Towards a "New" Sonic Ecology

Marcel Cobussen

Contents

Acknowledgments

Many, many people have accompanied and inspired me on the academic and artistic roads I have traveled so far, many more people than I can thank here by naming them. So, without claiming exhaustiveness in any sense, here is a list of names that definitely should not be missing:

Ida, Eva, and Sarah – how poor my life would be without you.

Papa and Mama – you would have been the proudest parents in the world …

1. Introduction – Explaining the Title

<mark>Before you start reading this text, I would like to invite you to listen consciously to your environment for a couple of minutes. What do you hear? Which sounds do you find pleasant? Which sounds are annoying you? Do you think you could somehow have an influence on these annoying sounds: changing them, covering them, turning them off? How would your ideal environment sound?</mark>

Let me begin this text, an extended version of my inaugural lecture given on November 28, 2016 at Leiden University (the Netherlands), by briefly explaining the title.

The term "sonic" refers to almost any vibration that can be perceived by humans as well as animals, to the physical as well as mental affects of sounds, to what can be heard and listened to, but also to what remains inaudible and unheard. It thus encompasses musical as well as non-musical sounds, noise as well as silence, ultra- or infrasounds as well as spoken language and aural communication systems.[1]

The term "ecology" I use here to refer to the analysis and study of interactions organisms (here, specifically humans) have with each other as well as with abiotic components of their environment.

Hence, I regard "sonic ecology" as the aural interactions between organisms – in particular humans – and their environment. And interaction should be understood here as bidirectional: how are "we" listening and, through listening, interrelating with our environment; and how is our sonic environment calling upon us, triggering us to act and react?[2] Put differently, this environment does not merely possess passive acoustic properties but activates its inhabitants

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[1] Sound studies or auditory culture usually exhibits the need to separate itself from music, discourses around music, and reflections on music; it often excludes music (as well as spoken language) from its analyses and theories. I prefer to regard sonic ecology in an inclusive way, essentially dealing with every vibration, every resonance.

[2] In fact "sonic ecology" can only be a singular issue: each place has its own aesthetic, physical, and socio-cultural characteristics, often also changing with the time of the day, the season, and the type of weather. Conversely, each person brings in her/his own demographics, perceptions, lifestyle, culture, networks, attributes, preferences, and motivation for being there. Interactions between place and people are therefore always heterogeneous, shaped by all sensory stimulations as well as the knowledge people have of that place.

to engage with its reservoir of sound possibilities, its sonic instrumentarium, thereby modulating its vibrational effects. We are invited to perform the city; it is a space of reverberation. Steve Goodman calls this the "environmentality of affects," meaning that human bodies are immersed in a vibrational nexus that affects expressions (Goodman 2005: 46). In *Sonic Experience*, Jean-François Augoyard and Henri Torgue can thus describe sonic ecology as "the interaction between the physical sound environment, the sound milieu of a socio-cultural community, and the 'internal soundscape' of every individual" (Augoyard and Torgue 2005: 9).

"Towards a new sonic ecology" should be heard as a proposal to alternative ways of interaction between the environment, the human body, and sound, a proposal to listen and react differently to our sonic milieu as well as a suggestion to reevaluate and perhaps transform this milieu. At the same time the title implies a critical reflection on the work already accomplished by many sound studies scholars before me. Without them this text would not have been possible, although I simultaneously diverge from their *acoustemological* paths.

Moniek Toebosch – "Waiting for Buses and Birds" (Amsterdam, 2016)
https://www.youtube.com/watch?v=jwy6mnZtEQs&feature=youtu.be
"Waiting For Buses and Birds" was commissioned by the municipality of Amsterdam, RVE V&OR. It is a son et lumière installation consisting of 4 moving heads and 16 loudspeakers, positioned throughout the complete length (250 meters) of the new bus station at Amsterdam Central Station.

2. Beyond Aesthetics

"We are surrounded by sounds, whether we are outdoors or indoors, at work or at play, in cities or in the country. Voices, vehicles, birds, wind in trees, machinery, footsteps, rain, telephones, hum and beeps of our electronics, dogs barking, sometimes blood moving through our bodies. Sound, through speech, is still medium of much of our communication" (Brown et al. in Kang and Schulte-Fortkamp 2016: 1). More and more of our sonic environment is produced and designed by humans: sound design, sound art, and, of course, music – their omnipresence and importance cannot be neglected. Unwanted noises have to be covered, utensils need to sound solid but also pleasant, and music should create enjoyable atmospheres.

Espresso Machine (2015)
https://www.youtube.com/watch?v=z0PZ-Z8eS1Q
A more or less random example of houseware for which the sound has been carefully designed.

In *The Birth of Tragedy* written in 1872, Friedrich Nietzsche ascribes to art "the highest task and truly metaphysical activity of this life […] for only as an aesthetic phenomenon is existence and the world eternally justified" (Nietzsche 1999: 14). Some eighty years later, in 1992, the Dutch philosopher Kees Vuyk quotes Nietzsche to claim that the aesthetics of our being-in-the-world, of how we look – our body, our clothes, our life-style – have become the most important issue as the idea that universally-accepted values, in terms of morality and rationality, are possible has vanished. It is not that art has more social importance these days; it is rather that sexuality, religion, education, politics – Walter Benjamin already pointed this out – are all aestheticized (Vuyk 1992: 56). Another twenty-one years later, in 2013, these thoughts resonate in *Atmosphäre. Essays zur neuen Ästhetik* by the German philosopher Gernot Böhme. He too observes an increasing aesthetization of reality (Böhme 2013: 7 and 15). Böhme's new aesthetics extends from "regular" autonomous art to cosmetics, from advertising to interior architecture, from designing domestic appliances to health care. In line with Vuyk, Böhme claims that advertising, for example, is not so much about selling products as it is about suggesting life styles (Böhme 2013: 45). Aesthetic production has become less important than staging and presentation (Böhme 2013: 248).

Although I will not challenge the reflections of these three wise men, I would like to draw attention to a complementary view as well. In several of my books, as well as in my MOOC which will be launched in January 2017, I have argued how music and other sounds co-

constitute our social, political, ethical, religious, spiritual, economic, and of course our cultural life.[3] Sounds – both musical and non-musical – influence our daily lives: we are disciplined and controlled by sounds, although they can also be subversive; they regulate our behavior, although they can also disrupt or interrupt it; they are designed in the sphere where functionality and aesthetics meet; we are formed and informed by auditory stimulus, signals, and information. In other words, talking about a new sonic ecology immediately surpasses the mere aesthetic realm: more is at stake. Sound not only influences the social, the political, the ethical; it is thanks to sound, among others, that the social, the political, and the ethical can manifest themselves. In and through music, in and through sound art, in and through sound in general, the social, the political, and the ethical become operative. Sound *is* social, sound *is* political, sound *is* ethical because we affect it and we are affected by it.[4]

Bruce Odland and Sam Auinger – "Harmonic Bridge" (North Adams, 1998-2008)
https://vimeo.com/29100787
"Harmonic Bridge" forms a musical gateway between the MASSMoCA museum and the town of North Adams. The formerly forlorn area under the highway overpass has been transformed into a space which is (sonically) more attractive.

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[3] See for example *Thresholds. Rethinking Spirituality Through Music* (2008), *Music and Ethics* (2012), *The Field of Musical Improvisation* (2016), and the MOOC *Music and Society* (2017).
[4] I will return to this in the "Epilogue."

3. Letting the Sonic Speak

Am I entitled to speak, to write on behalf of "the sonic"? It is a question that has been haunting me for years. In my PhD dissertation "Deconstruction in Music" (2002) I deliberately state that I write *around* instead of *about* music to make clear that words will never be able to capture the sonic or, in the words of Jacques Derrida, "ce qui reste à force de la musique." Although it impinges on it, the sonic remains inaccessible and inappropriable for any possible discourse (Cobussen 2008: 61).

Paradoxically, while writing about the sonic I am silencing precisely the main subject, excluding what I wish to make present. Therefore, I have inserted references to concrete sonic events at various places throughout this text, to interrupt it, to let it become drowned out by sounds, to let the subject itself sound, to let it speak for itself. As a form of protest against the dominance of a controlled academic essay, of scholarly bias organized by a number of procedures, laws, and rules that so often seem to presuppose that one can dominate one's subject of research, in this case sounds, silence, listening, and the sonic environment. Still, the essay excludes what it so desperately wants to include.

Mo Becha – "Champ sonique" (Amsterdam, 2005)
[https://soundcloud.com/binauraldiaries/champ-sonique-installation]
The first permanent sound artwork in Amsterdam, created under the IJtram, consisting of 48 speakers in three tunnels. One walks through the tunnel carried by sounds.

However, at the same time we, humans, are somehow sentenced to think, speak, and write around or about the sonic. But what would it mean to think, speak, and write *sonically* rather than merely to think, speak, and write *about* sound? How can sound alter or influence our thinking, our conceptualizations, our (dominant) discourses? Can our thinking be affected, infected, and inflected by sounds to the extent that we produce not a philosophy of sound but a sonic philosophy? In his inaugural lecture from 1970, "The Order of Discourse," Michel Foucault announces his intent to give more attention to the notion of *the event*, which he connects to what he calls, "a materialism of the incorporeal" (Foucault 1981: 69). I cannot help but hear an advance notice of a *sonic materialism*, now taken up by, among others, Christoph Cox and Salomé Voegelin. The move they are making is from sound as an object of study – the results of which can be articulated through texts, words, and existing concepts – to sound as a medium through which one can understand our being-in-the-world:[5] sound as

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[5] To understand, which implies to interact, (also) means to resonate, to co-vibrate.

a possibility for conceptualizing new ways of knowing a culture and of gaining a new understanding of how members of a society comprehend the world and relate to one another. It is a move from "speaking the sonic" to "letting the sonic speak."

4. The Sonic City

How can we let the sonic speak in public urban environments? What is the function and position of sound in our daily encounters with urbanity? How do we experience cities aurally?

At this moment more than half of the human race are city inhabitants; in 2030 this will reach a total number of five billion people. Six hundred of these urban centers currently generate about sixty percent of global GDP. Cities are gaining in importance. In September 2016 the Global Parliament of Mayors, a new worldwide platform, held their inaugural convening in The Hague to discuss and increase possible collaborations between cities. Its main goal is to concentrate on the pragmatic capacities of global cities to deal with and help solve world problems that neither the United Nations nor individual nation states have been able to address effectively. The platform sounds like a faint echo of Jacques Derrida's call to establish a new (or renewed) status for the city as a place of refuge, presented by him as "an audacious call for a genuine innovation in the history of the right to asylum or the duty of hospitality" (Derrida 2001: 4).

Cities are hot; they seem to represent the future. Whereas nation states are no longer able to effectively engage with contemporary major problems – be they political, social, economic, or ecological – cities are said to present clear-cut actions and radical policies. However, as Jordan Lacey claims in his book *Sonic Rupture*, cities have developed all too often in a unilateral way, almost only accentuating economic prosperity and production. Although functionality serves us well in certain ways, as there is comfort in the predictability it provides, Lacey claims that "the city is more than just a place of work and productivity: it should also be a place for play, curiosity, and creative engagement" (Lacey 2016: 2). In order to achieve more liveable, heterogeneous, and endurable cities, the planning and design of its dwellings and especially its (semi-)public spaces deserves more and more careful attention.

In an interesting article in the Dutch weekly *Vrij Nederland* from January 2014, two opposing groups of future city developers are mentioned: on the one side, promoters of high tech cities like Masdar and Songdo – both still under construction – filled with smart systems and the latest technological innovations concerning transport and hygiene. On the other side, those who question these megalomaniac projects by asking whether they will ever become user-friendly. According to this second group, city dwellers become happy when there is abundant variation: different people; green spaces in between private homes and public buildings; human-scale movement (pedestrians, bikes, slow car traffic); close-by facilities and cultural venues; good public transport; squares with benches, play grounds, trees, and booths; etc. Local inhabitants are fed up with monotony, concrete, bustle, dirt, and … yes … noise. Already

extant local initiatives in the US, for example, have led to farms on the roofs of tall buildings, to the removal of asphalt in favor of communal gardens, and to the transformation of silent suburban crossroads into lively marketplaces (van Renssen 2014).

That all these initiatives, as well as other urban design and developments, also sound has so far attracted hardly any attention. Sound is among the most significant, yet least-discussed, aspects of public spaces in urban environments (Hosokawa 1984; Kang and Schulte-Fortkamp 2016). Architects, engineers, and urban planners invariably stress the visual and tactile aspects while (re)designing urban environments but often pay less attention to the aural consequences of their interventions; sound tends to be considered mainly as an inevitable byproduct of industrial areas, traffic, commercial centers, and/or human activities, in short: of economic growth.[6] If sound does attract the attention of policy makers and users of public urban spaces, it is often in a rather negative context: noise pollution which should be eliminated by somehow reducing its decibel level (Devilee, Maris, van Kamp 2010; Elmqvist 2013; Kamin 2015).

Cathy van Eck – Klangverordnung: die verbotene Klänge der Stadt Bern (Bern, 2012)
https://vimeo.com/76705797
A performance on the various noise protection regulations in Bern between 1628 and 2012. The performance is meant to bring the forbidden noises that have been silenced by law back into the city.

I am interested in how cities sound, in an urban ecology of sonic affects, in the vibrational experience of a city, in short in the *Sonic City*. While traversing the city, we are surrounded by sounds. However, the urban environment has compressed acoustic space and confused directionality, making it difficult or impossible to locate sounds (Augoyard and Torgue 2008: xv). And it seems that in the course of history the amount of sounds as well as their general loudness has only increased. However, this steady growth of sounds – sounds from digging machines, air planes, sirens, loud music, motor traffic – has hardly been noticed, perhaps with the exception of its most prominent victims. On the other side, as Karin Bijsterveld has

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[6] In *The Ludic City* Quentin Stevens, a lecturer in planning and urban design, writes: "Cities are typically seen as the engines of modern economic life. Cities are thus principally planned to optimize work and other practical, rational, preconceived objectives, and are designed accordingly, with even leisure space serving well-defined functions" (Stevens 2007: 5).

made clear in her historical research on noise abatement campaigns, city noises are not only judged negatively: they have simultaneously been tolerated as signs of progress and prosperity (Bijsterveld in Bull and Back 2003: 176). Or, and this might be a third option, noise acts as a potent symbol of rebellion and resistance.[7] In other words, the interpretation of increasing sound levels is loaded with cultural symbolism: it can be extremely annoying but also raise excitement.[8]

Today, the World Health Organization (WHO) and the European Union (EU) recognize the problem of too much noise and its affect on human health and well-being, which has resulted in the recent development of the world's first international standard on sound pollution (ISO 12913-1:2014).[9] Too many and too loud sounds obscure and eradicate the intimacies of the social, or those sounds that alert us to the peculiarities and flow of a community, its inhabitants, organic life, ceremonies, rhythms, disturbances, surfaces, and spaces (Toop 2010: 52). Current management of the acoustic environment has predominantly been concerned with diminishing or masking sound levels, thereby reducing the complexity of reality and of context-dependent human perception to controllable variables such as decibels (Lavia et al. in Kang and Schulte-Fortkamp 2016: 270). As Lisa Lavia remarks, so far the world has seen very few examples of concrete soundscape improvement projects, partly due to conventional thinking and methodology (Lavia in Kang and Schulte-Fortkamp 2016: 246).

In short, on the one hand, cities succumb to an overload of sounds, too many and too loud, while on the other hand, serious scholarly analyses and solutions are basically only coming from the hard and social sciences. Input from the humanities and the arts is rather limited. Here, I would like to especially take a stand for increasing the role for artists, both in the analyses of sonic environments and in their potential improvement. However, this also asks for a rethinking of the concepts "art" and "artists," of their role in our current society, of their contribution to urgent issues.

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[7] See for example the public pot-banging (*cacerolazos*) in Argentina, Chile, Venezuela, and Turkey as a form of protest that cannot be contained within political discourse, that is, within the flow and circulation of words (Minuchin in Gandy and Nilssen 2014: 201-205).

[8] Sonic elements that compose an urban soundscape are not positive or negative in themselves, but their connotation as such seems to depend on the socio-cultural dimensions that steer one's perception and evaluation (d'Andreta 2011).

[9] http://www.iso.org/iso/catalogue_detail.htm?csnumber=52161

Peter Cusack – Favourite Sounds (2012)

http://favouritesounds.org/about.php?projectid=3

"Favourite Sounds" is a sound-mapping site, based on Google maps, set up to explore the connections between sounds in the environment and their geography, aimed to discover and celebrate what people value about the soundscapes of the cities and neighborhoods where they live and work.

5. Atmospheres

To begin imagining, or audiating,[10] a possible solution to the noise problem in most cities in the world, I return to the afore-mentioned German philosopher Gernot Böhme. According to Böhme, city planning can no longer be content with noise control and abatement but must pay attention to the character of its acoustic atmospheres (Böhme 2000: 14-18). Central to sonic ecology as well as Böhme's emaphsis on atmospheres is the idea that auditory milieus can be managed, designed, and improved once they are given proper attention. And this attention should (also) come from the humanities, especially philosophy, and the arts.[11]

Manja Ristic – "Miniature for a Tram Ride in Belgrade" (2016)
https://audioboom.com/posts/5176456-miniature-for-a-tram-ride-in-belgrade
"Miniature for a Tram Ride in Belgrade" is a contribution to the project *Cities and Memory*, a global field recording and sound art work that presents both the present reality of a place as well as its imagined, alternative counterpart – remixing the world.

In 2013 Böhme presented a rethinking of aesthetics in his book *Atmosphäre. Essays zur neuen Ästhetik.* According to Böhme, such a new aesthetics is needed primarily for two reasons. First, we are currently facing huge environmental problems. These are typically dealt with by the (hard) sciences. However, they also bear an aesthetic component: because we are living in this environment, it is all about our feelings and experiences. Second, Böhme, like Vuyk before him, sees an increasing aesthetization of reality: from cosmetics to advertising, from politics to interior architecture, and from underground stations to autonomous art (Böhme 2013: 7 and 15). Böhme's new aesthetics is no longer about Kantian judgments on beauty or the sublime; it is more about sensorial perception, about sensing the affective and the

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[10] I am adding here another audiator-inspired word to the list provided by Pauline Oliveros in her text "Auralizing in the Sonosphere" (Oliveros 2011). I thank Sharon Stewart for suggesting the term.

[11] See for example the site Soundscape of European Cities and Landscapes (http://soundscape-cost.org/): "Reducing sound level, the focus of EU environmental noise policy, does not necessarily lead to improved quality of life in urban/rural areas, and a new multidisciplinary approach is essential. Soundscape research represents this paradigm shift as it involves not only physical measurements but also the cooperation of human/social sciences (e.g. psychology, sociology, architecture, anthropology, medicine)." What they tend to forget is the potentially positive input of (sounding) art.

imaginative, less about objects as about the creation of atmospheres (Böhme 2013: 15). Atmospheres are ontologically indeterminate – occupying a space between subject (they are subjective because one must experience them) and object (they are "over there," on the outside, and they can assault you) – but they affect the mind, manipulate moods, and evoke emotions.

Böhme, returning here to the ideas of the 18th–century German philosopher Alexander Gottlieb Baumgarten, makes clear that art is not the most important phenomenon of this new aesthetics. This new aesthetics first of all deals with environmental qualities – one of them being soundscapes – and human well-being. And the concept of atmosphere precisely presents the connection between these two, their interrelationship, the "and." Hence, what counts is the production of atmospheres, be they soothing or energizing. However, Böhme quickly adds, artists of course still have a role here, mainly to develop our sensibilities. Through art we can disinterestedly experience atmospheres so that we can learn to engage with them (Böhme 2013:16).

Contrary or complementary to Böhme, I see a more comprehensive role for artists in analyzing and (re)shaping our sonic environments, something I will explain in the next section.

6. Auditory Culture and Artistic Research

So, what could and what should be the role of artists on the way towards a new sonic ecology? In my view, artists are indispensable on two levels, on two planes: first, to increase our knowledge of the environments in which we are living; and second, to contribute to an improvement of those environments, of these in-between atmospheres: "soundscape design is the weaving of relationships between sonic environments and human experiences" (Lacey 2016: 26).

Sheaf square water cascade and steel structure (Sheffield, 2006)
https://www.youtube.com/watch?v=y8Al98ybaGs
The large steel noise barrier shielding pedestrian area from the busy road might be a good example of the urban sonic design. The water soundscapes refer to the Sheffield's development from the 12th till the 19th century.

To raise awareness, to become more conscious, and to increase our knowledge of the sonic world that surrounds us, artists can, for example, organize soundwalks, create permanent or temporary sound installations, make and use field recordings, or develop city sound maps.[12] Regarding the latter, these sound maps can act as a kind of database, containing not only contemporary soundscapes or soundmarks but also historical recordings – how a city sounded some fifty or more years ago. In line with Böhme, sound walks, sound installations, sound maps, and field recordings offer listeners the possibility to enhance a certain sonic sensibility and to experience sounds in a more disinterested way. They contribute to our understanding of how we relate sonically to our environment and empower people to engage with their acoustic environments in a critical way (Ouzounian in Gandy and Nilssen 2014: 168).

However, much more knowledge can be gained from the sonic information provided by these artistic means. As, for example, Christabel Stirling makes clear in her article "Sound Art/Street Life: Tracing the social and political effects of sound installations in London": sound art in public spaces may expose all manner of social and political issues connected to public spaces and how they are used, occupied, or claimed by certain groups of people. Sound art in public spaces may contribute in its unique way to theories in which urban space and the social are seen as co-produced, co-evolving, and inherently mobile. But it may also disclose experiences of the city characterized by fixity, territorialization, and sites of exclusion, thereby challenging

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[12] Sound mapping can also become a social affair when people are invited to document and share ideas about soundscapes. It is here that socio-political, cultural, historical, and aesthetic fields convene (Ouzounian in Gandy and Nilssen 2014: 172).

the aforementioned theories (Stirling 2015). In short, through artistic events and interventions, we can gain knowledge about urban public spaces and how they are experienced.

Sound artists working in public spaces have developed several strategies to analyze, reflect on, and improve the sonic atmosphere of cities. Soundwalks, sound mapping, and field recordings disclose the complexity of the urban sonic environment, making us aware of the dominant but also the hidden sounds of the everyday. However, concrete interventions are also a possibility. Sound artists can attempt to *subtract* dominating noise sources from the environment, thereby revealing sounds that would otherwise be masked (Lacey 2016: 153). When a noise source cannot be removed, artists can *add* sounds to the environment or augment already existing sounds in order to create a more heterogeneous soundscape (Lacey 2016: 147). Another strategy is to *transform* everyday sounds into new sonic experiences. Through the reworking of site-specific sounds, people are given the opportunity to perceive their environment differently. And there is the strategy of *disclosure*, which demonstrates that beyond the dominant affective forces that shape everyday sonic experience, there are hidden qualities waiting to be revealed (Lacey 2016: 164).[13] All these strategies aim at both recreating an environment and reconfiguring experience, basically by demonstrating, analyzing,

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[13] A special type of disclosure happens when sounds of the past are made audible again. Although, through sound, forgotten moments of our life can be restored and sonic doors can be opened to reunite us with the past, cultural heritage and restoration projects in general show little interest in the conservation and disclosure of the sonic past. However, the cultural value of historical sites, as well as overall visitor experience, could be enhanced by attempting to restore the historical soundscape, as visitors "do not experience fully the daily life of the ancient town, as the soundscape is absolutely not representative of the ancient situation" (Luigi Maffei et al. in Kang and Schulte-Fortkamp 2016: 229). Additionally, municipal archives could become more interesting by including historical, lost or forgotten sounds in the presentation of their data, a "soundscape cadaster whose data are available and can be consulted by the local population, tourists, and stakeholders" (Luigi Maffei et al. in Kang and Schulte-Fortkamp 2016: 238).

questioning, challenging, and eventually changing those public urban spaces that are considered disturbing or unpleasant.

Jan-Bas Bollen – "Pulse FF" (Rotterdam, 2009)
http://www.beeldrecensies.nl/view/2/pulseff---jan-bas-bollen-(redsound-festival)
"Pulse FF" is a 36-channel surround sound and blue LED lights installation made for the bicycle tunnel underneath the Maas river in Rotterdam. Sounds and light react to the average speed of each individual cyclist.

However, the role of sounding art in public urban spaces is often determined by previously-existing situations. The sound artist as a homoeopathic physician: if nothing else helps, let's ask for her aid. Here I am returning to an earlier remark regarding a more comprehensive, a more inclusive, a more fundamental role for art. I would like to align with a message I have found within two recently published books, *Soundscape and the Built Environment* by Jian Kang and Brigitte Schulte-Fortkamp, and Jordan Lacey's *Sonic Rupture.* In both books it is emphasized that soundscape design should be taken into account early in the planning stage (Kang and Schulte-Fortkamp 2016: 260; Lacey 2016: 176-7).[14] Together with architects, engineers, urban planners, policymakers, and property developers, artists should be involved in the decision-making and designing processes right from the start. Why? First, because the city is more than just a place where functionalist imperatives must prevail; it should also be a place for new creative expressions and experiences.[15] And second, because it is high time to recognize that social health and well-being are also dependent on the sonic atmospheres

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[14] "Embedding creative works at the beginning of the life cycle of design and development could enhance feelings of social inclusion […] Artists entering the conversation after the fact, via public art programming, does little to relieve the demands of city life […] If cities are to grow as creative entities then artists must be plugged in at the beginning of the decision-making process […] [i]n creating ruptures, creative practitioners become the interface that connects the city and its people" (Lacey 2016: 176-7). Urban planners, architects, and sound artists working together can reimagine public urban spaces as sites that simultaneously provide for our daily needs and enable the possibility for more diversity.

[15] This is not meant to create an unbridgeable gap or an ontological opposition between functionalism and creativity. Functionalism is an important, though only one of the many, possible expressions of a city's affective potential. Creativity can increase this affective potential by entering into a relationship with functionalism rather than simply rejecting it.

of public urban spaces. These sonic atmospheres are not simply a given, a supplementary and inevitable side effect of economic and planological developments. Atmospheres are producible, everywhere where design is involved (Böhme 2013: 101).[16] In my opinion, sound artists and artistic researchers are very well-equipped, indispensable actually, to the process of reimagining and co-designing public urban spaces as sites that simultaneously provide for daily needs as well as facilitate environmental comfort by affecting the moods and emotions of the ones traversing these spaces.[17]

Björn Hellström/Urban Sound Institute
https://www.youtube.com/watch?v=WWEpoHP2pN8
The work is a site-specific sound-art installation for a commercial space – the shopping mall Gallerian in Stockholm – in order to improve overall visitor experience, while taking perceptual, social, aesthetical, temporal and spatial criteria into account.

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[16] Acoustic researchers Dick Botteldooren and Bert De Coensel found that the sonic atmospheres of backyards and courtyards are often appreciated much more than those of urban parks, as the latter are more vulnerable to the intrusion of traffic noise (this is confirmed by WHO reports). Therefore, they conclude, strategic placement of buildings would be more effective and efficient than remedial measures such as the placement of noise barriers or absorptive materials (Lavia et al. in Kang and Schulte-Fortkamp 2016: 274). This might be a good example of where collaboration at an early stage between architects, urban planners, and sound artists could occur and make a significant difference in (auditory) experience.

[17] On May 4, 2012, the workshop "The Architecture of Sound" opened with the question "where does the making of cities happen?" The assumption that cities are made by planners, designers, and architects was considered incomplete, as it is especially the everyday users who remake the spaces in which they live. In other words, design also happens "elsewhere" (see http://theatrum-mundi.org/activities/the-architecture-of-sound/). What I would like to add is that artists can play a significant role in raising public awareness about the sonic ecology as well as in offering possible alternatives. A good example, albeit not directly connected to sound, is the Freehouse Project in Rotterdam (http://www.freehouse.nl/), an initiative of the Dutch visual artist Jeanne van Heeswijk. Initiatives such as this one may build social cohesion among citizens as they work together with experts to (re)define the role and position of urban public spaces and make shared agreements as to which (sonic) interventions are appropriate.

In short, for the future of art in general and sounding art in particular, I do not (only) see grand and compelling performances and exhibitions taking place within the secluded temples of our alleged secularized society. Instead, art is welcome to become functional again, through micro-political interventions that contribute to a more pleasant life. In order for this to happen, sonic interventions do not always need to become the main point of interest: they can be supportive, that is, enhancing other experiences, or even remain in the background, (almost) unattended. Even when existing in the background, they can become "small wake-up calls to perception" (Scarry 2006: 81), establishing a "standard of care" which can then be expanded to support imaginative and sensual responses to other, less interesting or more annoying, soundscapes.

7. Towards a (New) Sonic Ecology at Leiden University

Why is Leiden University an auspicious and propitious place to develop further thoughts on new sonic ecologies? Let me list, in no particular order, a few reasons.

a. In 1988 Professor Jan van der Veen took leave from the musicology chair at Leiden University. Since then, reflections on music have been rather marginalized at this institute. With the ever-increasing amount, impact, and omnipresence of music in our contemporary society, it is no frivolous luxury that this cultural field is once again officially represented in Leiden. With one significant addition: where Van der Veen in his valedictory lecture could still concentrate on "classical music," an inclusion of the whole of auditory culture seems both logical and inevitable these days. Music is an important soundmark in our present-day culture, but only one among many whose impact can no longer be neglected.

b. If everything goes according to plan, in 2017 Leiden University will start with a new Bachelor in Urban Studies. I sincerely hope that my plea for more attention to the role of sound and sounding art in urban environments will not fall on deaf ears. Urban Studies today cannot be successful without an auditory component: cities are sounding and the ubiquity of sound could serve as a new paradigm in thinking about the city. The city dweller has changed from a detached *flâneur* to an immersed individual (Hodkinson 2009: 106). Sounds should be brought to the students' consciousness; they should be consciously experienced, studied, analyzed, and regarded in the context of their relation to urban environments.

c. In the coming decade the Humanities Department will develop a New Humanities Campus which will consist of new and renovated buildings as well as city parks and other semi-public spaces where students and/or staff can gather. To maximize the functionality of these buildings and spaces, I hope I have made clear in this text that aspects of acoustic design should also be taken into account, preferably during the earliest stages of the planning process. Which acoustic interventions will increase the chance that students and staff actually use the spaces in the ways for which they are designed by the client and architects?

Additionally, recent research regarding the acoustics of libraries has shown that mobile phones, personal music players, and construction work are top among the most annoying sounds, whereas walking and page turning are the least annoying (Lavia et al. in Kang and Schulte-Fortkamp 2016: 282-3). In order to increase students' productivity,

concentration, and willingness to spend time in a library, a supportive sonic environment seems indispensable.

d. The institute at which I am working, the Academy of Creative and Performing Arts, is the institutionalized materialization of a collaboration between Leiden University and the University of the Arts in The Hague. The modest contribution I would like to make to this collaboration is through launching a new research center for sound studies in which artists, artist-researchers, and scholars from several disciplines can work together. The center will be baptized *Phonotonie*, a term coined by Jean-François Augoyard and Henry Torgue in their book *Sonic Experience. Phonotonie* characterizes the feeling of euphoria provoked by sound perception and, although not every sound can unequivocally provoke euphoria, the sound projects I have in mind certainly will.

e. In 2016 Leiden University launched a test with gender-neutral toilets on campus. Questions arise: has the University also taken into account the sonic consequences of these gender-neutral toilets? Will the evaluation panel consider the possible changes to their sonic composition? Do gender-neutral toilets change the sonic behavior of their users; do they mask, augment, disclose, or transform the bodily sounds? And if the urinals are removed, will we not run the risk of losing a very specific soundmark which perhaps even decreases social interaction?

8. Epilogue – Affective Politics

At the end of the second section, "Beyond Aesthetics," I wrote that sound *is* social, political, and ethical.[18] Here I would like to briefly return to the social, political, and ethical role of sound. Not only is there a relation between sound as acoustic phenomenon and the wider (social) context in which sound is experienced (Gandy in Gandy and Nilssen 2014: 9); not only can the sonic environment be read as a reflection of our contemporary socio-political structures (Nilssen in Gandy and Nilssen 2014: 56); sounds "themselves" have social, political, and ethical powers because they occupy time and space and because they affect us.

Who has control over the sonic in urban public spaces? Of course (local) governments can implement all kinds of regulations to reduce noise pollution in spaces that are, in principal, open to all persons. However, as Jonathan Sterne makes clear in his essay "Urban Media and the Politics of Sound Space," stores and shopping malls tend to extend their sonic spheres of influence more and more, for example, in parking lots or their immediate (public) environment. Public urban spaces are thus also becoming increasingly filled with sounds from semi-public spaces. Others who can (temporarily) take control are the ones living in the immediate vicinity of an urban space[19] and the ones using that space: from motorists to musicians, from market traders to protest movements, from skaters to tourists. In all these cases it becomes evident that sounds not only determine the sonic ecology but also influence the social, political, cultural, and economic behavior of people. Specific urban soundscapes organize the sonic and affective sensibilities of the ones who use these public spaces: sonic ecology as spatio-temporal politics.

Urban spaces are being politicized through design. They are being designed to invoke affective responses. Through a particular design of a sonic atmosphere, its impact as well as the ways in which it is experienced can be enhanced, decreased, stabilized, or altered. While it may not be possible to create *hi-fi* soundscapes within contemporary urban soundscapes that are defined by noise, re-designing noise may, for example, augment human resonances. In a

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[18] In much the same way, Steven Connor writes that "a soundscape is sound plus relation, and that relation needs not be fully and in itself sonorous (Connor in Gandy and Nilssen 2014: 18).

[19] Although designating a phenomenon known for centuries, *acoustic gentrification* gets more and more attention these days. Control over sound and silence is used as a force within political class struggles.

more general sense, I would claim that expanding affective potential by creating experiential diversity works to oppose the forces that homogenize environments. As Lacey rightfully writes, "this is not to be confused with an aesthetic act that seeks to beautify the soundscape"; rather, it should be considered as an "ethical act that intends to augment human experience by challenging the experientially diminutive affects of functionalist imperatives" (Lacey 2016: 15-6). The argument I have attempted to make in this text is that sound artists in particular should be able to expand the affective potential of the urban. The track towards a new sonic ecology is simultaneously a track towards a new social, political, and ethical milieu.

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