urban plan, to the point where Pierre Boulez was to compare the open score of his *Third Piano Sonata* accordingly:

I have often compared this work with the plan of a city. One does not change its design, one perceives exactly what it is, and there are different ways of going through it. One can choose one's own way through it, but there are certain traffic regulations.⁶

The open graphic score thus also reflects a changing relationship between the composer and performer, from one in which the composer dictates the order of events, to one in which the performers are empowered to interpret the events themselves. It signifies a dramatic shift in the mind-set of the composer, from one of control to one of collaboration, and a growing appreciation of the performers' contribution to the musical outcome.

We applied the open structure of the graphic score to the creation of an interactive *Soundmap for London*: a sonic representation of the city's transportation, activities and landmarks.⁷ Commissioned

by Transport for London for the 2016 Summer Streets Festival held in Regent Street it consisted of a 3-metre by 5-metre interactive mat that was embedded with various recorded sounds of London and implemented on the surface of the street itself. These sounds were activated by the footfall of the general public as they moved, whether accidentally or deliberately, across its surface. The aleatory yet collaborative way in which these sounds were produced rendered the *London Soundmap* a life-sized graphic score. While its overall framework of tonality and timing was carefully composed, the sequence in which each element was played was left to the discretion of its public performers. This ensured that the synchronicity and harmony between each sonic element would be maintained without compromising on the uniqueness and dynamism of each performance.

The open graphic score is thus a useful reminder that the focus of the city-maker is not necessarily on the design of discrete and static urban elements, but on the quality of the performances which these elements collectively inspire. Their role is that of a composer of opportunities, rather than a dictator of constraints, and they must ultimately be prepared to relinquish control to the citizen. It is an important lesson for those city-makers who choose to forego public participation in the design process in pursuit of their own visions of what a city should be. Yet limiting the participation of the public in the city-making process has shown to result in a less enjoyable and more problematic urban performance once implemented. Scoring the city as an open graphic score can help us compose more enjoyable musical urban experiences for all concerned.

6 Pierre Boulez, *Third Piano Sonata*, 1958.

7 Sara Adhitya, *Musical Cities*, London, 2017.

Listening to a city's soundscape allows us to understand what the city and its citizens are saying, without necessarily using words.

Performance and the craft of Sonic interaction design

The collaborative nature of a soundscape, as well as its subsequent mass impact, demands that its composition be a collaborative process. Yet more often than not, our soundscape has become a cause of conflict, with noise complaints, for example, becoming increasingly common. How can sound assume a role as a connector of society, encouraging the desire to listen, not only to the city but, most importantly, to each other? How can we transform the medium of sound from being a separating device to being a connecting one? Here we turn to the craft of sonic interaction design (SID), an emerging field in which sonic feedback is utilised in the design of human/environment interactions. Sonic interaction design has the potential to instigate interaction, encourage participation and promote collaboration.

In order to both raise awareness of a particular soundscape and the individual's role in its composition, we applied SID techniques to temporarily transform a small plaza in the historical centre of Lima in Peru into a "musical" one. We worked together with urban professionals participating in the 2018 International Forum for Urban Interventions and encouraged the participation of the general public. The idea of this musical *plazoleta* [parklet] was to be able to utilise the existing acoustic properties of the space

in order to transform it into a musical instrument which could then be performed. Designed to facilitate the connection between urban design and soundscape composition, it treated the built environment as a mode of sound production.

Participants first explored the acoustic potential of the space and its various design elements (such as its furniture and pavement) using various modes of sound production (such as hitting or scraping). By amplifying desirable sounds through the use of low-cost contact microphones, amplifiers and speakers, we then enabled urban professionals to begin "designing" with sound. The transformation of different urban design elements into musical instruments then allowed the public to actively participate in the composition of their own soundscape, facilitating the transformation of noise-making into music-making.

Embedding the urban environment with sound-making capabilities empowered both city-makers and citizens alike to compose the urban soundscape in collaboration and activate their public space through a site-specific musical performance. The participatory process of improvisation attracted all walks of life – from young children to the elderly – activating and animating the public space in new ways. This direct approach to collaborative soundscape composition through low-cost SID technologies meant that the sound of a city could connect society through the shared experience of music, rather than separate it through the generation of noise.

Future directions

Our urban soundscape is clearly a rich source of information and listening to it – acoustically, musically, ecologically and culturally – is the first step to composing a more musical one. Yet addressing the sounds we hear is only the beginning of a deeper cycle of urban change. In order to truly address Schafer's call for soundscape composition, we must be prepared to alter the compositional structure of the city itself. As discussed in this essay, various musical crafts can help us do this: sonification enables us to understand the design of a city on a temporal level; the open graphic score reminds us of the participatory nature of the city; and sonic interaction design empowers us all to be involved in the composition of the soundscape and thus the collaborative generation of meaning. In these ways, the crafts of music-making can not only help us to compose a more musical soundscape, but a more musical way of living, where the sounds we generate become part of a conscious performance rather than an accidental outcome.

There are of course many more musical tools and techniques that we can call upon to assist us and we must bear in mind that these crafts are evolving alongside advances in technology and the development of new urban processes. As such, the crafts at hand tomorrow will provide us with further

ways of thinking about the city. We can already hear the change as underlying mechanical processes are becoming electrified or digitised (the electric car is just one example). We now have more opportunities than ever to redefine the intricate relationship between ourselves, the city and sound, and it is the collective responsibility of us all to do so. Only then can we ensure that each urban performance becomes more musical than the last. ●

MUSINGS ON RECORDING AS RUINS IN REVERSE

A rhapsody
on site-specific
compositions

In this nine-part montage of queries and theories, composer Frédéric Mathevet ponders on the gaze of the microphone, the body of the soundman and the reverse ruins of a sonic object.

Rhapsody

This text is a montage made from notes taken in my sometime nomadic studio. This notebook bears the scattered marks of my thinking mixed with my everyday artistic work of writing sound and music. This text is a rhapsody, a juxtaposition of random thoughts reflecting on my sonic work and its production in situ. These stitches between fragments will reveal the questions that will animate me as I head back to my practice. Because this text is like a Sadic novel where ‘nothing forces [it] to progress, ripen or end’.¹ The text mimics what it describes: how to extract some sense from these notes, recordings and inscriptions of the ‘present as it falls’?²

In situ

The phrase ‘Work in situ’, in its most literal sense, could be translated as: ‘Transforming the reception’. A transformation obtained thanks to various operations, including my visual device. This transformation could be made for this space, against this space or in harmony with it [...]. But in this situation, the space is transformed even if the most transformed ends up being the transforming agent. Therefore, there are always two transformers at play, the device upon the space and the space upon the device, they deliver depending on each situation, a reciprocal influence that’s more or less important.³

1 Roland Barthes, *Sade, Fourier, Loyola*, Paris, 1970, p.144.

2 Roland Barthes, *La préparation du roman I et II: cours et séminaires au Collège de France, 1978–1979 et 1979–80*, Paris, 2003, p.45.

Frédéric Mathevet

Translated by
Justinien Tribillon

I am searching for my position of under-development in a nomadic music.

Is it possible to shift the problematics of in situ work, as they've been engaged with by plastic artists, into the field of sonic art?

How does the production of one or multiple sounds within a space of reception transform it?

Can I imagine a "sonic tool" that is able to be in harmony with the space, designed for this space, or against this space?

Can I imagine a way to write or to improvise sounds that could, played on imported instruments or sonic bodies found in that same space, help to 'reveal, even critique the attributes of its reception space'?⁴

And then, how to transmit the experience of this non-spectacular ephemeral action (the critique of *entertainment* is part of the artistic heritage of in situ practice) to an audience and/or to performers?

It seems that the notion of sound recording is embedded in this possibility of in situ writing. To record is already an in situ action: it is about embracing the space and the moment, to propose a counterpoint and to reply with an antiphony.

I'm preoccupied with retaining as many traces as possible of these improvised experimentations, delivered in places and at moments that are not intended to be concerts (I don't have enough time for that). I rediscover through the microphone, its position, its distance from my ears, its eyes in the back, an extension of the sonic action on the field.

Sonic action fieldwork, such as writing or recording, is not here to please, but indeed to reveal, to critique, to index (an acoustic singularity).

3 Daniel Buren, "Du travail in situ, Du volume à la couleur", in *Daniel Buren, mot à mot*, Paris, 2002.

4 Guy Lelong, *Daniel Buren, La Création Contemporaine*, Paris, 2001.

The idea of in situ (site specificity) – to make something that is designed specifically for a particular space – was really important for people of my generation [...] To realise something that is specific to a space, so that this thing does not pretend towards any universalism. It is a way to say that it means something right now, right here. Elsewhere, in other circumstances, this doesn't mean anything or something very different. This is the aspect of site specificity that I really like.⁵

An in situ practice sticks to the present (to the instant).

Phonotope

What hole do I want to poke with my microphone: the sounds from my pocket synthesiser or this wooden fence that perfectly echoes the sounds of the new bus line?

The phonotope – to borrow Peter Sloterdijk's term – describes the sonic environment that we build as a group and is usually what catches me.

What hole do I want to poke with my microphone: the sounds from my pocket synthesiser or this wooden fence that perfectly echoes the sounds of the new bus line?

Art in an urban setting is quickly confronted by public authority, be it economic or political. To integrate art within the city implies an engagement with issues

that go beyond the art world – the clients, the urbanists, the architects, the curators and also sometimes the political and economic elites: this ensemble constituting, day by day, this *sonosphere*.

Tear a hole in the phonotope, mess with the sonosphere! The in situ urban sonic practice as street art – produced without authorisation, made up on the spot – creates a semiotic panic of the sounds, dully written and calibrated, that surround us and shape our listening habits.

Sonic recording, the seizing of this phonotope, appears pertinent. Or at least it cohabits with the same themes, if, and only if, one does not endow the recording device with the power of naïve objectivity and neutrality; where one believes in the total transparency of the device.

This one [oûtos] is that one [ékheinos]

It has become commonplace to find similarities between the device used for the purpose of image or film documentation and the audio-recording machine.

For instance: cameras, video and sound recorders 'have in common that they record the sensible reality in an automatic and mechanic way, without any human mediation'.⁶ This analogy of methods would suggest a reading of the sound recording and the photographic or cinematographic image as being similar devices of recording. Pierre-Yves Macé's writing on documentary phonography in contemporary musical practice seems to rest on this comparison between sound- and image-recording devices.⁷ Inexorably, sound recording is always compared to

5 Claude Gintz, "Vito Acconci. L'impossible Art Public", *Art Press*, Paris, 1992.

6 Pierre-Yves Macé, "Musique et document sonore: enquête sur la phonographie documentaire dans les pratiques musicales", *Les Presses du Réel*, Paris, 2012, p.31.

7 *Ibid.*

photographic recording, and public listening to similar cinematographic practices.

Yet, it seems that this comparison rests on several aporia that lead to damaging consequences for aesthetics and the practice of sonic arts.

No one would think – unless they were profoundly cerebrally deranged – to mix up a crocodile with its picture, or vice-versa; that could lead to some fatal situations for the scatterbrain.⁸

Recording devices are not transparent. All well-researched symmetrical anthropology would remind its students that devices are worldly objects (for they tell us something about the way we apprehend our world). They are made by human hands, and they do not produce *acheiropoietia*, or icons made without hands (be they visual or sonic). Thus, the devices do not at all challenge the notion of a gap between what is recorded and what is reproduced perceptually, like an image or a sound.

Recording devices are like black boxes. They are delegated the role of fragmentarily recording reality and we build a myth from this grabbing that becomes “recording”. It’s as if we were holding between our hands a piece of reality itself. But the device, even as it stands there, open, avoiding all viral contact with human hands that would subject the implicit power of the machine, does not avoid the gap of *mimesis*.

Between the *in* of the device, through which a piece of reality will reach it, and the *out*, that will render it as a two-dimensional image, or sonic image, is a gap. This moment of reality, through a transformation imposed by the recording device (lenses, microphones, foot etc.), transforms into a section of reality (at a push). Against all

odds, it is not a fragment of pure expected percept: it is already pre-discursive.

The recording device separates the perception between its *in* and its *out*. It plays again, between the recorded reality and its rendering through the recording, the pleasure of Aristotelian *mimesis* where the ‘this’ and the ‘that’ is acknowledged:

Thus the reason why men enjoy seeing a likeness is that in contemplating it they find themselves learning or inferring, and saying perhaps, “Ah, that is he”.⁹

Between ‘that’ (the recording) and ‘he’ (the piece of reality that is aimed at), the gap remains.

Recording as questioning; the gaze as framing

The notion of framing is very important to understand photography and cinema. It is as much centripetal – it singles out a piece of selected reality – as it is centrifugal: the interiority of the picture can only be understood by considering what is beyond the image, the immediate reality that overcomes it. The space within the frame and off-camera operate like two sides of one single coin. As Jean-Luc Godard paraphrases Maurice Blanchot:

The picture is happiness, but next to it lives the oblivion. The all-mighty power of image can only be expressed if it calls upon it. [...] The picture capable of denying the oblivion is also the gaze of oblivion upon us. The picture is light and oblivion is immensely heavy. The picture shines whilst the oblivion is this vague thickness that does not reveal anything.¹⁰

8 Daniel Buren, *Daniel Buren: photos-souvenirs 1965-1988*, Santa Monica, 1988.

9 Aristotle (trans. S. H. Butcher), *Poetics*, London, 1922.

10 Jean-Luc Godard, *Histoire(s) du cinéma*, Paris, 1998.

Against all expectations of a God-given device that would record in an automatic, mechanic way without human involvement, the action of framing a picture is done by hand. It is similar to the familiar image of a film director using their hand to create a frame, limiting the share of reality between the thumb and index finger, that they can modify at will.

The gaze is necessarily present when sound is recorded. Our eyes confirm the sources of sound that the ears perceive, they sharpen the spatial location and confirm it. To record sound is certainly closer to note-taking, as described by Roland Barthes, in the preparation of a novel, that requires an author to have ‘an eye on the page and the other on what is happening’.¹¹

The gaze of sound recording is a mobile gaze, a ‘peripatetic’ vision:

your vision is peripatetic and not reduced to framing an image. It includes and is dependent on memory and anticipation [...]. The relationship of time, space, walking, and looking-particularly at arcs and circles – only then can you see some Japanese gardens.¹²

This vision that wishes to take a stroll, as described by Serra, is ‘not reduced to framing an image’. Indeed, this vision is dependent on the hybrid body required to perform the recording of the sound.

To reflect on the artistic issues of sound recording, one has to bring back the right description of the harnessed body, where the recording device – often heavy and large – placed on the hip or the belly is maintained on the shoulder by a strap and supported by the neck, allowing both arms to hold the pole, at the end of which are affixed two microphones that are neither at the level

of one’s eyes or ears, but whose recorded information is channelled in a headset that is on the ears of the sound technician. The same way that it is impossible that a device records in an automatic way without intrusion of the hand, the sound recording equipment is a deconstructed equipment that makes the moment of sound recording a kinesthetic (but also an “osteothetic”) moment.

To record is to frustrate the monocular vision as much as the idea of a separation between our tools of perception. And if there is indeed *mimesis*, it is not like an open window on the world.

To ‘take [*prendre*] the sound’ does not mean to consider the device sacred, like it is a machine to record reality. It is a whole process of representation that goes through an ensemble of choices that build the recording as an utterance. The sound technician is aware, not only of what they receive in their device but that they make choices by channelling the orientation of their microphones. The technician will pay attention to the parasitic sounds that could alter their edits. They are attentive to the sonic *imprévu* that belongs to this moment and that might drive them to other sources and atmospheres.

Then as a body, they are a repository of what flows down their microphone, like a recording device. They are in the present moment, aware of all noises created by the body of the device: rustling, the pole’s sounds, the recording device’s clicks... as much as those of their own body: the sound of bones cracking, of breathing.

Flatbed or the present as it falls

According to Leo Steinberg, the paintings of the abstract expressionists did not

¹¹ Barthes, *La préparation du roman I et II*, p.45.

¹² Richard Serra, *Richard Serra: Torqued Ellipses*, New York, 1997, p.28.

change the function of paintings as they have been considered since the Renaissance:

It was suggested earlier that the Old Masters had three ways of conceiving the picture plane. But one axiom was shared by all three interpretations, and it remained operative in the succeeding centuries, even through Cubism and Abstract Expressionism: the conception of the picture as representing a world, some sort of worldspace which reads on the picture plane in correspondence with the erect human posture.¹³

But, Steinberg argues through the work of two artists, Dubuffet and Rauschenberg, something changed in terms of the way the painting can be conceived. To try and approach this new phenomenon, Steinberg introduces the notion of 'flatbed':

I borrow the term from the flatbed printing press – “a horizontal bed on which a horizontal printing surface rests” (Webster). And I propose to use the word to describe the characteristic picture plane of the 1960s – a pictorial surface whose angulation with respect to the human posture is the precondition of its changed content.¹⁴

The painting is not only this open window onto the world but a surface of inscription.

The flatbed picture plane makes its symbolic allusion to hard surfaces such as table tops, studio floors, charts, bulletin boards – any receptor surface on which objects are scattered, on which data is entered, on which information may be received, printed, impressed – whether coherently or in confusion.¹⁵

After a genealogy tracing Monet to Mondrian, and the collages of Schwitters to the *Large Glass* of Duchamp, he concludes:

the painted surface is no longer the analogue of a visual experience of nature but of operational processes.¹⁶

The recording thus conceived is like a horizontal field that receives the world, it is an image of a screen no more. The 'flatbed' work is a 'horizontal bed on which a horizontal printing surface rests', that is to say an open space where reality is called upon without base or frames, and where the senses are like a perfume that disseminate seams wanted by the artist to receive the world.

To log [dérusher]: ruins in reverse

The act of recording cannot be separated from this other moment, massively anticipated, that we call logging [*dérushage*] and which consists in organising, cutting and filtering sometimes, all the sound recordings. A long and often solitary moment that takes place in another space, often a studio, and that will give all its sense to the audio recording and put it back in meaningful circulation.

These now non-sites recorded and brought back to the studio, according to Pierre Schaeffer, are disincarnated in the sonic object. But reconsidered with Robert Smithson, it seems that reduced listening would only be one modality among others.

Smithson describes buildings in *The Monument of Passaic* as 'ruins in reverse':

13 Leo Steinberg, "Other Criteria (Excerpts)," in Charles Harrison and Paul Wood (eds.) *Art in Theory, 1900-1990: An Anthology of Changing Ideas*, Oxford, 1992, p.949.

14 Ibid.

15 Ibid., pp.949-50.

16 Ibid., p.950.

That zero panorama seemed to contain ruins in reverse, that is – all the new construction that would eventually be built. This is the opposite of the “romantic ruin” because the buildings don’t fall into ruin after they are built but rather rise as ruins before they are built.¹⁷

Those bits of tape or nuggets of data on the SD card of the recorder are similarly ruins in reverse, waiting for these ‘constructions that will eventually be built’. To log the recording-“cinder”, recording-tabernacle, recording-rubble is first to orient oneself towards a dump.¹⁸ It is the act of bringing back, through listening, the memory of the deconstructed device that allowed us to grasp these “cinders”, the muscular and osteopathic memory of these subtle postures that would fold us entirely into our ears.

The moment of the logging is one of anamnesis: it is not only a remembrance of the peripatetic vision, of the moment of the sound recording. It is also the opportunity to pick rubble from the rubble, to rank the debris. And as one listens to the edits, and makes the meticulous choice of the entry and exit point of the audio file, to shift the raw recording where one talks of somebody (or something) to a recording that talks to someone. To put the sounds back into question in a trial of the meanings to come.

**There is no audio file
that can be read in one go,
like a single sign.**

Therefore, there is no audio file that can be read in one go, like a single sign, be it iconic or as part of an index. The audio

file resulting from this anamnesis is an ensemble of mutable and labile signs with multiple facets, always ready to embody a different meaning for each listening and with each listener. It is the cut, and especially the merging of two fragments, made possible through this anamnesis, that will orient the signification of these stray signs.

Bleeds

Indeed, the sound recording is a possible space for the thinking of semiotic plasticity. And if we were to compare the sound recording, the logging and the editing to a visual medium, it would be closer to comic strips, echoing the ‘multi-frame aircraft on white void’, the flatbed surface ahead of composition, described by Henry Van Lier.

Van Lier turned comic books into a twentieth-century art form, involving not only classical topological geometry but also a differential topology.¹⁹ In this nested writing, stacking is not made of changing frames like cinema could offer, but of cataclysmic transformation and mutation from image to image.

The ‘multi-frame aircraft on white void’, the other way to name the *gaufrier* that is to say the empty layout, repository a priori to all that will be hosted and welcomed, makes comic books an art of radical discontinuity.²⁰ The bleed, the white space between the frames, is not only an interval, it also deploys the rhetoric of couture and transition. The equivocal, mischievous drawing, echoing this multi-frame, spreads out, stretches out, unfolds, shrinks and withers. It

17 Robert Smithson, “The Monuments of Passaic,” in Jack D. Flam (ed.) Robert Smithson, *The Collected Writings*, Berkeley, 1996, p.69.

18 The “non-sites”, fragments of sites brought back to the gallery and installed, are a displacement of the site and of in situ work for Robert Smithson. For him, they are “cinders”, a word borrowed from T. H. Hulmes in an eponymous book where the world

is, according to its authors, not composed of solid things but fragments, ruins... and rubbles.

19 Henri Van Lier, *Anthropogénie*, Brussels, 2010.

20 Translators note: waffle iron, the name given to the traditional comic book layout made of drawings in small rectangle with a white border.

records the movements of reality, in transit and discontinued. It seismographs the transformations, the meanderings, rifts, folds and turbulences.

There is in the sound recording, the logging and the editing something similar to the 'multi-frame aircraft on white void', mentalised with each step, that allow to each gesture, to each listening, to each cut, to each merge to make each sound – or an ensemble of sounds – a plastic fragment, in its most explosive term, the syntagmatic and paradigmatic axes.

Foam

It is time to go back to the studio. Sound recording, the logging and editing can allow us to think about the contingent sonic practice in urban settings and I have, in numerous articles, offered possible leads to achieve it in the field. Each time, the different approaches would corroborate the idea that there is no “sonic object”, but modalities of apparition of the sonic object.²¹ These sound-objects maintain their ambiguity, and it is the practice of listening (causal, reduced, etc.) that will attribute a function to the said sounds.²² All the thinking unfolded in this article demonstrates how these moments of listening are waiting to happen within the acts of sound recording and logging as writing premises of a listening address to the ideal listener (the empirical listener is inaccessible), but also how much they are interwoven.

Shifting once again to an in situ sonic practice, the act of listening will prove especially important to find the initial phonotope and the understanding of the

sound sphere present in a given space. In a nutshell, they represent an alternative means to find through contingent sonic practice convergent lines on our everyday way to inhabit a space and to live in it together: an echopraxia. ●

21 Frédéric Mathevet, *Faire la peau... la musique au risque de la plasticité*, Paris, 2010.

22 Michel Chion, *Le son*, Paris, 1998.

VOI[E,X,S]

Part I: Score for a *terrain vague*

Initiated as a joint project between Theatrum Mundi, the opera company Cie MDPA – Alexandra Lacroix, and the composer Marta Gentilucci, *Voi[e,x,s]* follows the transformation of Chapelle Charbon, a publicly-owned site in the north of Paris, from an abandoned rail depot to a brand new urban park. *Voi[e,x,s]* signifies rail tracks (French: *voies*) and voices (French: *voix*). It combines recordings of this space, its industrial materials and its unique acoustic conditions with the recorded voices of local inhabitants speaking their names, in dialogue with live performers, to create a sound installation and performance event that will animate the new park and open it to its community. The project is marked by three performances, two of which took place in June 2018 in the temporary Parc des 12 Saisons created on the edge of the site by Collectif Chapelle Charbon as part of the public engagement preceding the transformation. **The final performance will be in the new park when it is complete.**

[T]he *terrain vague* [...] lies forgotten among massive structures and construction projects [...] We can find the *terrain vague* in even the densest city. With its visual markings as underutilised space, these spaces are often charged with memories of other visual orders, with presences of the past, thereby unsettling their current meaning as underutilised space. They are thus charged precisely because they are underutilised. [...] They are the vacant grounds that enable residents who feel bypassed by their city to connect with it via memory at a time of rapid changes – an empty space that can be filled with memories.

Saskia Sassen, *Does the City Have Speech?*¹

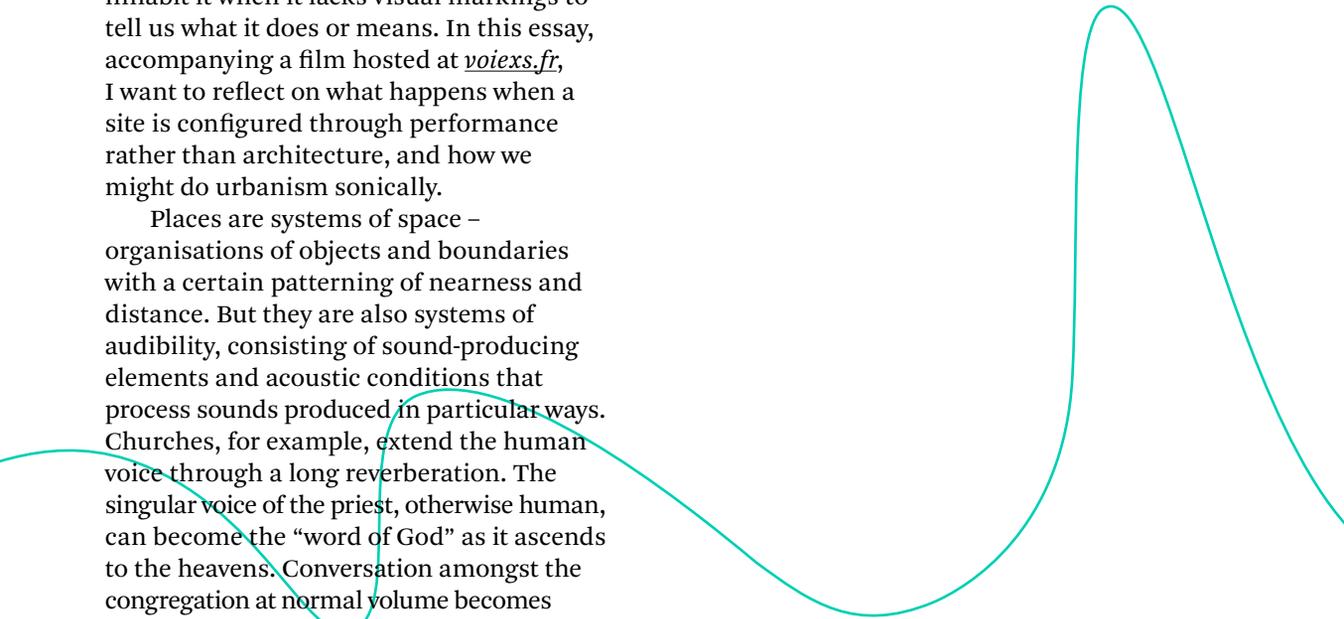
¹ Saskia Sassen, "Does the City Have Speech?" *Public Culture*, 25 (270), Durham, 2013, pp.209-21.

Voi[e,x,s] Chapelle Charbon #1 is a project about exactly this: making a place speak that has lain silent; taking ownership of it by creating new memories rather than unearthing its history; using movement and sound to find how to inhabit it when it lacks visual markings to tell us what it does or means. In this essay, accompanying a film hosted at voixs.fr, I want to reflect on what happens when a site is configured through performance rather than architecture, and how we might do urbanism sonically.

Places are systems of space – organisations of objects and boundaries with a certain patterning of nearness and distance. But they are also systems of audibility, consisting of sound-producing elements and acoustic conditions that process sounds produced in particular ways. Churches, for example, extend the human voice through a long reverberation. The singular voice of the priest, otherwise human, can become the “word of God” as it ascends to the heavens. Conversation amongst the congregation at normal volume becomes blurred, embarrassing its interlocutors into silence as they hear their profane words accentuated like those holy ones of the priest. Nightclubs muffle the voice: constant high-decibel low-frequency emissions make conversation near impossible but allow for a more level, interpersonal communication where bodies demonstrate to one another their rhythmic and sensual capabilities. The acoustics are dry, so that fast-moving beats do not bleed into one another and the voices of the crowd do not echo over the music.

What kind of acoustic, or system of hearing, then, could change a place like Chapelle Charbon from a silent wasteland

John Bingham-Hall



What happens when a site is configured through performance rather than architecture?

to a piece of public realm, a setting for social life? What kind of sociability is possible within its current acoustic conditions? Importantly, how would we find out? Performance is a temporary acoustic, a temporary network of sound sources and listeners structured by a *mise-en-scène*. It is also a temporary social situation – subjects listening to subjects. Performance extends expression beyond the everyday, using expanded capabilities for movement and sound-making developed by performers to create hypothetical situations.

So, when performance is transposed from the stage to the street, it becomes a strategy for experimenting temporarily with the social acoustics of the public realm. It proposes a hypothetical system for hearing and seeing, demands modes of attention that are different to the ones we employ for moving about the city. In designing ways of hearing and seeing one another beyond the habitual, performance is a way of testing ways of sounding and moving – the spatial, acoustic, kinaesthetic possibilities encoded into a place that are not revealed by everyday usage.

We could think about *Voi[e,x,s]* *Chapelle Charbon #1* as a series of acoustic arrangements. Just as the church's acoustic elevates whatever is spoken by the priest, or the way the sonic density of a nightclub foregrounds bodily over discursive encounter, each arrangement in *Voi[e,x,s]*

encoded a kind of system or structure of communication whose functional properties are socially meaningful before we even consider the words or actions communicated within them. These words and actions were also rich with meaning – the names of local residents whose etymologies became ways of moving in response to the environment. These acoustic situations I want to focus on as ways to change what a space is without changing how it looks – designing it sonically rather than visually.

Entering the space, we hear a single voice. It is raised to address the crowd akin to someone delivering a lecture or a list of missing people. It is loud and definite enough to convey information through a slight raising of volume beyond the conversational, but not so much that the material effect of the voice supersedes its informational value, as in shouting or the most dramatic strains of operatic singing. Though there is no stage, the raising of one voice in clear address invites the self-imposed silencing of others. This creates an acoustic asymmetry – it acts the same way as the stage that gives to the actors upon it the privilege of attention from an audience. A park is usually a symmetrical communication space – no one is on stage, there is no audience. This equality informs the way we understand its spatial form: ledges and benches are for group conversations or silent reflection rather than spectatorship.

Voi[e,x,s] *Chapelle Charbon #1* revealed that the Parc des 12 Saisons is split into two parts. One is just the right size for a single human voice to address a crowd of people, giving detailed information without shouting. It revealed that the

ledges scattered through the park provided just enough seating for the gathered crowd, and that they provided a view of a single point from which the crowd could be addressed. The surrounding buildings provided just enough acoustic protection to reflect the voice back into the space, precluding the need for an enclosure that would shut the space off from the public, like the Pnyx of ancient Athens, used for public gathering and political speeches. The other half of the space, the football pitch, works differently. Open and flat, it is for running rather than watching and is just far enough from the performance space that it can be host to a separate activity, such as children playing and shouting, while focus continues elsewhere.

Voi[e,x,s] inserted artificial performative elements into a setting that utilised and drew attention to the real social capabilities of that setting. The audience gathered in a space that acted as a stage for public address, to hear “democratic” information (the reading of names and their etymology acting like a kind of register of citizens of that space) proper to that place. Children played on the football pitch as part of the performance, disrupting the artifice to remind us that this place is also acting, right now, for them, as a playground.

This alludes to a conscious strategy articulated in discussions that took place within *Theatrum Mundi* meetings that shaped this project. In making a performance in and with a public site, what layers of the space can be translated into musical and dramatic form? One approach is to tell the history of a site, uncover and fix a narrative of what it has meant and to whom. But if a place

is defined by its history, how can those that have no part in that story feel that it is theirs? Instead, our aim was to make the site speak, as Sassen suggests. We treated it like an instrument or a tool – a set of possibilities – rather than a historical document to be communicated.

If a place is defined by its history, how can those that have no part in that story feel that it is theirs?

The metal railings surrounding it were heard springing into life as percussion instruments, via amplified and recorded acts played back into the space. Sticks were drawn across the ground in live percussive acts. Attention was drawn to the rhythmic, tonal and acoustic possibilities of its current materiality, rather than the loss of its history. This counterpoint between memory and possibility gives texture to the notion of inclusion – the former is fixed and unchangeable, demanding acceptance, while the latter is an invitation to anyone to carry out new actions in that place. Though here we are speaking of inclusion in a work of art, that work is also a real situation of public life, so inclusion takes on an even more political bent: becoming part of society by being offered the possibility to use public space as a tool for the creation of new memory, rather than by being asked to incorporate the memories of somebody else.

If performance is a way to reveal the productive possibilities of public space for making new forms of movement and

sound in the hypothetical reality of a performance, how does this creation leave its mark on the Parc des 12 Saisons? There is no physical trace of the one-hour events that took place on June 22 and 23, 2018. Hopefully it is carried in the memories of those that attended – the people called for by their names will always be present there in the minds of those that heard them. But memory here does not just mean a mental trace, it is also a way of acting or paying attention that leaves traces on the body. People become skilled at using their environments, urbanites especially so. Dark alleyways, open public squares, busy shopping streets do not come with instruction manuals, but we know how to inhabit each of them differently. If we are presented with a new kind of space, like Chapelle Charbon or Parc des 12 Saisons, that is not visibly like a place we have experience of, how do we know how to use it? Performance, perhaps, can be a way of skilling the body in relation to an environment. Could those temporary, staged ways of behaving be left as traces in that space via the embodied knowledge of local residents that participate in the performance and later will become users of the park? We do not know, but it raises rich territory for future research alongside the creation of the next stage of *Voi[e,x,s]* *Chapelle Charbon*.

As well as experimenting with ways of using a single space, this performance used dramatic techniques to play with the way coherence in space is perceived in the first place. How, at any given moment, do we determine *where* we are? Rooms with four walls are nearly enclosed, and homes usually have clear ways of marking the boundary between domestic interior and

public exterior. Streets offer addresses, and public squares use defined landscaping to denote their edges. We usually use visual clues: anything beyond what we can see is somewhere else.

Somewhere like the Parc des 12 Saisons is less clear: it is composed of two distinct terrains, enclosed in two layers of fencing, and offers views that are bounded clearly on one side by the walls of neighbouring buildings but overlap in other directions into the street and depot surrounding the site. Which of these scales describes the single space occupied by the audience for *Voi[e,x,s]*? Visually, we might choose the closest boundary: the construction fences used to close off the space at night probably mark a line beyond which a different space begins. At the start of the performance, the acoustic field replicates this edge, with the positioning of hidden speakers tracing its route. Whispered voices amplified to the level of public speech created an intense sense of interiority. Regardless of what is said, whispering is suggestive of sharing between intimates. The space it creates distances the world beyond. Tower blocks in the background are somewhere else – seen but not heard.

Later the performers broke free of the performance space and started playing the outside of the fences as percussion instruments. At this point, the immediate exterior surrounding the park became incorporated into the space of focus and the recorded voices expanded outwards in the acoustic field created by the speakers, taking our attention outwards with them. In each case, it was aural clues that told us what was inside and what was outside. As the scale of the performance expanded outwards, voices from far-off rooftops were

added to the ensemble, and suddenly we were inhabiting a single space far beyond the immediate visual confines, tied together as a system of hearing. The two most diametrically positioned performers were 483 metres apart, and the space drawn between all of them enclosed 60,000 sqm. 60,000 sqm of city become one space – a stage, or theatre perhaps – without a single physical change.

Suddenly we were inhabiting a single space far beyond the immediate visual confines, tied together as a system of hearing.

What *Voi[e,x,s]* offers, then, is a model of how the built environment can not only be represented by, or a passive setting for, performance, but how performative techniques tested out through composition and *mise-en-scène* can actually change its functional possibilities, the way it is used, and the relationships between its parts.

How, then, does a work like this travel elsewhere? This is a big question for the project as it develops beyond 2020 and beyond Chapelle Charbon. Rather than being specific to a site, we wanted to be informed by it, in the way a composer is informed by an instrument to write music that can later be played by another instrument, revealing new qualities of both the instrument and the score. A score written for a site could be “played” by other sites, as ways of revealing spatial and acoustic potentials within those sites,

whereas a recording of that site can only be listened to. This does not mean the same sounds will be heard – here the score represents a whole protocol for working with people to activate, record, and perform. The score acts as an invitation to make rather than an object to consume.

There is also a political imperative to this: at a time in which local identities are asserting themselves against the global values of migration and universal citizenship, art should resist reinforcing fixed identities of place and instead stimulate modes of cooperation. This is not to say that art is placeless or itself universal – it is developed in and with the material, cultural, economic specificities that are geographically distributed, but can be circulated as scores, tools, knowledge rather than objects, recordings, and facts.

To return to Saskia Sassen’s question, ‘does the city have speech?’ The answer here is yes, but to hear it we need a score that the city can perform. ●

VOI[E,X,S]

Part II: A discussion with Alexandra Lacroix and Marta Gentilucci

Voi[e,x,s] is a project that sees opera director and stage designer Alexandra Lacroix and composer Marta Gentilucci working alongside Theatrum Mundi to explore how the qualities of a sonic urbanism might transform the space of Chapelle Charbon, in the 18th arrondissement of Paris. In this interview, Lacroix and Gentilucci discuss with Theatrum Mundi's director John Bingham-Hall what it means to use a piece of public space as a sonic instrument, how sound both identifies and creates an identity for space, and how the project relates to a wider city context. The project can be viewed online at voiexs.fr.

John Maybe the best way to start, is with you saying in a few sentences how you understand this project. Between us we have language that we've used over and over again, but it's probably all developing in different ways in our own minds. So, how do you view what we are creating here at the moment?

Marta [laughs] Good question!

Alexandra I have to say it's a very exciting but also difficult project for me. I am used to crossing different fields, but this is something really special. We are outside of the theatre and we are meeting not only artistic fields but also sociology, architecture and urbanism, so it's difficult to say what this project is. Really, it's an experiment – a musical, artistic and sociological experience, but one that has no name, in a way.

John That's true, this kind of project has no existing name. It is somewhere between sound installation, spatial design, community opera and acoustic ecology.

John Bingham-Hall

Marta I would add two things: one is that for me it's very interesting to share and confront my work with Alexandra's. As a composer I usually work by myself, completely owning and controlling the procedure and the method I use to compose. Meanwhile Alexandra is leading the *mise-en-scène*, so she's the director of the stage. Having two entities that usually conduct their creative process independently together, and having to find a common place, is extremely interesting.

The second thing is that I see an exciting possibility in this work. Usually, I have a container to work with: I can write music for a theatre, for a concert hall, for a smaller or bigger space. I try to develop a musical discourse for different situations. Here there is something different, because there is the possibility to create not only a container for the performance, but also to create a common context, the roots, from which I have to implement and modify my own language. It's changing my way of composing.

John Part of the challenge is taking something into the public realm. This project forms part of a wider reflection for *Theatrum Mundi* on sound, not just as a material, but the way that we use sound and the way that we create sound and how performative techniques and compositional techniques could inform urban design. How do you think that *Chapelle Charbon*, its space and the way it is changing, have been affecting you in terms of the work that you're making?

Alexandra You need to be very clear why you are doing this thing. When we are doing something in the theatre or in another cultural place, people want you and expect you to make an artistic piece.

But in urban space it's not obvious. Nobody is waiting for you or asking something from you, so you need to be different. You need to defend an artistic thing in a world where that thing is not necessary.

John There's much more competition for attention in the public realm. Not just in terms of the immediate setting of the performance, but different things competing for space, competing for the right to be there.

Marta Yes! Exactly

John A theatre creates emptiness that is intended to be filled, whereas a true city, or at least its public realm, is always full, in a sense. That's one of the reasons we were so stimulated by Chapelle Charbon as a space, because it was genuinely empty apart from one small group of people we met who were living there. Whereas in the rest of the city there's traffic, there's commerce and so on.

Alexandra In the city you don't have any place where you can really exist and the space to do something. You need to make it exist. You need to identify the needs of the streets, the needs of people, of the urbanist, and to find a way to say, "Yes, it's important to have this artistic dialogue with you".

Marta Chapelle Charbon is like a huge playground in which there are few instruments, but many sonic possibilities. That's why it takes so much time and so many visits and so many recordings to have a sense of this huge instrument that is the park.

You need to defend
an artistic thing in
a world where that thing
is not necessary.

John You mean Chapelle Charbon as a space?

Marta Yeah, it's a huge instrument, a sonic instrument, that incorporates the people that were there for the show. I think that one question that we have to ask ourselves, is if we need to think about the kind of people that are coming. Or do we need to develop the necessity of our work – the artistic, social, urbanistic necessity – from inside, for its own sake? Then afterwards to try to give it an "outside", in terms of the reaction in different contexts. On the one hand, we try to figure out which or whom is the public, and then work with this public in mind. Or, on the other hand, we try to focus internally on an exchange of knowledge, questions, creative process between ourselves, and then we put it outside. And after the performance we try to figure out the reaction of the public. It's not a project that is just "OK, I'm doing this and that, it's a piece, it's written, then we perform it" – it's not like there is score that is finished and then others will interpret it. We are interpreting it all the time, in different ways.

John I think another way to frame what you've just raised is: Are we saying that a community already exists for this piece? Or are we going to create a public?

Marta I think there is a third way: that we are not creating, but we are already part of it. So being there doing the project and the performance is not creating something that the others will fill with their presence; instead we are already part of that community. We are creators and spectators at the same time, from the very beginning.

John We're creating an intensification of the public, in a sense. There are already loose connections between people that are near to that site, its potential community. This gives a certain level of connection, but we're kind of coalescing that potential community into a real one via an intensified, shared sensory experience. This is Jacques Rancière's idea of a community of senses, which emerges in a space. A community might not be linked by anything else other than the same sensory experience they're having at that moment.

Alexandra It's an empty space and that's a good thing, I think, because there is no expectation. It's a new space for the inhabitants and for us. So the only connection is to be there at the same time, doing something new there.

John There was this notion that we weren't trying to capture the place and say, "This is how it sounds"; instead we were trying to say it could sound like this. You could make it sound this way by activating this piece of material or by saying this name. What for you is the difference between that documentation, which operates in a supposedly neutral way, and what we're doing?

Marta I think, that it has something to do with fluidity. The fingerprints of today's sonic and emotional social space are in continuous change. When we recorded the sounds at Chapelle Charbon, the raw material – a hit with a wooden block, a piece of metal – these sounds could come from anywhere, they are not specific. Some sounds become specific because of our memories of the place. We recorded many names of the inhabitants and I was moved when listening back to the names because I knew exactly when we recorded it, the faces of the children who were saying names, the person whom you were laughing with during the recording and so on. But then, when it's recorded and re-created and replayed over and over you lose this connection with the actual act of recording. That's where I think we need to find a way to go beyond the specificity of Chapelle Charbon. How can the process of being in Chapelle Charbon produce a way of operating that can be meaningful in another situation? With other people who are coming? With other sounds of a different city?

Alexandra But it was a very special moment. You can't cheat, it's not a recording, it's not electronic... it's the very organic connection between the bodies, the voices of these bodies and this space.

John I want to pick up again on the playing of names. Marta, you can see the materials that made the sounds you recorded, but an audience can also have a real and meaningful sensory response to these sounds. We don't have to understand somebody's name for it to give us an

intimate sense of them. So, I wondered if you could reflect upon the way that, when we play those sounds – when we play the names into the space – does it represent those people or invoke their presence?

Alexandra Another question related to that for you, Marta: you recorded some names, but many were recorded without you being present. You had the files but not the faces, so how did it become alive in the moment for you?

Marta As a composer I'm very sensitive to the quality of sounds. So when you listen to the voice of a kid you know if it is a boy or a girl, if it's lively or a bit sad, or if it's shy or not. You have all this information there in the voice of the person and you can almost see as if he or she were real. You can create an image, an identity of the face.

Alexandra That means, as you say John, all the people who hear those names can imagine and seize the faces. The identities of those people are in their voices. Even the sonority of the names, the origin, is giving you so much information that everybody can begin to imagine the person.

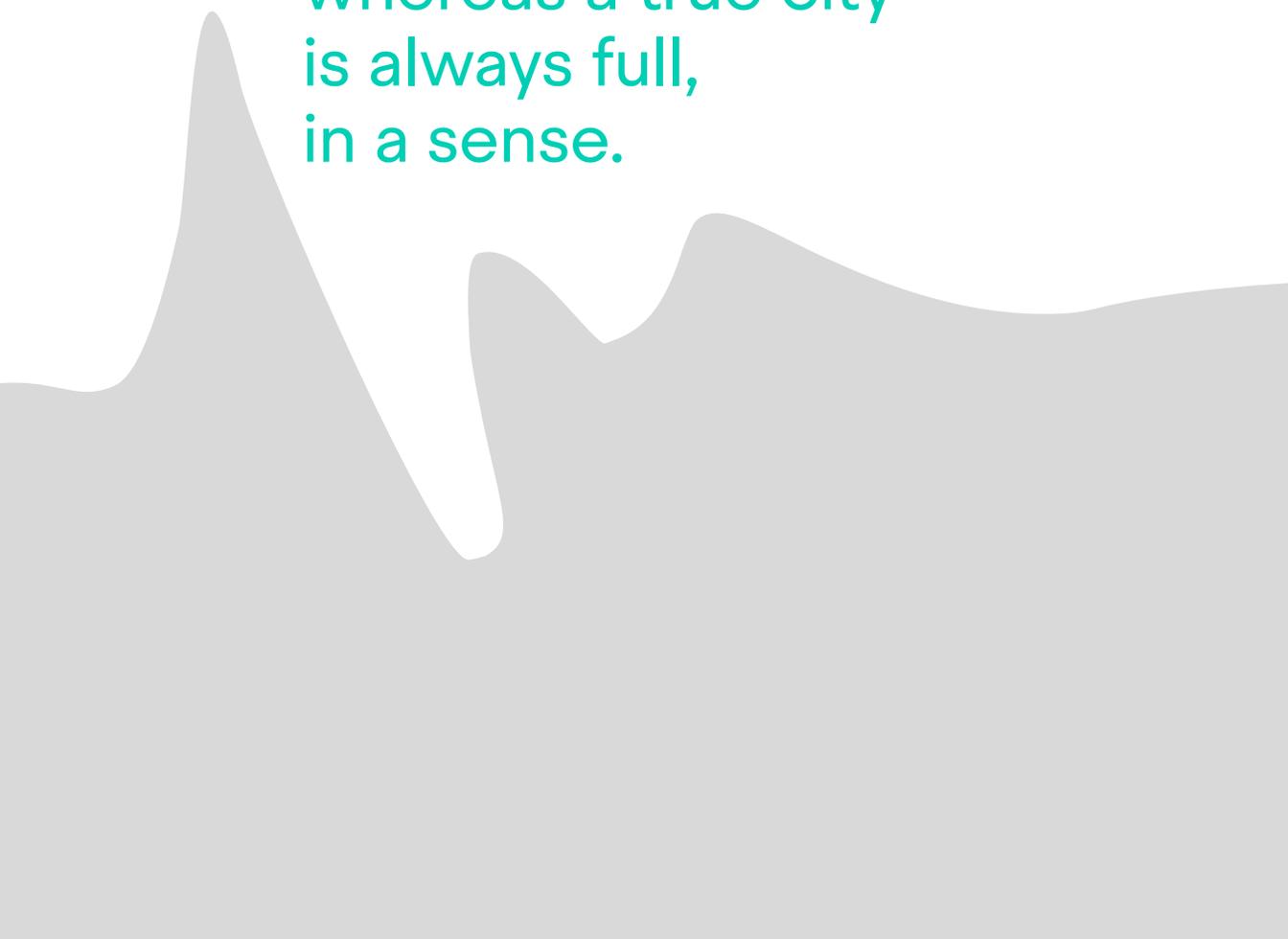
Marta Personal names identify a personal space, so when you say a name you are creating an identity. And I think there are things in the performance, that were a kind of a confirmation of that capacity of names. Today we are surrounded by technology – TV, radio, advertisements outside, etc. – so everything pretty much has a connection with technology. Sounds that we hear are often coming from something electronic, so we are constantly listening to real sound mixed in with

digital sound. The techniques used to spatialise the voices in the performance – having voices in different spaces, speakers hidden behind the public and the performers also whispering – produced a constant interaction between the created reality and the real reality of the place. The sounds were not misleading the perception but amplifying and making it bigger.

John This leads beautifully onto the last thing I wanted to raise. In one of the workshops this project grew from, we asked: "What is a sociable acoustic?" In other words, how could you understand the social configuration of a space via its acoustic properties? Could you reflect on this? To what extent could the carving out of these virtual acoustic spaces Marta just mentioned create a realm within which people respond socially to one another in a different way? Perhaps they feel more intimate with one another or they feel more like they're part of the same thing? Or where suddenly you feel connected to the wider city, as the voices were coming from the rooftops of the surrounding buildings.

Alexandra For me the big emotion concerned how to communicate in this big space. You could have a dialogue between the kids and the performers who were really far apart, those in the space and others placed on surrounding rooftops up to 500 metres from each other. For me this was something very emotional that opened up the possibilities of having a dialogue in a huge space. We don't need to be very close to share an intimacy; we can have something really intimate in a huge space.

A theatre creates
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John It's a really valuable idea, using the public realm, which can be very big and very overwhelming, in such a way. More and more it has to become a shared space, because many of the other shared spaces in the city are organised into different kinds of social categories around different subcultures, religions, consumption preferences, and so on. We have to be able to have an encounter that doesn't involve you explaining yourself to someone else, but which involves you feeling much closer to them than you do when you're just passing in the street.

Alexandra What is super exciting for me is the fact that we can create different listening experiences that come from sound in the bodies of people. The way Alexandra is creating space through the *mise-en-scène* and through the sound – this interaction creates a common language. If we can find this common place in which space, bodies and sound are mixed, and create many listening experiences through this... I think that is going to be what the project is about. And these listening experiences are the interaction with the people. So people are free to interact in those spaces that we create.

John This is making me think more clearly about the how people use these different spaces that are created within workshops and the performances. And within these, how people change their physical responses to the space, which go beyond what one does in the everyday sense. Usually, in order to protect ourselves from one another and from the overwhelming nature of the public, we really limit our bodies, so this experience can open people's bodily openness to one another,

There's an opportunity to have a very different, intimate relationship with strangers within that sonic envelope we're creating.

or at least give them the opportunity to do that. There's an opportunity to have a very different, intimate relationship with strangers within that sonic envelope we're creating. ●



MASTERSTUDIO L28 AND THE VIBRATIONAL NEXUS

Urban sonic
design research
as critical spatial
practice

This text outlines the research context and strategy for the Masterstudio_L28 organised by Caroline Claus and Burak Pak for the first time at the KU Leuven Faculty of Architecture in Brussels between September 2018 and January 2019. After introducing the notion of the ‘vibrational nexus’ and the idea of research as a critical spatial practice, the pair go on to position Masterstudio_L28 as a broadening and deepening of an inquiry that has its roots in a socially engaged sound art practice.

In 2018, eleven students of the KU Leuven International Master of Architecture enrolled in a fourteen-week urban sound design research project, called Masterstudio_L28,¹ under our guidance. After an introduction to the research context, we asked students to rethink urban negotiation and urban transition from a critical sonic perspective. From a conversational questioning of the ontological turn in sound studies, we challenged students to move beyond human-centred sonic conceptions and to explore, in practice, an a-disciplinary selection of sonic methods and forms, in order to exploit (sonic) vibrations as design material for a possible re-negotiation of urban transition.

Research context

Our approach to urban sonic design research combines theoretical work and networked practice, harnessing the power of networked collaboration to exchange knowledge through practice and nurturing the productive

¹ The Masterstudio_L28 is part of a PhD project entitled “The Vibrational Nexus of a Brussels Railway Area in Transition”, with Prof D. Burak Pak as the supervisor and Peter Cusack as the co-supervisor.

encounters between disciplines such as sound art, urbanism and architecture. We research the position and role of sound and sound arts in the development of public space in old industrial infrastructure space. It is a move away from existing disciplines as a result of the model of (sonic) experience and the research methodology employed.

The objective is not to search for consensus but to explore a carefully designed disciplinary confrontation.

The objective is not to search for consensus but to explore a carefully designed disciplinary confrontation. Our research has its roots in an artistic research project Caroline Claus realised in collaboration with the Brussels workspace for sound art, Q-O2, and the Public School for Architecture Brussels in 2016, and her long-term involvement in the planning processes for public railway space along the city's L28 railway line.²

The vibrational nexus

Open space along the Western ring railway L28 has long been marginalised in Brussels' planning processes.³ The development of public space on former railway land is relatively new here. Because of its natural, historical and ecological richness and the recent plans for development and transition, the railway

Caroline Claus and Burak Pak

² Caroline Claus and Julia Eckhardt, *Studio_L28*, Brussels, 2018; "Park Thurn & Taxis openhouden voor iedereen," *Bruzz (online)*, December 15, 2016; Kandjee, Pferdmeiges, and Persijn, *Project van Richtplan van Aanleg voor Weststation*, Brussels, 2019.

³ Julie Mabilde, Elke Vanempten, Stefan Devoldere and Celine Oosterlynck (eds.) *Metropolitan Landscapes: Open Ruimte als Basis voor Stedelijke Ontwikkeling – Espace Ouvert, Base de Développement Urbain*, Merelbeke, 2016.

area of the L28 line can be considered an excellent object for research into sound and urban public space development.⁴ To date, Brussels' urbanism has had little concern for the quality of its public sonic environment. Within the context of public space development along the L28, urban sound is usually discussed in terms of its negative connotations. From the perspective of the project developers and authorities, the health and peace of the future public space should be guaranteed.⁵ Conflicts over social noise nuisance are dealt with preventively and repressively in the short term and at street level.⁶ However, an artistic exploration of the sonic struggles from the perspectives of young people and social service professionals involved, opened up the debate towards more constructive sonic approaches.⁷

Sound studies increasingly recognise sonic vibrations as a medium for community building and political action.

Sound studies increasingly recognise sonic vibrations as a medium for community building and political action.⁸ Recent research in urban sound studies focuses on how collective listening practices

help to develop a critical ear for urban space, thus contributing to productive reflection in spatial planning and design processes.⁹ The search for alternative strategies for engagement, as well as for critical and spatial design is supported and inspired by the work of artists and musicians creating new aesthetic experiences and new ways of mobilising.¹⁰

For his ecological theory on sonic warfare, philosopher, the musician and record label owner Steve Goodman points to the importance of understanding the agency of vibrational matter and the shortcomings of anthropocentric conceptions. Moving past the sonic as simply conscious hearing or listening, Goodman argues for an unconscious, affective account of sound as material impact, opening the body up to inaudible frequencies. Much of Goodman's work on sonic warfare is given over to determining a politics of frequency through the description of experimental practices that intensify vibration, thereby unfolding the body onto a vibrational discontinuum that differentially traverses the media of the earth, built environment, analogue and digital sound technologies, industrial oscillators and the human body. Goodman defines a 'vibrational nexus' as each actual occasion of experience that populates the discontinuum, drawing an array of elements into its collective shiver.¹¹

The conception of a differential ecology

4 Leefmilieu Brussel, "Het Groene Netwerk", [Leefmilieu Brussel \(online\)](#), 24 Sep. 2018; Thierry Kandjee, Petra Pferdmenges and Nadia Casabella, "Contrat de Rénovation Urbaine – Gare de L'Ouest – Stadsvernieuwingscontract Weststation" [Brussels: Urban \(online\)](#), 24 September 2018.

5 ADT-ATO, "Etude de Définition Gare de L'Ouest" [Brussels: ADT-ATO \(online\)](#), 24 September 2018.

6 Nicolas Pirsoul, "Plan Canal in Brussels: Belgium vs Molenbeek," [Open Democracy \(online\)](#), February 26 2016.

7 LettreATv, "Wz - Ils est balaise," [YouTube \(online\)](#), Jul 15, 2017; Peter Cusack and Caroline Claus, "Residency Report: Peter Cusack & Caroline Claus," [Soccos \(online\)](#), September 24, 2018.

8 Lucia Farinati and Claudia Firth, *The Force of Listening*, London, 2017; Brandon LaBelle, *Sonic Agency: Sound and Emergent Forms of Resistance*, London, 2018.

9 Ellen Fluegge, "Soundly Planning: practically listening to (Belfast) sound spaces", *Invisible Places* (working paper) Azores, 2017; Caroline Claus and Burak Pak, "Towards Urban Sound Design for Transitional Public Railway Park/Places:

of vibrational effects leads him towards a non-anthropocentric ontology of ubiquitous media, a topology in which every resonant surface is potentially a host for contagious concepts, percepts and affects.

Understanding the open space of an urban railway area in transition as a discontinuum of sonic and vibrational possibilities determined by interacting human bodies, non-human creatures, ecological systems and other factors, encouraged a revision of dominant sonic approaches, methods and tools used in the urban design process as we know it. A decentring of the human sense and perspective seems to have implications for the urban design it constrains. Building on Goodman's theoretical work, we have adopted Augoyard and Torgue's notion of sonic ecology for our practice-based research project on a critical sonic urbanism.¹² From a questioning of the ontological turn in sound studies, our research project elaborates upon the following positions and propositions:

- human and non-human actants co-constitute a discontinuum of sonic and vibrational possibilities
- a critical sonic urbanism necessitates an a-disciplinary rethinking of sonic methods and forms
- (sonic) vibrations as design material open up to a re-negotiation of urban transition

Sonic Strategies for Engagement, Critical and Spatial Design," *CA2RE: Conference For Artistic and Architectural (Doctoral) Research Proceedings*, pp. 108-19.

10 Mireia Pascual, "Mark Bain: Listen to the Wall," *Metal Magazine* (online), Spring 2017.

11 Steve Goodman, *Sonic Warfare*, London, 2009.

Critical spatial practice

Working and reflecting in the bordering zones of sound art, architecture and urbanism, the research project evolved to become a critical spatial practice that we provisionally named Studio_L28. Studio_L28 is conceived as a practice for counteracting situations in the L28 planning process where sonic awareness and sound design strategies are limited to noise control. To break free from prevailing modes of urbanism and urban architecture that typically focus on sonic risk and vibrational nuisance, we constitute an a-disciplinary working practice exploiting productive encounters between different disciplines. While being about a network, Studio_L28 represents a networked practice in itself.

Following Miessen's idea of the crossbencher, Studio_L28 departs from the first person singular: the individual practitioner.¹³ Building on the notion of self-responsibility, our model of practice acknowledges an interconnection between the designer, multiple disciplines, their languages and tools, the urban contexts and actors involved. We understand the design strategies that a practitioner employs as being a result of these interconnections. In Studio_L28, the practitioner combines the role of agent of change with that of researcher and therefore commits themselves to reflexivity as the processes of action and reflection unfold. Studio_L28

12 Jean-François Augoyard and Henry Torgue, *Sonic Experience, A Guide to Everyday Sounds*, Montréal, 1995.

13 Markus Miessen, *The Nightmare of Participation: Crossbench Praxis as a Mode of Criticality*, Berlin, 2010.

provides a testing ground for phenomena, methods and tools we consider to be elements of the transdisciplinary framework we deploy. Artistic practices, concepts and aesthetics of making organised sound inform the construction of a language that seizes its own methods and tools, and thereby manifests itself.

Besides contributing to a new body of work, which assembles around the notion of sonic urbanism, Studio_L28 explores how hyper contextual practice can inform existing disciplines, such as architecture and urbanism.

Masterstudio_L28

As a master design studio, Studio_L28 functions as a platform for critical learning in action rather than an educational programme. Critical learning is understood here as a means for the development of ideas from within the ongoing conversation between graduate students, studio coordinators, researchers and a larger network of sound artists, outreach workers and urban planners and architects involved in the official planning processes. Throughout the process we facilitate the production of critical ideas and motivate the students to create exploratory projects as a means for presenting and testing these ideas.

The studio concentrates less on the form of architecture than on possible interventions within the conditions it creates, as well as the dimensions of urban sonic vibrations as a source for a re-negotiation of urban transformation. By re-negotiation we mean a re-purposing of sonic spatial relations that are capable of initiating new socio-political

encounters. Rather than demanding students take a ready-made formalistic approach to the design process that places an emphasis upon the physics of acoustics, this exercise is about the search for tensions between; the intuitive, sensible and semantic components of urban sound on one hand, and the disinterested and purely formal elements of architecture or urban design on the other.

One of our research goals is to develop a typology of possible sonic design interventions in relation to disciplinary positions and urban sonic forms:

The projects: disciplinary positions

Half of the students adopted Augoyard and Torgue's phenomenological approach as a building block for the creation of new design tools such as a new typology of urban architectural interventions.¹⁴ Some students directly included one or more of the sonic effects in their project proposal. Although originally conceived as a human-centred approach, some students intentionally misused it for an integration of non-human agency. A focus on the sonic experience of urban space prompted students to experiment with techniques such as the interview or survey, narrative explorations and field sound recordings. They then contrasted this qualitative research with the decibel approach used by authorities and planners.

The projects: urban sonic forms

Dealing with sonic spatial qualities not present in other analyses of the area touches upon the limits of dominant

14 Jean-François Augoyard and Henry Torgue, *Sonic Experience*.

planning and design approaches. What appeared in the design process were spatial qualities where the articulation or modulation of urban sonic experiences contributed to a particular identity for the urban space in transformation. The final projects highlighted different possible approaches to a variety of conflictual sonic aspects of urban transformation. Each project illuminated or introduced elements for listening or other ways of experiencing sonic vibrations. Different modes of sonic experience were articulated or modulated through design: from a focus on hearing a sound source, to aural attention aimed at formal or structural details and their arrangement in space and time. By connecting in different ways to transitioning space and urban sonic conflict, students highlighted a variety of issues concerning negotiation, inclusion and autonomy.

Not all students designed for a renegotiation by reconceptualising contingent aspects of a sonic experience.

By connecting in different ways to transitioning space and urban sonic conflict, students highlighted a variety of issues concerning negotiation, inclusion and autonomy.

Some designed projects aimed at facilitating a rule-governed selection, the installation of a protocol or an exercise in autonomy: a subjective experience or relation to urban transition as negotiable.

In several projects, the adoption of a phenomenological approach led to a tactical urban sound design proposal. Two students proposed a series of sonic spatial design interventions based on different sonic effects listed in the catalogue of Augoyard and Torgue.¹⁵ These design projects introduced a series of new aesthetic qualities to strengthen the social and cultural appropriation of a future railway park. Through these tactical interventions, the participation of an audience becomes possible. Another project consists of a structure that offers space for non-human agency in support of a new sonic identity for the Weststation housing complex area. And, following a positive noise approach, two students designed for a controlled, aesthetic acceptance of urban noise.

The experience of a series of types of urban noise was included in one design for a network of public railway park/spaces. The idea of a sonic sequence was also present in a landscape project that starts from the vibrational experience of an underground railway. These design solutions are transdisciplinary in nature and encourage a further development of new sonic spatial forms for socio-recreational green infrastructure space in the Brussels Capital Region. The rather experimental forms stimulate a multipurpose appropriation of the future public railway space. Other, performative installations intended to frame and augment people's experience of railway space in the early phase of its transition. These installations aim to reinforce the interplay between human and non-human relations on one side and between sound and vision on the other. In doing so, they explore how a critical sonic approach can

¹⁵ Ibid.

play a role in a (re)negotiation of urban transition.

Three of the projects evolved from more practical perspectives and concrete architectural approaches. Via an interweaving of acoustic elements while designing for tactile interventions, these students researched the negotiability of sound in the architectural scale of urban space. One of them used the idea of an 'acoustic arena' as defined by Blesser en Salter in her design project for a series of arenas that provide an interactive and socially, as well as physically, connecting narrative for the Weststation area in transition.¹⁶

Sonic design typology

On the basis of the design approach and the final design proposals produced during the studio, we can identify four methodologies:

1 · *An interdisciplinary urban sound design approach* in line with Augoyard and Torgue's suggestion of playing the city via its sonic instrumentation by modulating its vibrational effects. Within this, we distinguish a human versus non-human design approach.

2 · *The noise landscape as an opportunity for urban design.* A transdisciplinary noise perspective allows for a gradual embracing of noise and an attitude of experimentation. Noise-oriented features are integrated within a green framework for urban design.

3 · *The design of transitional architectural projects in which sonic vibrations are used as material for a re-negotiation.* Ephemeral installations by means of artistic sonic

strategies and techniques facilitate a disclosure of urban experience in a context of urban transformation. The experimental nature of the installation encourages an exploration of non-human agency in transitional planning.

4 · *Concrete architectural approaches and projects* that work with sound as material and plan a design idea from an explicit acoustic perspective. The implementation of basic acoustic principles in relation to place-making allows for a controlled (re-)negotiation.

Conclusion

For a mapping of the design practices, we looked to the disciplinary positions the students departed from and the urban sonic forms they arrived at. From here we then set out the first lines of a typology that summarises the practices. The next step was to proceed to the creation of concepts and a set of work arrangements that were at once material and processual. The goal was to create, to define and to refine concepts and practices operating in the border zones between disciplines, in support of a trans-disciplinary move towards a critical sonic urbanism. We anticipate that a continuation of this reflection in practice will allow us to find a common language and facilitate future collaborations between actors who are working separately from each other.

In the design studio, several challenges related to the a-disciplinary research approach have surfaced. For example, due to the short duration of the project and the position of the practice within the Faculty of Architecture, the combination

¹⁶ B. Blesser, "Spaces Speak, Are You Listening? Experiencing Aural Architecture," *The Journal of the Acoustical Society of America*, 121(4), 2007, pp. 1820–1821.

or integration of different disciplines was difficult for teachers and students. Increased complexity at all levels demands more participation, more knowledge and theoretical perspectives, plus the introduction of, and experimentation with, new tools and methods coming from multiple disciplines. The same applies to reaching out to the super-diversity and complexity of Brussels itself. It is also for this reason that we decided to organise the second edition of Masterstudio_L28 from within the actual public space, in relation to a local and supra-local network active in a wide range of social, architectural, artistic and technological fields. ●

THE VILLA DES GLYCINES

A musical architecture

The fusing of architectural and musical composition has long been a viable proposition, as Nathan Belval explains through a reappraisal of the Villa des Glycines, a pioneering example of sound urbanism, largely misunderstood at the time of its conception in the late 1970s.

In 1979, architect Alain Sarfati commissioned composer Pierre Mariétan to participate in the design of the Villa des Glycines and create a new housing typology bringing together architecture and music. The villa would form part of a project to transform the village of Évry, in the southern suburbs of Paris, into a *ville nouvelle* [new town], with 130 housing units of over 8,000 square metres constructed between 1971 and 1980.

Mariétan was included in the design process of the Villa des Glycines. He regularly met with the client and made a number of visits to the construction site accompanied by the architect, the contractor and an acoustician. The composer then produced texts, diagrams and drawings to contribute to the conception. The purpose of this collaboration was the creation of a new architectural form whose sound attributes would be integrated in the conception of urban housing in order to create a pleasant space of inhabitation.

Taking sound into account in the design of a space required reflection on each stage of the acoustic chain: the production of sound, its progression in space and its perception by users. Each of these aspects was considered in the process of architectural design.

Thus, the design of forms, volumes and material elements of the Villa des Glycines were matched to an understanding of space and sound, which would then feature acoustic characteristics. The design of

spaces, equipment, objects and furniture were translated by the composer into musical reflections, taking into account these different sources of sound. Finally, the uses were organised in such a way that they would take into account auditive perception. Accordingly, the production, propagation and perception of sound were incorporated into the process of architectural design in a manner akin to methods of musical composition.

Propagation: using acoustic attributes to define space. Mastering sound propagation across the space allowed different areas in the building to sound different. The first consideration by the composer was to take into account the existing soundscape; all the sounds outside the building and their diffusion within it.

Surrounded by busy thoroughfares, the Villa de Glycines was exposed to the sound of car traffic. The U-shaped footprint of the building therefore created a natural acoustic boundary, stopping exterior sounds from propagating within the estate. From this protected space, initially conceived as a car park, Mariétan aimed to design a garden with musical attributes.

Similarly, the garden's topography was designed in such a way that it would reinforce its acoustic characteristics, especially its transparency: its capacity to allow one to hear all the sounds without any masking. A mound was erected at the entrance to mitigate the penetration of exterior sounds. A light slope towards the back of the garden created a cavity – refuge [*creux* – *isoloir*], as Mariétan described it, which was designed to be a silent space offering sonic intimacy favourable to the voice.

The building materials were chosen according to their acoustic characteristics,

Nathan Belval

Translated by
Justinien Tribillon

i.e. for their capacity to absorb or deflect sound. The façades surrounding the garden were conceived to reflect the sounds that would resonate within it. The entrance points, linking the city, the building and the garden, were conceived in such a way as to lead the inhabitant through an auditory progression, which progressed from the rumble [*rumeur*] of the city to the sounds of everyday living.¹ The echo of steps creates the tempo for this transition: initially concealed by the sounds of the city, they become audible to the resident who, on their way home, walks over slats of wood placed atop echoing cavities to produce a familiar sound.

The entrance points, linking the city, the building and the garden, were conceived to lead the inhabitant through an auditory progression.

Mastering acoustics allowed the designers to deliver a musical vision of the environment: by controlling how the sound propagated, the composer could define sonic spaces – locations identifiable by the ear – thanks to their audible characteristics.

Production: composing the sonic sources of a musical environment

Each architectural element was considered by the composer as a sonic source that

could enrich musical attributes. Together, the sources constituted by the spatial, furniture and landscape elements became the tools of a precise work of musical composition. The composer first defined an ensemble of sources of different types: the geophony (sounds of natural non-living artefacts), the biophony (sounds of fauna and flora) and anthrophony (sounds of human origin).² The sounds of different natural elements, animals and plants, along with the voices of inhabitants, came to balance out the presence of urban activities and transport in the *soundscape* of the Villa de Glycines.

The natural elements were chosen by the composer and arranged in the garden for their sonic quality. A water source, for example, was used for its harmonic possibilities.

Almost inaudible at first, it meandered across the garden to become a stream, singing as it followed its furrow to a small waterfall. The water flow and eddies generated an ensemble of easily-identifiable, high-pitched frequencies guiding the passer-by across the garden. Different species of trees and types of plants were planted to invite insects and birds. The sounds of fauna, chirping and buzzing, changing throughout the year signalled the cycle of seasons as much as autumn's dead leaves. The twittering of birds from dawn to dusk would become an everyday melody. All the natural sounds, as they changed throughout the year, were intended to constitute what Mariétan named 'seasonal music'.³

The composer also imagined an outdoor furniture of musical sounds. The surfacing of the walkways were made

1 Pierre Mariétan, *L'environnement sonore: approche sensible, concepts, modes de représentation*, Nîmes, 2005, p. 91.

2 Bernie Krause, *The Great Animal Orchestra: Finding the Origins of Music in the World's Wild Places*, New York, 2013.

3 Pierre Mariétan, *La musique du lieu: musique, architecture, paysage, environnement*, Bern, 1997, p. 90.

of different materials (soil, wood, gravel and asphalt) so that the sounds of the steps were alternately muffled or echoed, crunching or squealing.

Mariétan also intended to set up different sonic installations as musical instruments but these configurations were never implemented due to lack of budget. For example, an Aeolian harp was imagined, that would react to the wind and generate a melodious ensemble of consonant sounds. Another was a horn, similar to those played in the Alps, which would enable inhabitants to create round and warm sounds highlighting the space's acoustic qualities. Similarly, five 'tinkling stones' could have been played like percussion. Mariétan also designed (but never built) an aquaphone: an echoing ensemble of varied forms and materials tuned on a harmonic scale, onto which rain drops would fall. The instrument would have been part of a gazebo, the 'music factory'.

'This open pavilion' would have been fitted with light devices designed to create acoustical effects such as a flutter echo and reverberations of pre-determined frequencies. The sound effects would have invited residents to play with acoustics by producing sounds with their voices or in-situ instruments.

Sonic manifestation created through the garden furniture and the instruments were designed in relation to one another to avoid masking. Each source was therefore arranged in terms of pitch, length, intensity, tone and space (location and diffusion): these five qualitative parameters of sound aimed to create a balanced ensemble of sonic sources. As opposed to a

cacophony, where sounds are masked and hard to identify, the garden was designed to offer auditive points of reference integrated in a musical framework that changed with the seasons. Had all of the instruments been installed, it would have constituted a genuine polyphonic instrument, activated by the natural elements and actions of inhabitants.

The garden was designed to offer auditive points of reference integrated in a musical framework that changed with the seasons.

Perception: designing a musical habitat to foster listening

The work of the composer in designing the Villa des Glycines was not limited to composing the soundtrack of places and the sounds that were produced there, but to truly conceive the sonic experience of inhabitants of this musical public space. The different ways to listen and to engage with the production of sound were taken into account by Mariétan, who considered the project as an 'enterprise of auditive awakening'.⁴ The quality of the sonic environment and the everyday experience of sonic wellbeing were to enable an enhanced form of listening: strengthening the sonic environment was necessary in order to understand and grasp individual responsibility in the production of noise and musical pollution. Otherwise, how can we understand the importance

4 Ibid., p. 95.

of silence and listening in an environment that is degraded and noisy?

The inhabitants of the Villa des Glycines were therefore invited to experiment with their musical architecture via different listening arrangements. A sonic game based on natural acoustics was offered to children: acoustic tubes linked different spots of the garden and the alley.⁵ These 'auditive conduits' with their wide pavilion-shaped openings invited children to secretly speak from one place to another.⁶ Another device, electroacoustic this time, was designed by Mariétan to allow the transfer of sounds from the garden into the homes. This system spread out the auditive space of the inhabitant who could, without any visual contact, continue listening to birds, steps and voices in the garden. 'We can talk here of a genuine physical and psychological enlargement of interior space', as Mariétan put it.⁷ Furthermore, the composer imagined a means for residents to recompose this broadcasting themselves: a gearbox of sorts, equipped with several sliders that could mediate the combination of sources. Thus, the resident could merge waterfall, aquaphone and the rustling of leaves by playing with the different sonic sources of the garden.

As with the musical instruments of the garden, the electroacoustic transfer was not delivered due to lack of budget. The real issue though, lay in the negative feedback of inhabitants towards the overall project and its sonic aspects. Several technical issues were spotted right from the beginning, such as water leaking through the structure. The artistic device seemed unnecessary to some inhabitants: the water

going into the waterfall was seen as a waste of money and was quickly turned off.

The garden was designed to offer auditive points of reference integrated in a musical framework that changed with the seasons.

Beyond the technical issues, the lack of communication and pedagogy with respect to the sonic qualities of the project were eventually detrimental to its adoption by residents. The Villa des Glycines was a complex musical instrument meant to be played by its inhabitants: it required communication and curation to support the users from the delivery onwards so that they could achieve the appropriation of the different sonic devices. The richness of the project, the different uses proposed and their planned evolutions make this pedagogical work necessary – via information boards, brochures, handbooks, as well as concerts and workshops. Without collective actors such as a community group to take over the curating of such a socio-musical arrangement, the complexity and novelty of musical architecture was incomprehensible, and eventually rejected.

Conclusion

The Villa des Glycines was a pioneering project within the field of sound urbanism. Delivered in 1979, the same year as

5 Tubes channelling sonic waves, forefather of intercom, used especially on ships to communicate between the deck and the engine room.

6 Pierre Mariétan, "L'eau, musique urbaine", *Revue Urbanisme*, 206, May 1984, p. 50.

7 Pierre Mariétan, *La musique du lieu*, p. 94.

the publishing of *Soundscape* by Murray Schafer and the creation of the Centre de recherche sur l'espace sonore [The Research Centre on Sonic Space, CRESSON], this project appears at the beginning of a rich research period for experimentation on the sonic dimension of urban space. However, the numerous developments in sonic ecology that have developed since have tended to remain experimental and unknown by the general public. In the 2000s, the refurbishment of the Villa des Glycines and its garden wiped out the last remains of the composer's interventions.

Despite this, the Villa des Glycines remains a model that can be reproduced for the integration of musical composition with the process of architectural design. The interior spaces were identifiable via hearing as separate acoustic entities, thanks to their sonic attributes. The ensemble of sounds from the garden was arranged like a polyphonic instrument that invited inhabitants to take possession of their sonic environment. This musical architecture marked the beginning of a new relationship between inhabitants and their sonic environment: a renewed listening to their living space. ●

“MIC CHECK! MIC CHECK!”

Echoes
and resonances
in the acoustic
community

From town criers and church bells to Occupy Wall Street and the Arab Spring, urban sound has long been an amplification of the human voice – in every sense. In this essay, Sharon Phelan reflects on sonic communities and the role of sound in the construction of democracy.

On a balmy autumn night in New York, 2011, a speaker prepares to address the crowd at Occupy Wall Street (ows) in Zuccotti Park. She calls the assembled crowd to silence with the now iconic call – “Mic Check! Mic Check!” – to which the gathered crowd immediately echo in response. She proceeds to organise her speech into short bursts in order to maintain a rhythm that can be reproduced by hundreds of people in waves across the camp. The people duly respond and repeat every word in unison, concentrically outwards from the speaker in a ‘citational chain’, and in the process transform themselves into an instrument: a human microphone.¹

Of the many innovative political experiments in direct democracy that evolved at ows – subsequently practiced and honed at hundreds of other occupations of public space across the US and the world – the “human microphone”, also called the “people’s microphone” – became the most iconic/echoic.² Conceived as a defensive tactic born of practical necessity in response to a ban on electrical amplification devices and battery-powered megaphones, the human microphone became a tool for the active creation of a public forum, dedicated to collective listening, reciprocal communication and political formation.

One of the many reasons ows emerged was as a response to a US Supreme Court

1 Raymond Murray Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World*, Vermont, 1977, p.5.

2 To contrast icon, a visual after image, with echo, the reflected sound.

Sharon Phelan

ruling that effectively conferred freedom of speech rights to corporations.³ The Citizens United ruling of 2010 handed the largest megaphone in human history – the apparatus of modern media, and the power and reach over the electorate that it confers – over to the corporate interests that could, in effect, buy all future elections. The ruling unleashed a torrent of political campaign contributions, drowning out the individual voter's voice. What the Occupy movement provided was an alternative, participatory form of the democratic process at a distance from powerful financial networks dominating the political field. The success of the human microphone was in the possibility for individuals to engage with reciprocal communication at a time when institutional politics and the media were continuing to operate in the interest of corporations and capital. The process provided the human voice the freedom of expression it is supposed to be guaranteed in a liberal democracy.

A fundamental aspect of a human microphone is the active engagement required between a speaker and a crowd. There is no room for distracted listening. Rambling polemic is not an option. Precision in language is key. If the speaker drifts and breaks with their respondents, the repetitions dissolve into incoherence and the clearly defined echo becomes chaotic reverberation. In this case, a participant must intervene with a method for re-tuning the reciprocity of the exchange by calling out another “Mic Check!” in order to re-establish the connection.

Over the course of the ows movement, the human microphone was used by many well-known activists, theorists, musicians and philosophers. Philip Glass,

³ In an article for *The Nation*, Jamie Raskin describes a “citizen united” era where a corporatist ideology has overtaken Supreme Court jurisprudence. See: Jamie Raskin, “‘Citizen United’ and the Corporate Court,” *The Nation*, New York, September 13, 2012.

The process
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Judith Butler, Cornel West, Slavoj Žižek and Rodney Deas (aka Radio Raheem) all took part during the early days of the movement, each approaching the human microphone in distinct ways.

There is no room for distracted listening. Rambling polemic is not an option. Precision in language is key.

Radio Raheem lived up to his boombox-carrying namesake from Spike Lee's 1989 film *Do the Right Thing*, evoking the film's leitmotif introduced in the opening scene with Public Enemy's "Fight the Power", the lyrics to which include: 'Our freedom of speech is freedom or death, we got to fight the powers that be!' At Lincoln Centre, Philip Glass showed his support for the movement by integrating the repetitions of the human microphone into his speech, on the final night's performance of his opera *Satyagraha*. Reciting the last stanza of the opera three times, Glass highlighted the human microphone as a tool for non-violent (sonic) resistance and political action, in keeping with the legacies of Mahatma Gandhi, Leo Tolstoy, Rabindranath Tagore and Martin Luther King – all of whom were inspirations behind the work. Judith Butler's use of the human microphone brought the politics of the body into dialogue with the body politic, articulating the need to corporeally invest in a better future with specific reference to the relationship between the body,

the voice and democracy. The following is a condensed excerpt of her delivery on October 23, 2011:

It matters that as bodies we arrive together in public, that we are assembling in public; we are coming together as bodies in alliance in the street and in the square. As bodies we suffer, we require shelter and food, and as bodies we require one another and desire one another. So this is a politics of the public body, the requirements of the body, its movement and voice. We would not be here if elected officials were representing the popular will. We stand apart from the electoral process and its complicities with exploitation. We sit and stand and move and speak, as we can, as the popular will, the one that electoral democracy has forgotten and abandoned. But we are here, and remain here, enacting the phrase, "We the People."⁴

Cornel West took to the process with ease, speaking with the rhythm, cadence and rhetorical skills of the 'black prophetic tradition',⁵ while Žižek was forced to rein in his excesses. His participation at Zuccotti Park has left us with one of his most cogent arguments – that the occupiers mustn't fall in love with themselves but should think carefully about how to sustain the movement in the days and years after the event has passed.

Resonance

As a sonic metaphor, the process of the human microphone encompasses the very propagation of sound, echoing outwards from a central sound source – in this case, the main speaker addressing the

⁴ smabiner, "Judith Butler at Occupy Wall Street," *YouTube* (online), March 19, 2018.

⁵ Cornel West, *Black Prophetic Fire*, Massachusetts, 2014, p.4.

⁶ Michael Hardt and Antonio Negri, *Declaration*, New York, 2012.

crowd – traversing across the local site of its occurrence before reaching people at greater distances through various forms of technological mediation. This metaphor of a propagating sound wave is useful to think of individuals forming together towards a collective action, encapsulating the wider political movement that led to both the emergence of OWS as well as the human microphone.

The horizontal organisation of the Occupy Movement is part of what is often referred to as the Movement of the Squares, a wider political movement that has been outlined by Michael Hardt and Antonio Negri in their self-published electronic pamphlet *Declaration*. The authors begin by describing the inaugural revolutionary event of December 18, 2010 in Sidi, Bouzid, Tunisia, when ‘twenty-six-year-old street vendor Mohamed Bouazizi, who was reported to have earned a computer science degree, set himself on fire’.⁶ By the end of the month, ‘mass revolts had spread to Tunis with the demand, ‘Ben Ali dégage!’ [‘get lost Ben Ali!’, referring to the president of Tunisia 1987-2011] and indeed, by the middle of January, Zine el-Abidine Ben Ali was already gone’.⁷ The protests marked the beginning of a series of uprisings across the Arab world from Tunisia, to Egypt, to Syria. The self-propelled Arab Spring of 2011 propagated in a global wave of revolutionary fervour, drawing comparisons to the world-wide eruption of student uprisings in 1968, and indeed the European ‘Springtime of the Peoples’ in 1848.⁸ Similarly, it could be said that the movements of the squares – from Tahrir Square in Cairo, to Gezi Park in Istanbul, to Puerta del Sol in Madrid, to Syntagma Square in Athens and even further afield –

were resonating with each other. Hardt and Negri write: ‘When a few hundred pioneer occupiers brought their tents to New York’s Zuccotti Park on September 17, then, it was their turn to take up the baton. And indeed their actions and the spread of the movements in the United States and across the world have to be understood with the year’s experiences at their backs’.⁹

A precursor to *Declaration* is the 2007 pamphlet *The Coming Insurrection* by the French anarchist group the Invisible Committee, written in the aftermath of the 2005 riots in the Parisian suburbs.¹⁰ Raging against chronic unemployment, the cynicism of politics and torpidity of the French State, *The Coming Insurrection* prescribes the tools that are needed to spread anarchy and live communism. In many ways, the pamphlet was incredibly prescient. In the text, the Invisible Committee refer to the mechanisms by which they believed the revolution would emerge as a “resonance”.¹¹ Rather than a mechanical Newtonian chain reaction, revolutionary resonance emerges almost simultaneously across perceived gulfs of geographical and cultural difference. They write:

Something that is constituted here resonates with the shock wave emitted by something constituted over there. [...] An insurrection is not like a plague or a forest fire – a linear process which spreads from place to place after an initial spark. It rather takes the shape of a music, whose focal points, though dispersed in time and space, succeed in imposing the rhythms of their own vibrations, always taking on more density.

These sonic metaphors of revolutionary resonance continue to have ripple effects in both local and universal ways.

7 Ibid.

8 The historian Eric Hobsbawm describes the similarities between the Arab Spring and the Springtime of the Peoples in an interview by Andrew Whitehead for *BBC News Magazine*. See: Andrew Whitehead, “Eric Hobsbawm on 2011: ‘It reminds me of 1848,’” *BBC News Magazine*, December 23, 2011.

9 Ibid.

10 The Invisible Committee, *The Coming Insurrection*, Los Angeles, 2009.

11 Ibid., p.12.

Acoustic Communities

It is interesting to note the spaces where these resonances occur; in particular, the dynamic between public speech, parks and the forming of communities. Parks, after all, were once considered ‘the lungs of a city’.¹² Even the origin of the very idea of community is bound up in acoustics: in his model Republic, Plato is said to have identified the ideal size of a community to be 5,040 people, ‘the number that can be conveniently addressed by a single orator’. The term ‘acoustic community’ was coined by R. Murray Schafer, who describes it as ‘a political, geographical, religious or social entity’ in his book *The Soundscape: Our Sonic Environment and the Tuning of the World*.¹⁴ He proposes that the ‘ideal community may also be defined advantageously along acoustic lines’.¹⁵ Town criers were once the core of an acoustic community and church bells or calls to prayer still denote a religious community. A wall of sound made up of radios, television sets, kitchen appliances, and other day-to-day humming – from voice to electrical goods – marks the territory of a household, just as a bird marks its territory with birdsong.

In *The Auditory Culture Reader*, Alain Corbin has written of bells as the auditory markers of nineteenth-century French villages, the limits of which were marked by imperceptibility – that is, when an individual could no longer hear the bells ringing. He explains in his essay that the range of a bell defined both a geographical territory and a territory of mutual alliances in a society:

The emotional impact of a bell helped to create a territorial identity for individuals

living in range of its sound. When they heard it ringing, villagers, townsfolk, and those “in the trades” in the centres of ancient towns experienced a sense of being rooted in space that the nascent urban proletariat lacked. Bell ringing was one of a range of markers obviating the quest for an identity of the sort that defined the very being of the proletarian who, as a migrant, was isolated in a condition that all too often resembled exile.¹⁶

As a novel form of social technology, the human microphone re-engaged people with the idea of community through acts of collective voicing. To quote the poet Ben Lerner, the process of the human microphone is a form of speech that ‘constitutes an attempt to unmake an utterly bankrupt public discourse so as to refresh the materials out of which a new social world might be constructed’.¹⁷ As an instrument of change, it pointed the way towards a form of communication that stands in stark contrast to our market-driven consumer culture, where social interaction is governed by the flows of what Jodi Dean calls ‘communicative capitalism’.¹⁸ Everywhere there was once a human microphone in operation there is evidence of a renewed faith in an ability to forge a collective language, to develop and articulate an alternative to the dominant discourse of capital.

Long reverberation

The media theorist Frances Dyson offers a fertile avenue to explore as we move forward. In her book *The Tone of Our Times* she writes:

12 Louise Chipley Slavicek, *New York City’s Central Park*, New York, 2009, p.15.

13 R. Murray Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World*, Rochester, 1994, p. 215.

14 Ibid.

15 Ibid.

16 Alain Corbin, “The Auditory Markers of the Village,” in Michael Bull and Les Back (eds.), *The Auditory Culture Reader*, Oxford, 2003, p.117.

17 Ben Lerner, “A note on the human microphone,” *Critical Quarterly*, Vol 54, Cambridge, July 2012, p.67.

18 Jodi Dean, “Communicative Capitalism and Class Struggle,” *Spheres: Journal for Digital Cultures*, Lüneburg, November, 2014.

Sound... offers a way to negotiate the “unthought” and the unspoken, to develop other vocabularies and other forms of political, economic, and social organisation. Sound’s ephemeral and atmospheric nature is, like the environment, something that circulates outside of exchange, and refocuses attention on the space and environment of the subject rather than the subject per se ... from here, it might be possible to move towards a shared sensibility, a “communism of the senses” that builds sense, the common, and common sense simultaneously...¹⁹

To further re-enforce sound’s ability to resonate with politics, it is helpful to draw an analogy between the human microphone and Alvin Lucier’s 1970 composition *I am Sitting in a Room*. The mantra “I am sitting in a room...” starts with the voice echoing clearly back and forth, but it ends in what initially appears to be reverberant chaos, an artefact of a recording seemingly gone wrong. However, if we train our ear to what is happening, we realise that the artefact is the point, and what is occurring is a sonic mapping of space. The clear voice of the speaker disappears, and we are left with an incredibly dense resonant sound that is the imprint and map of the space. In technical terms we know this as the impulse response of the room. Similarly, with contemporary political life, we can no longer hear the words of the original human microphone. OWS has long since dissolved as a cohesive movement and has been superseded by the myriad political upheavals that have emerged since. However, its legacy can be sensed everywhere. In some ways OWS was never actually a movement, but rather a moment,

an event that has enabled a new generation to think anew the project of democracy.

The reverberation of the human microphone has given us a map of the terrain of politics, that is to say a map of the possible.

The long reverberation of Occupy has dissolved into the fabric of the everyday, into a pervasive background noise, and in the continuing reverberation of that event we can trace the contours of possibilities thrown up by it. The reverberation of the human microphone has given us a map of the terrain of politics, that is to say a map of the possible. ●

19 Frances Dyson, *The Tone of Our Times: Sound, Sense, Economy and Ecology*, Cambridge, 2014, p. 149.

POSTSCRIPT

The second iteration of *Crafting a Sonic Urbanism* will take place in Paris in December 2019. It will focus on the ways that voices, and their enmeshment with architecture, infrastructure and technology, are understood. In asking if the city has speech, Saskia Sassen provides the stimulus for this colloquium. As Sassen puts it, the city is

a space where the powerless can make speech, presence, a politics.

She continues:

[the] interactive deployment of people, firms, infrastructures, buildings, projects, imaginaries, and more, over a confined terrain, produces something akin to speech.

In other words,

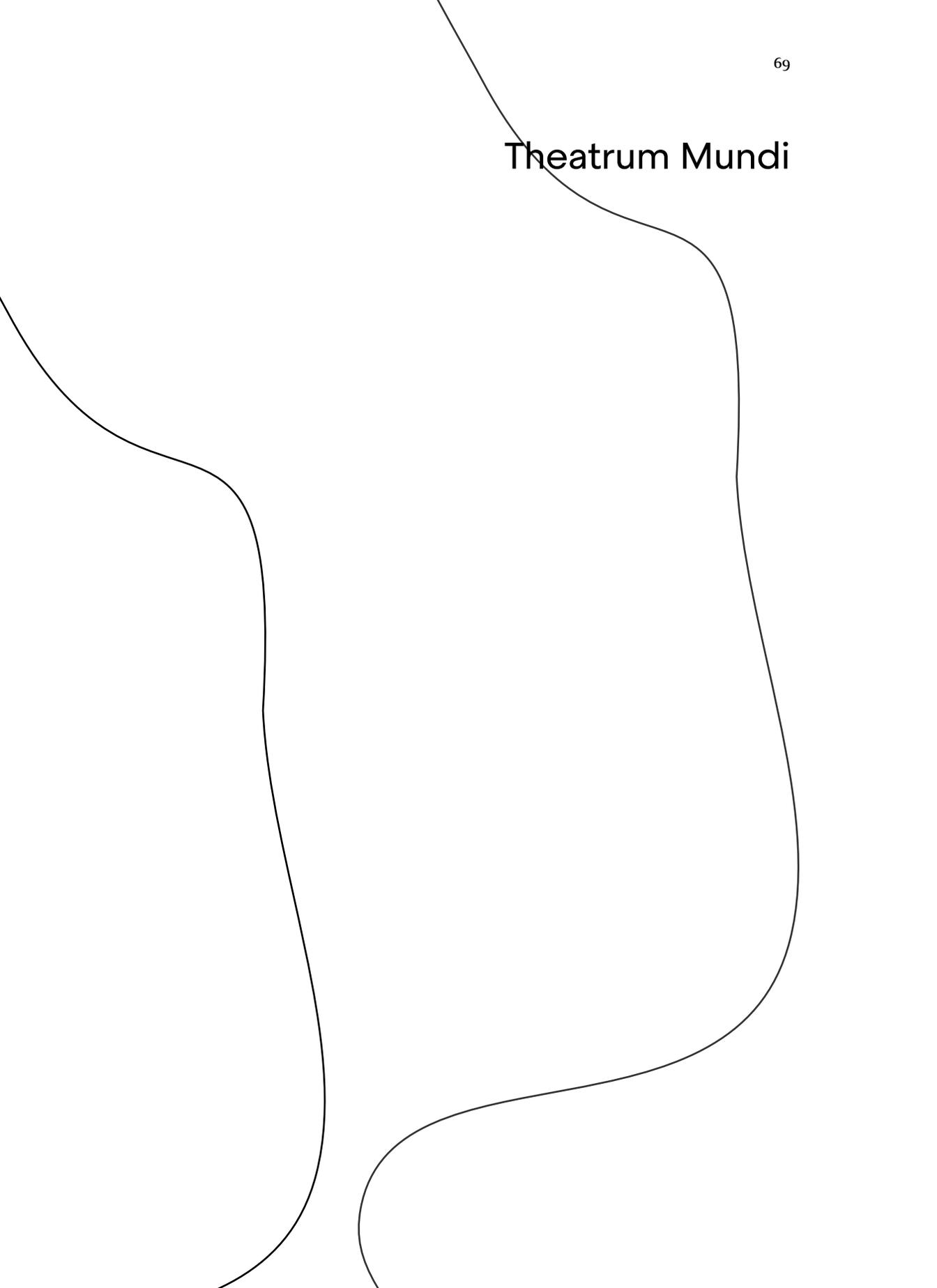
the city talks back.¹

If being politically engaged is to have one's voice "heard" in public space, then how and where does this hearing happen? Whose voices are heard, both in the street and on the political stage? What is the role of architecture in amplifying or indeed diminishing the audibility of different voices?

These, we believe, are the kinds of questions that urban practitioners and theoreticians should be posing themselves as they expand our understanding of how public life is staged in the city. With this publication, we hope to offer some stimulus and also some means for this kind of reflection and to kick-start a series of interventions that continue to push this further. ●

¹ Saskia Sassen, "Does the City Have Speech?" *Public Culture*, 25 (270), Durham, 2013, pp.209-21.

Theatrum Mundi



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Reverberations in a new field

with

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