

# Processing of Listening in Urban Soundscape

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## **Abstract**

The urban soundscape is one of the factors that influence the behavior and perception of urban residents. Its overall form is an expression of society, although it often does not correspond to our imaginations. Moreover, it is beyond the power of an individual to change it significantly. This thesis focuses on the possible changes that can be made on a human scale, whether on an individual or collective level. Its aim is to develop different listening platforms that enable experimentation with listening perception in everyday life.

## **Keywords**

Listening attention, listening practices, headset, urban soundscape, takeaway, resistance, routines, processing, atmosphere, listening pauses, soundwalk, workshop, performance.

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## Introduction

The practice of listening is prompted by the experience and learning process, and differs from hearing by engagement with attention. Thus, cultivating a habit of listening necessitates the methods of learning how to maintain or expand *listening attention*. This is also related to the act of getting rid of deep unconscious habits that prevent us from achieving and maintaining, what in Heideggerian terms would be called, “hearkening” that requires the disciplined practice of letting-go and letting-be. It means, in other words, the mode or style of “just listening” not entangled in the ego’s fantasies and preoccupations.<sup>1</sup> This criterion implies a willingness to be open to Being, which can be attained through the ability to listen. Then, if listening is rooted, it is possible to intertwine one’s capacity to listen with the outer world.<sup>2</sup>

However, I question the opportunity of how one can listen in today’s socio-political conditions. Although not systematically following the complex experimental learning methods of listening developed by sound artists and musicians such as Pauline Oliveros, R. Murray Schafer, Hildegard Westerkamp, and many others, the initial motivation for the research was to create a new methodology for cognitive and learning processes which allow daily routines to be extended by a new habit of listening to environmental sounds. However, finding methods for sustained listening in everyday life has proved to be too ambitious and likely too utopian and open-ended a project. Equally, given the circumstances in which the project has taken place, namely during the coronavirus pandemic and the outbreak of war in Ukraine (a time of decreased mobility and increased social and personal insecurity), personal motivation for such a project naturally has waned. Nonetheless, in the end, all of these circumstances contributed to this research’s very form, which has resulted in a set of experimental *listening practices* and the invention of a new technology (a headset) rather than a comprehensive methodology.

The research itself is divided into two consecutive parts. The first part focuses on an analytical approach based on my own experimental practices of listening, and these practices were carried out mostly subversively during shifts in the company “Thuisbezorgd,” where I was working as a delivery-person. The second part is a culmination of the experience acquired during the analytical phase that forms the practical part, namely the individual and collective listening practices within a small group of people<sup>3</sup>—*soundwalk*, *workshop*, and *collective performance*—utilizing technology for real-time sound processing, i.e., an *invented headset*. Both—the listening practices and the headset—are conceived as

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<sup>1</sup> David Levin, *The Listening Self; Personal Growth, Social Change and the Closure of Metaphysics: Bib* (New York: Routledge, 1989), 48.

<sup>2</sup> Levin, *Listening Self*, 219–220.

<sup>3</sup> Especially, the collective practice, given its relational character, could be classified in participatory art and the art-educational form. Nicolas Bourriaud, *Nicolas Bourriaud: Relational Aesthetics* (Paris: Les Presses du réel, 2002), [https://monoskop.org/Nicolas\\_Bourriaud](https://monoskop.org/Nicolas_Bourriaud).

“listening platforms” which have the ability to activate one’s listening and extend one’s capacities to listen. All these individual and collective practices, together with technical details of the headset, are described in more detail in Chapter 3.

The listening practices described in what follows stem from the principle of routinization in the context of contemporary Western late capitalist society; the term “routinization” is defined as a process that consists of various habits that shape one’s behavior.<sup>4</sup> The motivation for the appropriation of this principle came from a focused development of the tactics enhancing the practice of listening; accordingly, this has required examining a *routine of listening*. In Chapters 1 and 2, the practice of listening will be put into the context of social studies, participatory art, sound art, and architecture.

In conclusion, the research is an initial part of the project<sup>5</sup> titled “Takeaway,” which has been running since April 2020 with the assumption of a further long-term continuation. It means that issues and topics not considered in the research framework will be continuously reflected upon as the project continues. This work will be progressed with the creation of a website that will archive and present the documentation of the listening platforms. The concept of the Takeaway project is elaborated upon in Chapter 3.

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<sup>4</sup> “When we frequently repeat a behavior in the same setting, we form a mental association between that setting and the behavior, and that leads us to experience an impulse, consciously or unconsciously, to repeat that behavior when we encounter that situation again.”

Phillippa Lally, “Pan Podcast #6 | Dr. Phillippa Lally | Habits and Health,” Physicians Association for Nutrition, published on July 2, 2021, YouTube video, 46:15, <https://www.youtube.com/watch?v=7A5AgZLd5bY>.

<sup>5</sup> The term project is used in the sense of “an open-ended, post-studio, research-based, social process, extending over time and mutable in form.”

Claire Bishop, *Artificial Hells: Participatory Art and the Politics of Spectatorship* (S.I.: VERSO BOOKS, 2012), [https://monoskop.org/File:Bishop\\_Claire\\_Artificial\\_Hells\\_Participatory\\_Art\\_and\\_the\\_Politics\\_of\\_Spectatorship\\_2012.pdf](https://monoskop.org/File:Bishop_Claire_Artificial_Hells_Participatory_Art_and_the_Politics_of_Spectatorship_2012.pdf), 194.

## 1. Audible affordances

### 1.1 Capacity to listen

According to John Rawls' formulation of the "Aristotelian Principle"—the principle of motivation—people are naturally inclined towards self-development and prefer more complex prompts:

"other things being equal, human beings enjoy the exercise of their realized capacities (their innate or trained abilities), and [...] this enjoyment increases the more the capacity is realized."<sup>6</sup>

In the context of this research, a number of questions arise. Firstly, what does self-development mean in terms of developing one's capacity for listening? Secondly, what kind of experimental way of listening can help to extend our ability to listen to the outside world and the people who occupy it? Thirdly, to what extent do we, as human beings, consider ourselves capable of self-development that matches our life's current conditions and the socio-political environment in which we live? According to Jürgen Habermas, an individual's interest in self-development is essential for the continued rational development of society:

[...] social systems can, by exploiting the learning capacities of socialized subjects, form new structures in order to solve critical steering problems [...] To this extent, the evolutionary learning processes of societies are dependent on the competencies of the individuals who belong to them. The latter, in turn, do not acquire their competencies as isolated monads, but by growing into the symbolic structures of their life-world.<sup>7</sup>

This assumption considers society to be made up of people who have the ability to listen to themselves and others. Society depends on the individual and draws from its existence. It is therefore apparent that there must exist a resonance between two subjects—society and individual—who constantly share premises about how to evolve their own structures. In fact, this social relationship, carried by the individual, is analogous to Jean-Luc Nancy's analysis of the relation listening–resonance. In other words, it is essential to allow the body "to become, itself, a medium, an instrument, for the resonance of sound:"<sup>8</sup>

[...] listening opens (itself) up to resonance and that resonance opens (itself) up to the self: that is to say both that it opens to self (to the resonant body, to its vibration) and that it opens to the self (to the being just as its being is put into play for itself).<sup>9</sup>

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<sup>6</sup> Levin, *Listening Self*, 60.

<sup>7</sup> Ibid., 36.

<sup>8</sup> Ibid., 84.

<sup>9</sup> Jean-Luc Nancy, *Listening* (New York: Fordham University Press, 2007), 25.

In regard to my research concerning subjective listening perception in the urban soundscape, the motivation is to develop a sort of *tactics*<sup>10</sup> for the emancipation of one's capacity to listen to the surroundings.<sup>11</sup> That aligns with the words of Marx, expounded in the "Economic and philosophical manuscripts of 1844," that the spiritualization and emancipation of senses "would repel the instrumental rationality of capitalism."<sup>12</sup>

'Emancipation of the senses' implies that the senses become 'practical' in the reconstruction of society, that they generate new (socialist) relationships between man and man, man and things, man and nature. But the senses would also become the 'sources' of new (socialist) rationality: freed from the exploitation.<sup>13</sup>

One of the tactics that I suggest could be the act of *passive resistance*.<sup>14</sup> However, Foucault argues that "power is pervasive and defines even the gestures of resistance."<sup>15</sup> Furthermore, from the perspective of clinical psychologist John Welwood, it is just an act of resistance that armors one against the relatedness of self and world.<sup>16</sup> Nevertheless, such various ambiguous, and non-political resistance practices (e.g., working slowly) are also qualified in resistance studies as "hidden, circumventing forms of disguised resistance."<sup>17</sup> For example, Anna Johansson and Stellan Vinthagen define everyday resistance as:

[...] resistance that is done routinely, but which is not politically articulated or formally organized (yet or in that situation). It is a form of activity that often avoids being detected as resistance. But it might also be made invisible by society, by not being recognized as resistance.<sup>18</sup>

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<sup>10</sup> "[...] tactics are the realm of everyday actions by ordinary people in the strategically-structured set up of society and the reception of de Certeau's concepts has often focused on the potential of resistance in the tactical realm."

Difference between tactics and strategies: "De Certeau defines "strategies" as the hidden means in which institutions and structures of power, or "producers", circumscribe a place as proper and generate relations with targeted individuals, or "consumers", who consequently enact "tactics" in order to unsettle or diverge from the prescribed conventions of such environments."

Frauke Behrendt, "Mobile Sound: Media Art in Hybrid Spaces," *Mobile Sound: Media Art in Hybrid Spaces* (PhD diss., University of Sussex, 2010), [https://www.researchgate.net/publication/270818916\\_Mobile\\_sound\\_media\\_art\\_in\\_hybrid\\_spaces](https://www.researchgate.net/publication/270818916_Mobile_sound_media_art_in_hybrid_spaces), 195.

<sup>11</sup> "It surely is the acute awareness that we are shaped by our surroundings, coupled with a deep desire to shape those surroundings ourselves."

Experimental Jetset, *Superstructures: Notes on Experimental Jetset Vol. 2* (Amsterdam: Stichting Roma Publications, 2021), 13.

<sup>12</sup> Levin, *Listening Self*, 38.

<sup>13</sup> Ibid., 37-38.

<sup>14</sup> Definition of passive resistance: resistance especially to a government or an occupying power characterized mainly by non-cooperation.

"Passive Resistance Definition & Meaning," Merriam-Webster (Merriam-Webster), accessed October 23, 2021, <https://www.merriam-webster.com/dictionary/passive%20resistance>.

<sup>15</sup> Levin, *Listening Self*, 36.

<sup>16</sup> John Welwood, "MEDITATION AND THE UNCONSCIOUS: A NEW PERSPECTIVE," *The Journal of Transpersonal Psychology* 9 (1977), <https://www.atpweb.org/jtparchive/trps-09-77-01-001.pdf>, 22.

<sup>17</sup> Mikael Baaz et al., "Defining and Analyzing 'Resistance,'" *Alternatives: Global, Local, Political* 41, no. 3 (2016): pp. 137-153, <https://doi.org/10.1177/0304375417700170>, 140-143.

<sup>18</sup> Baaz et al. "Defining," 141.



In addition, Nick Srnicek and Alex Williams claim in their book *Inventing the Future: Postcapitalism and a World Without Work*, folk politics and their folk-political<sup>19</sup> preferences, which are based on everyday life, personal experience, and small communities<sup>20</sup>—that reflect the participatory aspect I have been developing in my artistic practice and the referential scale of my project<sup>21</sup>—cannot be sufficient for a post-capitalist project; folk-politics is understood solely as a manner of resistance.<sup>22</sup>

Against the abstraction and inhumanity of capitalism, folk politics aims to bring politics down to the 'human scale' by emphasizing temporal, spatial and conceptual immediacy.<sup>23</sup>

The elementary question that arrives is to what extent the act of resistance can be beneficial and motivating for listening practice? I could propose, in contrast to Welwood, Foucault, and Srnicek and Williams, that if some kind of resistance has been defined by the need to convert the act of resistance into developing a more robust cognitive background of personal experience, the advantage of doing so lies in the possibility to subvert the environment and create conditions for one's own experiments. In other words, the conversion of everyday resistance, which also needs a framework that can be subverted, although it does not have a big impact on the infrastructure in which it happens, could help break down one's routine patterns of (not) listening. And even though there is no general post-capitalist idea of the specific art form that could help to remedy the current situation or pursue any significant socio-political transformation, the tendency of my project is neither to attempt such a new form, nor to pursue any significant socio-political transformation; rather, the project aims at individual experience and cognition via listening and the sharing of experience among a group of people interested in this experimental process.

Essentially, the focus is on investigating the possibilities of how-to temporarily change one's perception and state of listening in the urban environment with the help of the active use of technology. Furthermore, the research explores a kind of sub-level of perception—listening attention—that can further unfold subjective cognitive processes. However, the research is not concerned with perceiving specific sound objects or sonic

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<sup>19</sup> "The term "folk politics" has been recently introduced by Nick Srnicek and Alex Williams to describe a prevailing leftist tactic at the beginning of the 21st century, with its dominant focus on direct action, horizontalism and local solutions. While the hegemony of folk politics begun with the rise of alter-globalism in the nineties, its decline has been represented by the failures of the Occupy Movement after 2011."

Václav Magid, "What Was the Aesthetics of Folk-Politics?," MUNI ARTS Josefov Summer School, accessed December 12, 2021, <https://divadlo.phil.muni.cz/josefov/archiv/2017/pracovni-skupiny/what-was-the-aesthetics-of-folk-politics>.

<sup>20</sup> Nick Srnicek and Alex Williams, *Inventing the Future: Postcapitalism and a World without Work* (London: Verso, 2016), 11.

<sup>21</sup> "Participatory art exists under a variety of overlapping headings, including interactive, relational, cooperative, activist, dialogical, and community-based art. In some cases, participation by a range of people creates an artwork, in others the participatory action is itself described as the art."

Michael Kelly, "Participatory Art-Finkelpearl-Encyclopedia Aesthetics," Art Research Center UC Berkeley, 2014, [https://arts.berkeley.edu/wp-content/uploads/2015/03/Participatory\\_Art-Finkelpearl-Encyclopedia\\_Aesthetics.pdf](https://arts.berkeley.edu/wp-content/uploads/2015/03/Participatory_Art-Finkelpearl-Encyclopedia_Aesthetics.pdf), 1.

<sup>22</sup> Srnicek and Williams, *Inventing the Future*, 9-13.

<sup>23</sup> Ibid., 10.

events on which one's attention is focused during listening. The intention is not to distinguish between different ways of listening or exclude any ways of listening. On the contrary, the aim is to create the platforms that afford to trigger one's listening attention and possibly spark anyone's—regardless of musical training—interest in listening. Then, the potential contribution of the research could be opening up questions about the relations between these micro-structuring subjective attentions and broader images of collectively shared perceptions; in other words, about the relations between practiced alternative perceptions and the structuring of society.

In summary, I consider the act of passive resistance as one of the essential tactics that have helped me to direct the critical aspect of my research. However, I do not argue that it is a necessary universal pre-stage for everyone's listening practice. Moreover, I have not presumed only listening as an act of resistance; perceivably, the act of passive resistance is a complex operative practice requiring particular needs. In addition, within the research based on auditory affordances, passive resistance operates with other everyday tactics that echo the need to cultivate the *routine of listening* and that will be mentioned later. However, according to Brar and Moreno, there is a danger "if the senses have been cultivated over time, they may well be constrained and trapped in certain habits of thinking and listening." To avoid such danger of habitual and routinized listening instead of assimilating the routine of listening, I suggest some experimental listening practices and active uses of technology to examine one's listening attention. And, because listening requires attention, the question is how to increase the frequency with which listening attention is triggered in everyday life, thus helping to break down routinized listening and listening habits.

## **1.2 Activating listening**

In general, the assumption I am making about the cognitive process that is rooted in listening, is the concept of *listening attention* and its possibility to facilitate mutual listening and exploration of the soundscape of the city, and hence to freely interpenetrate oneself with the environment.<sup>24</sup> In the words of David Michael Levin, concentrated listening attention means to listen carefully and take the time to stay with what is sounding long enough to feel a sense of familiarity and *intimacy*.<sup>25</sup> Coupled with *mutual listening*, which prompts us to understand how one's capacities can allow one to listen to oneself, to others, and to the environment, listening attention opens up the possibility to relate oneself with its

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<sup>24</sup> Welwood, "Meditation," 23-24.

<sup>25</sup> Levin, *Listening Self*, 84.

surroundings. Salome Voegelin defines this relatedness of oneself with surroundings as a tuning into the world:

[...] *the landscape as sonic possible world* writes an invitation to listen not to confirm and preserve actuality but to explore possibilities. The field of this listening is wherever the reader is, who hears the social, political, and economic significance of her sonic world rather than mine: not to read and decode the sonic environment but to experience in its complex mobility the plurality of the world. It is not a *Tuning of the World* but a tuning into the world in order to see all it could be: to consider the frame of a current actuality and to implode it through the plurality of a sonic sensibility. It takes the sonic slice of the landscape to focus on what it reveals not about itself only but about the commingling of the world.<sup>26</sup>

One more presumption of listening is its possibility of straining “toward a possible meaning”<sup>27</sup> or “toward a present sense beyond sound.”<sup>28</sup> This aligns with the definition of hearkening:

[...] hearkening is a listening informed by ontological understanding, an authentic understanding of Being, its achievement becomes the *normative basis* for all our subsequent auditory experiences.<sup>29</sup>

Emphasizing the need for one’s commitment to cultivating the act of listening as well as being able to cope with the burden that listening entails, Ultra Red established in its Five Protocols for Organized Listening that: “Learning to listen is an intentional task of solidarity.”<sup>30</sup> It follows that the act of listening, alongside its ontological potential, can also serve as an operative means of understanding social and political circumstances. Accordingly, the very act of listening is accompanied by a constant ambivalence between its operative practice and the practice of “just listening” or “hearkening.” But then who is really willing to cultivate listening and thus bear its burden?

To this account, a proven example of getting familiar with listening practice is the individual and collective practice of *Deep Listening* originated by Pauline Oliveros. “Anyone can practice Deep Listening,”<sup>31</sup> as is described in the introduction of her book *Deep Listening: A Composer’s Sound Practice*. The brief definition of Deep Listening according to Oliveros is as follows:

[...] learning to expand the perception of sounds to include the whole space/time continuum of sound—encountering the vastness and complexities as much as possible. Simultaneously one ought to be able to target a sound or sequence of sounds as a focus within the space/time continuum and to perceive the detail or trajectory of the sound or sequence

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<sup>26</sup> Voegelin Salomé, *Sonic Possible Worlds: Hearing the Continuum of Sound* (New York: Bloomsbury Academic, 2014), 13.

<sup>27</sup> Nancy, *Listening*, 6.

<sup>28</sup> Ibid.

<sup>29</sup> Levin, *Listening Self*, 230.

<sup>30</sup> Ultra-red, “Ultra-Red,” Ultra-red, 2012, [http://www.ultrared.org/uploads/2012-Five\\_Protocols.pdf](http://www.ultrared.org/uploads/2012-Five_Protocols.pdf), 2.

<sup>31</sup> Pauline Oliveros, *Deep Listening: A Composer’s Sound Practice* (New York: Universe, 2005), [https://monoskop.org/images/2/2c/Oliveros\\_Pauline\\_Deep\\_Listening\\_A\\_Composers\\_Sound\\_Practice\\_2005.pdf](https://monoskop.org/images/2/2c/Oliveros_Pauline_Deep_Listening_A_Composers_Sound_Practice_2005.pdf), 12.

of sounds. Such focus should always return to, or be within the whole of the space/time continuum (context). Such expansion means that one is connected to the whole of the environment and beyond.<sup>32</sup>

As mentioned in the introduction, my unsuccessful attempt to follow the example of Oliveros and her own practice of *maintained listening*<sup>33</sup> has let me reflect critically on the role of Deep Listening in contemporary society despite its unquestionable historical importance. Deep listening, also considered a meditative practice, has the potential to activate listening and extend the capacity to listen. On the other hand, it is difficult to overlook the fact, given the character of the practice of Deep listening, that most of its realizations have also become a commodified consumer activity in the form of a wellness treatment based more on a therapeutic process aiming at improvement of one's health and well-being. This may not have been so apparent at the time that the Deep Listening practice was being developed, but it is the case today. Consequently, the practical lessons of Deep Listening are often conducted either in centers adjusted for such practice or as a series of online courses and webinars. Thereby, the main difference I see in the attitude of today's Deep listening practices versus my subversive approach of activating listening in the urban environment is their difference in relation to one's commitment and the choice of the environment for the cultivation of the act of listening. As a result, rather than exposing one to the act of listening in a separate and quiet place, my proposal is to expose one to actively listen right in the city rush; in other words, to draw upon the sonic richness of the so-called lo-fi soundscape.<sup>34</sup>

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<sup>32</sup> Oliveros, *Deep listening*, 14.

<sup>33</sup> "My practice is to listen to everything all the time and remind myself when I am not listening."

Pauline Oliveros, "The Difference between Hearing and Listening | Pauline Oliveros | TEDxIndianapolis,"

TEDx Talks, published on November 12, 2015, YouTube video, 11:37, [https://www.youtube.com/watch?v=\\_QHfOuRrJB8](https://www.youtube.com/watch?v=_QHfOuRrJB8).

<sup>34</sup> "In a lo-fi soundscape individual acoustic signals are obscured in an overdense population of sounds. The pellucid sound—a footstep in the snow, a church bell across the valley or an animal scurrying in the brush—is masked by broad-band noise."

Raymond Murray Schafer, *The Soundscape: Our Sonic Environment and the Soundscape* (Rochester, VT: Destiny Books, 1994), 43.

### 1.3 Listening in an urban environment

As outlined above, the activation of listening requires an initial phase: the engagement of listening attention. In the context of the urban environment, it also means breaking the limited perception of the city caused by its routine use and the habitual listening to the urban soundscape, as Barry Truax describes the effect of environmental sounds on listening perception:

Environmental sound surrounds us constantly and the conventional modes of interpreting it are far more habitual and operate at a lower level of awareness than a focused attention for speech or music.<sup>35</sup>

Consequently, the listener should become an operative participant who activates its temporary listening attention and thus transforms the listening state onsite. Instead of submitting oneself to the architecture of the city, which is determined by its functionality, the aim is to experience the urban environment in a different and unusual way—to create a new subjective experience during *listening practices*, also by using technology; listening practices that follow Michel de Certeau's concept of *spatial practices*:

[...] the practices that are foreign to the “geometrical” or “geographical” space of visual, panoptic, or theoretical constructions. These practices of space refer to a specific form of *operations* (“ways of operating”), to “another spatiality” (an “anthropological,” poetic and mythic experience of space), and to an *opaque* and *blind* mobility characteristic of the bustling city. A *migrational*, or metaphorical, city thus slips into the clear text of the planned and readable city.<sup>36</sup>

Furthermore, my agency seeks to transcend and rethink the role of functional architecture while observing different listening experiences in the urban space. This architectural functionality was criticized, for example, by the intellectuals and artists around Guy Debord including himself, and particularly the members of the Situationist International. The periodic criticism of modern architecture and urbanism by the avant-gardists is illustrated, for example, by Asger Jorn's definition printed in the Lettrist International's bulletin *Potlach* 15 and published in 1954:

Architecture is always the ultimate achievement of intellectual and artistic evolution, the materialization of an economic stage. Architecture is the final point in the achievement of any artistic endeavor because the creation of

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<sup>35</sup> Barry Truax, “Soundscape, Acoustic Communication and Environmental Sound Composition,” *Contemporary Music Review* 15, no. 1 (January 1996): pp. 49-65, <https://doi.org/10.1080/07494469600640351>, 52.

<sup>36</sup> Michel de Certeau, *The Practice of Everyday Life* (Berkeley: University of California Press, 1984), [https://monoskop.org/File:De\\_Certeau\\_Michel\\_The\\_Practice\\_of\\_Everyday\\_Life.pdf](https://monoskop.org/File:De_Certeau_Michel_The_Practice_of_Everyday_Life.pdf), 93.

architecture implies the construction of an environment and the establishment of a way of life.<sup>37</sup>

So, the question is how to alter the ways in which the city is perceived, also as a result of the architecture and the sonic characteristics of the city. Moreover, how to respond to a more contemporary view of the city's architecture, which, for example, Mark Wigley defines as boring:

99.99 % of architecture is boring and it is not just boring because the people in it are boring. That is architecture's job to be boring in a world that has gone mad and crazy and slippery. Architecture is still as it has positioned itself as some kind of an aesthetic against everything that is going on.<sup>38</sup>

With this regard to the function of architecture and its power to constitute and define space, the research focuses on finding new ways to create intimate spaces in the soundscape of the city that allow one to interact with others and create one's own world by doing it oneself.<sup>39</sup>

As Brandon LaBelle comments on the influence of acoustic territories on experienced intimacy:

[...] the presentation of specific acoustic territories should not be exclusively read as places or sites but more as *itineraries*, as points of departure as well as arrival. As territories, I define them as movements between and among differing forces, full of multiplicity. Exposing them to listening I also map them onto an auditory paradigm, exploring them through a particular discourse, while allowing them to deepen my own listening, to influence and infect what I have so far imagined sound providing—*intimacy*, in provocative and complex scale. Sound creates a relational geography that is most often emotional, contentious, fluid, and which stimulates a form of knowledge that moves in *and* out of the body.<sup>40</sup>

To deepen this state of intimacy and engage the listening attention, I suggest temporarily *alienating oneself* through the *processing of listening*. My use of the term "processing of listening" encompasses the ever-changing subjective processes of interpretation and inference in an unceasing stream of sound stimuli, which are activated by a set of experimental listening practices that also include the active use of technology. In addition, temporary *alienation* could be seen as a tactic as well as a concomitant of the routine of

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<sup>37</sup> Asger Jorn, "Text Archives > Presituationist Texts > Lettrist International >" Situationist International Online, accessed March 20, 2022, <https://www.cddc.vt.edu/sionline/presitu/forlife.html>.

<sup>38</sup> Mark Wigley, "Mark Wigley: Architecture 101.5—Cutting Matta-Clark (September 27, 2017)," SCI-Arc Media Archive, published on October 3, 2017, YouTube video, 1:30:41, [https://www.youtube.com/watch?app=desktop&v=zvrlCmo\\_Mnc](https://www.youtube.com/watch?app=desktop&v=zvrlCmo_Mnc).

<sup>39</sup> Mark Wigley, Hans den Hartog Jager, and Ludo van Halem, "Salon | Architect Talk | Constant's New Babylon," Art Basel, published on June 25, 2015, YouTube video, 49:56, <https://www.youtube.com/watch?app=desktop&v=Bgv4cL77n38>.

<sup>40</sup> Brandon LaBelle, *Acoustic Territories: Sound Culture and Everyday Life* (New York: Bloomsbury Academic, 2010), <https://n11lib.org/book/2342766/4df816?dsource=recommend>, xxv.

listening and the listening practices—*listening pauses*<sup>41</sup> and *soundwalks*<sup>42</sup>—which will be discussed later. In this case, alienation is not meant as a negative aspect caused by the social influence described, for instance, by Debord in *The Society of the Spectacle*. On the contrary, it is meant as a temporal and intentional alienation of the subject in order to cognitively experience the relationship between the world and oneself through the act of listening. This refers to the necessary experience of alienation in the spirit of the Hegelian conception, as opposed to Marx's or Debord's alienation with a negative connotation:

As Hegel showed, time is the *necessary* alienation, the terrain where the subject realizes himself by losing himself, becomes other in order to become truly himself. In total contrast, the current form of alienation is imposed on the producers of an *estranged present*. In this *spatial alienation*, the society that radically separates the subject from the activity it steals from him is in reality separating him from his own time. This potentially surmountable social alienation is what has prevented and paralysed the possibilities and risks of a *living* alienation within time.<sup>43</sup>

Similar to the listening practices, my concept of alienation involves a temporal change in listening state. In addition, temporal alienation presupposes one's participative role associated with the act of listening. So, if we imagine a situation of one being alienated and at the same time participating in the very act of listening in the midst of the city, then this situation captures a kind of duality or a mental in-betweenness. However, what I try to achieve in practice is to sort of bridge this duality by *calibrating one's listening* to the environment and make it possible to *reshape atmospheres* around the listener. This means creating a new relation between oneself and the contingent events taking place in the acoustic environment.

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<sup>41</sup> A listening pause means stopping at one place and concentrating on listening.

<sup>42</sup> "The soundwalk is an exploration of the soundscape of a given area using a score as a guide. The score consists of a map, drawing the listener's attention to unusual sounds and ambiances to be heard along the way."

Schafer, *Soundscape*, 213;

"A soundwalk is any excursion whose main purpose is listening to the environment. It is exposing our ears to every sound around us no matter where we are."

Hildegard Westerkamp, "Soundwalking," Hildegard Westerkamp, January 1, 2001,

[https://www.hildegardwesterkamp.ca/writings/writingsby/?post\\_id=13&title=soundwalking](https://www.hildegardwesterkamp.ca/writings/writingsby/?post_id=13&title=soundwalking);

"Why limit listening to the concert hall? Instead of bringing these sounds into the hall, why not simply take the audience outside – demonstration in situ."

Max Neuhaus, "Listen," [artstream.ucsc.edu](http://artstream.ucsc.edu), accessed March 22, 2022,

<https://artstream.ucsc.edu/music80c/Listen,%20Max%20Neuhaus.pdf>, 63.

<sup>43</sup> Guy Debord, *The Society of the Spectacle*, trans. Ken Knabb (London: Rebel Press, 2005),

[https://monoskop.org/File:Debord\\_Guy\\_Society\\_of\\_the\\_Spectacle\\_2005.pdf](https://monoskop.org/File:Debord_Guy_Society_of_the_Spectacle_2005.pdf), 91-92.

In addition, this intentional participation, alienation, or calibration could be a response to the conditions of today's society that cause automated *adaptation* to the urban environment and the inability to listen in a non-functional way, i.e., the inability to “just listen.” As Gernot Böhme points out the cause of the *habit of not-listening*:

[...] the noise of the modern world and the occupation of public space by music has led to the habit of not-listening (Weghören). At the same time, listening has grown from an instrumental experience—I hear something—to a mode through which one participates in the world.<sup>44</sup>

Returning to the subject of reshaping one's atmosphere, Böhme describes atmosphere as a bodily felt space that differs from geometric space. In other words, it is a feeling of ourselves that transcends the geometrical edges of the body. An example would be listening to sound on headphones—playing any sound source, e.g., one's selected music—in which one has no relation to the surrounding real geometric space, but still has the bodily experience of listening to sound in space.<sup>45</sup>

In reaction to this, taking into account the concept of alienation and the concept of atmospheres, I explore this issue in my research by using technology, specifically the *headset* that I invented. Essentially, the headset acts as a real-time processor of the sonic environment, namely, it can transform and modify the incoming external audio signal into user-customized sonic forms. Thus, the processes generated by the headset not only attract the listener's attention, but also alter its perception, creating temporal alienation, calibrating its listening, and changing the atmosphere that is created in its presence. The functioning of the headset, its technicalities, and applied sound processes are described in more detail in Chapter 3.

In summary, the theoretical framework outlined in Chapter 1 provides a basis for further exploration of the diversity of subjective perceptions of everydayness influenced by an urban acoustic environment. Specifically, Chapter 1.1 summarized the concept of passive resistance as one of the tactics contributing to practice of listening. Following the listening concepts mentioned in Chapter 1.2—such as the listening attention, mutual listening, hearkening, just listening, cultivating of listening, maintained listening, Deep listening—my research focuses, regarding to its rhizomatic character, in particular, on the possibilities of activating the listening attention and its duration in the soundscape of the city. Within the research, listening attention also serves as an indicator showing one's subjectivity, its dependence on external factors affecting one's atmosphere, and willingness or ability

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<sup>44</sup> Gernot Böhme, “Acoustic Atmospheres: A Contribution to the Study of Ecological Aesthetics,” trans. Norbert Ruebsaat, *Soundscape: The Journal of Acoustic Ecology* 1 (2000): pp. 14-18, 17.

<sup>45</sup> Jordan Lacey, “Prof. Gernot Böhme Interview,” interview by Jordan Lacey, video, 9:20, accessed June 23, 2021, <https://jordan-lacey.com/project/translating-ambiance?index=prof-gernot-bohme>.



to listen to one's environment. In undertaking the empirical and practical sections of this research, I used the *invented headset* and the form of a *conducted workshop*, which engaged participants who were then interviewed about their experience. To clarify, the aim of the research is not to investigate all the above types of listening phenomena, nor one's perceptive alteration or the degree of one's alienation; albeit, these and other topics related to listening attention have emerged continuously since the research began. In short, the research focuses on finding methods to *activate listening* in the urban environment, and thereby activate broader cognitive functions and experiencing atmospheres via listening.

The next chapters that follow will detail possible methods of activating listening, including the active use of technology (the headset) in the individual and collective practice. In addition, the examples gathered during the aforesaid workshop will be presented and evaluated in Chapter 3 as a part of the qualitative research. In the following chapter, however, I would first like to present the analytical part of the research that was conducted during the time in my delivery job, where, in addition to food delivery, I also practiced passive resistance along with the listening practices that were constantly co-evolving in the work environment.

## 2. Routine of Listening

### 2.1 Takeaway (*working time in Thuisbezorgd*)

My past job, lasting from April 2020 to October 2021, as a delivery-person employed by a company known as Thuisbezorgd, was the main source of income for studying and living in The Hague. The job itself consisted of delivering food on a bike to customers around the city of The Hague, and besides the primary intention to earn money, I was using this work as an opportunity to also be a field-recordist and researcher.

Thuisbezorgd—which in English means home delivered—is a Dutch company, founded in 2000, that serves food-ordering via websites. In 2009, the company bought the international domain Takeaway.com.<sup>46</sup> Inspired by the company's current English name, I titled my project, as was already noted in the introduction, the same: *Takeaway*. According to the Cambridge Dictionary, the noun "takeaway" means, along the common use of the word for the meal cooked and bought at a restaurant and taken somewhere else, "a main message or piece of information that you learn from something you hear or read."<sup>47</sup> At the same time, takeaway (information) is a part of the cognitive exchange principles influencing human and social

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<sup>46</sup> "Just Eat Takeaway," Wikipedia (Wikimedia Foundation, April 26, 2022), [https://nl.wikipedia.org/wiki/Just\\_Eat\\_Takeaway](https://nl.wikipedia.org/wiki/Just_Eat_Takeaway).

<sup>47</sup> "Takeaway," Cambridge Dictionary, accessed May 15, 2022, <https://dictionary.cambridge.org/dictionary/english/takeaway>.

interaction.<sup>48</sup> Therefore, these other meanings of takeaway are also a part of the act of listening, namely its cognitive part.

In general, the delivery job does not require much cognitive effort. However, the infrastructure of the work itself within the urban environment was inspiring and suitable for my research purposes. I used the job subversively, leveraging the four-hour shifts to perform the listening practices and to collect material for my analysis concerning subjective listening perception focused on *listening attention*. It follows that I conducted the research while doing routine delivery services unbeknownst to my employer. This resulted in a type of deception in order to gain the necessary time for *listening pauses* and making *field recordings* during my shifts. These tactical pauses meant a temporary stopping of my duties as a delivery-person and encouraged me to listen and record the interesting sonic situations. A consequence of this was obviously my late return to another restaurant because the listening and recording pauses required me to stay in one place for roughly 5–30 minutes, including small preparations of the recording equipment. Moreover, I carried this out with the awareness that my employer had the ability to surveil and monitor all of my movements all over the city, as well as the average speed I travel on my bike, measuring my overall efficiency as a worker. This information was then recorded as data, which I was then evaluated on. Consequently, I was ranked the slowest delivery-person in the company's system, and my contract was not renewed after a year and a half.

Basically, my agency in Thuisbezorgd company, could be comparable to the post-studio tendencies of art known from the late 1960's,<sup>49</sup> especially to the social experimental project directed by the APG (Artist Placement Group). This group emerged in London in the 1960s for the purpose of placing artists in long-term residencies within industry and government departments, where they could do their artistic practice or research and be paid a salary equal to other employees employed by the organization that organized this project.<sup>50</sup> In contrast, however, my subversive actions in Thuisbezorgd were not legally protected and were not known to the company itself. In addition, my placement was not intended as a collaboration with the company. It explains my behavior in Thuisbezorgd, where to the existing routines determined by the delivery job, I added my own routines, and all my agency was done under the seal of secrecy. Accordingly, I created for myself the illusory idea of doing some kind of paid residency unwittingly sponsored by Thuisbezorgd.

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<sup>48</sup> Zygmunt Bauman and Tim May, *Myslet Sociologicky: Netradiční uvedení Do Sociologie*, trans. Ogrocká Jana (Sociologické nakladatelství, 2004), 99-115.

<sup>49</sup> Bishop, *Artificial Hells*, 163-191.

<sup>50</sup> "APG: Artist Placement Group - Overview | Tate," TATE, accessed May 25, 2021, <https://www.tate.org.uk/artistplacementgroup/overview.htm>.

As a delivery-person unpredictably biking through the city, spending most of the working time making field recordings, my activities did not go hand-in-hand with the company's desire to make me an ideal employee. And although, there has been a place for career growth in the *Thuisbezorgd* company, this unfortunately did not meet my subjective conception about meaningful work allowing for creative self-development. Essentially, my imagination of "meaningful work" is more connected to the Rafeeq Hasan's critique of John Rawls's theory about a well-ordered society providing the opportunity for meaningful work:

Meaningful work employs a variety of tasks or routines, drawing on an array of skills and capacities at least some of which require insight, intelligence, and ingenuity [...] Call this aspect of meaningful work self-realization [...] Meaningful work demands that the worker's tasks are not restricted to those that express a subordinate role. Further, it does not require attitudes of subservience or inferiority. Call this *workplace egalitarianism*.<sup>51</sup>

In contrast to Hasan's first definition of meaningful work, and the aspect of self-realization, the delivery job employs these a handful of routines repetitively, predominantly occurring in this order: i) biking around the city, ii) waiting in a restaurant, iii) picking up an order, and iv) delivering the order to the customer, and v) repeating i-iv again. Therefore, my inherent need to have fulfilment through meaningful work, as well as being an employee longing for another manner of "life actualization," required me to redesign<sup>52</sup> my humble delivery job by adding *other routines* created on the basis of my interest in listening practice.

The additional routines could include recordings of customer transactions, my entire shift, and listening pauses in sonically interesting situations at different places around The Hague; such routines I consider as a constructive, systematic practice, implicitly schematized, motivated by the needs of developing one's capacities to listen. In fact, each of these three routines lasted several months, determined by the frequency of my shifts, thus not in everyday sequence, and they gradually changed from one to another. Apparently, if we understand routines as flexible, consciously chosen, and based on self-interest, then they can serve as a basis for creative and cognitive processes with the capacity for self-realization. As Sanah Samazi defines routines:

Some cognitive resources such as attention being limited and rare, routines as attention-focussing devices economize on limited cognitive resources in order to "free-up higher degrees of awareness, mental deliberation and decision making for the more complex decision."<sup>53</sup>

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<sup>51</sup> Rafeeq Hasan, "Rawls on Meaningful Work and Freedom," *Social Theory and Practice* 41, no. 3 (2015): pp. 477-504, <https://doi.org/10.5840/soctheorpract201541325>, 481-482.

<sup>52</sup> Ruth Yeoman et al., eds., *The Oxford Handbook of Meaningful Work* (Oxford: Oxford University Press, 2019), 57.

<sup>53</sup> Sanaz Samani, "Does Performing Routine Task Prevent Creative Behaviour? A Review," *International Journal of Management Sciences and Business Research* 3, no. 7 (2014), [https://www.researchgate.net/publication/281236860\\_Does\\_Performing\\_Routine\\_Task\\_Prevent\\_Creative\\_Behaviour\\_A\\_Review](https://www.researchgate.net/publication/281236860_Does_Performing_Routine_Task_Prevent_Creative_Behaviour_A_Review), 106.

As follows from the previous understanding of the concept of routine, the premise of its assimilation has been to cultivate the routine of listening that could increase a frequency with which one's attention would be triggered in everyday life. The section that follows gives the examples of the listening practices on a routine basis.

## **2.2 Listening routines**

The examples presented here demonstrate an overview of my analytical listening practices that I carried out during the shifts in my delivery job and which became the basis for the further development of the practical part of the research.

### **2.2.1 Pauses**

As already mentioned, during my shifts, I routinely stopped for listening pauses. In fact, during these pauses, besides recording, I was just listening contemplatively without thinking about what I was hearing and trying to keep my listening attention. In the words of Ganchrow, one's attention to listening affirms the presence of the self:

Listening is a process of subjective appropriation, where the intimating of the local (conscious and unconscious) also affirms the self. Attention to listening enacts a heightened awareness of one's own self-presence in an embodied auditive field. If hearing can be said to be mimetic of anything, it's not of an environment 'out there' but rather of the conditions comprising that specifically situated mind-set.<sup>54</sup>

The listening pauses often took place at locations pre-determined by the algorithm depending on the incoming food order—among the public spaces, there were also semi-public or public courtyards, and interiors of the building complexes. Apart from the perceived ever-changing sound events in the soundscape of the city, I observed in particular the transitions between the acoustic environments—especially between a busy street and quiet courtyards—and the subsequent correlation between my listening attention and the acoustics, while I was moving through these spaces and pausing to listen. As LaBelle states in a case dealing with the issues of recognition and misrecognition in an acoustic framework:

“If we understand listening as being about giving attention, about almost an economy of attention, then acoustics (is or are) what we do to facilitate that attention. So again, listening is something that is about attention and

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<sup>54</sup> Raviv Ganchrow, “Fray,” in *The Dark Universe. Sonic Acts XV*, ed. Arie Altena and Sonic Acts (Amsterdam, Netherlands: Sonic Acts Press, 2013), pp. 119-131, 127.

acoustics is something about in a way setting the arrangements in place for that attention to happen.”<sup>55</sup>

Given the context of listening attention, I state the phenomenon of spatial acoustics as one of the fragments that have emerged from the *sub-level of listening attention* and via the practice of *listening pauses*. To illustrate the different acoustic qualities of the spaces that influenced my attention and became diverse spatial platforms for my listening pauses, I attach an excerpt of equally long sequences of the recordings accompanied by a photo of the recording location (see *Appendix A: Pauses/acoustics*).

To investigate the length and frequency of my listening attention, I was making analytical field recordings of listening pauses with an eye to their length. For the act of recording and the subsequent documentation, I used a portable recording device (Zoom H2n) and binaural microphones (Soundman OKM II) placed in my ears. Considering that my work is about the way in which one listens, binaural microphones,<sup>56</sup> in addition to allowing for *clandestine recording*, are useful to closely mimic spatial hearing. All of the field recordings were later reviewed and post-produced. Undergoing this, I selected my field recordings carefully and edited them to the corresponding time track. This was done in a way that freely picks up on methods of Oliveros’s Field Recording exercise, based on editing ten-minute recordings down to the best three-minutes.<sup>57</sup> In contrast to Oliveros’ exercise, my approach is to make recordings that reflect my listening attention in relation to the site. This means that these recordings are not significantly shortened or altered in post-production (only their beginnings and tails are cut off). However, some of the recordings were shortened from their actual length corresponding to the on-site recording. Their shortening stems from listening back to them and experimenting with processing of the sound material in post-production—in a studio and using headphones<sup>58</sup>—thus differing from on-site listening. In summary, the actual length of the recordings, including the edited versions, varies between thirty seconds and fifteen minutes.

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<sup>55</sup> Brandon Labelle, “Brandon Labelle: On Acoustic Justice,” pmilat, published on March 13, 2020, Youtube video, 50:06, <https://www.youtube.com/watch?v=Kha27ioX8qo>.

<sup>56</sup> Binaural recordings made with binaural microphones do “factor in natural ear spacing or “head shadow” of the head and ears, since these things happen naturally as a person listens, generating interaural time differences (ITDs) and interaural level differences (ILDs) specific to their listening position.”

“Binaural Recording,” Wikipedia (Wikimedia Foundation, March 26, 2022), [https://en.wikipedia.org/wiki/Binaural\\_recording](https://en.wikipedia.org/wiki/Binaural_recording).

<sup>57</sup> Oliveros, *Deep listening*, 33.

<sup>58</sup> Listening to binaural recordings on headphones closely reproduces the spatial image of binaural recordings.

This decontextualization of sounds from the soundscape and its subsequent reproduction and listening back off-site, accompanied by the impossibility to mentally imagine and remember the previously on-site experience, is closely linked to R. Murray Schafer's concept of schizophonia:

Schizophonia refers to the split between an original sound and its electroacoustical transmission or reproduction."<sup>59</sup> [...] reproduced sounds are copies and they may be restated at other times or place.<sup>60</sup>

In general, Schafer's concept of schizophonia—derived from schizophrenia—has been introduced as a "nervous" word, criticizing the overkill of technology that creates synthetic and unnatural representations of a soundscape.<sup>61</sup> In addition, this issue of detachment is also closely related to Pierre Schaeffer's concept of the "acousmatic," where sounds are perceived as objects detached from their source.<sup>62</sup> However, the issue of the acousmatic is not further addressed in the research.

As opposed to Schafer's negative perception of schizophonia, I have been more curious about its potential transmission of atmospheres; how schizophonia affects one's perception and what kind of new technology could modify its original conception. To this account, I started to think about a possible mobile studio version, working as a compressed version of schizophonia, that can eliminate the situations where sound is detached from its context. In other words, I was looking for a way to have a "portable studio" that would allow for various audio signal processing<sup>63</sup> at every turn. So, I combined the peripheral devices—microphone, headphones, and single-board computer with soundcard—into one portable and mobile headset in order to achieve the real-time *processing of listening* in situ without the need for field recordings. A more detailed description of the technicalities of the headset and the used sound processing is in Chapter 3.

Overall, the recordings of my listening pauses reflect my subjective listening attention that has been examined at arbitrary places, designated by the trajectory of my delivery job, in the urban area of The Hague. All these field recordings are collected and attached (see *Appendix A: Pauses*). The edited versions are distinguished by *\_edited* attribute. In addition, all of these recordings involve assigning a title corresponding to the date, time, and GPS coordinates, and some of them feature a photo of the place where they were captured. This experimental assignment of the additional information to each recording was

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<sup>59</sup> Schafer, *Soundscape*, 90.

<sup>60</sup> Ibid., 273

<sup>61</sup> Ibid., *Soundscape*, 91. The period when Schafer introduced the term in his book "The Soundscape" (1977), is considered the end of the magnetic era and the beginning of the digital era, when, among other technologies, portable magnetic tape-recording devices became more accessible to general public.

<sup>62</sup> Truax, "Soundscape," 50.

<sup>63</sup> "Audio Signal Processing," Wikipedia (Wikimedia Foundation, April 8, 2022), [https://en.wikipedia.org/wiki/Audio\\_signal\\_processing](https://en.wikipedia.org/wiki/Audio_signal_processing).

done to help me better remember the specific listening situation and the place where the recording was made. However, this accompanying documentation has proven to be questionable for the possible sharing of my on-site listening experience. This leads to the question, how do field recordings, photos and other documentation really help to share one's onsite atmosphere? In response to this issue of intersubjectivity, the practical part of the research—the collective listening practice—involves a different type of documentation, which is presented in Chapter 3.

### **2.2.2 Shifts**

In fact, the practice of listening pauses stems from my previous listening practice of recording all my 4-hours shifts. This activity consisted of recording the complete length of the shift in order to explore my capacity of listening attention. While I had considered the use of a recording device and binaural microphones to help me prolong listening attention, I nevertheless noticed that my attention was drawn more to the very act of recording. It means that my behavior as a field-recordist was slightly altered to obtain a proper recording instead of being more concentrated on the very act of listening.

However, whether or not the act of recording helps to prolong listening attention, the initial vision of achieving the ability to maintain listening through this practice dissipated after several failed attempts. In an endeavor to resolve this initial setback, I was playing back the made recordings and focusing on the aspects that could draw my attention. A straightforward but empirical finding was that the recordings seemed, on longer listening, to function more like background noise than something that would attract attention in its entirety; listening attention, however dependent on the subjectivity of the listener, requires ever-changing interesting stimuli to engage one's interest. As an example, I have attached the recording of my four-hour shift on December 18, 2020, between 17:00 and 21:00 (see *Appendix A: Shifts*).

### **2.2.3 Dankjewel (Thank you)**

The last, but chronologically the first listening practice, was recording each of my food deliveries to the customers. This practice lasted three months—from April until July 2020—and consisted of recording the moment the food was handed over to the customer accompanied by their “thank you” (in Dutch translation *Dank je wel*). For this *eavesdropping* activity, I harnessed the same technology as before—binaural microphones and the portable recording equipment. Conceptually, the recording of the encounters with various people echoes the inability of the company's (Thuisbezorgd's) monitoring apparatus,

which generally controls the performance of its employees, to record this kind of *intimate moment* and *social interaction* that occurs between the delivery-person and the customer. To illustrate the process of recording deliveries, an audio sample of one working month, namely June 2020, is attached (see *Appendix A: Dankjewel (Thank you)*).

All these above practices—Pauses, Shifts, Dankjewel (Thank you)—were also partly exhibited as a personal archive documenting my agency in Thuibezorgd in the exhibition called Takeaway, which ran from October 21, 2020 to November 25, 2020 at Divadlo Na zábradlí in Prague (in the Czech Republic). Due to the Covid pandemic, the exhibition was held online in the form of a website

(archived version is at [https://takeaway.place/thuibezorgd/exhibition\\_divadlonazabradli/](https://takeaway.place/thuibezorgd/exhibition_divadlonazabradli/)).

The following section marginally discusses the issue of routine labor in the socio-political-economic context and introduces another eavesdropping tactic that mimics a surveillance strategy.

## **2.3 Post-Fordism and Control Society**

### **2.3.1 Routines**

Routinization has become unattractive in the Western economic environment, despite its indisputable importance to the practice of any skill. Moreover, routine work is against the current ideology of capitalism that advocates “flexibility,” “nomadism,” and “spontaneity,” as the very hallmarks of management in today’s post-Fordist, Control society.<sup>64</sup> In general, any kind of routinized work is seen as inferior and uncreative from the standpoint of today’s society. On the other hand, the routinization principle is still an integral part of post-Fordist working conditions in which people are often forced to do routine work that has not yet, mostly for economic reasons, been replaced by technology. In addition, in most cases, these kinds of labor are relegated to industrial production in Third-World countries.<sup>65</sup> Consequently, according to Abigail Hunter, it would be better to describe contemporary society as Neo-Fordist, despite being considered the Post-Fordist, because the fundamental characteristics of Fordism, known from the beginning of the 20<sup>th</sup> century—standardization of products, division of labor, and alienating work—are still a part of the current post-Fordist economic model.<sup>66</sup>

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<sup>64</sup> Mark Fisher, *Capitalist Realism: Is There No Alternative?* (Ropley, United Kingdom: O Zero Books, 2009), [https://monoskop.org/File:Fisher\\_Mark\\_Capitalist\\_Realism\\_Is\\_There\\_No\\_Alternative\\_2009.pdf](https://monoskop.org/File:Fisher_Mark_Capitalist_Realism_Is_There_No_Alternative_2009.pdf), 28.

<sup>65</sup> Keti Chukrov, “Towards the Space of the General: On Labor beyond Materiality and Immateriality,” *e-Flux Journal*, no. 20 (November 2010), <https://www.e-flux.com/journal/20/67638/towards-the-space-of-the-general-on-labor-beyond-materiality-and-immateriality/>.

<sup>66</sup> Abigail Hunter, “The Changing Faces of Fordism: The Nature of Service Work Today,” *Critical Reflections: A Student Journal on Contemporary Sociological Issues*, 2014, pp. 42-45, <https://ojs.leedsbeckett.ac.uk/index.php/SOC/article/view/4461>, 44.



In reaction to the circumstances of post-Fordism, and given my experience of dehumanizing labor in Thuisbezorgd, my approach corresponds to Mark Fisher's position, which excludes the possible adaptation and seeks a new language to counterbalance capital in the conditions of post-Fordism:

Capital thought very carefully about how to break labor; yet there has still not yet been enough thought about what tactics will work against capital in conditions of post-Fordism, and what new language can be innovated to deal with those conditions. It is important to contest capitalism's appropriation of 'the new', but to reclaim the 'new' can't be a matter of adapting to the conditions in which we find ourselves—we've done that rather too well, and 'successful adaptation' is the strategy of managerialism par excellence.<sup>67</sup>

This brings up considerations of another possible tactic that could reflect the strategies of post-Fordism and help to open ways in order to participate in the current socio-political-economic conditions. To this account, Václav Magid complements Pascal Gielen's thoughts about mimesis and argues that possible criticism of post-Fordist production lies in *mimesis*, which is capable of reflecting its characteristics.<sup>68</sup> As defined by Paul Ricoeur, mimesis is a creative and dynamic process based on the assumption that it is not a one-off act resulting in the imitation of reality, but is primarily procedural in nature.<sup>69</sup> The following definition divides the mimesis procedure into three parts and refers to the linguistic aspect. However, Ricoeur argues, the same applies to non-linguistic symbolic systems such as gestures, pictures or sounds:<sup>70</sup>

prefiguration (*mimesis* 1) that includes various cognitive phenomena that precede the formation of the text itself, then configuration (*mimesis* 2) which includes the emplotment understood in the widest sense and structured relationships within the text itself, and finally, the reception of the text, the ontological status of the world that occurs in the encounter of text and reader (*mimesis* 3 - refiguration)<sup>71</sup>

In line with Ricoeur's definition of mimesis, I prefiguratively appropriate the concept of routine, derived from the structure of my delivery job, for the purpose of research based on listening practice. The second configuration phase has transcribed the acquisition of listening practice into individual and collaborative practice, including the invention of the headset. And lastly, the refiguring phase has been to introduce the individual and collective listening

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<sup>67</sup> Mark Fisher, *Capitalist Realism*, 28.

<sup>68</sup> Václav Magid, "Václav Magid: Současné Umění Jako Laboratoř Postfordismu," PLATO Ostrava, published on October 2, 2015, YouTube video, 1:27:03, <https://www.youtube.com/watch?app=desktop&v=9xWMhhGAmBo>.

<sup>69</sup> Ondřej Sládek, "Tři Typy Mimesis," *Sborník Prací Filozofické Fakulty Brněnské Univerzity*. V 56, no. 10 (2007): pp. 11-22, [https://digilib.phil.muni.cz/bitstream/handle/11222.digilib/104851/V\\_BohemicaLitteraria\\_10-2007-1\\_4.pdf](https://digilib.phil.muni.cz/bitstream/handle/11222.digilib/104851/V_BohemicaLitteraria_10-2007-1_4.pdf), 20.

<sup>70</sup> Sanja Ivic, "Paul Ricoeur's Hermeneutics as a Bridge between Aesthetics and Ontology," *Rivista Di Estetica*, no. 73 (January 2020): pp. 66-78, <https://doi.org/10.4000/estetica.6738>.

<sup>71</sup> Ibid.

practices into various participatory art forms and their conveyance to participants and the audience.

### **2.3.2 Eavesdropping**

As was pointed out at the beginning of the chapter, my past employer (Thuisbezorgd), has the ability to surveil and monitor its employees. In this example, the purpose of tracking employees is to monitor their location and movements.<sup>72</sup> This form of “workplace surveillance”<sup>73</sup> is commonly used by large companies as a means to monitor and collect (mine) data about their workers. In addition, modern technology makes it possible to carry out this activity independently at a single workplace. This results in surveillance, transcending the “sites of enclosure,” which Deleuze defines, extending Foucault’s analysis of disciplinary surveillance, as one of the mechanisms of the “new control societies in which all institutions are embedded in a dispersed corporation.”<sup>74</sup> At the same time, Deleuze speculates about the new forms of anti-control politics:

One of the most important questions will concern the ineptitude of the unions: tied to the whole of their history of struggle against the disciplines or within the spaces of enclosure, will they be able to adapt themselves or will they give way to new forms of resistance against the societies of control?<sup>75</sup> Can we already grasp the rough outlines of the coming forms, capable of threatening the joys of marketing? Many young people strangely boast of being “motivated”; they re-request apprenticeships and permanent training.<sup>76</sup>

Yet, in spite of the ubiquity of surveillance, it is important to guard one’s own ideas and imaginations that have not been intended to be shared with, for example, one’s employer. Then, this act of keeping secrets, enabling the performance of subversive and secret passive resistance in the work environment, could be put in the context of biopolitics, presented

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<sup>72</sup> Kirstie Ball, “Electronic Monitoring and Surveillance in the Workplace: Literature Review and Policy Recommendations,” *Publications Office*, November 15, 2021, <https://data.europa.eu/doi/10.2760/5137>, 26.

<sup>73</sup> “Surveillance is any collection and processing of information, whether personally identifiable or not, for the purposes of influencing and managing those whose data have been garnered. An act of surveillance always involves the purposeful gathering of information about something or someone. That information is then rationally and systemically analysed and the outcome of that analysis is then used to influence the behavior of the original surveillance target. For a phenomenon to qualify as surveillant, two elements need to be present: data must be gathered and analyzed, and then applied in a process of influence over the original data target. Surveillance always involves an exercise of power.”

Ball, “Electronic Monitoring,” 10.

<sup>74</sup> Fisher, *Capitalist Realism*, 22.

<sup>75</sup> “Society of Control = refers to the interpretation that social power no longer ‘disciplines’ as in the industrial era, but combines the a priori internalization of social expectations, with a posteriori control of certain limits. Individuals can move freely within those limits, but not without.”

“Society of Control,” Society of Control - P2P Foundation, accessed May 16, 2022, [https://wiki.p2pfoundation.net/Society\\_of\\_Control](https://wiki.p2pfoundation.net/Society_of_Control).

<sup>76</sup> Gilles Deleuze, “Postscript on the Societies of Control,” *Surveillance, Crime and Social Control* 59 (October 1992): pp. 3-7, <https://doi.org/10.4324/9781315242002-3>, 7.

as the resistance creating new subjectivities,<sup>77</sup> and considered a potential resistance to post-Fordist production and Control society. As Michael Hardt and Antonio Negri emphasize:

Immaterial labor has control over its creative potential, and it is up to one to decide what it will share with its employer and what will keep for itself. Thus, due to this potential of biopolitics, one can escape to some extent of biopower.<sup>78</sup>

On the other hand, it is a fact that the surveillance apparatus and corporate companies already take into account certain patterns of employees' behavior caused by a control mechanism and adapt their strategy accordingly:

Workers develop practical and tacit knowledge about how tasks are allocated to them and how they are rated/rewarded in an anxiety infused 'algorithmic imaginary' [...] Using their imaginaries, workers try to second-guess how to behave, gathering evidence to support their decisions in order to maintain their reputations.<sup>79</sup>

However, the question is how the act of listening in particular could serve as a tool of biopolitics and mimetically reflect the characteristics of surveillance. Given the mystery that listening entails and that one can keep this act as one's own business, listening as a *spying mission* could not only be perceived as an act of resistance, but also help with practicing maintained listening attention as well as employing its cognitive potential. So, unlike surveillance, which has the pervasive power to "hear" anything, I could suggest *eavesdropping*<sup>80</sup> as another human-scale-tactic. As Peter Szendy describes eavesdropping, besides its primary militant function, as a part of every listening; indirectly speaking, anyone who listens is a spy:

Spies listen. Of course, they also look in order to keep watch over things. But an important part of their activities involves listening. [...] They are, above all, attentive listeners to what is afoot. They are hearing devices deployed to capture what is coming or what is hiding, or what is secretly coming. Espionage, thus, appears to be one of the oldest known practices of listening to the world or of the auscultation of the world. At the same time, however, isn't there an urge toward spying in every listening? Does not listening always participate in a work of intelligence, as one says in English? <sup>81</sup>

Overall, the act of eavesdropping as another tactic that mimics surveillance not only reflects another characteristic of the business model, but transforms the very act of surveillance into

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<sup>77</sup> "[...] biopower is on the side of subjection and control, while biopolitics is rethought in terms of subjectivity and freedom." Emrah Karakilic, "Acting Up with Hardt and Negri: Capitalism in the Biopolitical Context," *M@n@Gement* 22 (March 2019): pp. 496-506, <https://www.cairn.info/revue-management-2019-3-page-496.htm>, 498.

<sup>78</sup> Magid, "Současné Umění," 15:30.

<sup>79</sup> Ball, "Electronic Monitoring," 63.

<sup>80</sup> "The spying ears dwell in the attic or the eaves (hence the English term "eavesdropping")."

Peter Szendy, *All Ears: The Aesthetics of Espionage* (New York, NY: Fordham University Press, 2017), 18.

<sup>81</sup> *Ibid.*, 9.

the everyday routine practice of listening. To facilitate both the routine practice of listening and eavesdropping, the aim is to create a tool for subversive listening practices.

The following last chapter covers the practical part of the research, which is the invention of the headset and the individual and collective listening practices.

### 3. Listening platforms

As discussed previously, a set of listening practices and the use of technology help to activate and alter one's listening perception. This chapter introduces the "listening platforms" involving individual and collective listening practices and the headset.

#### 3.1 Headset

As stated in the previous chapters, I was looking for a tool that could engage listening attention and enable an onsite exploration of the soundscape of the city. This means that it should, firstly, meet the requirement of mobility to be used anywhere in the urban environment in everyday life. Secondly, the tool should not be schizophrenic, on the contrary, it should be able to process incoming external sounds in real-time, without the need for a studio or other separate place for listening and experimentation. Third, in terms of listening attention and practicing how to maintain it, the tool should be inconspicuous so as not to unnecessarily attract the attention of others, thus allowing for intimate and undisturbed listening in a social space. Lastly, the tool should faithfully mimic human hearing to provide the sense of spatiality we are used to when listening.

The result, which meets these above requirements stemming from my analytical practice with listening in the urban environment, is the *invented headset*. This binaural headset processes sound in real-time, activates listeners' attention, and alters their experience of the site-specific auditory situation and atmosphere. The headset enables one to pick up incoming external sounds using binaural microphones, process them with the software running on the single-board computer, and emit them back to the headphones. In addition, the headset includes a user-interface that is controlled via a web app. In accordance with the idea of mobility in the headset, no additional hardware is needed to control the user-interface and users can use their own phone for full functionality. Since people commonly use headphones in public space today, the headset mimics this in order to conform to social standards and not stand out on the user's head.

Technically, the headset consists of a hacked version of noise-canceling headphones (Sennheiser HD 4.50 BTNC), and binaural microphones (Primo EM258) embedded in the shell of the headphones (see *Figure 1*). Further, for real-time audio signal processing, it uses the open source software SuperCollider, running on a Raspberry Pi 4 with a DAC/ADC convertor (HiFiBerry DAC+ ADC Pro) (see *Figure 2*). In addition, to make the headset mobile, it is powered by a power bank (MOJOGEAR MINI EVO). In total, I have made 5 units for conducting workshops, and all these headsets are equipped with DIY "dead cats" serving as wind protection and bumbags to facilitate their mobility (see *Figure 3*). Overall, within the

qualitative research, the headset has been employed either for an individual (soundwalk) or a collective listening practice (workshop).



Figure 1 – the NC headphones with the implemented binaural microphones  
*The documentation of the DIY process of making the headset is attached  
(see Appendix B: Headset) or accessed at <http://takeaway.place/0-headset/>*

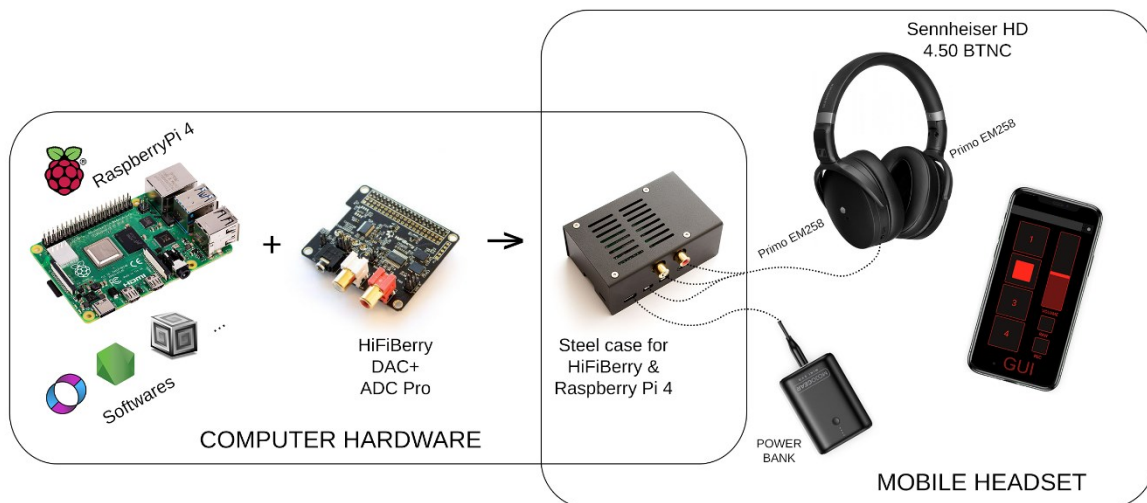


Figure 2 – the headset diagram



Figure 3 – the complete headset assembly

An essential part of the headset is a graphical user interface (GUI) that allows the user to change processes and their parameters and acts as a sort of membrane between the listener and the acoustic environment. The user interface is designed as a web-based GUI or mobile app.<sup>82</sup> The designed processes and the GUI are described in more detail in the following section in relation to their use in the listening practices.

Regarding the choice of the headphones for making the headset, the use of the noise-canceling (NC) ones has a practical reason here. They can eliminate the comb-filter effect caused by the overlap of the captured raw external incoming sound with the slightly delayed reproduced sound in the headphones caused by the computational process of the single-board computer. However, unlike the NC headphones, which are designed to block out ambient noise, the invented headset does the opposite; it does not allow the user to isolate themselves from the surroundings as in the case of using headphones for playing one's chosen sound source. On the contrary, using the headset requires one's active participation in listening to and processing the outside sonic world. Overall, I also have the feeling that the NC factor, whether in regular NC headphones or in the headset, implies a higher level of alienation and therefore could help to engage the listener's attention.

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<sup>82</sup> GUI communicates with SuperCollider via OSC messages.

For the web-based GUI is used the SuperCollider Quark: <https://github.com/dyfer/wsGUI.quark>.

As a mobile app, before I found an open source solution, I was using the commercial software Touch OSC: <https://hexler.net/touchosc>.

Finally, I would like to mention three reference projects by other artists, who use headphones or headsets to explore listening and acoustic environments, in which, despite their different concepts, I see certain parallels with my approach.

The first example is the project *Electrical Walks* from the German artist Christina Kubisch. It is a series of urban soundwalks that have been taking place around the world since 2003. During the soundwalk, participants use custom-made magnetic headphones that amplify electromagnetic fields and make them audible.<sup>83</sup>

The second example is the work from Austrian composer Peter Ablinger called *WEISS / WEISSLICH 36, KOPFHÖRER* (1999) that concerns one's perception of reality using headphones with fixed microphones that pick up external sounds.<sup>84</sup> Technically, this is a similar principle to the headset I made, with the difference that in Ablinger's rendition it is a relatively robust and striking headphones design with attached microphones, which is also determined by the technological limitations of the period when they were made. In addition, there is no additional audio signal processing. Essentially, the work focuses on the difference of listening with and without the headphones, in its pure form.<sup>85</sup>

The third example is the project *Ambulation* by artist Tim Shawn, which has been in development since 2014 and is conceived as a "sound walk that uses field recording techniques and listening technologies to create a walking performance using environmental sound."<sup>86</sup> In fact, as a performer, Shawn conducts the soundwalks, during which he processes environmental sounds with the field-recording techniques in real-time, and transmits the processed sound to the audience wearing wireless headphones.<sup>87</sup> Technically, he uses various microphones, for example, omnidirectional, hydrophones, electromagnetic inductor, contact microphones, and, as he says, many others that can be implemented. For the processing part, a Bela platform is used with the open source visual programming language Pure Data and a MIDI controller (Korg NanoKontrol) for changing parameters.

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<sup>83</sup> Christina Kubisch, "Christina Kubisch," christina kubisch, April 20, 2021, <https://christinakubisch.de/>; Christina Kubisch, "Electrical Walks," christina kubisch, accessed May 16, 2022, <https://electricalwalks.org/>.

<sup>84</sup> Peter Ablinger, "Peter Ablinger Weiss / Weisslich 36, Kopfhörer," Peter Ablinger - Kopfhörer, accessed May 16, 2022, <https://ablinger.mur.at/docu1515.html>.

<sup>85</sup> "As the microphone is directly connected to the headphones what you hear with headphones is the same as without. But: the same is not the same. There is a difference. At least the difference between just being here and: listening. That difference is the piece." Ablinger, "Weiss / Weisslich."

<sup>86</sup> Tim Shaw, "Ambulation," tim shaw/projects/ambulation/, January 21, 2020, <http://tim-shaw.info/projects/ambulation/>.

<sup>87</sup> Tim Shaw and John Bowers, "Ambulation: Exploring Listening Technologies for an Extended Sound Walking Practice," *Proceedings of the International Conference on New Interfaces for Musical Expression*, June 1, 2020, pp. 23-28, <https://doi.org/10.5281/zenodo.4813321>, 26.



### 3.2 Listening practices

This section introduces the use of *the headset* and *the listening practices*—*the soundwalk* and *the workshop*—within the qualitative research. The purpose of conducting these practices and using the headset was to investigate different listening perceptions of the urban soundscape. The findings were based on observations, questionnaires, conversations, and recordings of these listening practices by various participants. For each practice, I will highlight some interesting aspects that emerged from their realization. In addition, each practice was recorded and all documentation, including audio, video, photo, text description, and SuperCollider code, is divided into the named sections in the appendix.

#### 3.2.1 Takeaway #1: Soundwalk

The first individual practice of a soundwalk took place during the presentation of the results of the Aural Tectonics workshop at Sonology in The Hague in November 2021.

Approximately ten people—mostly students from Sonology and KABK—participated in the soundwalk, taking turns using the first prototype headset during a walk that took roughly half an hour (see Figure 4).

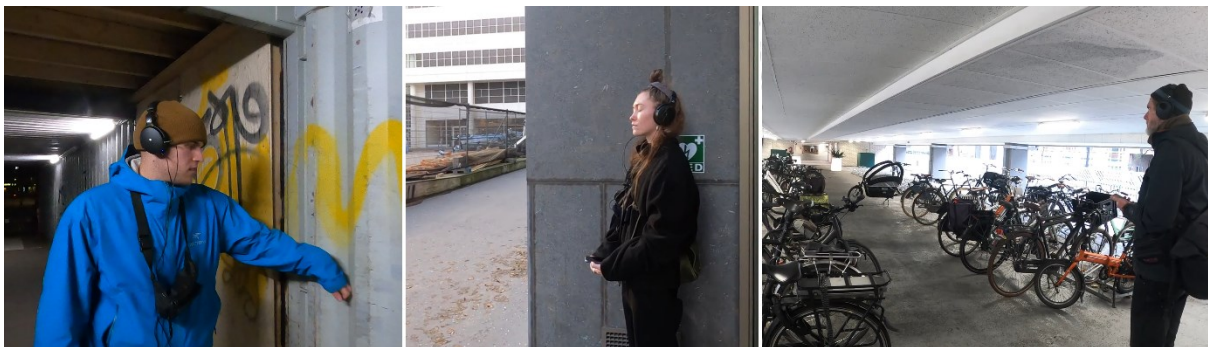


Figure 4 – listeners at three different sites of the soundwalk

*The video documentation is attached (Appendix B: Takeaway-1-Soundwalk)*

*or accessed at <https://takeaway.place/1-soundwalk/>*

In fact, I had pre-designated the path of the soundwalk, which led from the Amare building through the provisional corridor, then across the road, finishing in the bicycle parking garage. For these locations, I designed four different sound processes to engage the listeners' attention and allow them to explore other sonic qualities of these acoustic environments. The four locations were marked on the map (see Figure 5), with which the participants were familiarized prior to the soundwalk along with the explanation of how the headset works and how to use the GUI on the phone (see Figure 6).

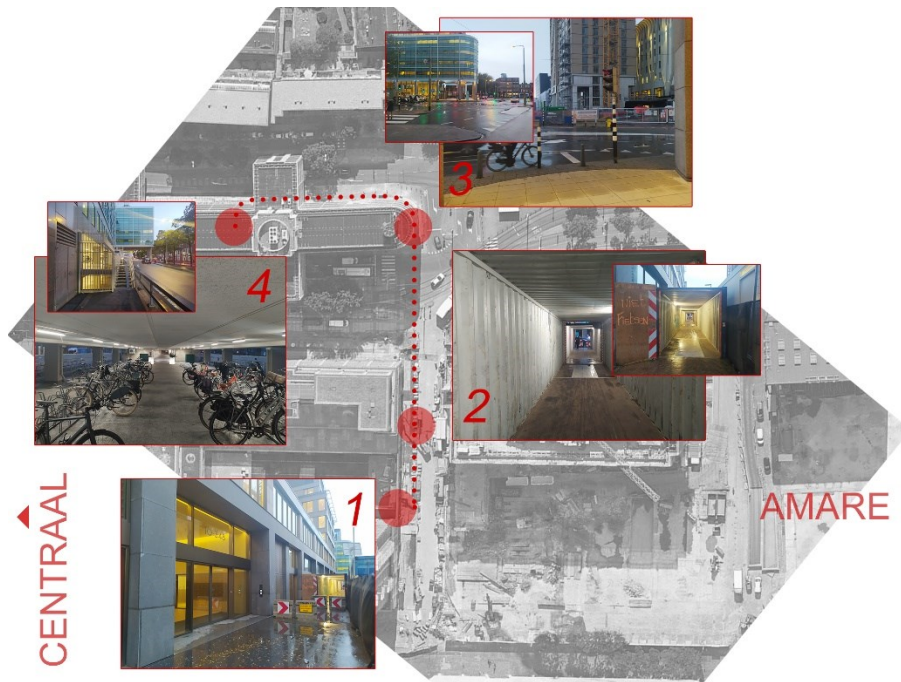


Figure 5 – the soundwalk map<sup>88</sup>

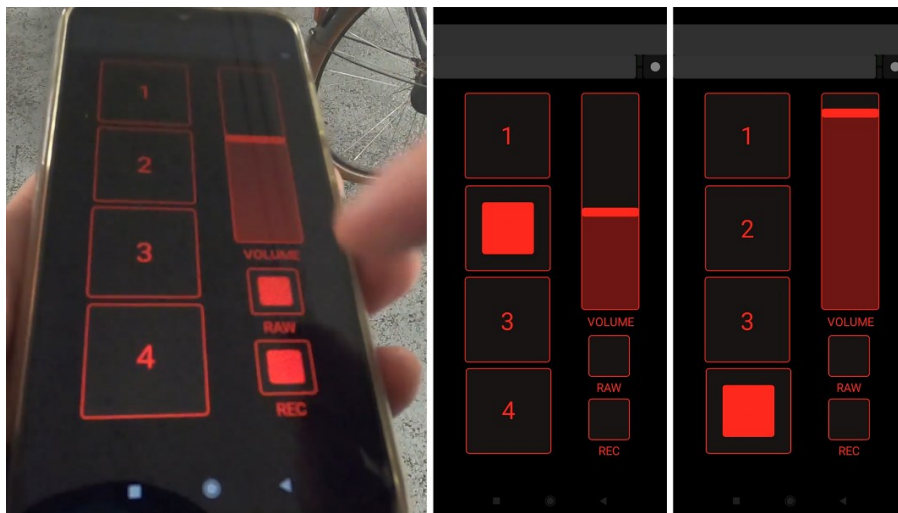


Figure 6 – the GUI for changing the processes/sites

*The code for the sound processes and GUI*

*is attached (see Appendix B: Takeaway-1-Soundwalk/code)*

*or accessed at <https://github.com/martinhurych/Takeaway/tree/main/1-Soundwalk>*

<sup>88</sup> GPS coordinates of the locations:

(1) 52.07818590273472, 4.319404061972189,  
 (2) 52.07796002307352, 4.319693771064389,  
 (3) 52.077594064492004, 4.320289221465776,  
 (4) 52.077719347948104, 4.320962455936953.

The specifically *planned* sound processes were determined by the sonic characteristics of each site—the acoustics and sonic events that have taken place there—and my subjective perception of atmospheres experienced during my pre-performed on-site listening pauses. Each participant could switch between the sound processes by using the GUI, and as it turned out, most of them experimented with using the processes in other places or combining them between each other. At the same time, each listener could spend any length of time at each site to further explore the soundscape and observe their own listening perception. Below is a brief overview of the processes used at each site:

*Process 1*—at the entrance of the building complex—was picking up infrasound from the ongoing construction work of the machines and shifting it into audible frequency spectra. In addition, I used a reverberation effect to emphasize the open space and reflectivity of the glass facades of the buildings.

*Process 2*—in the corridor—was mostly sampling human footsteps echoing off the steel walls of the cargo container from which the corridor was made. The length of the samples varied randomly between 2–8 seconds,<sup>89</sup> and the speed of their playback randomly slowed down or sped up. A total of five samples were continuously recorded into a buffer, and were randomly played back and overlapped. This sampling method was intended to make the situation more chaotic when a higher number of people were moving through the corridor.

*Process 3*—at the crossroads—consisted of changing polarity between the left and right channels of the headset with a randomly varying frequency from 30 to 60 seconds. This meant that the listener could hear the incoming sound in the headset authentically for a while, but after some time, the polarity switched and the sound was heard from the other side than its source.

*Process 4*—in the bicycle parking garage—followed the present “keynote”<sup>90</sup> of the site. The steady tone had a pitch of approximately 570 Hz and was emitted by the air conditioner

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<sup>89</sup> All of the time delays in the sound processes used hereafter are freely drawn from the concept of different types of auditory memory—sensory memory (information lost within about 1 sec.), short-memory (information is lost within about 15 sec), long-term memory. However, the length chosen is ultimately based on my intuitive and empirical approach.

Minh Trang Nguyen, “Understanding Listening Comprehension Processing and Challenges Encountered: Research Perspectives,” *International Journal of English Language and Literature Studies* 9, no. 2 (2020): pp. 63-75, <https://doi.org/10.18488/journal.23.2020.92.63.75>, 64.

<sup>90</sup> “In soundscape studies, keynote sounds are those which are heard by a particular society continuously or frequently enough to form a background against which other sounds are perceived. Examples might be the sound of the sea for a maritime community or the sound of the internal combustion engine in the modern city. Often keynote sounds are not consciously perceived, but they act as conditioning agents in the perception of other sound signals.”

Schafer, *Soundscape*, 272.

mounted on one of the walls. The incoming sound was then processed and modulated around this keynote in the headset.

At the end, I verbally questioned the participants about their experiences and what they found interesting during the soundwalk. The following conversations with each participant from the group revealed different listening perceptions and preferences in the use of the sound processes. However, there was one match in aesthetic preference that was independently expressed by two respondents. Interestingly, these respondents are close friends.

In summary, this pilot version of the soundwalk, including listening pauses in conjunction with the headset, proved to be a suitable platform for exploring the concepts outlined in the first three chapters and beyond. Conceptually, all these listening platforms should allow non-causal intersubjective communication that reveals different aesthetics and perceptions of the urban environment.

### **3.2.2 Takeaway #2: Workshop**

The second listening platform was the conducted workshop. It took place at the festival of animation and contemporary art in Olomouc (Czech Republic) and was attended by a total of 15 people. Among the participants were students from the Faculty of Fine Arts in Brno with different study and professional backgrounds (video, performance, graphic design).

The workshop included the use of the headset and the listening practices—soundwalk and listening pauses—which were carried out all over Olomouc. In addition to the current practices, I added another listening practice—a *blind walk*.<sup>91</sup> This practice can significantly change one's perception, eliminating visual perception and activating other senses including listening. Typically, it is done in couples, with one blinded and the other acting as a guide.

#### **Procedure**

At the beginning, there was about an hour of introducing the concept of the workshop and a short introduction between the people in the group (see *Figure 7*). Then, I explained how

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<sup>91</sup> "Participants are blindfolded and led through an environment by a guide. The guide chooses the route, leading the participant for over 45 minutes."

James Saunders and John Levack Drever, "Soundwalking: Aural Excursions into the Everyday," in *The Ashgate Research Companion to Experimental Music* (Farnham, England: Ashgate, 2009), pp. 163-192, <https://research.gold.ac.uk/id/eprint/7836/1/MUS-Drever2009.pdf>, 23/35.



the headsets (five units were being used) and the GUI for controlling processes work (see *Figure 8*). Next, everyone tried pairing their mobile phones with the Raspberry Pi<sup>92</sup> and using the GUI. At the end, the whole workshop group was divided into two groups—ten participants were assigned to perform the blind walk, and the remaining five were using the headsets within their soundwalks and listening pauses.



Figure 7 – the introduction to the workshop



Figure 8 – the explanation of the headsets and the GUI

After the introduction, the groups split up and each of the participants embarked on their designated practice that lasted one hour. The aim was for everyone to try out each practice, specifically one hour of using the headset, one hour of being blindfolded, and one hour of guiding the blindfolded listener. Overall, the whole event lasted three hours, and the

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<sup>92</sup> Every Raspberry Pi allows an access point. This means that one's phone can connect via Wi-Fi to the Raspberry Pi hotspot. The hotspot setup can be done using this script: <https://github.com/idev1/rpihotspot>.



participants gradually took turns in the practices at three different locations in the city along the pre-determined route—in the park, in the main square, and at the railway station (see Figure 9).



Figure 9 – the listeners during their soundwalks and pauses in the city

### GUI and Processing

Each of the participants had the opportunity to operate with the GUI and change between the different sound processes. Because each of them was moving freely around the city, the processes were designed to be *generic*, not site-specific, as in the previous example. Essentially, the set of the pre-designed processes included: band-pass filter, sampler, granular synthesis, frequency shifter, reverb effect, and distortion effect. In addition, the processes could be chained between each other and their parameters were controllable via GUI (see Figure 10).<sup>93</sup>

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<sup>93</sup> The GUI is designed primarily as a non-musical interface consisting of buttons and faders. The upper part is a matrix divided into nine columns and rows; the bottom part consists of nine vertical sliders and two horizontal sliders:

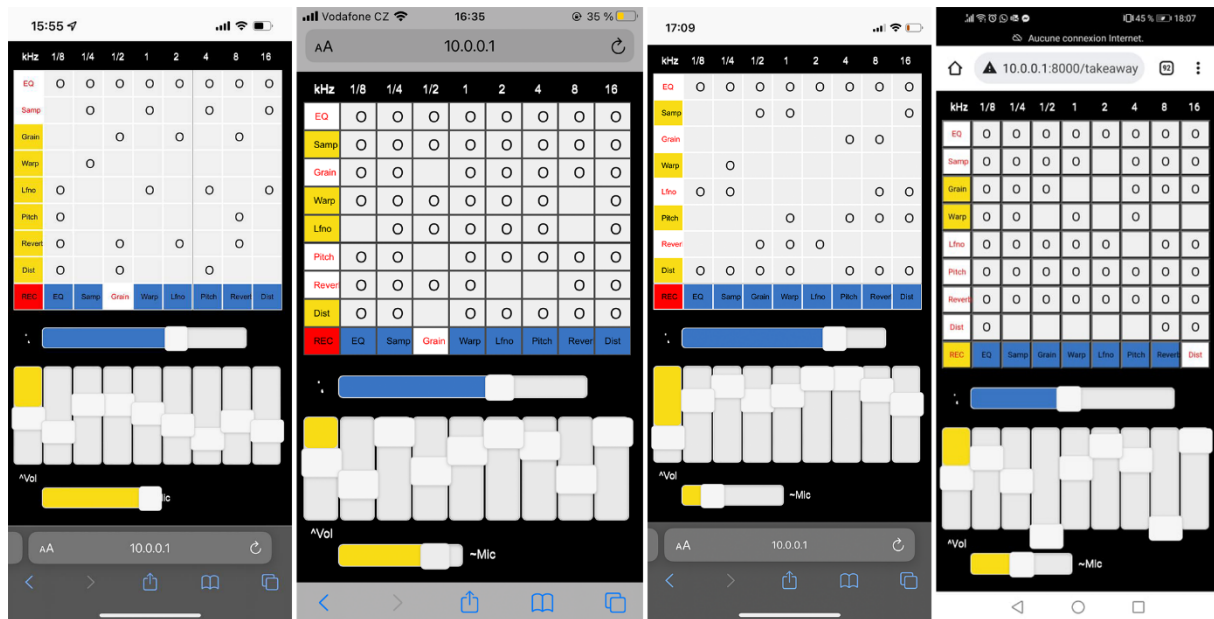


Figure 10 – screenshots of the participants' mobile phones show different GUI settings

*The code for the sound processes and GUI is attached (see Appendix B: Takeaway-2-Workshop/code) or accessed at <https://github.com/martinhurych/Takeaway/tree/main/2-Workshop>*

Regarding the processes used, they have been based on my empirical approach to experimenting with my listening perception and how the processes can change it. Their application stems from my interest in everyday listening set in the context of sound studies, sociology, and architecture. An example is the use of a filtering process inspired by Jean-François Augoyard's concept of filtration:

[...] listening through a filtering partition does indeed play a role in behavior rules, self-reflection, and sonic modes—all practices that Michel Foucault called “practices of the self.”<sup>94</sup>

Another example could be granulation, considered one of the techniques used in soundscape compositions. By incorporating this process, one can experience “inner and

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*Columns:* The eight columns represent harmonics from 125Hz to 16KHz. The left yellow column is used to switch the sound processes on and off. If no sound process is turned on, the output is a raw signal.

*Rows:* Each of the eight rows represents the bandwidth for a given sound process. The “O” buttons act as EQ switches—each process can use either the entire frequency spectrum or only selected frequency bands. The blue row on the bottom of the matrix is used to select one of the processes for which user can change the parameters. The last in the matrix is the button for recording.

*Sliders:* The vertical sliders are used either as a volume control or to change the parameters of individual sound processes. The yellow slider on the left is the main output volume control, and the yellow horizontal slider on the bottom is the volume control of the input signal of binaural microphones. The upper blue horizontal slider is used to control the dry/wet signal or equalizer Q-factor for each sound process.

In the end, as it turned out, this GUI design is slightly complicated and not very intuitive for an unfamiliar user at first. However, in the subsequent handovers, participants explained the functionality of the GUI to each other.

<sup>94</sup> Jean-François Augoyard and Henri Torgue, *Sonic Experience: A Guide to Everyday Sounds* (Montréal: McGill-Queen's University Press, 2014), <https://monoskop.org/log/?p=10347>, 58.

outer complexity” in the site-specific and real-time situation in an urban soundscape.

As Barry Truax argues:

Nowadays inner complexity involves right down to the microsound level of what's called the time frequency domain which is less than 50 milliseconds. [...] It is almost ironic that some of those techniques then allows to maximize the outer complexity or relate to the other complexity. [...] We are always matching inner and outer complexity in the listening process.<sup>95</sup>

Considering the concept of listening attention, the aim of using all processes is primarily their ability to tweak ambient sounds and engage one's listening. The sound processes used should extend one's perceptual limitations and allow one to listen to the urban soundscape in an unusual way. Conceptually, these sound processes allow one to, for example, delocalize/localize the sound source, hear inaudible sounds, listen to the timbre of the sites, evoke the atmosphere of the past, and, last but not least, confuse the senses. Because of the scope research, I will not go into the details of choosing particular sound processes and their parameters. Essentially, this should be the domain of the ongoing Takeaway project, exploring reciprocity between processes and perceptions of an urban soundscape.

## Analysis

To obtain feedback communicating the experience of using the headset in the city, I asked the participants to perform two tasks related to my previous listening practices:

1. To record a *listening pause* at the site of their choice in the city and take a photo of the location. During the pause, they could change the sound processes and their parameters.
2. To record a *soundwalk* along the route of their choice, without changing their predefined processes during the walk.

Before they started, I had asked everyone to match the length of the intended recording to their on-site listening attention. After the workshop, I sent everyone the recordings they had made. Next, I requested them to choose and, if they saw fit, shorten two of their recordings—one from the listening pause and one from the soundwalk. This approach corresponds to my practice of listening pauses in *Thuisbezorgd*, which exercised my listening on-site and off-site (in the studio).

In addition, everyone was supposed to write a short description of what they recorded. Overall, out of the fifteen participants, I received feedback from nine of them

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<sup>95</sup> Barry Truax, “Barry Truax: Soundscape Composition – From the Real to the Virtual,” Sound Studies Cologne, published on June 29, 2021, YouTube video, 1:12:44, <https://www.youtube.com/watch?app=desktop&v=NwjKpj3MA0>.



(see *Appendix B: Takeaway-2-Workshop/feedback*). To differentiate, the participants' feedback is named with the letters A-I and the attribute either LP (listening pause) or SW (soundwalk). Then, on the basis of material collected, I related the listeners' insights to certain aspects of the theoretical framework of the research and categorized the selected sentences and the recordings into the following sections:

### ***Listening attention***

Of the 18 recordings, 16 were kept in their original length and two were shortened in post-production. The resulting time tracks range between twenty seconds and eight minutes (see *Figure 11*).

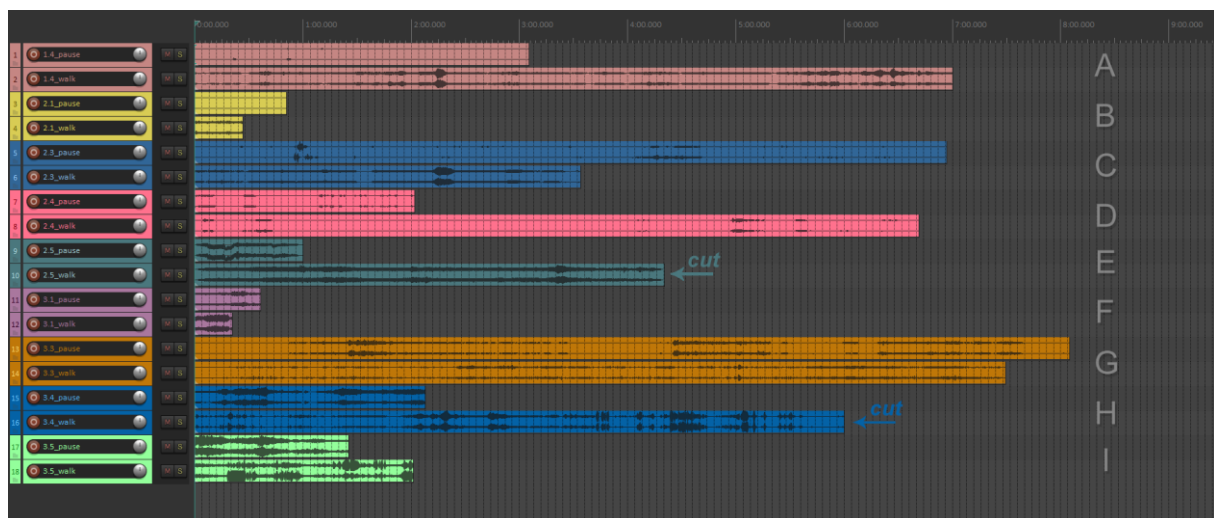


Figure 11 – the lengths of the recordings (multi-track DAW screenshot)  
*all documentation is attached (see Appendix B: Takeaway-2-Workshop)*  
 or accessed at <https://takeaway.place/2-workshop/>

### ***Routines***

“After the workshop, I try to walk a little everyday with my eyes closed and feel the sounds around me.” (I)

### ***Schizophonia***

“Now, when I listen again (at home), the layer of sounds I heard live is missing and I only hear the ones that were modified.” (D)

## **Atmospheres**

"The second recording is from the church, where I hid after a while when I started to mind the noise from the city. I thought it was interesting how the sounds were created even where it should be completely quiet and peaceful. Or, that the silence itself has a sound." (B\_LP)

"After testing several effects for a while, I decided to stick to the effect that repeats what is heard and add some reverb to get the feeling of floating. [...] since everything was repeated and shifted in space I didn't know where the cars were coming from." (D\_SW)

"The passing trams, cars, lots of people at the bus stop, the intersection and the flashing traffic lights didn't make as much of a mess as I thought thanks to the sound process settings. Instead, they created a surprising hum that unified all the elements into one drink." (E\_SW)

"The surroundings spoke. Muted. Muted. Exempt from the simplicity of ubiquitous conversations." (F\_LP)

"The delay of all sounds and their echoes create hallucinogenic feelings, the regular tapping of the electronics holder calms me down. The snoring humorously evokes percussion." (G\_SW)

"There was a man playing guitar around the corner. I found it fascinating not to see him and at the same time to listen to him altered. Again, I had an almost LSD feeling from the guitar melting into my ears, plus there was a looped cosmic sound." (G\_LP)

## **Performance**

"I walked through the park, listening to the sounds of the peacocks, and slowly lay down on the ground, then on my side, listening to the sounds of the grass." (+ *singing at the end of the recording*). (A\_LP)

"I sat down on the grass between the trees and played with the white stone, the shells, the growing grass, and my breath." (C\_LP)

"Playing with our voices and our environment around, trying to find some rhythms by slapping a metal bottle on different materials." (H\_SW)

"We went to the supermarket and used to rustle up pasta and all sorts of things in packaging that could be "played" [...] Knocking on the steel bars laid by the house on the estate." (I\_SW)

## Findings

The primary intention of the conducted workshop was to investigate differences in listening attention among the participants. This was researched and evaluated according to their recordings. In addition, the workshop served as a crash course in experimental listening for the participants. The next workshop could further tackle issues of the routine of listening, maintained listening attention, on-site/off-site listening/recording, atmospheric changes, intersubjective perception of urban soundscapes, binaural listening with or without the headset, and other related forms focused on listening perception in architectural space.

Moreover, specifying other variations in collective listening practices could contribute to a more valid analysis. An example would be situating participants at the same site for the listening pauses and letting them record their processings. Then, the participants would collectively share their experiences while listening to the recordings. Another example of exploring an urban soundscape could be to design a personal sound process for the chosen site, or alternatively, depending on subjective perception, finding a suitable site for the application of the pre-designed sound processes. Regarding the issue of the routine of listening, further investigation could examine over a longer period of time whether routine use of the headset by an individual allows for more frequent triggering of listening attention in everyday life.

In summary, the workshop with all the shared experiences of the participants has confirmed a certain functionality of the headset and its ability to activate one's listening attention and to change its atmosphere in the urban environment. Last but not least, this workshop has revealed another performative aspect of the listening practices using the headset. In doing so, some of the participants became composers and performers,<sup>96</sup> or "sonic city bodies," as LaBelle mentions in reference to the Sonic City<sup>97</sup> project:

[...] the Sonic City Body samples, collects, and literally embodies its local soundscape, sonifying secret constructions of time and place. Electronically wired, the user becomes a secret agent on the field of sociality. Wandering in the city, the user discovers a form of body language that exceeds both the step and the gait to include an entire range of gestures.<sup>98</sup>

As an example demonstrating this performative aspect, an excerpt of the recording of two participants (H and I) singing in front of the supermarket is attached

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<sup>96</sup> "When the soundwalker is instructed to listen to the soundscape, he is audience; when he is asked to participate with it, he becomes composer-performer."

Schafer, *Soundscape*, 213.

<sup>97</sup> Lalya Gaye, Ramia Mazé, and Lars Erik Holmquist, "Sonic City: The Urban Environment as a Musical Interface," *Proceedings of the International Conference on New Interfaces for Musical Expression*, 2003, pp. 109-115, [https://www.nime.org/proceedings/2003/nime2003\\_109.pdf](https://www.nime.org/proceedings/2003/nime2003_109.pdf).

<sup>98</sup> LaBelle, *Acoustic Territories*, 102.

(see *Appendix B: Takeaway-2-Workshop/performance*). In order to demonstrate the different processes used by each of them and the subsequent “creation of new atmospheres,” I synchronized the recordings to the same time frame in which they were made.

### **3.3 Takeaway project**

As stated in the introduction, based on the research, the “Takeaway” project is conceived as a long-term project involving different “listening platforms,” i.e. its assumption is to continue with the individual and collective listening practices related to the *processing of listening* in the urban soundscape and to further extend them by other practices. In the future, the project should also be presented on its website, which should work as an archive, collecting all documentation—audio recordings, photos, videos, texts, and codes—of the events that have taken or will take place.

#### **3.3.1 Takeaway #3: Four Shifts**

Finally, I would like to mention a recent listening platform that emerged from the research and is also part of the Takeaway project. It is an improvised *collective performance* called Takeaway #3: Four Shifts<sup>99</sup> and took place on 9 April 2022 at 5:30pm as part of the Sounding the Spui<sup>100</sup> installation at the Rewire Festival in The Hague (see *Figure 12*). This essentially completed the circuit of my experience as a delivery-person, which started the entire Takeaway project and formed the main part of the research’s analytical phase. The performance’s concept was to share four subjective sound processings of the urban soundscape with the audience, thereby creating or adding new atmospheres in the venue. As this was a public performance, the listeners/performers were exposed to the audience, thus, the use of the headset in this case lacked the aspect of invisible and secret listening, as was the case in previous practices.

The performance lasted about eighteen minutes, during which four performers—Sonology students dressed in orange uniforms, representing the Thuisbezorgd employees who hang around during their breaks, watching their phones and waiting for their next food order—were processing the sounds of the public traffic—bells ringing, booming trams passing by, clickety-clack of skateboarders, voices murmuring, etc. During this, each performer was

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<sup>99</sup> “We are the four creators of multidimensional forms of being, and each of us has the ability to open new gates by changing timelines and probabilities. At the same time, we are hypnotized by the belief that we can experience our reality as we wish, if we harness the power of the headsets and smartphones that each of us owns”

(original description of the performance in the text of the installation *Sounding the Spui*).

<sup>100</sup> “Rewire 2022: 7 - 10 April, The Hague, NL,” Rewire 2022: 7 - 10 April, The Hague, NL, accessed May 16, 2022, <https://www.rewirefestival.nl/artist/sounding-the-spui>.

using the headset with the same sound processes and the GUI as was used in the previous workshop. As a result, the four processed audio signals from the performers' headsets were sent to the mixing console, distributed to the multi-channel sound system, and transmitted back into the venue (see Figure 13).



Figure 12 – photo documentation of the performance

The video documentation is attached (see Appendix B: Takeaway-3-FourShifts)

or accessed at <https://takeaway.place/3-fourshifts/>

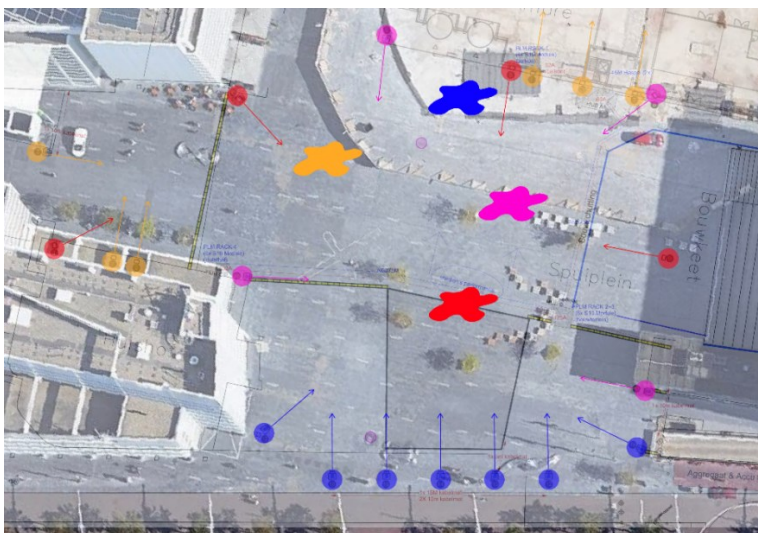


Figure 13 – the map shows the venue (Spuiplein<sup>101</sup>) with the positions of the performers and their distribution among the eighteen loudspeakers marked in color

<sup>101</sup> GPS coordinates of the location: 52.0770682389721, 4.317137633321103.

As soon as some spectators noticed, during the performance, the sonic feedback and recognized that they could also be heard, they started to make their own sounds—whistling, clapping, stomping—thus activating the shared architectural space and becoming part of the whole continuous process.

## **Conclusion**

Since listening attention is an essential sub-level of perception that unfolds one's cognitive processes, the aim of the research was to find other ways and approaches to engage listening attention in everyday life. As the research shows, different individual and collective listening practices and active use of technology (the headset) can accomplish this and activate listening attention. In addition, the listening practices and the uses of the invented headset brought up other topics concerning processing of listening, altering atmospheres, self-alienation, collective sharing experience, schizophonia, performing in urban soundscapes, and others, which have become a part of the ongoing Takeaway project.

Regarding routine listening, in the course of conducting the research, this topic ceased to be central, and thus it was not explored on respondents beyond myself. However, my experience is that through routinely flexible and subversive practice of listening it is possible to create a new habit of listening to ambient sounds.

The conditions carrying forward a continuation of the Takeaway project would further explore the relation between the individual and the contemporary acoustic environment within the individual and collective listening practices, in collaboration with diverse (socio-economic) groups, using the headset.

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## **Appendix**

### ***A) Recordings from Thuisbezorgd***

Pauses

<https://takeaway.place/thuisbezorgd/pauses/>

Shifts

<https://takeaway.place/thuisbezorgd/shifts/>

Dankjewel (Thank you)

<https://takeaway.place/thuisbezorgd/dankjewel-thankyou/>

### ***B) Listening platforms***

Headset

<https://takeaway.place/0-headset/>

Takeaway-1-Soundwalk

<https://takeaway.place/1-soundwalk/>

<https://github.com/martinhurych/Takeaway/tree/main/1-Soundwalk>

Takeaway-2-Workshop

<https://takeaway.place/2-workshop/>

<https://github.com/martinhurych/Takeaway/tree/main/2-Workshop>

Takeaway-3-FourShifts

<https://takeaway.place/3-fourshifts/>