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Digital anthropology meets multisensory listening

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ABSTRACT

In this article, I will discuss listening to binaural recordings of Helsinki metro tunnels through the concepts of digital anthropology and *naftology*, the philosophy of the experience of oil. The digital is understood in this context as material culture and also as a constitutive part of corporeality. By conceptualising binaural recordings both as instrument and device for sensing the sonic environments, I argue that the acoustic epistemologies within the digital material culture will produce relevant knowledge on sensing and experiencing the changing environments.

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Introduction

Among the voluminous flow of Corona virus news and writings in Spring 2020, I read a blog post that awoke my interest. It discussed the importance of listening in these insecure times. The writer, a board member of the University of Arts Helsinki, stated that listening should not be considered a ‘soft skill’ at all, but rather a very crucial skill for future survival (Thors, 2020). The listening to fragile and silent voices will be an essential way of understanding the diversity of the complex world and communicating in it, and this listening can be learned through the arts.

The deserted cities during the pandemic have made us listen more accurately to diverse silent and fragile sounds. The background soundscape of traffic sounds has diminished, and the new unheard sounds have become audible. The individual hi-fi sounds manifest themselves: the rich-spectral screech of a lonely tram, the rustle of the coat of an individual pedestrian and the texture of the tyre of a sporadic car. In the metro tunnel, the echo of the empty space is overwhelmingly extensive. The silence depicts the borderlines between public and private places and between different bodies more vague. When distinct sounds and voices of a single person become audible in a public space, it brings the private to the foreground in the soundscape. The city as an instrument sounds different than it used to.

In this article, I will discuss listening to binaural recordings of Helsinki metro tunnels and in metro trains in the context of sound studies, as understanding listening as thoroughly embodied, social and transforming phenomena. In this context, I listen to the metro vaguely through two theoretical frames. The first frame is the

digital anthropology understood as an approach that discusses the dialogic nature of the culture through the materiality of digital (Miller & Horst). The second theoretical frame is the philosophy of the experience of oil, the *naftology*, by philosophers Salminen and Vadén (2013). Salminen and Vadén state that the experience of oil is an essential basic experience of humans in the current fossil capitalist era. The experience of oil includes embodied experiences of atomisation, acceleration and constant transformation of, for example, skills, cultures and environments. These concepts, i.e. the atomisation and acceleration, resonate my listening body in their defining and describing the embodied and cultural experience of living in the current era, and therefore I want to include them in my listening exploring of urban environments.

I listen to the metro tunnels as haunted by the interest in both urban sounds and the epistemology of listening. I want to know what kind of knowledge of the urban environment is gained when focussing on listening, and how this knowledge interacts with other multisensory and cultural knowledge of the environment. Listening is multisensory because it includes a constant bone, tissue, muscle and skin sensations, and visual cues combined to the heard signals. Also, sounds and fragrances are often observed as intertwined to each other, and as sensations they function very similarly. Both smelling and listening trigger powerful memories and emotions. I use the term ‘acoustemology’ by ethnomusicologist Steven Feld to conceptualise the sonic way of knowing and being in the urban environments. Acoustemology is a hybrid word of ‘acoustic’ and ‘epistemology’, and it emphasises the way of knowing that emerges through listening (cf.

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Feld 2017). This acoustemological starting point in my article skips over the antagonism between the importance of seeing and listening in the process of knowledge production. In my opinion, the contested polarity between these two senses is problematic, since I think the knowledge is in the last end shaped in a multisensory process. Also the latest studies on anthropology of senses (cf., e.g. Howes, 2015) state that the strict division or hierarchy between the senses is arbitrary.

The analysis example of this article is one long binaural recording in the Helsinki metro tunnels and trains. I made the recording initially for the Broadcasting Company in Finland, YLE, for the European Broadcasting Union (EBU) project that YLE participated in. However, the metro is one of my favourite field recording places, and also endlessly rich in its sounds. The recording is made before the pandemic, but in this article I also refer to listening to the metro during the desolate city.

On digital anthropology and listening

Digital technologies are nowadays mostly discussed in the context of engaging to the world and to others, connectivity, creativity, and changes in our environment and consciousness. Professor of Digital Economy, Gillian Youngs, writes in the introduction of a book she edits, *Digital World: Connectivity, Creativity, and Rights*, that

digital transformations are major determinant in contemporary realities, and the speed and multiplicity of them, as well as the extent of their reach into all aspects of sociocultural and political economic existence, are uniquely challenging at every level of personal and public life. (Youngs, 2013, p. 1)

Youngs states that the core of digitally affected transformations is in the new articulations of macro and micro in social processes and interconnection across them. The new materialities of the virtual as socio-spatial and physical as geo-spatial construct the ontologies of the digital.

Also media studies scholars Daniel Miller and Heather A. Horst emphasise the materiality of the digital words in their introduction to digital anthropology. They argue that the digital worlds are neither more or less material than the worlds that existed before the digital (Horst & Miller, 2012, p. 4). According to Miller and Horst, the materiality is a mechanism 'behind the final observation' and that also partially explains the rapidity of the adaptation of the digital systems. They suggest six principles that constitute the key questions in digital anthropology. First, they argue that the digital itself intensifies the dialectical nature of culture. The interaction within the particularity and universality becomes more prominent in the digital era. For example, digital devices and platforms, such

as social media, are similar in every country, but at the same time the local politics and circumstances do affect the use of the global media. The second principle suggests that the human being is not more mediated when living with digital technologies than without them. On the contrary, the terms 'original' and 'authentic' as referring to pre-digital are highly problematic concepts. They produce an arbitrary borderline between the pre-digital and digital as ontologically and conceptually separated entities. Miller and Horst prefer a holistic perspective, and they name it as a third principle of digital anthropology. Life as lived is handled with all the factors that come with it. The fourth principle is emphasising the interaction between the local cultures and the global tendencies and is suggesting also that the homogenisation of the world through the digital culture and technologies is not necessarily as comprehensive as it often is said to be. The fifth principle is paying attention to the ambiguity of digital culture with the constant negotiation of openness and closeness, as well as private and public. The last and sixth principle of digital anthropology is the one on which I began this chapter with: digital worlds are always material worlds. The binary systems and codes are created within specific technological devices by embodied humans who have diverse histories beneath their skins. In general, Miller and Horst are problematising the idea of digital worlds being more *abstract* than the analogical ones, and this is also my view. The abstraction of the digital is a form of maintaining a techno-romanticised idea of fundamentally immaterial, universal and untouchable technologies.

When considering listening in and with urban environments, the digital and the analogue form more a fluid continuum than a polarity. Acoustic environments are full of diverse sounds with multiple versatile sources (cf. Schaeffer 1993), and the digital is often layered and intertwined with the analogue. For example, when wandering in the shopping mall, one can hear sound designed digital sounds in elevators and doorways, as well as acoustic environment sounds, and music emanating from different shops as well as from one's own headphones. The soundscape is always schizophrenic, understanding now the term not only in its first, R. Murray Schaffer's definition, the acoustic sound and its electronic reproduction in the same soundscape, but also as highly multifaceted and crowded by various sounds from diverse, unknown and constantly sources.

Urban environments as well as any realm nowadays are more and more occupied by *intensified immediacy*, to use a term by Brandon LaBelle suggests (LaBelle, 2019, p. 77). The accelerating digital networks are reinforcing this tendency. The body is an array of sensate and cellular signals. According to LaBelle:

the nerves tremble and the animate properties that pass between oneself and a multitude of signals (re)distribute the body; the detribalizing enacted through the decentralized flows of the electronic brings one into a density of not so much figures or individuals, or even mass movements, but rather of ‘nano-operations’, that is, the effective restlessness [political theorist and philosopher Jane] Bennett describes as central to contemporary life – the soul at work in today’s unhomed condition of the perennially overheard. (LaBelle, 2019, p. 77)

The ‘effective restlessness’ makes people connect to several overlapping networks at the same time, when also the listening, at least part of it, becomes an activity that happens in a shared online community.

When elaborating the shifting listening identities of digital music, Franziska Schroeder mentions media futurist Gerd Leonhard’s concept ‘Music 2.0’, which aims to distinguish the contemporary communal listening experience and music from the ‘Music 1.0’ that was totally controlled by the music business (Schroeder, 2012). Leonhard actually has argued that in the era of ‘Music 2.0’, the process of sharing has become more valuable than music-making or listening itself. The individual and the specific have turned into public in a different way than before. Schroeder states that the listening act is changing to social act in a way that the emphasis is more on sharing and belonging. It is about the tendency to form listening collectivities that shares, distributes and tags music. The music (and sound) is not about wholeness, or a stable consistency, but about fragmentary and ruptured moments like snapshots (cf. Voegelin 2010). And also, it is about tastes and belonging to listening collectives. I argue that in this sphere, the use and listening to music goes towards the direction of listening to soundscapes more than ‘songs’, ‘works’ or ‘concerts’. And that can be explored as a fossil capitalist kind of evaporation process. The fragmented listening activities share the idea of fragmented realities created and reinforced by the fossil capitalist societies.

The experience of oil

In their book *Energia ja kokemus* [*Energy and experience*] (2013), philosophers Antti Salminen and Tere Vadén elaborate on the notion of *naftology*: the philosophy on the ‘experience of oil’ in the current fossil capitalist era. They describe ‘the experience of oil’ as purposely equivocal and ambiguous: it is the experience of fuelling the car and having the possibility to drive without knowing the actual source of the fuel; it includes a smell of gasoline, the sense of grease in the fingers and also the whole experience of the consumerist lifestyle that oil makes possible every day. The experience of oil is something that

emerges when the exceptional features of oil, the historical and societal organisations and systems, as well as psychological state of minds encounter each other. The experience of oil is the specific sense of living in the current Western industrialist and consumerist society. It takes the energy as granted, as well the speed of life. And actually, oil is everywhere in our lives: it is in the air that we breathe as burning remnants, and it is the water we drink as microplastics.

Salminen and Vadén argue that the era of oil is totalitarian in two ways. First, all the segments of life are accelerated to a constant move and change. Second, all this acceleration movement is aimed at only one goal: the economic growth (Salminen & Vadén, 2013, p. 41). This totalitarian system can be understood as productivism as a societal praxis. Also, this atomised productivism can only be achieved with the fossil machines, the basic structure of fossil capitalism. Fossil machines cannot exist without the fossil fuels that are limited. They run out some day. But at the moment, the fossil machine needs certain psychological and social circumstances, as well as the technology for the processing and the fossil fuel itself. The work that the fossil fuels need and produce is in many ways invisible and also inaudible. When I use electricity at my home, I cannot hear the sound of producing electricity in a power plant. As Salminen and Vadén say,

the fossil fuel enable so long umbilical cords, so big distances and the hierarchies between them, that the thing nearby does not seem to be connected to the thing far away, though it exists only for that thing far away. (Salminen & Vadén, 2013, p. 54).

One of the key elements of the experience of the oil is the *evaporating of all the imaginable connections*. This concerns for example the connections between the production, consumption and the waste elimination. This evaporation is accelerating constantly. We only think that some of the connections in the world are eternal and stable, but they are not. The oil promises not a change, but a speed of change. Now when mobility is normalised, the local specificity of places and cultures has become obsolete.

The *acceleration* of everything, which refers to the changes of the cultural transformations, the consumption speed and the changes in the societal structures, can also be traced in the modes of listening in the digital spheres. The speed of pendling between diverse listening devices, listening modes and commercial players with the constant interruptions and multitasked moments accelerate along the overall acceleration of the societies. The hardwares and softwares demand new updates, and the marketing of the updates gets more intense all the time.

The acceleration also includes the alienation between the money and the natural resources. At the same time, the economy gets detached from politics. Political theorist Timothy Mitchell, the writer of the book *Carbon democracy: Political power in the age of oil*, states that

the separation of nature from politics was maintained not so much by the authority of large-scale science and engineering, which monopolised statements about nature, but by the work of economists who laid out the large no-man's land between the two. (Mitchell, 2011, p. 241)

The economy that is assumed to develop and proceed as some kind of a power of nature, as independent from the daily politics, allows the systems that are based on the laws of the ideology of the free market. This also effects to the music consumption.

The second concept that I am interested in the context of listening to urban environments through the philosophy of the experience of oil is *atomisation*. It refers to detachment of the material connections between different issues and the alienation process that this detachment creates. As an example of atomised practices, Salminen and Vadén mention the modern electric heating system of a house, when the owner of the house very rarely knows the details of the source, transportation and production mechanisms of the electricity used for the heating (Mitchell, 2011, p. 73). The process chain of the heat production is atomised as compared to, say, a situation where the owner of a house would heat the house by burning wood in fireplaces. In the modern system, the knowledge is detached from the embodied and local knowing. Also, the very long feedback processes, such as, for example, between the production of the materials and the waste elimination systems, create alienation.

When thinking about the listening in the digital era in urban environments, the listening act is often atomised in a manner that shapes the listening as exclusive. Instead of being a technique to survive in the city, listening is more a multisensory praxis of adaptation and immersion. The digital and non-digital sounds and recorded and acoustic sounds overlap, the sources and the directions of the sounds are ambiguous and the private (in headphones) and public sound intertwine into each other. The background noise is a basic canvas in big cities and it forms the mode of listening all the time. Listening in urban areas is very organic, it changes constantly. Also, the cities always sound in new ways, as Philip V. Bohlman, Sebastian Klotz and Lars-Christian Koch remark in a book edited by them, *Sounding cities* (2018). The sound transforms within and contrasted in the transformations of the city, and the smallest mutations, for example, in the street organisation, public transportation or architectural forms change the soundscapes a lot.

The experiential shock that is characteristic for the era of oil – the plastic floats in the oceans, the climate change, the demographic flows – is present also in the act of listening to urban spaces. The chaotic flux of diverse sounds with various functions, aims and purposes is a constant multisensory jolt for the listener, however familiar or everyday qualities the soundscape might have. Listening is site-specific activity, and the local listener can recognise local sounds in a soundscape (cf. Guy, 2009; Torvinen & Välimäki, 2019), but the mechanisms of fossil capitalism change the sounds of cities more and more homogenous. For example, the global brand sound design sounds the same all over the world, and the more spread out the brand is, the more it disseminates its similar soundscapes. In this situation, the local languages are crucial in their distinctive qualities in the homogenised cities. The local languages have their specific location in the bodies of local people and in the textual realm in the environments. However, nowadays the textual information often tends to be, at least at some assumedly 'international' public spaces such as airports, mono-lingually English. Increasingly, mono-lingual world is one of the most intimate and powerful experiential shocks of the globalised world and that is also deeply connected to listening and sensing. The human does not listen to solely with ears but also with tissues, muscles and skin (cf. Connor, 2004).

Binaural recording as an online realm

Binaural recording is a method of recording that is based on the use of two microphones put in the ears (or ear-like constellation, the dummy head) that captures three-dimensional stereo sound sensation as it were when a human head is listening. The history of binaural hearing go back to 1790s, when there were first attempts to define binaural listening by Wells and Venturi (Paul, 2009). The diverse development of the binaural techniques did emerge through 1800s. The binaural recording places two microphones in a schematic replication of a human head and the ear listening. Therefore, the captured signals are head-related, recorded in a constellation in which the human head hears them. Also, in World War I, the binaural possibilities were advantaged when localising both aircrafts and submarines. Aircraft localisation equipment consisted of two arrays of acoustic receivers. The sound emanating from any of the two arrays was transmitted by a tubular waveguide to one ear of the operator. Similarly, the two hydrophones were used to localise submarines.

The binaural recording is sensitive to arrival times and spectrums of the sounds (cf. Louie & White, 2005). They are intended to be listened through the headphones to

achieve the same dimensional acoustic experience than in the recording/live listening situation. The localised sound is a key aim of the binaural recording, and therefore it operates well with the urban soundscapes.

The act of recording in a public space is always a performative event. The use of headphones and microphones with recording devices and the whole gestural repertoire during recording is a specific way of being and performing. However, today, when everyone carries their mobile phones and other mobile devices, and interacts with them, the distinct quality of the performativity of recording has changed. The technological devices are not separated elements from the bodies for humans anymore, but organic and visceral body parts. In this current context, the act of doing a binaural recording is also more invisible than recording with an extensive microphone/headphone system. Binaural microphones are ear plugs, so they look like someone is listening to his or her music. That said, the body movements at the recording situation are very controlled: the head cannot be moved a lot, or in rapid movements, and the whole body posture should be quite steady during the recording. The performativity changes into a direction of a slow motion and cocooned listening.

Due to its vivid, three-dimensional stereo sensation, the binaural recording has an intense quality of a real-time sound. In my sound philosophy, I reject the strict ontological differentiation between live and recorded sound. The situation at the very early stages of recording technologies was, according to Philip Auslander, that live and recorded performance coexisted as complementary experiences, with no particular effort to distinguish them (Auslander, 1999, p. 59). After the development of the broadcasting technology, however, the relation between live and recorded became more binary than complementary. As Auslander remarks, 'this way of conceptualizing the live and the distinction between the live and recorded or mediated originated in the era of analog technologies and persists to the present day' (Auslander, 1999, p. 60). When emphasising the listening activity more than technological analog/digital division, I argue that all recorded sound can be understood as live in the sense that the listening situation is always live: it is specially positioned, contextualised and embodied. Obviously, in this kind of conceptualisation, the listening is treated as both a highly subjective and socio-cultural act. The liveness is located especially to the embodiment of the listener and the meaning-making process that flickers around the listening in recorded sound, as well as all mediated or 'unmediated' sound. I use quotation marks on 'unmediated', since I consider this distinction problematic and vague. All sound is mediated in some way.

When recording Helsinki metro tunnels and trains with binaural microphones, I perceived the amalgamation of the acoustic space and microphone-listened space in the soundscape. The acoustic space oozed into the real-time listening of the recording. The whole listening space was very different than with, for example, condenser microphones and headphones. As mentioned before, the performative quality of the recording situation is less sensible, but it contains a specific turning into self, i.e. the act of listening into listening self (Nancy, 2007).

The materiality of the metro: listening to acceleration

Sitting in a metro train and listening to the engines accelerating to full speed is one form of listening in a very concrete situation of acceleration. The reaching towards listening in the train can be understood as an endeavour to immerse to the movement of the train, with its technologies, strength and speed, instead of, for example, cocooning into a private sound realm with earplugs with own music playlists, and detaching oneself of the sonic reality.

Listening in a metro is an act of sensing tremble and the replaying between acceleration and slowing down. The strength of the engines is embracing the passenger immediately. In the nineteenth-century medical literature, railways actually were considered one of those dangerous issues, along with sewing machines, bicycles, and the noise of the city, that was seen to be able to cause damage to the nervous system. In her book, *Senses of vibration: A history of the pleasure and pain of sound*, Shelley Trover (2012) discusses the Victorian anxiety of the railway and train vibration, of how the new and frightening relation between human and machine was emerged in a train travelling, and also how it was understood as threatening the sexual health. The sense of vibratory stimuli was considered to cause uncontrolled sexual excitation.

Metro trains in different cities have very significant soundscapes. Some old metros, such as in London and in Paris, and also some highly trafficked metros, such as the metro in Moscow, have a specific noisy soundscape that involves a lot of rail squeaks and bursts. The tremble and shake of the cabins is more varying and intense than in the newer metros. The sonic spectra are rich and noisy, and dominated by high frequencies. And again, the language(s) of the spoken and written announcements are essential local anchors in the metro soundscapes.

The metro in Helsinki was opened in 1982, 27 years after the first plans for the metro line in the Helsinki area. Nowadays, the metro is 35 kilometres long, and it has 25 stations. Sixteen of the stations are in the tunnels, and the rest nine are on the ground. The capacity of use

is 63 million travels per year. At the moment, there are three different series of trains in Helsinki metro, M100, M200 and M300. The first series was manufactured by Valmet aircraft fabric in Finland, and the second series was manufactured by Deutsche Waggonbau in Germany. The third and the newest series is manufactured by Construcciones y Auxiliar de Ferrocarriles (CAF) in Spain.

M100 trains in Helsinki metro have an unique motor sound, which emerges from a frequency adaptor system that gives a very specific howling sound to the motor when braking the train with an electric brake and when accelerating. The material of the train, aluminium, affects the sound as well. The wagons are comprehensively made of aluminium that makes them very light and easily accelerating. The acceleration (and all mobility) made as easy as possible is one of the elements of the experience of oil, discussed by Salminen and Vadén.

At the moment, the Helsinki metro functions by electricity is produced by the water power. Before 2012, the origin of the electricity was in the fossil energy forms: gas and coal. The invisible and distant origin of the electricity that accelerates metro trains is part of the naftology, the alienated and unfollowable processes of the energy production. As Salminen and Vadén remark, oil ties through creating disconnections. Also, the whole industrial lifestyle with the need of increasing speed of mobility is originally possible because of the use of fossil energy, and especially the oil. Therefore, the experience of oil is a relevant philosophical frame when investigating the urban environments, and when listening to metro trains.

When entering the metro wagon from the subway tunnel and the platform area, the sonic environment transforms radically. The echoic space of the platform changes to an interior nest with dry and silent acoustics (3'16" in the recording). The echo of the metro tunnel stays beneath the skin and affects the listening of the accelerating train.

Sound studies scholar Brandon LaBelle states that the ontology of echo is in its acoustic quality that has a particular effect of decentering the sound. The echo is a constant multiplication of the reflection of sounds, the eternal loop of resoundings and their mirrorings. According to LaBelle:

the echo, as an underground sonic figure, gives way to enlarging the possibility to imaginative transformation; shifting our cognitive focus away from the text and toward an acoustic dynamic ultimately makes unsteady, through a mesmerizing shift in clarity, the movements of meaning. (LaBelle, 2019, p. 40)

The echo creates a decentering outside scene for listening and sensing the metro inside the wagon. The temporality that has trembled as fragmented in an echoic metro tunnel and the spacious, hi-fi sounding platform; that has anticipated the actual entering to the intimate and immediate speed of the underground urban environment, embraces the multisensory listening of the metro engines. The echo can also be understood in terms of atomisation in the context of the experience of oil and it is atomisation: the tendency of losing the coherent benchmarks, measures and shapes. The echo atomises

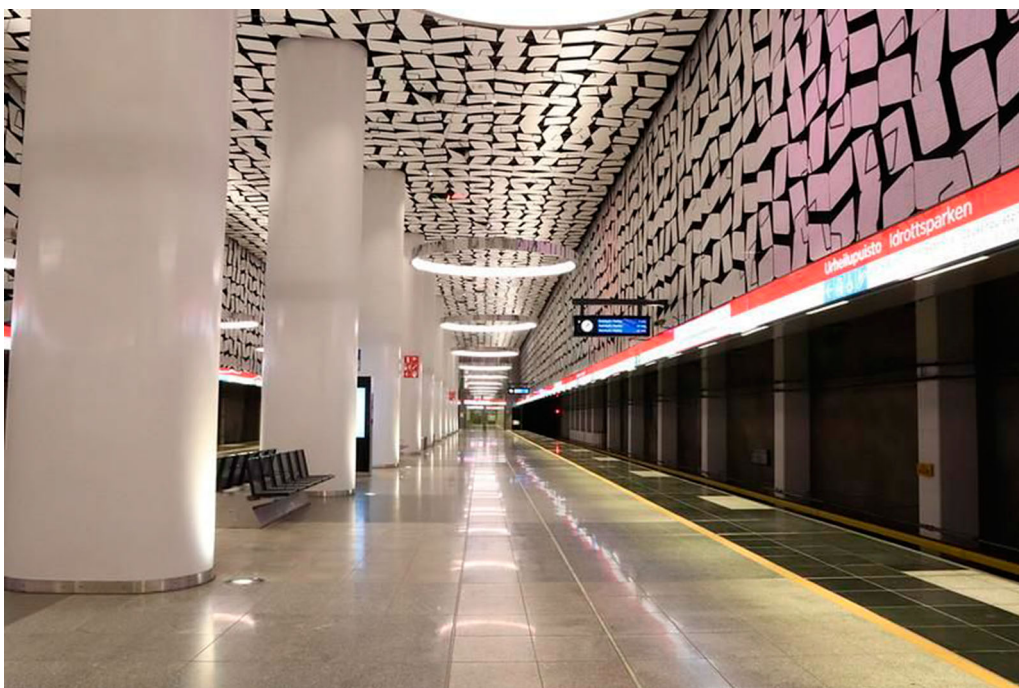


Figure 1. The empty metro platform area at Urheilupuisto metro station, Helsinki.

the listening experience of the space and time, and creates several both successive and layering spatialities and temporalities. The shape of the space vanishes, and the measures of the distances become nebulous (Figure 1).

The city as an instrument

The city is anxious and fluttery. It is full of sounds and sonic gestures that embody diverse forms of acceleration, atomisation and evaporation in the society. The plastic waste is borne and demolished. The consuming situations arise and get completed. The air is dense with satisfaction and frustration. The money orbits its routes in the invisible cavities of fossil capitalism. In this environment, the recording and listening of public spaces and transportation vehicles is being an organic segment of the urban environment. It is a part of the ecosystem of the city and its vibration.

During recording and listening to the metro, I consider the urban environment to be both an instant instrument and my everyday sphere. I choose to focus on the diverse sound of engines, technologies and machines. The listening act is happening in the temporality and embodiment of *nowness*, but it always carries subjective historical and cultural resonances. While listening, I am in a subjective listening bubble, but at the same time I am also in another temporarily as capturing the sound for more social¹ and public distribution as art in future. The temporality of the recording situation is thus extensive and stretching beyond the obvious time-scales. The city as an instrument is not an instrument that should be controlled or played, but it is about being immersed in it. There are no performance practices, however performative the being and wandering in the city is, and there is no strict division between the audience and the performer. The element of self-reflection and self-indulgence (also almost in a form of masturbation) is present in this bizarre playing of metro tunnels and trains, and the stony pathways, and the whirling wind in them. The identity of the ‘user’ or the ‘player’ of this instrument is an ambiguous flickering between sensing, listening, perceiving and interpreting the urban depths. This flickering is, obviously, adjusted and controlled by the social and cultural roles of behaviour in public places, but it also includes a lot of possibilities for the intimate and resistant forms of concentrating on the non-obvious, the non-prominent and the inaudible.

The city as an instrument brings up the acoustemological knowing with subtle nuances of daily routines, city

spaces, public areas and their soundscapes. The multi-sensory quality of listening is very accurate and present in this knowing; the listening is also sensing the places and their surfaces, lights and smells (Figure 2).

Binaural recording as a hyperobject

Ecophilosopher Timothy Morton uses the term ‘hyperobject’ to refer to things that are ‘massively distributed in time and space relative to humans’ (Morton, 2013, p. 1). According to Morton’s poetic description, a hyperobject could be a biosphere or a Solar system, or it could be, for example, a sum total for all nuclear materials on earth. Morton says that hyperobjects are not just ‘collections, systems, or assemblages of other objects’, but merely objects in their own right. He introduces four features that describe and embody the being of hyperobject: viscosity, non-locality, temporal undulation and interobjectivity. The viscosity refers to the sticky quality the hyperobjects have; the non-locality marks the lack of distinguishing local manifestations; the temporality of hyperobjects has different time-scales, measures and gestures than the time that affecting humans’ lives, the time in them is stretching and thickening in phases that may stay invisible; and finally, the interobjectivity suggests that hyperobjects operate in spaces that include encountering of diverse aesthetic and functional directions.

The binaural recording that I made in the Helsinki metro tunnels and trains begins with an opening scene in the escalator of the metro. The distinguished capturing of a squeaky sound of a bag is engraving to the soundscape before the overwhelming, rhythmic escalator motor sound begins to dominate the overall sound. The mix of ephemeral, bypassing discussions of the random people and public transportation announcements emanate in the main sound, i.e. to the soundscape that is perceived when standing on the escalator. The vast echoic space of the metro tunnel can be heard when entering the platform area. The train arrives soon, with a subtle motor sound, and the inside sounds of the wagon form the closed, condensed sound realm of the acceleration of the city and the whole fossil capitalist living at the underground tunnels. The acceleration begins with two different slowly ascending drones that reach their pitch after several glissandi. The presence of individual bodies is in the sonic mix as silent cloth rustles, sounds of moving bodies and beeps of the mobile devices. The overall sound has a strange element of silence, since the engine hum reverberates the wagon with its stubborn pitch.

The binaural recording made in metro could be understood as a hyperobject that is inflated with several diverse intertwining temporal and spatial layers. The time of

¹ I thank Thor Magnusson for this remark on the layered temporality of the recording and both the subjective and social quality of it in this artistic sound collection activism. The remark was made in a Skype meeting in June 2020.



Figure 2. The metro platform area in the Matinkylä station, Helsinki.

metro moving from stop to stop within a scale of a pre-determined timetable subsides to interobjective relation with the listening space that unfolds in the recording's binaural time-space dimension. The sounds moving from back, left, front and right create an undulating composition that gets amalgamated into the trembling of the train. The sensing of the train tremble cannot be separated from the noises of the engines, the bright orange color of the benches and the pungent, complex smell of the metro. However, this hyperobject, the multisensory sound assemblage of a Helsinki metro, does have a local quality in it. The local languages have stuck into it; they do inhabit the sonic sphere as a specific smell in the air. Also, the micro gestures of embodied behaviour of people refer to local specificity (admitted or not), as well as the previously mentioned train sounds.

Conclusion

Listening to binaural recording in and within the metro is an acoustemological act that aims both for knowing the sonic and cultural micro details in the city and for playing them, using them in and as artistic work. The listening/sensing/playing the metro is a highly subjective act, but in a manner of a constant intertwining into a social and cultural meaning-making.

Acknowledging listening as sensing as knowing is an important epistemological turn that strives to extend the textual and visual quality of knowing into the understanding of the sensing body. It takes seriously the fact

that the sonic information is present all the time, and it has various psycho-social effects that profoundly constitute and define humanity. However, at the same time the most distinguished features of the local are produced through global trends and tendencies. The ubiquitous use of mobile phones and other mobile technologies are constantly blessed by over-national companies that enjoy their free marketing space in the visible brands and design forms that everyone carries with them all the time. These mobile devices can be used as tools for customising and adjusting the assumed identity politics and negotiations, but they are also arduous phantom limbs that generate their own bodily temporalities, spacious dimensions and socio-material codes. I argue that in this discussion, the acoustemology enters in with the special sensitivity for reflecting and conceptualising the subtle multisensory changes that always involve in the cultural and material frequencies of technologies. The heard is always as well sensed in tissues and muscles, and the delicate nuances of the heard/sensed always steer the signifying processes.

In the context of multisensory knowing and its acoustemological timbres, the idea of the hyperobject brings forth the chaotic and tremulous ontology of the current era, the time shadowed by the eco-crisis and its' adverse effects with diverse temporal and spatial dimensions. In this context, the acoustemology resounds back the unexplored, but constantly present knowledge of the environment, the social and embodied interaction, and the changes in the urban public spaces. The accelerated

rhythm of the urban lives, and the more and less prominent pressure to consume in the name of the economic growth can be sensed in the ascending pitches and the louder frequencies.

In the constant rustle of the overall plastic waste and the mono-lingual English-spoken obsession to consume the exact the same products in every corner of the Earth, the silent and subtle listening/sensing of the suburban engines and the trembles may suggest the opposite: the focussing on the post-sustainable ecology that abandons the concept of endless resources, and concentrate on the small, marginal, subordinated, insignificant, (ostensibly) inefficient and unworthy, the time and space where some of humanity can survive for the future generations.

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