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AUDIOSPHERE OF INHABITED SPACE

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ABSTRACT

The following text is an attempt to draw attention to the importance of sounds in the perception and construction of our intimate sphere of residence, being an inseparable element of the auditory landscape of the place where we stay temporarily or permanently. My illustrations included in the text are a supplement and my interpretation of the city's audiosphere from the point of view of an artist, interior architect and resident of Krakow, showing the influence of sounds on the perception of the space around us.

According to Heidegger's theory, inhabitation goes beyond the sphere of the object already at the moment of construction. Therefore, the audiosphere of inhabited space should be considered in a broader context, going beyond the walls, i.e. the visible borders of our comfort zone, which is an integral part of the city space. Sounds, just like objects, build up the space around us creating an aural landscape, which we perceive multi-sensorially, usually overlooked by us because it is habituated and we do not think about it every day, but it plays an important role giving our space character, identity of place, and also influences the memory of it. It is an important part of our lives by defining for us our place in the space of the city, the home, the universe.

The role of sounds is of great importance in the world in which man functions. Often tamed, treated as insignificant and invisible, they build us specific places, both those in public space and those closest to man - spaces to live in. They have an enormous impact on the emotions and character of these places and the values associated with them. Thus the auditory sphere of places of habitation - permanent (home and surroundings), and temporary (staying, e.g. at a railway station, in a gallery, park is also an element of inhabiting a given place), creates an important and inseparable element of the soundscape of a given place. It is an important acoustic phenomenon in the experience of that space.

KEYWORDS

inhabitation ; sound ; audiosphere ; space ; city ; place ; home ; comfort ; discomfort ; sound absorber ; auditory networks ; audiosphere density

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Audiosphere of inhabited space

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Sound landscape of the place

The multitude of stimuli which reach us from the outside world shape our individual perception of the world. It is therefore obvious that we experience and feel the city polysensorically. The audiosphere of urban space is an unusual and diverse collection of acoustic impressions that form our surrounding space. It is a multitude of sounds, hums, voices and vibrations, which we perceive subjectively, making us aware of the peculiar character of places.¹ Urban spaces are networks of infrastructure, sounds, relations of both places and people living in them. They are like constantly developing tissues, which are supposed to have a positive influence on the social life of the city, to influence and shape our senses and ourselves. Man as a rational being shapes his space around him.

¹ Robert Losiak, Renata Tańczuk, *Pejzaż dźwiękowy miejsca zamieszkania w doświadczeniu Wrocławian*, Wydawnictwo Uniwersytetu Śląskiego, Katowice 2015, *Studia Etnologiczne i Antropologiczne*, p. 193

According to Yi Fu Tuan (*Space and Place*)², who differentiates and presents in opposition both terms of **space** and **place** in his considerations, defines space as abstract and indefinite, vast and untamed. The sense of space is made through the sense of sight and touch, but the sense of hearing also plays an important role in experiencing urban spaces, helping us to know and experience our surroundings. Yi Fu Tuan, on the other hand, defines place as being close to man, intrinsic and of great value and importance to his being. It is built, and above all, identified and inhabited by man. It is his habitation place.

According to the dictionary, the meaning of the word **city**³ from the Slavic language means "*place*", i.e. a settlement unit characterised by dynamic buildings and a high density of people. The diversity and opportunities offered by a city encourage development and the establishment of contacts between people. Thus, one can see how close the city and the place are to each other. Man organizes and shapes a separate place from an indefinite space of the aforementioned Yi Fu Tuan, where complexes of buildings and streets are created. A space of interaction in which sounds, objects and the environment influence the human psyche.

Heidegger, on the other hand, sees the essence of habitation in building in his essay *Budować, mieszkać, myśleć*⁴. While various buildings not always associated with habitation such as a bridge, a railway station or a market hall, they are nevertheless a temporary habitation of the human being. If we refer to the original meaning of the German word *buan*, "to build" it means to dwell, to stay. Heidegger also says that place has a strong connection with a thing⁵, which by designating its position creates a spatial area. Thus this thing constitutes a place in great detail rather than in general, thus emphasising its subjectivity and relativity. A place is a concrete space always existing around a person, filled with content, close and familiar. The essence of inhabitation is the centre around which man orientates himself. Thus, habitation begins at the moment of construction and is not limited to the walls of the house - it goes beyond this space.

² Tuan Yi-Fu (1988). *Przestrzeń i miejsce*. Transl. A. Morawińska. Warsaw: PIW.

³ <https://pl.wikipedia.org/wiki/Miasto>

⁴ Martin Heidegger, *Budować, mieszkać, myśleć*, Teksty : teoria literatury, krytyka, interpretacja nr 6 (18), 137-152

⁵ Hanna Buczyńska-Garewicz, *Język przestrzeni u Heideggera (cz. 1)*, RCIN

Such a space full of relations, multidimensionality, which orientates man around objects that define him, is his place of residence. This is not a term limited only to man's closest intimate sphere, i.e. the home, his place of refuge, but also his closest surroundings - the space in the city. Man inhabits it also by staying for a while, moving around. We can feel safe everywhere, "at home", if we achieve a state of security in a given space. The inhabitable space expands through our experience of it, becoming aware also of the identity of the place and the associated auditory sphere, we will be able to tame such a space and feel comfortable in it.

Audial networks

The term, first used over 50 years ago by Alvin Lucier, has given rise to a new concept of the of the acoustic environment as a study area or site with all its attendant circumstances.⁶ Explaining after Robert Losiak in „Malowniczość

pejzażu dźwiękowego...” quoting a statement by Raymond Schafer, a Canadian composer, who continued to spread the notion of *soundscape*, which, according to him, "(...) the *notion of soundscape, regarding it as a specific sound environment ("a separate acoustic area"), subject to research.(...)"* he explains that the audiosphere is experienced individually, also in the aesthetic context, as "pleasure" or "pain" in the perception of environmental sounds. However, human experience can also depend on perspective, as confirmed by Barry Truax's definition, which states that soundscape is the *sound environment* as perceived by an individual or a community, so that it is supra-individual in nature and depends on the relationship between recipient and any sound environment.⁷ Soundscape in the context of landscape is understood as a culture-creating process⁸, through the attribution of meanings and values that are expressions of intersubjective image experiences, which are given individually but relate to community experiences. One could compare the relation of the recipient with the sound to the one that takes place in man in relation to his existence in the world. We experience it with all our senses, and the recording of sound, music becomes materialised in a specific space-time, in a landscape of sounds the collection of all the

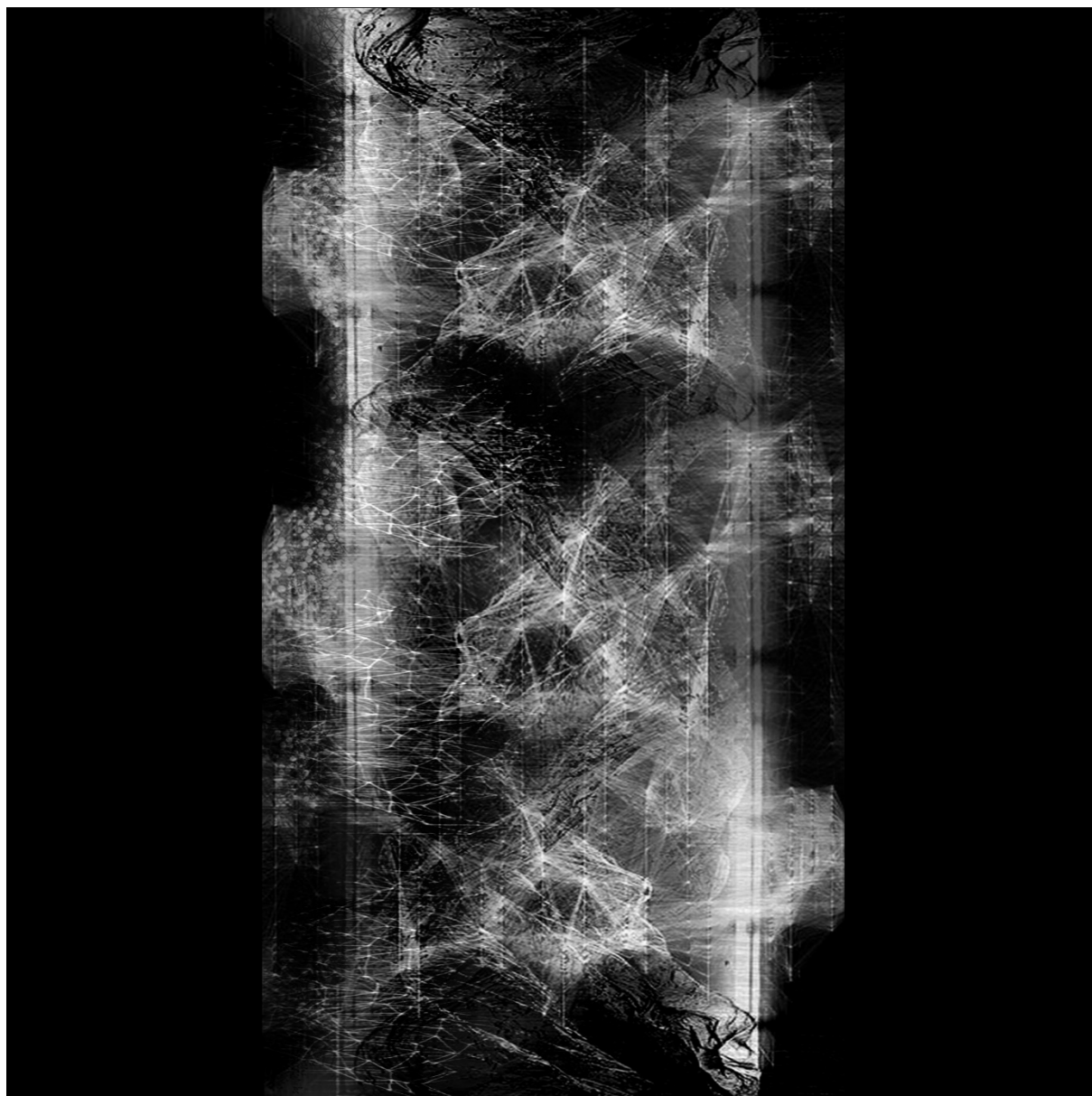
⁶ Marcin Dymiter, *Pejzaż dźwiękowy*, Instytut Pejzażu Dźwiękowego, <http://ipd.org.pl/pejzaz-dzwiekowy/>

⁷ Robert Losiak, *Malowniczość pejzażu dźwiękowego. O pewnym aspekcie estetycznego doświadczenia audiosfery*, Teksty Drugie, 2015, 5, str. 46

⁸ Robert Losiak, *Malowniczość pejzażu dźwiękowego. O pewnym aspekcie estetycznego doświadczenia audiosfery*, Teksty Drugie, 2015, 5, str. 47

components experienced when experiencing the space of a place. The way we perceive it is determined by that particular physical space.

Interpretations of audial networks, author: Kaja Czajczyk



Source: author's archives

The sense of sight is considered the most important, it allows us to assess a situation, to order space, to release emotions in us. Without a doubt, sight is the dominant sense, like a radar, thanks to which we receive information, see colours, signs, symbols, and move around in space. In conjunction with the brain, it projects the most beautiful images to us. But what would a picture be without sound? When we watch a movie without sound, we find it unattractive and unclear. Sound builds images for us, imagines them. It is similar with landscape. At first we perceive it with our eyes, not realizing that it is the sounds of the surrounding reality that are an important element of this space and build us an image full of audiovisual aesthetic sensations. The sounds give the character and uniqueness of the place, but the sound image is constantly changing, it is alive, therefore our perception is different every time, it updates itself, it also changes depending on our interaction, focus of attention. The environment evolves, changes, so do we and our consciousness, therefore the fact of perceiving sounds is unique and individual. Sometimes, or even often, we do not realize that conscious listening and perception of sounds does not need an image, that we can treat sound as a carrier of musical information. Sound is pure content.

Sound absorber of the city

„We shape our inner space in the likeness of music, its polyphony. And at the same time, music creates in us spaces within which we move.”

Szymon Uliasz in his essay *Muzyka i przestrzeń* [Music and Space]. Places without borders draws attention to the essence of music in architecture, which over the centuries has left its mark on culture and tradition and had a significant role in its reception. We very often associate places with sounds, completely subconsciously, we recognise them through previous experience, through taming things nearby. Their location in space and dependence on our perception makes them close, which Sz. Uliasz mentions, quoting a fragment of Bogdan Pocij's text *O przestrzenności dzieła muzycznego* [On the spatiality of a musical work], in which the author prejudices the work, which has its sound, density and mass. Uliasz seeks references in musical compositions to places as memories which are described ... *spatially by means of sounds like literary narratives arising from impressions* ⁹... Landscape in the sense of a musician is nothing but a record of the memory of a place. It is another spatial record that becomes an improvisation, a momentary but timeless form.

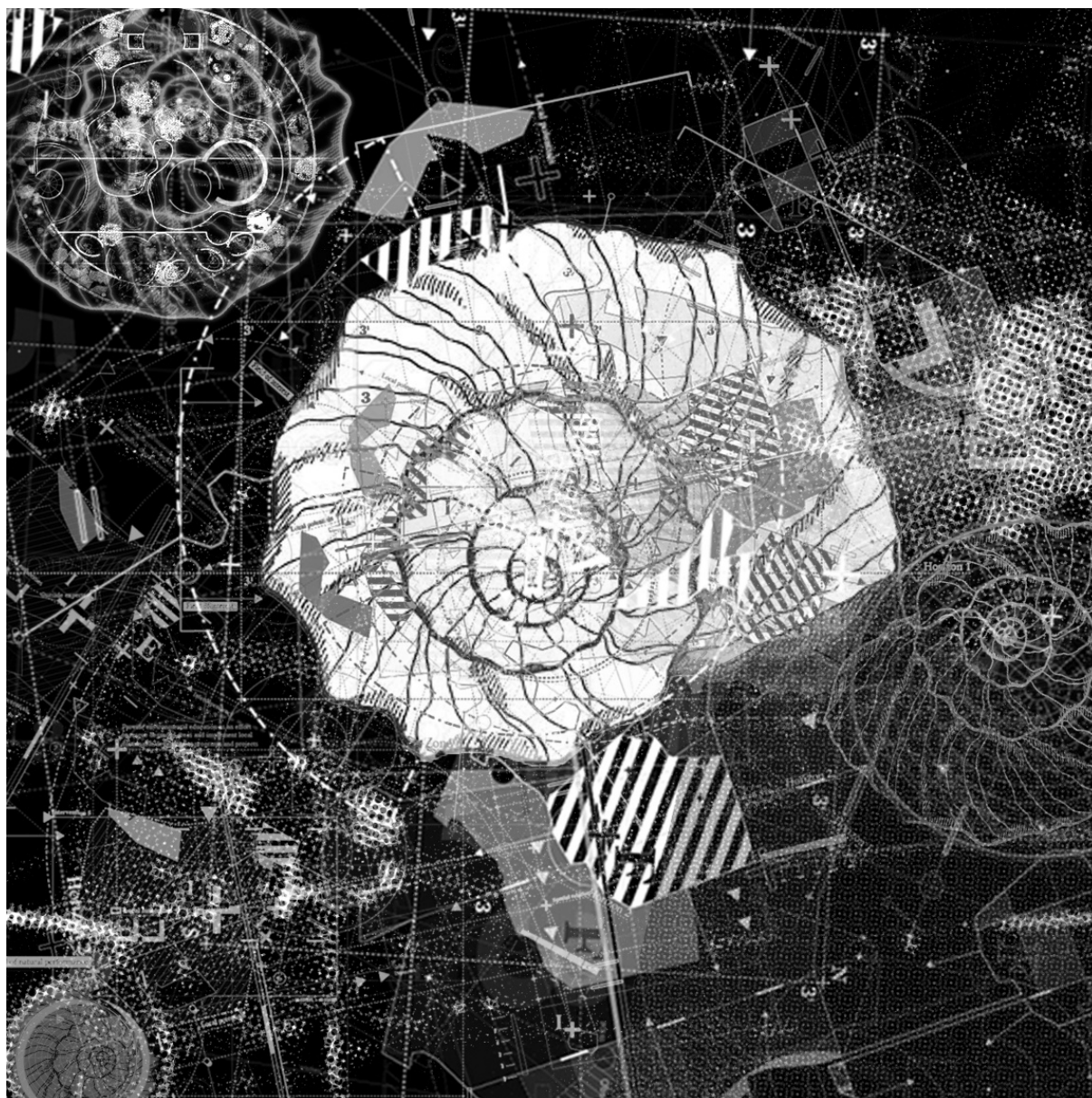
⁹ Szymon Uliasz, *Muzyka i przestrzeń. Miejsca bez granic*, Inne przestrzenie, inne miejsca. Mapy i terytoria, Wydawnictwo Czarne, Wołowiec 2013, p. 89

The space of music of a place of residence can also be considered in the category of dreams, spiritual existence. Marianna Michałowska in *Kształt niezamieszkania*¹⁰ quotes

Gaston Bachelard's thought, who metaphorically treats a house as the shelter space of a shell. The shell is not only a sound absorber, a resonator, inside of which sounds from the environment, e.g. the wind, are collected, so that the air particles from inside intensify and amplify the sounds, and are then reflected. The individuality and diversity of the shells means that each one has a different frequency, making it unique, with sounds of different pitch. The inside of a shell, therefore, can be compared to our safe world, which is home. Each different, specific, around which our memories are centred. Through imagination and childhood memories, we can inhabit different places, intermingled in our dream sphere, which are full of sounds, smells, colours accompanying a given moment. Recurring memories allow us to move to the inhabited space, the intimate one, as well as the one we inhabited 'temporarily', which are built through ephemeral sensual phenomena.

¹⁰ Marianna Michałowska, *Kształt niezamieszkania*, Formy zamieszkiwania. Publiczne i prywatne przestrzenie miasta, Uniwersytet Artystyczny w Poznaniu, 2010, p. 11

The Sound absorber of the city, author: Kaja Czajczyk



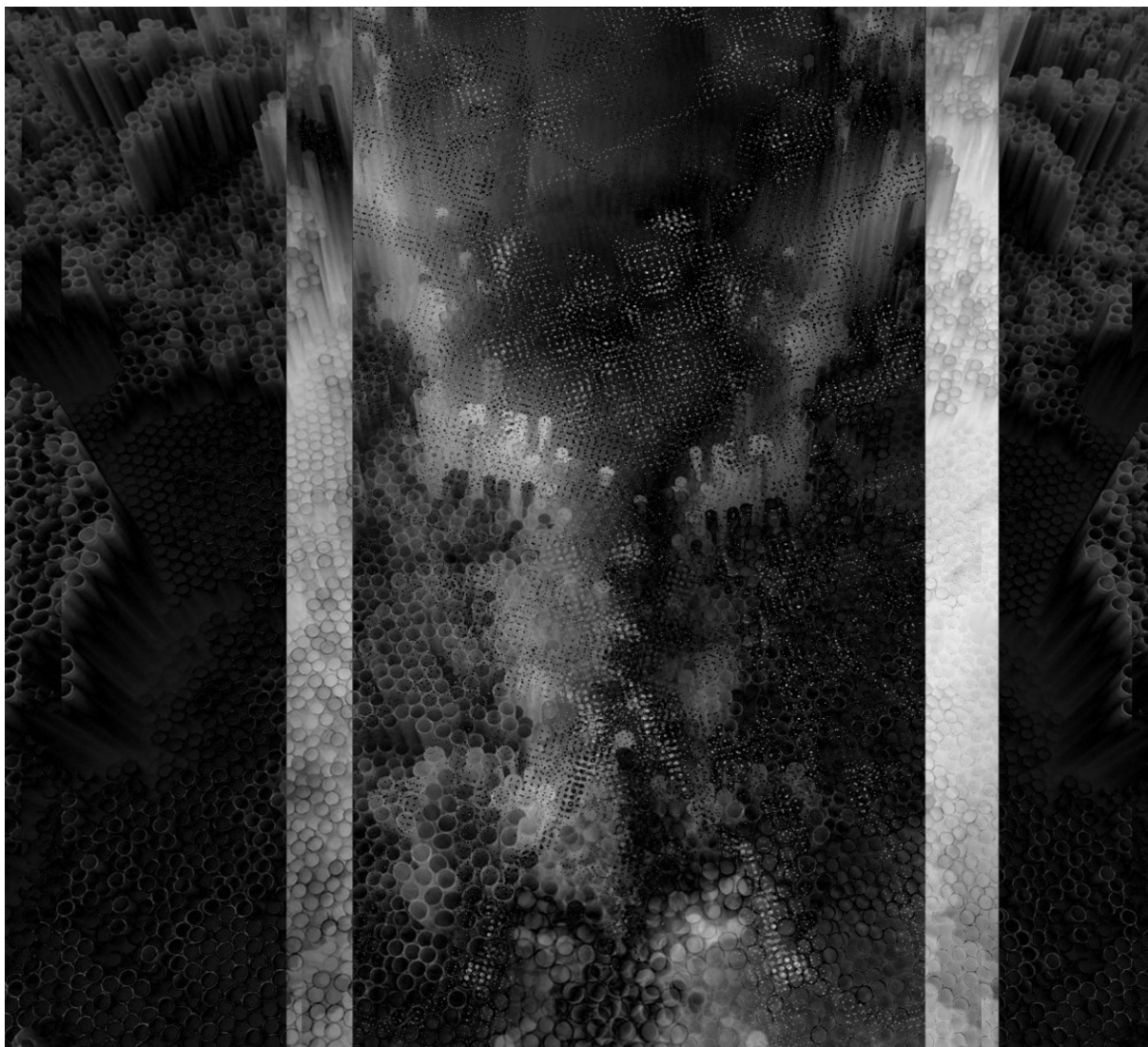
Source: author's archives

Density of the city's audiosphere

The city is a collection of buildings, streets, human emotions, it is a network of information, signs, symbols, including sounds, which fill and build our space around us. The sound of a city is very diverse, as there are both sounds, e.g. of nature, classified as pleasant, and unpleasant, negative ones, e.g. the sound of a passing train, which are troublesome. Most often we associate cities with noise, which can be regarded as environmental pollution, both external and internal. The intensity of ambient sounds, through their acoustic properties, stimulate our senses to the point of physical sensation of pain. This is why we divide our sensory experiences into pleasant and unpleasant ones. Noises and vibrations resulting from a bustling city have a huge impact on the comfort of our homes, green spaces and private areas. Density of development, reduction of distances between buildings affects acoustics and sounds, so that the emission of technical noise or traffic noise resulting from the intensity and density reduce our quality of life.¹¹ That is why we often, if we have the possibility, when looking for places to live, choose areas away from the centre, on the outskirts of cities, because the amount of sound stimuli accompanying us every day with every activity, affects our living conditions and comfort. Depending on where we live, the occurrence of sounds and their acoustic character varies, and they may violate our intimacy and sense of comfort in private home spaces.

¹¹ Jacek Nurzyński, *Zagadnienia akustyczne w kontekście równoważenia rozwoju w gospodarce przestrzennej i budownictwie*, Prace Instytutu Techniki Budowlanej, Kwartalnik nr 3 (135) 2005, p. 46

Density of the Audiosphere, Author: Kaja Czajczyk



Source: author's archives

We inhabit not only our homes, but the interiors of cities, which do not exist without sound, people and nature. And they do not exist without architecture. These two relationships, which complement, shape and absorb each other, give us the opportunity to feel and experience the city's phonosphere filling the spaces between structures. Urban space is a complex and multi-layered organism that is constantly subjected to various processes. The city is the place where we live, work, spend time and develop on various levels. We choose and tame our place of residence with its spatial and functional values, which force us to behave in a specific way, and which translates into our

emotional relationship with the environment we live in. The acoustics of a place also has a great influence on the choice of our space for permanent or temporary residence. The amount and variety of sound stimuli that reach us from the environment litter our perception of space. We hear not only the sounds of nature but also those produced by technology.

Research on sound in urban space or the phenomenon of echo, depicted in the form of engravings, which was conducted as early as in the 17th century by a Jesuit, inventor and constructor Anasthasius Kircher, became an inspiration for Katarzyna Krakowiak¹², the author of the Polish Pavilion at the Architecture Biennale in Venice in 2012. The project entitled „*Making the Walls Quake...*” is a specific *sound sculpture*,¹³ which is a response to the ecology of the audiosphere of public and private spaces, where sounds mix and blur the boundaries between these zones. The idea of the installation was to create an architectural space built with sound, which will draw attention to the problem of acoustics in the interior by shaping, reflecting or deforming sound, analogically to the experience we gain by hearing others and being heard by others. Architecture, which should guarantee us "inaudibility" and intimacy, in fact intensifies sound co-presence in this residential or public architecture.

The closest space to a man

The domestic space is the most intimate, private and close to man. Tamed, filled with the emotions of its inhabitants. And the space around the house - is an extension of the living space, being its inseparable part, so it also influences and is influenced by "emotion". Around our residence there is a specific audiosphere, characteristic, phonically recognisable in its message, evoking subjective aesthetic sensations. Characterised by a multitude of sounds, which we can resolve, according to S. Pietraszko also in the ethical context¹⁴ - because the soundscape is also semiotically characterised. Recognizable and present in the urban space sound elements, such as church bells - are sound symbols. And architecture is a carrier of memory, to which we assign meanings, roles, it evokes certain associations.

¹² Agata Janikowska, Instytut Kulturoznawstwa, Uniwersytet Wrocławski, Katarzyna Krakowiak, Andrzej Kłosak (red.),

Słuchawy. Projektowanie dla ucha, Fundacja Bęc Zmiana, Warszawa 2009

¹³ <https://zacheta.art.pl/pl/e-sklep/katalog/making-the-walls-quake>

¹⁴ S. Pietraszko, *Studia o kulturze*, s. 109, AVA Publishers, Wrocław 1992

The Invisible in the City Space, author Kaja Czajczyk



Source: author's archives

Our private space is limited not only to the closest one, the so-called "air bubble"¹⁵, which according to Robert Sommer's definition is an unchanging space of fixed dimensions that we do not

¹⁵ Marta Cobel-Tokarska, *Przestrzeń społeczna: świat – dom – miasto*, Krótkie wykłady z socjologii. Przegląd problemów i metod, Wydawnictwo Akademii Pedagogiki Specjalnej, s.52

allow others to cross. Our intimate surrounding space is full of phenomena, objects, sounds that build our comfort zone. A house, which in its definition is a habitation place associated with warmth, security, releases as well as produces its own characteristic and individual sounds, which create a semiotic image of our home. These are auditory performances that are the sum of the sounds of the exterior as well as the interior.

„However, it is an acoustic house. You can hear not only the upstairs. But also other people. From the side or under the floor. For four weeks you couldn't hear, and now they must have come back from their summer holidays. Talking for two days. Especially one family can be heard: women and children. In the morning they tell stories, in the afternoon they tell stories. Not much radio or television is heard. Yesterday there were some songs, a lot of tapping somewhere and on the stairs. Name days with the singing of Happy Birthday.”¹⁶

Miron Białoszewski „Chamowo”

In his notes, Miron Białoszewski very aptly described the experience of an acoustic home. The sounds in the space of a block of flats have a huge impact on his sense of comfort and the feeling of living space, as this private zone becomes oppressive, even difficult to accept. The very term 'acoustic' stands in opposition to the meaning of the word *home*. In the case of a place to live, it brings with it negative emotions, and makes us not want to live in such a space. The sounds coming from the neighbours increase the feeling of "*not being at home*". The environment makes the flat not really mine, it is not an oasis of peace, and the communication zones - the common spaces are constantly disturbed by the noises of other inhabitants and, although they belong to the collective space, they become an integral part of our private space, even though we don't want them to. The boundary between the private and the public zone is blurred, and the term associated with cosiness and a sense of security is no longer real. Our intimate zone is constantly being violated, disturbed by sounds coming from beyond, which disturbs the private space, and the walls are only visible borders, not acoustic ones. The co-presence of others in our audiosphere becomes tangible.

Audiosphere of inhabited space

The inhabited space should be considered more broadly, going beyond the boundaries of the private zone and considering it more in the context of a place of residence that is part of the city. Conducting a survey among the inhabitants of Krakow concerning the sounds associated with

¹⁶ <http://topo-grafie.uw.edu.pl/miron/chamowo/blok-mirona/akustyczny-dom-dzwieki-w-przestrzeni-blokowiska/>

experiencing the audiosphere of their home and place of residence, I became convinced that both physical and auditory comfort are inseparable elements, and sounds are an invisible, constant component co-creating and significantly influencing the character of a given place and its experience. Respondents described in considerable detail the sounds associated with the neighbourhood in which they live, both the sounds of the city and those more subjective, resulting from living in houses and flats. It was important for me to draw the inhabitants' attention to what is natural and trivialised in everyday life, that we do not notice the presence of certain phenomena.

The audiosphere of inhabited space, author: Kaja Czajczyk



Source: author's archives

Being aware that the inhabited space is shaped and co-created by the activities of its inhabitants, resulting from the experience of this space, as well as the permanence of relations between the inhabitants and public buildings and objects, it gives us a fundamental principle of feeling safe by taming the external world, as well as our private, intimate one. Therefore, by directly experiencing the sphere of inhabitation, the sensory perception of space is more emotional and represents an

important value for the residents, which was noticeable in the answers to the questions about comfort and discomfort related to the sounds of the city in their living area.

We are strongly connected to the places of our being, temporary or permanent through our activities, work, social and private life. Like objects, buildings, the soundscape causes a strong bond in our memory. The sounds of a soundscape are specific to the areas where we live, hang out, or walk around, creating the character of a place. Urban sounds permeate, mix and invade our living space creating a diverse and colourful soundscape. Sometimes pleasant, sometimes tiring and causing discomfort, it is a background or orientates us in space. When asking the residents of Krakow if the sounds of the city space influenced their choice of location, the answers were very divided, some people clearly stated that they did not like silence and preferred the city "noise" so they chose to live in the city centre, while many people suggested that the influence on their choice of location due to sounds was "Very great. I appreciate the peace and quiet from the hustle and bustle of the city centre". When asked whether sounds disturb or help in everyday life, they replied that the noise associated with Krakow's life does not bother them, they like the bustle of the streets, they are used to specific sounds which are unnoticeable, and the pace resulting from the rhythm of city life even drives them to action. The answers show a gradation of the intensity of sounds in relation to time of day and lifestyle. Respondents indicate that these sounds can be problematic at night when they fall asleep or when they work at home - then they look for silence which is good for concentration and relaxation. They are bothered by noises from neighbouring flats, which take away the intimacy of the residents and increase the feeling of "strangers" in our comfort zone, loud music from cars or shouting in the street. However, they cannot imagine the city without the sounds that build this space and identity. Total silence would be unbearable, and sounds give them a sense of security.

„When I close the window I want silence to surround me. I associate this with comfort”

The space of the house being the centre of 'our universe' and closest to us, we subconsciously extend this beyond the visible boundaries of the walls of the house or garden - all the way to the immediate neighbourhood. Among the answers concerning the sounds that make us feel "at home", the answers expressed that the experience of the audiosphere reaches further and is not limited only to the area of the house/apartment enclosed within "4 walls". It is not only related to the sounds of the inhabitants, such as "...the bustle of the household, the dog walking around the flat", favourite

music, the murmur of the television or the coffee machine, but the essential sounds of the landscape that give identity and a sense of rootedness are the sounds of nature, such as the rustling of trees, birdsong, the sound of water, the silence resulting from nature. These terms can be seen as aesthetically defining the soundscape of a place of residence, quote: *"the singing of birds, the sound of rain, the gentle hum of the city, the sounds of children playing in the yard coming from afar"*. Analysing the statements, the comfort of living identified with sounds is most often the epitome of peace and quiet, quote: *"Silence with the windows closed, pleasant music, sounds of home life"*, attention was also paid to the division of the sensation of the environment through sounds: gentle and rhythmic having a soothing and calming effect, noisy ones make us irritable and feel bad. Inherent in the comfort of habitation are the sounds of nature, while those indicative of the auditory character of the city space inhabited are more associated with discomfort - busy streets, car noises, ambulance noises, the ringing of church bells, or the bugle call from St. Mary's Tower. The main reasons for the feeling of sound discomfort among Krakow residents were given as the location of their place of residence - busy streets, proximity of tram or train tracks, ambulance noises, but the most common unpleasant experience is the sounds coming from the neighbourhood, presented as unacceptable and tiresome, affecting our intimate space, which results in the way we perceive our living area.

"Being at home" means accepting all the sound elements that affect the sense of comfort or discomfort of our habitable space. The auditory environment, less, sometimes more consciously perceived, constitutes the essence and individuality of our habitation place.

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