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## As Far As The Ear Can Hear. Listening to the social city

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► **To cite this version:**

Grégoire Chelkoff, Eamonn Drumm. As Far As The Ear Can Hear. Listening to the social city. Kafka, George; Lovell, Sophie. Sonic Urbanism: The Political Voice, *Theatrum Mundi & beyond*, pp.9-15, 2020, *Sonic Urbanism*, 978-1-9161864-1-5. halshs-03066959

**HAL Id: halshs-03066959**

**<https://shs.hal.science/halshs-03066959v1>**

Submitted on 8 Jun 2023

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# AS FAR AS THE EAR CAN HEAR

Listening  
to the social city

Over the last three decades, architect Grégoire Chelkoff has been recording and analysing the performance of voices in varying urban spaces. In this text, he reflects on the social life of sounds in cities and introduces his ongoing sound library project, *cartophonies.fr*. A full range of audio examples accompanying this text can be heard at *sonic.city*.

Ordinary vocal presences in urban spaces are noteworthy and interesting for the sounds they produce and emit in relation to space and context. As such, “voice” is an excellent, sensitive unit of measure to aid an understanding of soundscapes as “public sonic spaces” that actively express human presence: producing a vocal sound in public is an act – a political act.<sup>1</sup>

The sound of the voice is voluntarily expelled from the body and spreads through the air as vibrations that reach and enter the ears of other bodies as well as in our own. Since this is a capacity that almost everybody shares, the voice is a sort of mirror onto the self; we possess the potential for vocal activity and it is inseparable from listening.

Vocal connection is not only about communication of a directed, univocal message. In addition to the signifying, political content of the spoken word, sound atmosphere serves as a social sediment that enables ripple effects and shared experience; these effects happen informally, involuntarily and diffusely. Discussion and communication generate spontaneous vocal productions. They create a tone and adapt to the ambient atmosphere just as they shape it in turn.<sup>2</sup> Voice also reflects social conditions: the individual status or accent of each

<sup>1</sup> Grégoire Chelkoff, *Entendre les espaces publics*, (Grenoble: CRESSON, 1988).

<sup>2</sup> Idea already articulated by Luigi Russolo, *The Art of Noises*, 1916. French reprint/translation, (Lausanne: L'âge d'homme, 1975).

## Grégoire Chelkoff

Translated from French by  
Eamonn Drumm

person and more broadly our places in society, space and time.

How do urban spaces – including those involving transport – enable these ordinary vocal productions to emerge? What does the city sound like today? The vocal forms we hear in cities express a range of social atmospheres: sometimes familiarity and complicity, massiveness or distance. The sites in which they are produced and mix together – the material reality of built spaces – are powerful resonators and filters for our sound productions and our voices. Sound effects, combined with the specific acoustic characteristics of a built environment, all participate in configuring the atmosphere of that space.<sup>3</sup>

So, let us listen.

### Listening to the city in order to transform it

Using research recordings, the site *cartophonies.fr* is a compilation of approximately 1,000 recordings made during research on cities by our team at the Grenoble School of Architecture.<sup>4</sup> The site is not intended to be a sound map that simply exhibits raw recordings. Instead, the files (documents, visuals, photographs, testimonials) are provided with metadata detailing the recording at hand. The recordings are meant to be “noteworthy”, telling us something about the ways cities change. The site also includes precise information about the context in which the sounds were recorded, their built environments and the sound effects that characterise each fragment.

These aspects could be of interest to residents who are curious about their city

<sup>3</sup> Jean François Augoyard et al., *Répertoire des effets sonores en milieu urbain*, (Grenoble: Parenthèses, 1995).

<sup>4</sup> *cartophonies.fr* created based on research by Grégoire Chelkoff; *Cartophonie sensible d'une ville nouvelle*, (Grenoble: CRESSON, 2008).

and their world, but also to specialists who consider sound important in building the environments of the future. These fragmentary recordings are often short. They speak of ordinary history transcribed through tangible material means, fragments of experiences that disappear over time, traces of which are preserved here to highlight some of the circumstances in which they were created. Within this sound library, urban voices appear under many categories. One section in particular, however, the “voices of the city” (tab “*les voix de la ville*” or keyword “voice” at *cartophonies.fr*), is specifically focused on typical vocal forms. These sound samples give us access to a wide range of situations (market places, transportation facilities, streets and town squares, housing estates etc) that are necessary in urban life and tell their stories in various ways. Going above and beyond simply bearing witness, the fragments also suggest how standardisation and banalisation threaten the sensitive texture of the city and reduce the degrees to which residents can play a role in them. These materials question our world and allow us to reflect, in every sense of the word.

Now let us further explore several subjects related to public sonic space in which the presence of voices is key: involvement in urbanity, the permeability between the public and the private, and collective atmospheres.

### Urban vocal gestures, getting involved in the atmosphere

The social aspect of creating urban atmosphere in the streets has long been based on ordinary vocal activity and by the creative diversity of a city’s “loud

5 Massin, *Les cris de la ville*, (Paris: Albin Michel, 1993).

6 Generic effect grouping the totality of sound occurrences that appear clearly in a given context. Very often coupled with another effect, emergence does not only concern the irruption of a strong sound in a context of lower intensity; it also characterizes the appearance of sounds that differ in pitch, timbre or rhythm.

voices”.<sup>5</sup> It also relies on the way spaces are appropriated via the metabolic effect of dense environments and by the emergent effect in less dense areas.<sup>6</sup> There are vocal “standouts”, techniques used by certain street vendors who understand, as described by Louis Sébastien Mercier, how to “raise their voices above the rooftops”: not just using volume but also *tone*, modulation and rhythm to stand out in a noisy or reverberating context.<sup>7</sup> Many examples in the *cartophonies.fr* archive demonstrate the vocal work done by certain itinerant street vendors, even if the latter are becoming rarer in Western cities.<sup>8</sup>

The urban resident intuitively knows how reverberation can create a kind of sonic aura, which is a kind of pleasure in itself. By carrying the voice better, reverberant spaces dramatise it: “it resonates like in an empty theatre”, says one resident.<sup>9</sup> People intuitively understand how to use reverberation and volume. They sometimes use their voices to take advantage of an acoustic framework as a tactic to be heard or stand out. Having experience and awareness of how a voice can be transmitted allows people to understand the range and signification of sounds produced.

If you go at 10 a.m. or at 11 p.m.... you can stand 20-30 metres away and yell at each other... you can hear there’s an echo... you can hear it... nothing else can be heard...<sup>10</sup>

Other “sound offerings” include:

“the street is yours, you can stand in the middle of it and scream if you want to...”<sup>11</sup>; the sonic emptiness is available to you. Thinking of spaces as instruments clearly makes us consider the many ways they can be played, what they allow you to do and the skills implicitly required to play them.

7 Louis Sébastien Mercier, *Les tableaux de Paris*, (Hambourg et Neuchâtel: S. Fauche, 1780).

8 See also: Duncan MacLeod, “The Cries of London”, published in this volume, pp.28-37.

9 Grégoire Chelkoff with Jean-Luc Bardyn, Martine Leroux, Jean-Paul Thibaud, *Entendre les espaces publics*, (Grenoble: CRESSON, 1988).

10 Ibid.

Producing a vocal  
sound in public  
is an act  
– a political act.

The urban resident intuitively knows how reverberation can create a kind of sonic aura, which is a kind of pleasure in itself.

Voice is a preferred means of communication, but also a source of aesthetic creativity: emerging from the vocal cords, it can be modulated in volume (between whispering, screaming and singing) and given a tone. Giving it rhythm and positioning it in space are also intuitive ways of using it. Acoustic effects are consciously and unconsciously used to underpin, maintain and create (or participate in) urban atmospheres; these techniques seem to be innate and have the potential for being used in a wide range of aesthetic and social situations. This phenomenon is also connected to other sensory experiences: voices and bodies are linked by resonance and movement. This raises questions about current (and future) transformations and their effects, such as synthetic voices emanating from objects or solo voices in telephone conversations.

#### Public-private permeability

The degree to which public and private spaces are permeable is an important and significant issue for our urban ways of living. And vocal gestures are not all related to commerce. Young people willingly use reverberation to accentuate their

11 Ibid.

presence in urban space, both spatially and sonically, increasing the range of their voices and transmitting them more widely, increasing the sensation of power. Young people communicating have been recorded from street level and up to eight floors above street level, using acoustic accentuation to help their voices carry.

Windows are the material framework for a lived sonic experience which is never neutral and whose various configurations are as diverse as residents' stories. They create links between the indoors and the outdoors, high and low, and reveal a form of public familiarity. Depending on the location and the social context, social norms can be challenged by vocalising at the window: what is the limit for using an opening as a means of communication?

My children call out to their friends from the window. I'm always telling them: "hey, don't do that" and then just yesterday, I started doing it myself.<sup>12</sup>

Inversely, sonic retention can be essential when the time or place requires it. There are places or voices that need to be moderated, where distance and power need to be respected based on the level of sound or the form in which it is produced. Respecting a space is also about giving it a voice. Social codes play out in individual and collective ways: lowering one's voice can be related to confidentiality, but also a desire to leave no trace in a space.

Using windows to greet or chat with neighbours makes them into instruments of interpersonal communication.

I often talk to people from my window; I made two good friends who live two

12 Ibid.

#### Collective vocal atmospheres, political and aesthetic considerations

Vocal atmospheres are sometimes highly collective. Crowds are characterised by what we have previously referred to as the metabolic effect, the intermingling of various voices as in a Swiss market, or in a covered market in France. These sounds overlap not in an indistinct mass but rather as a kind of a puzzle out of which comprehensible snippets appear and disappear in time. This oral metabolism reveals a structure in which "the surface" or what lies beneath it are not stable, but vary in time and in different combinations. It should also be noted that vocal interactions can produce high levels of sound, with the public producing a powerful sonic mass, such as in a Lisbon pastry shop. Dense spaces are particularly subject to the metabolic effect of multiple voices; it is a relative constant in gatherings where speaking freely is allowed. The exercise of democracy and urban sociability express their vitality through interwoven vocal exchanges. This feedback loop contributes to public sonic production: sounds respond to each other and actors take their turns speaking. Though sometimes we hear the person doing the most to be heard. This ascending and descending feedback loop gives the sonic atmosphere a relative solidity, wrapping itself around those who contribute to it.

Reverberation can sometimes be very significant: in religious buildings, where it can last longer than four seconds, but also in other large volumes such as museums and transportation spaces. It relies on ubiquity: the voice seems to come from everywhere and nowhere at the same time,

balconies above me, so we started talking. Both from my window to the one above and also face to face, we always say our little hellos from the window.<sup>13</sup>

But excessive permeability between public and private in residential space can make the presence of the voice ambiguous. Interiors and exteriors mix when conversation is held at the threshold of a front door, or at a window opened wide when it's warm. The resident who notices a discussion taking place outside expresses a desire to participate:

You often hear people going by, especially women with heels or people who have metal taps on their shoes. When there are several people talking, you can hear them distinctly, you can hear what they're saying, you'd like to take part in the discussion.<sup>14</sup>

Another form of sonic contact is created when residents' various activities are filtered through the complexity of old courtyards and walls of varying thicknesses. In older residential buildings, sonic permeability is no longer correlated to visual opacity: an invisible world appears through hearing. The voices come out of the walls.

Some spaces, however, put us in direct contact with one another in public in more intense ways. In open train cars in Switzerland, for example, or in the old Lisbon tramway. These "matte" sonic spaces (with very absorbent, nearly quilted acoustics) combined with low and deep ambient sound levels make every conversation exposed, audible and understandable. A sample of two voices in intimate private conversation would *a priori* seem to be non-public, a form of intense sonic exposure.

13 Ibid.

14 Ibid.

reflecting off every surface and forming an all-encompassing sonic envelope.<sup>15</sup> In spaces where there is a lot of reverberation, for example, the space under the pyramid at the entry to the Louvre, or underground areas like the metro and shopping centres, visitors' voices are mixed into a kind of sonic fog, where it is difficult to separate one sign or word from another. These grand volumes, in which voices seem to float, are special and fascinating phonic atmospheres. One needs to get closer than usual to other people in them in order to verbally communicate. Transmitting comprehensible vocalisations in train stations is particularly difficult. These all-encompassing effects illustrate spaces in which the public becomes relatively indistinct, drowned out by the mass from which it becomes difficult to emerge.

Above and beyond any characteristics specific to vocal transmission, vocal presence is more generally a key issue in spaces dominated by road sounds. Urban planning and spatial policy can be held accountable for making vocal presence possible by encouraging activities that can add colour. We have observed that family parks located near infrastructure can add this kind of colour through activities and by creating vocal presence. Even if the latter sometimes occurs in areas exposed to road noise, the communications set a tone. Pathways through spaces of social activity such as family parks would take on additional, less hostile and expressive sonic colour than the one created by polluted, muted street fronts stretching as far as the eye can see and the ear can hear.

While other people's vocal activity can be bothersome, voice ultimately has "poetic" power over a place and in

<sup>15</sup> This effect is linked to the spatial and temporal conditions in which sound is transmitted but its source is impossible to locate.

relation to other elements. For example, the affinity between the sound of flowing water and vocal activity has often been highlighted. This is doubtless because of their rhythmic and tonal proximity, water producing a kind of glossolalia, which gives it an interesting presence.<sup>16</sup> This can also happen when it manifests itself at a distance or is filtered. It is well known that reverberation "beautifies" the voice and that we use it like a mirror, thus transforming our bathrooms, metro corridors and other resonant spaces.

Reverberation "beautifies" the voice, we use it like a mirror, thus transforming our bathrooms, metro corridors and other resonant spaces.

### Conclusion

This short text and the examples given are a call to further action to collect the ways in which notable vocal presences appear in cities and to enrich our collective work on the vocal measurement of place by contributing them to *cartophonies.fr*. Compiling and extending this vast library of urban and architectural sounds will allow people to better understand the future situations and conditions in which the sonic city is produced.

<sup>16</sup> Glossolalia is the phenomenon of speaking aloud with aspects of a foreign language, or in a series of incomprehensible syllables.

Going forward, a categorised collection of recorded sounds will make it possible to constitute auditory references and a criteria to better understand the varying relationships between socio-spatial conditions in cities and the sounds they produce (fields for categorising the sounds include context of use, spatial morphology, materiality, objective or measurable data). These references and criteria feed into research on a digital tool called Esquis'sons! which allows for the conception of architectural spaces through sonic sketches from diversified local sound environments.<sup>17</sup> In other words, to sketch a space by listening. ●

<sup>17</sup> Théo Marchal, Nicolas Rémy, Grégoire Chelkoff, Jean-Luc Bardyn, Noha Gamal Said, et al., "Esquis'sons! Sound Sketch: A Parametric Tool to Design Sustainable Soundscapes: How to apprehend environmental complexity in a simple tool for architectural design", *Complexity & Simplicity - 34<sup>th</sup> eCAADe Conference*, (University of Oulu, Aug 2016, Oulu, Finland), pp.275-284.