



Phenomenological Investigations of Sonic Environments

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Jiří Zelenka · Vít Pokorný

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CONTENTS

1	Introduction	1
1.1	<i>The Phenomenology of Perception</i>	2
1.2	<i>Phenomenological Omissions</i>	2
1.3	<i>Environmental Phenomenology</i>	3
1.4	<i>Sound Studies</i>	3
1.5	<i>Soundscape Studies</i>	4
1.6	<i>Methodology</i>	4
1.7	<i>The Phenomenology of Activity and Passivity</i>	5
1.8	<i>Constitutive Elements of Sonic Environments</i>	6
	1.8.1 <i>Horizons</i>	6
	1.8.2 <i>Rhythm</i>	7
	1.8.3 <i>Voices</i>	7
	1.8.4 <i>Natural Versus Technological Elements</i>	8
	1.8.5 <i>Noise</i>	8
	1.8.6 <i>Silence</i>	8
1.9	<i>The Composition of Sonic Environments</i>	9
	1.9.1 <i>Music</i>	9
	1.9.2 <i>Film</i>	9
	1.9.3 <i>Video Games</i>	10
	1.9.4 <i>Sonic Phenomenology</i>	10
	<i>References</i>	11

2	Phenomenological Methodology in Sonic Research	13
2.1	<i>Phenomenological Reduction</i>	16
2.2	<i>Phenomenological and Acousmatic Reduction</i>	19
2.3	<i>The Critique of Acousmatic Reduction in Soundscape Research</i>	22
2.4	<i>Pure Phenomenon and Sound Object: Phenomenological Field and Sonic Environment</i>	25
2.5	<i>Phenomenological Reduction and Transformation of Phenomenality: Sound-Space Versus Sonic Environment</i>	31
	<i>References</i>	32
3	Phenomenological Topology of Localization Within Sonic Environments	33
3.1	<i>Three Moments of Sound Perception Localization and Their Transformation Through Phenomenological Reduction</i>	34
3.2	<i>Localization of the Perceiver with Respect to Sound as a Self-Structuring Perceptual Field. Phenomenology as a Method of Layers. Three Basic Layers of the Phenomenological Field and Their Localizing Moments</i>	36
3.3	<i>The Re-localization of the Sound Source in the Perceptual Field. Phenomenological “From There”: The Theory of Affordance</i>	44
3.4	<i>Layer Localization: Sound Propagation as a Layer of the Perceptual Field. Sonic Materiality</i>	51
3.5	<i>Localizing Self-Structuring of the Perceptual Field. Sonic Immersion. Sound Slabs</i>	59
3.6	<i>Localizing Self-Structuring of the Perceptual Field: A Summary</i>	71
	<i>References</i>	73
4	Perception	75
4.1	<i>Phenomenological Conception of Activity and Passivity</i>	75
4.2	<i>Hearing and Listening</i>	78
4.2.1	<i>Hearing and Listening in the Context of Sonic Thinking</i>	79
4.2.2	<i>Sonic Perception in a Phenomenological Perspective</i>	80

4.2.3	<i>Hearing and Listening and the Phenomenological Concepts of Passivity and Activity</i>	84
4.2.4	<i>Passive–Active Dynamics of Sonic Environments</i>	85
	<i>References</i>	88
5	Constitutive Elements of Sonic Environments	89
5.1	<i>Sounds</i>	92
5.1.1	<i>The Auditory Epoché</i>	92
5.1.2	<i>Lived Sound</i>	93
5.1.3	<i>Embodied Hearing</i>	94
5.1.4	<i>Sound and Time</i>	95
5.1.5	<i>Soundscapes?</i>	98
5.2	<i>Rhythm</i>	101
5.3	<i>Voices</i>	106
5.3.1	<i>Beginnings</i>	106
5.3.2	<i>The Voice That Transcends Presence</i>	107
5.3.3	<i>The Voice as Presence</i>	110
5.3.4	<i>The Technologically Mediated Voice</i>	112
5.4	<i>Natural Versus Technological Elements</i>	113
5.4.1	<i>The Natural Elements</i>	113
5.4.2	<i>Humans Enter the Picture</i>	116
5.4.3	<i>From Shafts to Wires</i>	120
5.4.4	<i>Virtual Sonic Environments</i>	122
	<i>References</i>	124
6	On and Beyond the Horizon of Auditory Experience	129
6.1	<i>Noise</i>	129
6.1.1	<i>Definitions?</i>	129
6.1.2	<i>Sociocultural Noise</i>	133
6.2	<i>Silence</i>	134
6.2.1	<i>No Such Thing</i>	134
6.2.2	<i>Qualities of Silence</i>	134
6.2.3	<i>Musical Silence</i>	136
6.2.4	<i>Meaningful Silence</i>	137
6.2.5	<i>Transmodal Silences</i>	138
6.2.6	<i>Sociocultural Silence</i>	140
6.2.7	<i>Technological Silence</i>	140
	<i>References</i>	141

7	Composed Sonic Environments	143
7.1	<i>Music</i>	143
7.1.1	<i>Music's Inner Horizon</i>	144
7.1.2	<i>Music's Outer Horizon</i>	146
7.2	<i>Film</i>	149
7.2.1	<i>Loosening the Bonds of Causality: Split Horizons</i>	149
7.2.2	<i>Music and Film</i>	153
7.3	<i>Video Games</i>	155
	<i>References</i>	160
8	Sonic Phenomenology: Conclusion	163



Introduction

Sound saturates our world. Trees rustling in the wind, birds warbling, lightning crashing, the rising and ebbing of traffic, the chatter of buyers and sellers in the marketplace, the chirping notifications (whether in our pockets or our earbuds) of smartphones, the distant roar of airplanes overhead—sounds, both anthropogenic or natural, mingle and combine, shaping our experience of everyday life.

This book is an investigation into the “phenomenology of sonic environments,” the term we shall be using to designate the auditory worlds we live in, comprising the imbricated sonic phenomena—such as sounds, voices, and music—of lived experience. At the same time, on the basis of these investigations, we set ourselves a methodological task: we want to reformulate the phenomenological method so that it overcomes its current attachment to the primacy of visuality and becomes a more appropriate tool for describing sounds, audition, and sonic environments. In this sense, we bring a definition of what we call *sonic phenomenology*.

A book like this is necessary because phenomenology has generally given priority to visual experience, and when it has described aural experience, it has focused on sonic experiences involving the meaningful, articulated sounds of voices and music. Our investigation endeavors to address these gaps in the phenomenological approach to sonic experiences by providing the phenomenological descriptions of sonic environments that have heretofore been lacking.

1.1 THE PHENOMENOLOGY OF PERCEPTION

The phenomenological approach to perception stems from the groundbreaking studies of Edmund Husserl, on the one hand, and the research of Gestalt psychology, on the other. Maurice Merleau-Ponty combined both in his work *Phenomenology of Perception* (1945/2002), forging the path for current research in the area. Even though phenomenology describes perception generally—which encompasses not only colors and shapes but also haptic data and sounds—the phenomenological model of perception is based predominantly on visual experience. Gurwitsch starts his analysis of sense-data organization by paying attention to “a sequence of musical notes which form a melody” (Gurwitsch 2010, 55), but his analysis is not of aural experience per se, as the problem he is dealing with is the phenomenological relation between parts and the whole (the merging of tones into a chord)—it is, in essence, neither aural nor acoustic. Similarly, when the phenomenological model of perception takes sounds as figures against a background, it does so within a framework in which visual experience predominates, since Gestalt rules are essentially “laws of seeing” (Metzger 2009).

The phenomenology of perception has been transformed into a “visual phenomenology” (e.g., in Madary 2016), but there has been no attempt in recent literature to establish a phenomenology of auditory perception on a phenomenological basis. We believe the phenomenological investigations of how we are situated within sonic environments proposed in this book are needed in order to complement the phenomenology of perception so it can be more accurate in relation to auditory experience.

1.2 PHENOMENOLOGICAL OMISSIONS

“Post-phenomenology,” a term coined by Don Ihde, redefines the classical phenomenological approach so it may become applicable for explaining human relations to current technologies (Ihde 2009: 23), including questions concerning the substantial changes of human essence within contemporary techno-spheres. It is remarkable that Ihde, well-known for his phenomenological account of how technologies mediate our experience of the world, first attempted to recast phenomenological methodology in connection with a “phenomenology of sound” (Ihde 2012). Nevertheless, there are territories Ihde did not map in the phenomenology of perception, since his work primarily deals with listening to words

that sound. Significantly, he starts off the chapter entitled “In Praise of Sound” by praising words, listening, and speaking (“The beginning of man is in the midst of word” Ihde 2012, 3). His “phenomenology of sounds” limits sonic phenomena to articulated sounds—such as those of voices—and sonic experiences involving listening; therefore, it does not fill the need for a proper phenomenology of auditory experience.

The same can be said about another work that aims to rethink phenomenology, Jacques Derrida’s *Voice and Phenomenon* (2011). Both Derrida’s and Ihde’s attempts to loosen the phenomenological ties between intentionality and visibility concentrate on voices and listening to them; both ideas inspired our book, which, nevertheless, focused on sonic phenomena that are omitted by them. Among contemporaries, we might also mention *Resonance*, an influential book by sociologist Hartmuth Rosa. Again, however, while his analyses of human sociality are guided by sound-based models, he also takes the human voice as the primary sound (Rosa 2019, 63).

1.3 ENVIRONMENTAL PHENOMENOLOGY

In this book, we approach sonic phenomena not as discrete sounds, but as components of sonic environments. For this reason, we have also drawn from research in the area where environmental phenomenology and ecological psychology overlap. Again, classical studies in the area are based chiefly on a visual methodology. J. J. Gibson, a pioneer of eco-psychology, entitled his book *The Ecological Approach to Visual Perception* and even used the term “ecological optics” (Gibson 1986). Still, the idea of affordances and their relationship to different ecological niches can be applied to explain the relations between sonic phenomena and their sonic environment. Gibson emphasizes that “an affordance is neither an objective property nor a subjective property” and that it “cuts across the dichotomy of subjective-objective” (Gibson 1986, 129); both of these claims bring his thinking very close to the phenomenology of perception, where we aim to utilize them.

1.4 SOUND STUDIES

By contrast with the dearth of phenomenological literature dedicated directly to our experience with sound, there are an enormous number of studies that address these topics in other sciences. Some authors even

speak about an “acoustic turn” in the methodology of human and social sciences (Braun 2017; Herzogenrath 2017). Sonic or sound studies, which is unified by a clear thematic focus on sonic phenomena, is essentially characterized by interdisciplinarity—it spans fields like psychology, biology, sociology, physics, musicology, and others. The broad spectrum of interdisciplinary sound studies includes recent innovative research into everyday “sonic experience” (Augoyard 2014), the “anthropology of sound” (Schulze 2018), the politics of sonic experience (LaBelle 2018; Mieszkowski et al. 2007; Goodman 2012), and sonic design (Franinović and Serafin 2013). Jonathan Sterne, who has done important work in the field, formulates its significance as follows: “Sound studies’ challenge is to think across sounds, to consider sonic phenomena in relationship to one another—as types of sonic phenomena rather than as things-in-themselves—whether they be music, voices, listening, media, buildings, performances, or another other path into sonic life” (Sterne 2012, 3). We take this demand to “think across sounds” or to “think sonically” seriously as a challenge for philosophical phenomenology—and as a stimulus for a methodological and thematic definition of sonic phenomenology.

1.5 SOUNDSCAPE STUDIES

The field of soundscape studies originated in the 1960s with the work of R. Murray Schafer—composer, music theorist, and environmentalist—who conceived of it as an integral part of what he called “sonic studies” (Schafer 1994, 3). He also defined “soundscapes studies” as interdisciplinary: “The home territory of soundscape studies will be the middle ground between science, society and the arts” (ibid., 4). The importance of Schafer’s work for this book is connected chiefly with his emphasis on the spatial nature of sonic phenomena, since he approaches sounds via sonic environments, and pays particular attention to the environmental aspects of soundscapes. Nevertheless, his analyses of auditory perception remain indebted to the visually based Gestalt model (ibid., 151–153).

1.6 METHODOLOGY

Husserlian phenomenology, with its emphasis on lived experience, offers a powerful methodological framework for understanding how we experience sound environments. In particular, we will be using his

phenomenological reduction, which involves setting aside assumptions about the real world to focus on the “stream of consciousness” and how we experience sound. Pierre Schaeffer, the French composer, writer, and founder of *Groupe de Recherche de Musique Concrète*, used the reductive, “acousmatic” method as well, but he applied it to analyze “sound objects” independently from their physical source—an approach criticized by Murray Schafer, who highlighted the importance of considering the context of sounds within landscapes. The approaches of Husserl, Schaeffer, and Schafer, though distinct, ultimately complement each other, and enrich our understanding of the world of sound.

In order to clarify our analyses of the relational complex that represents the perception of sound, we turn to how we locate sounds in our environment. Phenomenological reduction reveals that the way we perceive sound is not a simple matter of pinpointing its location in space. Instead, our consciousness actively shapes how we experience sound and our place within the sonic environment. This challenges the traditional view of perception as a passive process.

In this book, we leave aside the groundbreaking and still interesting work of Carl Stumpf, especially his *Tone Psychology* (Stumpf 2020). Stumpf may have influenced Husserl’s thought (as well as Gestalt theory), but he is not part of the basic lineage of phenomenological method that we associate in this book with the application of phenomenological reduction. For this reason, we have left him out for this book.

1.7 THE PHENOMENOLOGY OF ACTIVITY AND PASSIVITY

Next, we argue that understanding the interplay between activity and passivity is essential for a fruitful investigation into sonic experience generally and how perception is generated in particular. Based on a Husserlian analysis, we show that passive syntheses organize our perceptual field, providing a foundation for the active selection of specific sounds we attend to in the environment, with attention acting as a bridge between the two spheres. The passive–active dynamic is then used to explain the relationship between hearing (a passive bodily capacity) and listening (an active process of focusing attention on sounds), while acknowledging the role of dynamic sonic environments in shaping our experience—that is, what we hear or listen to.

1.8 CONSTITUTIVE ELEMENTS OF SONIC ENVIRONMENTS

In the following section, we delve into the constitutive elements of sonic environments—the foundational components that shape auditory experiences.

1.8.1 *Horizons*

To begin, the distinction between inner and outer horizons is, we contend, crucial in understanding auditory experiences. Inner horizons involve internal expectations and intentions regarding sound, while outer horizons encompass broader contextual factors such as acoustic environments and cultural cues. This distinction, along with the concepts of microperception and macroperception—microperception being the embodied sensory perception involved in seeing or hearing and macroperception encompassing the cultural dimension shaping perception—acts as thematic threads running through our exploration of the constitutive elements of sonic environments.

The exploration begins by emphasizing sound’s central role in soundscapes, while setting aside metaphysical discussions on the nature of sound waves. Instead, we focus on how sounds contribute to auditory experiences beyond mere acoustics—that is, lived sound, embedded in auditory environments shaped not only by sound waves but also by memory, knowledge, emotion, and other cognitive processes. Our exploration emphasizes the multifaceted nature of auditory environments, integrating auditory, tactile, and visual sensations into cohesive experiences.

We then discuss the deep intertwining of sounds with our perception of time, as demonstrated by Husserl’s analysis of temporal experience, which allows us to explain how sounds are anticipated, resonate, and fade over time, and how they expand and contract in auditory environments. We maintain that the blind offer insights into the temporal background of auditory experiences, revealing how sound fills gaps in perception and contributes to the continuity of experience.

Finally, we scrutinize the term “soundscape” within various contexts, considering its implications for understanding sonic environments. While some critique its visual bias and static connotations, others propose a broader understanding that incorporates subjective experiences and cultural contexts, along the lines of the outer horizontality and macroperception mentioned earlier.

1.8.2 *Rhythm*

We then go on to explore the intrinsic relationship between sonic environments and rhythms. Rhythm, we argue, is a fundamental principle that organizes time and structures space, extending beyond the auditory domain and shaping our perception of soundscapes. While rhythm is instantiated in the movements of bodies and objects, it is experienced as the spatiotemporal organization of such movements, rather than solely heard. Drawing on Alfred North Whitehead's philosophy, rhythm is defined as the essence of life itself, characterized by the fusion of sameness and novelty. Basic bodily rhythms, such as those involved in the beating of the heart, breathing, and walking, underpin individual and collective identities and constitute the foundation of social rhythms. However, in the context of postindustrial, globalized cities, traditional rhythms have undergone a significant transformation. The mechanical rhythms of industrial cities have dissipated, giving way to emergent and competing techno-informational rhythms that are difficult to categorize.

1.8.3 *Voices*

Our exploration then shifts to the multifaceted role of voices within sonic environments, highlighting how they evoke human presence, bridging subjectivity and intersubjectivity within sonic environments. Voices, akin to ambient sounds, originate in the depths of our inner worlds and carry intentionality grounded in prelinguistic embodiment. In their essence, voices embody both absence and presence. We compare and contrast critiques of Western notions of "phonocentrism" influenced by Derrida—which question the assumption of a unified, self-present voice, pointing to the realm of unsaid meaning-making—with an alternative narrative of "devocalization" in the West, which has tended to quell the resonant voice, the utterance, in favor of a videocentric metaphysics that privileges access to truth, God, and so on, through written propositional content and theory. In addition, technological advancements such as the telephone and phonograph have profoundly altered our engagement with voices, potentially diminishing face-to-face interactions while simultaneously fostering virtual communities. We revisit our distinction between hearing and listening to underscore the importance of receptivity to others' alterity, especially in a digitally mediated world.

1.8.4 *Natural Versus Technological Elements*

Next, we examine the co-evolution of natural and technological soundscapes into today's urban landscapes. First, we consider natural settings, where the elements interact with the different landscapes of the earth and are further shaped by seasonal and circadian rhythms, each marked by its distinct sonic palette. We then transition to anthropogenic soundscapes, marking a pivotal change stimulated by human activities and technological advances. With the shift from nomadic to settled agrarian communities, new sounds emerged. Urbanization accelerated this transformation. The advent of industrialization amplified noise levels, fundamentally reshaping urban soundscapes. Technological developments like electricity and telecommunications paved the way for virtual sonic realms, where sounds could be disassociated from their origins and put to a wide variety of uses. As technology advanced, so did the individualization of auditory experiences, empowering individuals to curate their personal sonic domains through personal devices and the internet. However, this newfound autonomy comes with societal implications, including fragmentation and the encroachment of what Shoshana Zuboff has dubbed "surveillance capitalism," potentially shaping societal behaviors and perspectives.

We then devote two chapters to sonic environments on and beyond the horizons of auditory experience, beginning with noise.

1.8.5 *Noise*

The concept of noise is not easy to define, as it straddles the boundaries between cacophony, signal interference, and information within sonic environments. While often perceived as unwanted, disruptive sound that obstructs clear communication, noise also plays a crucial role in auditory experiences, flowing alongside meaningful signals, providing contextual information that shapes our understanding of the sonic world.

1.8.6 *Silence*

The notion of silence extends beyond the absence of sound, serving as a horizontal area that shapes auditory experiences. It exists relationally, defined in contrast to sound. In social contexts, pauses in communication convey meaning, such as pregnant pauses or expectant hushes. Silences in music, like those between notes, carry artistic significance, engaging