

Research Article

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Sonic Environments as Systems of Places: A Critical Reading of Husserl's *Thing and Space*

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Abstract: This article offers a thorough and critical reading of Husserl's *Thing and Space*. This reading is principally motivated by the effort to methodologically design a phenomenological-topological approach to the research of lived sonic environments. In this book, Husserl lays foundations of phenomenological topology by understanding perceptions as places and defining, consequently, the space as a system of places. The critical reading starts with pointing out the ambiguity of location in *Thing and Space*, which consists mainly in the insufficient implementation of the distinction between the location and the localization. Further investigations then reveal the roots of this ambiguity in both the preference of visual perception and the omission of subjective aspects of kinesthesia. The article critically examines Husserl's notion of the appended localization that expresses the marginalization of (among others) acoustic experience. In conclusion, the article utilizes the critical findings to formulate the project of a place-based (phenomenological-topological), medium-centered, and multi-sensory approach to sonic environments.

Keywords: phenomenology, Husserl, *Thing and Space*, phenomenology of perception, sonic environments, phenomenological topology, place, kinesthesia, acoustic experience, localization

This article offers a thorough and critical reading of Husserl's *Thing and Space*. This reading does not primarily aim to contribute to the history of phenomenological scholarship; it is principally motivated by the effort to methodologically design a phenomenological-topological approach to the research of lived sonic environments. From Husserl's extensive work, I choose this text mainly for its topological concentration: with a clarity that cannot be, in my opinion, found in other writings of the same author, this book explicates space as a system of *places*. It therefore enables, as I aim to show in this article, a place-based and medium-centered description of sonic environments. The general methodological framework of this article is, thus, provided by the phenomenological topology.¹

Sonic environments have primarily an acoustic nature; I understand them, more precisely, as acoustic conditions² of our lived environment, since sonic environments are usually not experienced as separate surroundings – separately from visual and other environmental aspects. With respect to the main theme of this topical issue, the general problem addressed by this article is the relation between sounds and sonic environments. It could be simply declared that sonic environments are *created* by sounds, i.e., voices,

1 I have attempted to outline a phenomenological topology in my previous books: Nitsche, *Methodical Precedence of Intertwining*; and Nitsche, *Die Ortschaft des Seins*.

2 One could say also acoustic shapes, instead of acoustic conditions, if the word "shape" would not have visual connotations.

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noises, tones, roars, buzzes, rustles, etc. Yet, in order to fully conceive of this declaration, sounds cannot be understood as objects that are placed (and specifically move) within sonic environments. In other words, sonic environments do not establish a spatial dimension for sounds; the mutual relation is different in topological terms. Therefore, to avoid the explanatory oversimplification that sonic environments equal the spatial dimension for sound objects, the methodical preference of describing the relation between sounds and *their* environments is in phenomenological topology given to environments as such; so, sounds are not described as objects of acoustic perceiving, but acoustic perceptions are understood as origins of sonic environments. So, the primary goal of this article is to elucidate the topology of sonic environments; but consequently, it aspires also to reflect the spatial nature of acoustic perception and investigate the possibility to understand sounds as places.³

The text entitled *Thing and Space* (1907) belongs to a series of lectures in which Husserl examines the scope of a newly discovered methodological tool, phenomenological reduction. This, simply put, gives in a question of reality the primacy to perceiving, since “the essence of perception itself involves the presentation of an object in the flesh, an object which is presented as qualified in this or that way.”⁴ In this framework, the lectures question the problem of space: if the perception itself sufficiently presents objects in their materiality (that is, as things), does it also constitute the space for this presentation – and how? Answering this question, Husserl lays the foundations of phenomenological topology by understanding perceptions as places – as I attempt to underline in this article. Yet, my reading of this foundational text is critical, therefore I start, in the next section, with articulating what I consider to be the weak moment of the theory presented in *Thing and Space*; I speak namely about the ambiguity of location, which consists mainly in the insufficient implementation of the distinction between the location and the localization. In Section 2 of this article, I highlight Husserl’s topological focus and explain the relation between place and space in the 1907 lectures. In the subsequent course of the article, I turn to a deeper investigation of the roots of the ambiguity of location: in Section 3, I exemplify how is it influenced by the preference of visual perception, and in Section 4, I comment on Husserl’s decision not to include all aspects of kinesthesia into his analyses of kinesthetic systems. Finally, in the concluding Section 5, I suggest how to apply Husserlian phenomenological-topological approach to the research of lived sonic environments.

1 Ambiguity of location: *Lage* and *Lokalisation*

Read closely from a perspective of “place”⁵ and not just “space” Husserl’s *Thing and Space* reveals an unclear relation between two notions: *Lage* and *Lokalisation*, which were translated to English by Rojcewicz as “location” and “localization.” In German, both terms belong to a broad group of words that can be chosen to express different features of “place”; *Lage* means a location as it is related to other positions in its surroundings, whereas *Lokalisation* refers to an assignment of something to a specific place with regard to a perceiver and not the environment of an object. Rojcewicz’s choice of translations, “location” and “localization,” not only corresponds correctly with the original meanings, but it is also in accord with the way Husserl uses both terms. *Lokalisation* locates a perceived object with respect to the perceiving subject. This notion prevails in the first, methodological, part of the text where Husserl defends the primacy of perception and demonstrates that perception sufficiently provides the physical experience of a present object as it is perceived there (*da*) and now (*jetzt*). Though, localization cannot be confused with an ontological act of positing (*setzen*) according to the tradition of German idealism, Husserl clearly accentuates that a perceived

³ The importance of spatiality for understanding sounds highlights, clearly and precisely (even though without paying attention to phenomenological philosophy), Elvira Di Bona in “Why Space Matters to an Understanding of Sound.”

⁴ Husserl, *Thing and Space*, 15.

⁵ In distinguishing perspectives of place and of space I follow claims made in philosophy, for example, by Edward S. Casey (*Getting Back into Place*) or Jeff Malpas (*Place and Experience*).

object stands “self-given there in the current now.”⁶ In the sense of *Lokalisation*, therefore, a place serves more as an orientation point for the perceiver than as a position for an object. On the opposite, a place in the sense of *Lage* indicates a position which situates the perception in relation to other locations of both the same perceived object when it moves or other objects in the same sensory neighborhood. In this sense, space is for Husserl “an infinite manifold of possible locations and thereby offers a field of infinitely many possibilities of movement.”⁷ Compared with localization, location (*Lage*) primarily does not take into account the relationship of the perceived object to the perceiver.

And yet, despite the obvious possibility to distinguish these two notions related to a sense of place, i.e., location and localization, *Thing and Space* does not offer a clear differentiation between both, nor a sufficient explanation of their relationship. This situation enables what I call in this article an *ambiguity of location*. I speak about an *ambiguity*, for the lack of clarification may cause a serious misinterpretation: a simple reading could lead to the assumption that a location is a consequence of localization. In addition, I specify the ambiguity to be *of location* since, after all, as elaborated below, the full concept of localization is marginalized in the description of spatiality according to *Thing and Space*. In the following, I will expound Husserl’s analyses of kinesthetic systems to justify my claim that he does not fully explain the relationship between location and localization. Furthermore, I will demonstrate the exclusion of localization in Husserl’s descriptions of localization of sounds.

2 Kinesthetic complexes: Place-based mediation and space as its area

In the second half of the book, Husserl analyzes kinesthetic systems, that is connections between perceiver’s bodily movements and changes of perceptions’ locations within the sensory field. Yet, since bodily movements are not reflected as localizations, description of kinesthetic systems in *Thing and Space* does not elucidate the relationship of location and localization. Husserl focuses mainly on elaborating a system of places (*Ortsystem*) – of locations, in fact – that serves as a medium between perceiving and perceptions, or more specifically, between bodily movements of the one who perceives and images (since as image perceptions appear within the visual field – and investigations of kinesthetic systems in *Thing and Space* are limited only to visual perception).

Importantly and specifically for the phenomenological approach to spatiality, the emphasis is not laid directly on the correspondence between bodily movements and perceptions as images. Readers might naturally expect that investigations would be directed to the changes that bodily movements cause in the appearance of images, but this is not the case. Quite differently, Husserl accentuates that it is not significant whether the locations’ changes in visual field are caused by bodily movements or, *vice versa*, by locomotions of perceived objects: “In both cases, the exact same change can occur in the visual field.”⁸ What is essential for the phenomenological perspective is the fact that changes occur; the investigation consequently describes how they occur and not what causes them. This approach results from the nature of the phenomenological reduction that focuses on perceptions and at the same time excludes questions concerning their existence (i.e., their origin in the sense of substantive grounding). Husserl, thus, advances

⁶ “Thus there stands out in the initial consideration a peculiar character of perception which we can express in an intelligible way as follows: the object stands in perception as there in the flesh, it stands, to speak still more precisely, as actually present, as self-given there in the current now.” Husserl, *Thing and Space*, 12.

⁷ Husserl, *Thing and Space*, 101. “Der Raum ist eine unendliche Mannigfaltigkeit möglicher Lagen und bietet damit ein Feld unendlicher vieler Möglichkeiten von Bewegungen.” Husserl, *Ding und Raum*, 121.

⁸ “In both cases, the exact same change can occur in the visual field. With mere eye-movement, the visual image wanders over the visual field and undergoes a determinate series of modifications, including qualitative ones. If the eye is stationary, the exact same series of modifications can still elapse, and then movement appears.” Husserl, *Thing and Space*, 148.

to understand space not as a mere dimensional container for objective entities but as a place-based (i.e., topological) mediation area; or, with his own words, as the “medium of the subtending places” (*das Medium der tragenden Orte*).⁹

The place-based/topological mediation of kinesthetic complexes is in *Thing and Space* only articulated with respect to the visual experience. Husserl describes, specifically, modifications in the visual field as *K-i complexes* that connect kinesthetic sensations *K* with sequences of visual images.¹⁰ Kinesthetic sensations initially involve oculo- and cephalo-motor skills, which are then completed by kinesthetic systems that involve movements of the entire human body (e.g., walking). Images have two basic characteristics, quality (or coloration, *Färbung*) and extension. A quality of an image is monitored mainly as a discontinuity in a sequence of images (which is related to a moving perception); the coloration, thus, does not indicate only the aspect of color, but a more widely understood *visual unity of a delimitated and colored surface* of the image.¹¹ Such a surface, consequently, gives the basic information about an extension of an image in the visual field. Complementing the *i*-part of kinesthetic complexes by the *K* moment, Husserl closely observes effects of kinesthesia on the discontinuity in the visual field, and based on various forms of perceiver's movements, Husserl gradually clarifies the constitution of spatiality; starting with the two-dimensional space (eye movement), continuing with the two-dimensional Riemannian space (on spherically curved surfaces, head movements), and resulting with the three-dimensional space (whole body movements).¹² Various kinds of dimensional space are, thus, derived from location-related kinesthetic complexes.

The conception of kinesthetic complexes clearly reveals the importance of place for Husserl's understanding of spatiality. One of the basic characteristics of spatiality, the extension, is explicitly related to and derived from the locations. The extension thus remains for Husserl an origin of space, though not in a form of *res extensa* (i.e., not as a quality of *things*), but related to images, where images are, at the same time, understood primarily as locations (i.e., not as appearances of things). Indeed, while images usually are appearances, phenomenological reduction presents them in a transformative way as parts of the visual field – and in the spatial respect this means as locations. The visual field epitomizes a “system of places” which is both dynamic and stabilizing; dynamic since it constantly changes as images move, and stabilizing since it carries and supports the perceptive experience. In the latter sense, the visual field is also understood as a “medium of the subtending places.”

This phenomenological constitution of space can thus be characterized as topological, medial, and dynamic. The space in this sense has a specific materiality, since the system of places supports perceptions; it literally *carries* them (German *tragen*). At the beginning I have underlined that Husserl affirms the materiality of perceptions: we perceive them to be present *in the flesh*, even though we might not be sure that what they represent is real. Now, we can add that the materiality of being-present-in-the-flesh is provided topologically, by space as the “medium of the subtending places.”

Two moments can be criticized at Husserl's conception of spatiality in *Thing and Space*. First, it works only with one of the two notions of place distinguished in the course of the lectures from 1907. Whereas the “subtending places” are locations, localization remains not taken into account. And second, it focuses only on the visual perceptions, and therefore identifies locations with images – colored and visually delimitated. The latter criticism will be discussed below, in the following Section 3. Regarding the first one, I must explain why Husserl's description of *K-i* complexes cannot be accepted as a sufficient consideration of localization; I will focus on this explanation in Section 4 of this article. To both critical points, an important remark must be added: Husserl is unquestionably aware of both moments, so his concentration on the

⁹ Husserl, *Thing and Space*, 156; Husserl, *Ding und Raum*, 185.

¹⁰ The concentration on images and not simply visual perceptions, as a matter of fact, demonstrates how phenomenological reduction influences his approach (see above): perceptions are reduced to images; it could be characterized as a second degree of the reduction which reduces independently existing realities to perceptions.

¹¹ “Without qualitative discontinuity in relation to the environment, no image is delimited and so no image can be attended to for itself. This discontinuity is therefore a condition of the possibility of the determinate image as a visual givenness for itself.” Husserl, *Thing and Space*, 155.

¹² See e.g. a summary of space's constitution by Edith Stein: Husserl, *Thing and Space*, 288.

visual sensations and their locations cannot be judged as an oversight (or even ignorance) of other than visual perception and the localization. Mainly due to the limited time range, since *Thing and Space* is originally a lecture course, Husserl repeatedly hints at a task of more detailed analyses to subsequently make a decision to proceed only to the most important explorations. This applies for both topics I criticize here, other than visual perception and the localization: Husserl opens the theme with few essential remarks and then declares the need to move on. My criticism, accordingly, addresses Husserl's decisions to prioritize the visual perception and places as locations; these decisions, I claim, may lead to a serious misunderstanding, which I call the ambiguity of location.

The ambiguity of location supports the assumption that (after the phenomenological reduction) locations are consequences of localizations – that since perceptions are located there, where we perceive (and primarily: see) them, places are phenomenally created by acts of perceiving. For Husserl, this is not the case; as displayed in this section of the article, he focuses on fields of perceptions and describes their spatial structure as a “system of places.” The ambiguity of location, however, inhibits the explanatory potential of this topological, medial, and dynamic approach to spatiality. My criticism, therefore, as I will argue in the following Sections 3 and 4, aims to analyze the roots of the ambiguity in order to finally apply the idea of a “system of places” to conceive of sonic environments.

3 Primacy of the visual: Appended localization of sounds

The spatiality of the field of perception originates from the extension of perceptions that are understood as images. The extension, therefore, is not primarily related to things as objects, and, consequently, the space of perceptions (i.e., the perceived space) differs from the objectively (physically and geometrically) understood dimensional space.¹³ Dissociated from objectivity, the extension becomes a characteristic of a spatial filling (*Raumfülle*), which is understood as the *materia* of space. Husserl, basically, distinguishes two spatial characteristics of perceptions: spatial form and matter. The first captures mainly how a perception is delimitated toward its sensory neighborhoods (e.g., “surface, corner, edge”);¹⁴ the latter, then, takes into the account a specific ability of perception to fill the spatial form and cover it with sensory qualities (e.g., the coloration, see above). In an important difference to geometry, it is the spatial matter that has for the phenomenological conception of space the primacy over the form. Husserl, in this sense, mentions that “spatial form is and can be in itself nothing” since it is the spatial filling that constitutes the “concretum” of the perceived thing.¹⁵ The emphasis on the concreteness and materiality of spatial filling corresponds with the subtending function of the system of places that has been explained in the previous section of this article: the field of perception thanks to its topological nature serves as a steady base of human experience.

With regard to the materiality of the perceptual field, Husserl distinguishes two kinds of sensible qualities – “materializing determinations versus ones that are merely appended”:

Materializing determinations fill up the spatial form as its *materia prima* and thus create, since spatial form is and can be in itself nothing, the thing as a concretum in the fundamental sense. If this is already constituted, then it can take on appended determinations such as sound and noise, smell, or even weight and the other empirical properties which are not reducible to singular primitive sense-contents.¹⁶

¹³ This does not deny that we usually perceive a three-dimensional space, it rather claims that the perceived space is experienced in more variants of the three-dimensionality, which more or less respect or modify the physically described dimensionality. In *Ideas I* Husserl explains this relation by claiming that the perceived space is only a “sign” of the objective space; or, in other words, that a “three-dimensional Euclidean multiplicity [...] is representable only symbolically” (Husserl, *Ideas I*, 85).

¹⁴ “On the one hand we have the corporeal structure and its determinations, such as surface, corner, edge, and on the other hand the qualities which cover and fill the space, for example the colorations [...].” Husserl, *Thing and Space*, 55.

¹⁵ Husserl, *Thing and Space*, 56. For the context see the following quotation.

¹⁶ *Ibid.*

The materializing determinations are merely of visual or tactile nature for only sight or touch, as Husserl argues, can inform us about both the spatial form and matter. We see or touch the spatial boundaries of objects, but we cannot hear or smell them, therefore acoustic, olfactory, or gustatory qualities are just *appended* to the concretum already materialized by the visual or haptic sensation.

This distinction between the *materia prima* and *secunda* draws on John Locke's classical distinction between primary and secondary qualities.¹⁷ For Locke, the primary qualities such as "solidity, extension, figure, motion, or rest, and number" are "inseparable" from objects' bodies, whereas the secondary qualities, such as colors, smells, tastes, sounds, "are in truth nothing in the objects themselves, but powers to produce various sensations in us."¹⁸ Hence, Locke insists upon the material independency of our environment which is based on "particles of matter," solid and extended, dividable and movable. Husserl's criticism of Locke's approach, as displayed in *Ideas I* (§40), corresponds with "the old Berkeleyan objection," which "is correct that extension, the essential core of corporeality and of all primary qualities, is inconceivable without secondary qualities."¹⁹ Here he uses Berkeley's argument to justify the phenomenological reduction by explaining that it is the *perceived* physical thing which stands "there 'in person,'" whereas the "true physical thing," which is the "one 'determined' by physics,"²⁰ plays a role of the "mere 'This' an empty X, which becomes the bearer of mathematical determinations."²¹ Hence, in contrast to Locke, Husserl brackets the independency of the particle-based matter, and connects the extension with materializing determinations that essentially belong to perceiving. Though, in accord with the Lockean distinction, he also works with elementary parts that are defined by extension and create the *materia prima* of our perceptual environment; these parts are spatially filled and materialized by visual or tactile perception. So, the distinction between primary and secondary qualities is shifted toward the differentiation between materializing and non-materializing (appended) perceptual determinations. The latter are therefore, in *Thing and Space*, left "out of consideration" in the question of spatiality.²² Husserl pays attention mainly to the visual qualities, while tactility (which is also a materializing determination) is commented only marginally.

Acoustic sensations cannot materialize the concretum of perception; Husserl illustrates this with an example of listening to the violin in a concert hall. The experience with sound has in this case two forms: "the sound of a violin is not only heard, it is also apprehended as the sound of the violin."²³ First, we know that we perceive the sound of this violin, which we see on the stage in the hands of a violinist. It is then that we attach the violin tones to the already materially determined and spatially filled perception of the violin. This would be true even if we did not see the violinist, the appended localization of the tone presupposes a visually-tactile idea of the violin. But the sound of the violin also, second, spreads freely through the space of the concert hall, we hear it for the music itself without the need to combine this experience with the perception of a particular instrument. The tones we "apprehend" seem to fill the concert hall. Though

¹⁷ These sentences immediately precede the quotation above: "This would be the genuine and very significant sense of the distinction between primary and secondary qualities. Yet we cannot employ this historically mistaken terminology." Husserl, *Thing and Space*, 56.

¹⁸ Locke, *Essay Concerning Human Understanding*, 135, 137. For further discussion see Nolan, *Primary and Secondary Qualities*.

¹⁹ Husserl, *Ideas I*, 84.

²⁰ "Rather the entire essential contents of the perceived physical thing, thus the whole physical thing standing there "in person" and all its qualities, including all those which could ever be perceived, is a "mere appearance" and that the "true physical thing" is the one 'determined' by physics." Husserl, *Ideas I*, 84.

²¹ Husserl, *Ideas I*, 85.

²² "We find here immediately in the sphere of physical data, in the domain of the contents of sensation, extension. Here indeed the distinction between the primary, space-filling determinations and the merely appended ones proves meaningful. We must leave the latter out of consideration and discuss only the qualities that properly fill or cover the thing, i.e., only the contents of sensation that present those qualities. These contents of sensation, e.g., the sensations of color which present the appearing coloration, have in themselves an extension and are fragmented along with the fragmentation of the total appearance." (Husserl, *Thing and Space*, 57)

²³ Husserl, *Thing and Space*, 56.

Husserl warns the readers at this moment intensely not to associate their acoustic experience with the idea of a spatial filling – not even in this case:

The space of the hall visually appears as determined in such and such a way through its corporeal limits and its surface limits. The floor, the walls, and the ceiling are covered with visual qualities. That is how they appear. But nowhere does there appear a sonic covering or another sonic filling. We speak only by analogy of a diffusion of the sound and of a filling of space by the sound, guided perhaps by the image of a fluid.²⁴

The sound of the violin in the second sense – “apprehended” as the violin-sound (and not inevitably as the sound of *this particular* violin) – lacks a proper phenomenological explanation of its spatiality. It does not necessarily have an appended localization with the visually or haptically present violin (since this applies to the same sound in the first sense), but it also cannot be appended to the visually established concert hall since the hall is not the sounding body of the violin-sound. This sound fills freely the concert hall, but it does not materially determine its extension; Husserl implies two reasons for this: generally, an acoustic experience cannot be understood as a materializing determination, and, as well, the space of the hall itself cannot be constituted by a fluid-like spatial filling and covering. “Nowhere [in the concert hall] does there appear a sonic covering or another sonic filling”; this claim reveals Husserl’s dependency on the classical distinction between primary and secondary qualities. Despite the obvious phenomenal facts that sonic waves fill the space of a concert hall and materialize its space in such a way that it enables an echo-localization, Husserl does not include them into the phenomenological constitution of spatiality. He might have understood waves as physical determinations that must be bracketed by the phenomenological reduction (see above his remarks from Ideas I, §40). In this case, the phenomenological residuum (i.e., Husserl’s violin-sound in the second sense) is inevitably ambiguous and in the spatial perspective (with regard to the extension) useless: on the one hand, a fluid-like sonic diffusion, and, on the other hand, the sound as it is “apprehended” (*aufgefaßt*, in the original)²⁵ – i.e., the sound in a sense of Locke’s *idea*.

4 Kinesthesia and re-localization

Essentially, the ambiguity of location in Husserl’s *Thing and Space* is caused by marginalizing localization and connecting the spatiality of perception predominantly with locations. In the previous section, I have displayed two essential moments of this ambiguity: First, that the marginalization becomes evident in the conception of an appended localization, and second, that it also affects the notion of location which is reduced by being tied with the *materia prima* of the visual extensions. In this section, my aim is to continue with a critical interpretation of *Thing and Space* by explaining why Husserl’s description of *K-i* complexes cannot be accepted as a sufficient consideration of localization either. The core of my critical argument addresses the fact that also in the framework of kinesthesia the localization is understood only as an appendage of sensory qualities.

Husserl gradually builds the constitution of spatiality on the thorough examination of kinesthetic complexes, as outlined above in Section 2 of this article. These *K-i complexes* interconnect kinesthetic sensations *K* with sequences of visual images, and therefore, considering that the extension of images (i.e., the coloring as the spatial filling of their surfaces) is identified with the locations, it may lead to the assumption that *K*-sensations elucidate the localization. I will argue that this assumption would not be correct, since localization is initially taken into the account of kinesthetic sensations, but then knowingly and with a short philosophical justification left aside for the further analyses of *K-i* complexes. The crucial part of the text, where this methodical move occurs, is §47 entitled *Insertion of the kinaesthetic sensations into the Body*:

²⁴ Ibid., 56–7.

²⁵ “Z. B. der Geigenton wird nicht nur gehört, er wird auch als Ton der Geige aufgefaßt,” Husserl, *Ding und Raum*, 66.

Here we are especially interested in the kinetic sensations. (They are not essential for the appearance of physical things.) They are not presentational in the pregnant sense; they do not constitute the matter of any thing, even an appended matter. They only allow an apprehension which transforms them into appended determinations, i.e., a subjectivating apprehension, which is in principle accessible to all sensations and which presupposes the Ego-Body as already constituted from another quarter and thereby presupposes that the kinetic sensations have functioned in another manner. Disregarding the subjectivating objectification, our concern will be to understand the physical-Objectivating function of the kinetic sensations and to understand thereby the constitution of a thing in general.²⁶

Phenomenological descriptions of kinesthesia – and §47 of *Thing and Space* presents one of their earliest methodological reflections – focus on two main issues: sensations of movement (i.e., of moving objects/ perceptions) and awareness of myself as I move (which contains a belief that perceiving is always already a movement).²⁷ The distinction between the two issues is noticeable in §47 in the noticeable terminological choice between “kinetic sensations” (*kinetische Empfindungen* or *Bewegungsempfindungen*) and “kinesthetic sensations” (*kinästhetische Empfindungen*), where the latter expresses the fact that as a perceiver of movements I am always also aware of my own movements. Phenomenological approach simply claims that kinetic sensations must always be described as kinesthetic sensations since my movements (and movements of my sense organs or sensing body parts) necessarily co-found the movements I perceive.

Husserl’s analyses of kinesthesia in *Thing and Space* are guided by the problem of the constitution of space, and since he connects spatiality with the material extension of perceptions, he frames them by the claim that “the sensations of movement do not present any matter.”²⁸ This assertion brings him to a more detailed differentiation of three moments of kinesthesia. The first was articulated in the quotation above as the “physical-Objectivating function of the kinetic sensations”; these sensations are appended to the moving object: it is constituted in its extension by the materializing determinations and we append perceptions of movement to it.²⁹ The second moment of kinesthesia identifies the same objectivating function, but now related to my own body, which is on one hand also a physical thing, but on the other hand the sensing one. Husserl explains that appended determinations such as pain, touch, and also kinetic sensations allow “the Body to appear as sensing, as the bearer of these and those sensations.”³⁰ So, the second moment is connected not only with usual perceiving of moving objects (including my body parts understood solely as objects – if this would be possible), but it also co-creates the specific sensitivity of the object I experience as my sensing body.³¹ The third moment of kinesthesia deepens the second one by reflecting the subjective dimension of this sensitivity; the fact that I sense myself as a sensing body (this is the second moment of kinesthesia) leads from objectivating to subjectivating determinations: “From the Objectivating sensations, appended determinations of a special type arise, subjective occurrences inserted in the Body, localized in it.”³² These subjectivating determinations can also be characterized as “the introjection”; in this way, my body transforms from a mere bearer of the sensations (constituted with the second momentum of kinesthesia) to a fully sensitive lived body which by sensing not only materializes perceptions but can

26 Husserl, *Thing and Space*, 138.

27 One could express the distinction also graphically: whereas the first moment of description focuses on *kinesthesia* (with emphasis on movement – *kinesis*), the second on *kinesthesia* (with focus on perception – *aisthesis*).

28 Husserl, *Thing and Space*, 137. Similarly, in the longer quotation in my main text Husserl says about the kinetic sensations: “They are not essential for the appearance of physical things.” Or in a slightly different context the same claim: “They [the sensations of movement] make possible a presentation without being presentational themselves.” Husserl, *Thing and Space*, 136.

29 In the longer quotation in my main text Husserl claims that the kinetic sensation “do not constitute the matter of any thing, even an appended matter.” Yet, their localization with the moving objects is appended: they do not constitute a *materia secunda*, but still are appended with the spatially materialized objects.

30 Husserl, *Thing and Space*, 138.

31 In this context, Husserl refers to the “iconic” phenomenological example: “If with my left hand I touch my right, then along with the touch-sensations and the kinaesthetic sensations there is constituted, reciprocally, the appearance of the left and right hands, the one moving over the other in such and such a manner.” Husserl, *Thing and Space*, 137.

32 Husserl, *Thing and Space*, 138.

even (“beyond the domain of proper appearance”³³) “animate” them with its own “psychic” sensitivity.³⁴ In the quoted text above, Husserl names this power to animate object the “subjectivating objectification” (*die subjektivierende Vergegenständlichung*): this projection of objective qualities is a consequence of the introduction. So, for that matter, the materializing determination cannot be understood as projections. Husserl clearly distinguishes between the physical-objectivating function of sensations, which is not strictly speaking subjective – in the sense of Ego-centered and Ego-powered projection, and the subjectivating objectification, which brings Ego into the play.

Despite many accusations from subjectivism, Husserl does not build phenomenology on Ego-based projections (as, for example, German idealism does). Phenomenology is perception-centered; perceiving is defined from the perspective of perceptions, and it is not the projection what constitutes their objectivity. Ego-centered projection influences the way the world is perceived, of course, but not as a primary source. The Ego is attached to perceiving as one of its factors; it is obvious not only from this distinction of the three moments of kinesthesia, but also from an internal dispute concerning the role of Ego between the first and the second edition of *Logical Investigations*. In the first edition (i.e., before *Thing and Space*), Husserl is “quite unable to find this ego, this primitive, necessary center of relations,”³⁵ whereas in the second edition (i.e., after *Thing and Space*) he admits “I have since managed to find it.”³⁶ Yet, even if found, the Ego does not adopt a metaphysical function of a *sub-iectum*; it becomes one of more relational elements of perceiving.³⁷

So, three moments of kinesthesia can be distinguished in a closer reading of §47 in *Thing and Space*: (1) the physical-Objectivating function of the kinetic sensations related to things; (2) the physical-Objectivating function of the kinetic sensations related to my body (bearer of sensations); (3) the subjectivating objectification of kinesthetic sensations or, in other words, the introjection of kinesthesia and arising from it the projection that can further (i.e., beyond the physical movements) animate objects. Within this framework, Husserl clearly decides to integrate only the first two to his investigation of kinesthetic complexes. The psychically animating function of kinesthesia, which forms a new layer of kinetic sensations (i.e., which specifically animates the way we perceive movements), remains only briefly mentioned in *Thing and Space*, but Husserl returns to it in the famous analyses of embodiment in *Ideas II*.³⁸ The longer citation at the beginning of this part expresses the focus on only the objective moments of kinesthesia negatively (“Disregarding the subjectivating objectification, our concern will be to understand the physical-Objectivating function of the kinetic sensations.”), while the following sentence declares it positively: “Our present concern will only be the intertwining, in a remarkable correlation, of the constitution of the physical thing with the constitution of an Ego-Body.”³⁹

The *K-i complexes* stand for this correlation between the constitution of the physical thing and the constitution of an Ego-Body. Now, how exactly does this correlation contribute to the task to describe the spatiality? Localization of kinetic sensations is in both objective moments of kinesthesia characterized as appended; kinetic sensations do not create the material extension of perceptions. So, the extension (therefore, the genuine spatiality) is for the *K-i complexes* given by materializing determinations of vision (or touch, but it is left aside) and it concentrates with images, that is, within the boundaries of their locations. Movements, whether caused by

33 Ibid.

34 “[T]he introjection of all sensations and all appearances, all phenomenological occurrences, into the Ego and into the Ego-Body, and likewise the possibility of attributing to other physical things projective ‘psychic occurrences,’ ‘lived experiences of sensation, perception, etc.,’ and of apprehending these physical things as ‘animate Bodies.’” Husserl, *Thing and Space*, 138.

35 Husserl, *Logical Investigations*, 92.

36 Ibid., 353.

37 More on the different concepts of Ego distinction between the first and the second editions of *Logical Investigations* can be found in Nitsche, *Methodical Precedence of Intertwining*.

38 In *Ideas 2* Husserl pays attention also to subjective moments of kinesthesia; this, consequently, brings more emphasis on stratification of the sensory fields and the emergence of new layers in them: “The field receives localization, and in the field each new change receives localization as a consequence of the particular stimulating circumstances. The new stratum the thing has received by means of the localization of the field acquires, with respect to the constancy of the field, the character of a kind of real property.” Husserl, *Ideas II*, 162.

39 Husserl, *Thing and Space*, 137. “Hier kommt es nur darauf an, daß sich die Konstitution physischer Dinglichkeit in merkwürdiger Korrelation mit der Konstitution eines Ichleibes verflieht.” Husserl, *Ding und Raum*, 162.

perceiver's body shifts or by things' motions, are *co-localized* in the appended manner with these primary and (according to Husserl's view of spatiality) originally extensions. Yet, the co-localization does not provide the full notion of localization. In the beginning of this article, the localization has been – as a phenomenological characteristic of space – identified with a relation between a perceiver and a perception. While keeping the core phenomenological emphasis on perceptions (i.e., not conveying the foundational priority to perceiver's Ego), it is crucial to take the perceiver's perspective also into phenomenological account of spatiality. This aspect is missing in *Thing and Space*, because Husserl leaves aside the third moment of kinesthesia: the subjectivating objectification or, as we may call it with an abbreviation, the *introjection/projection*. Indeed, there are good methodological reasons for reducing the metaphysically understood projection from the phenomenological explanation of perception. In a spatial-topological context, however, kinesthetic introjection/projection represents the important component of localization that I suggest to define as the *re-localization*. The prefix *re-*, in this notion, should attenuate the metaphysically subjective understanding of Ego localization and accentuate the secondary, processual, and transformational nature of perceiver's localization.

The re-localization does not disrupt the foundational primacy of perceptions for phenomenology. Concerning the problems of spatiality, perceptions constitute a "system of places" as emphasized above in Section 2 of this article; the re-localization, then, orientates the perceiver specifically with respect to perceptions as places. In *Thing and Space*, places are related to perceptions and not perceivers, therefore, the questions concerning kinesthesia also ask, in fact, whether perceiver's self-perception establishes an Ego-place within the phenomenological system of places. Husserl's answer, which both accepts objective self-perception and rejects subjective introjection of kinesthesia, thus, leads to a conclusion that there are no Ego-places within this topological system. Strictly speaking, the *K-i complexes* have no Ego-related point of view; their perspective remains medium-centered. Yet, perceptions of movement are naturally experienced as changes of perspective⁴⁰ and direct toward a point-of-view related to a perceiver's body. Therefore, I suggest to complement the phenomenological system of places with the notion of re-localization. The re-localization does not create an Ego-place, but still takes the perceiver's perspective into the account.

The appended localization of kinesthetic sensations of perceiver's own body parts (i.e., the second moment of kinesthesia) cannot substitute the functions of re-localization. Therefore, I claim that Husserl's analyses of kinesthetic complexes do not provide a sufficient conception of localization; they remain restricted to the appended localization, which is understood as the co-localization of kinesthetic sensations with materialized Object-bodies. Correspondingly, since the consideration of perceiver's localization is missing, I imply the ambiguity of location in *Thing and Space*. My main critical point asserts that the phenomenological account of spatiality cannot be regarded as full without taking the perceiver's re-localization into account. Consequently, also the conception of sensory fields based on such an incomplete understanding of phenomenological spatiality remains insufficient.⁴¹

5 Conclusion: Toward the topological phenomenology of sonic environments

The critical reading of Husserl's *Thing and Space* in this study searched, in a broader context, for a phenomenological description of lived sonic environments. From Husserl's extensive work, I chose *Thing*

⁴⁰ With exception of the changes in the visual field caused by eye movements, which do not necessarily involve an experience of changing perspective. Significantly, oculomotoric systems are at the beginning of Husserl's analyses of kinesthesia.

⁴¹ It exceeds the scope of this article, which deliberately remains in the framework of *Thing and Space*, but it is important to mention again that Husserl reflects subjective moments of kinesthesia more openly and extensively in *Ideas II*. This brings him to accentuating more not only the stratification of sensory fields, but also what I call here the re-localization. On stratification in Husserl see, e.g., Costello, *Layers in Husserl's Phenomenology*; on re-localization see Nitsche, *Methodical Precedence of Intertwining*, 69–73.

and Space specifically for two main reasons. On the one hand, it distinctly understands sensory environments as systems of places (*Orts-systeme*); hence it enables a place-based (phenomenological–topological) and medium-centered description. On the other hand, though, it remarkably omits or marginalizes acoustic experience, and thus, in a negative way, draws attention to those aspects that should not be left out in phenomenological characterization of sonic environments. In general terms, the inconsistency of Husserl's explanation of phenomenological spatiality in *Thing and Space* – which I call in this article the ambiguity of location and which leads to both the marginalization of localization and the omission of the re-localization – is caused by the primary focus on visual perceptions.

Let me summarize positively, in seven points, the most important features of the phenomenological approach toward sonic environments achieved during the critical reading of *Thing and Space*.

5.1 The medium centered focus on perceptions

The phenomenological concentration on perceptions is connected with the methodological reduction of both subjective and objective ontological grounds. Perceptions, whether real or imagined, are justified by themselves and described simply as perceptions. In the ontological sense, the phenomenological reduction withdraws the primacy of a ground from both the Ego-subject and the real objects, and it transfers it to the medial part of subject–object relations, that is, to perceptions themselves.

5.2 The strong notion of environments

The medial ontology of perceptions enables Husserl to shift focus from object-directed to environmentally based understanding of perceptions. Perceptions are in *Thing and Space* examined in their mutual relations (overlaps and vicinity) and in sequences of their continual movements; all these characteristics establish a strong notion of perceptual environments.

5.3 The topological standpoint

These perceptual environments are defined as systems of places. Even though it is the expanse of perceptual images in their visual or tactile limits what is by Husserl considered as a fundamental characteristic of space, the extension is still understood topologically, that is, as a place. The topological approach is closely related also to the environmental characteristics of perceptions mentioned above: overlaps, vicinities, continual transformations, and movements.

5.4 The distinction between location and localization

In my understanding, this distinction forms the core of phenomenological–topological approach to perceptual environments. Whereas a mere topological orientation of spatial thinking in philosophy would tend to understand places as locations (with an extension and other spatial/environmental characteristics), phenomenology puts the same emphasis also on perceivers' perspective, that is, on localization. The full notion of a sensory environment requires, according to the phenomenological methodology, to take perceivers' perspective into account.

5.5 The localization does not establish locations

Husserl's main interest in visual perceptions leads to advocating the appended form of localization. In this form, the perceiver's perspective is co-localized with the visual image there-in-front-of-her. With the notion of appending, Husserl strives to fight a possible confusion, which accompanies predominantly the visual sensation, that localization creates locations: for what is only "appended" cannot establish anything. Regrettably, the appended form of localization marginalizes the importance of localization as such. The claim that the localization does not establish locations remains, nevertheless, valid also if phenomenology (necessarily, in my opinion) renounces the conception of an appended localization.

5.6 The importance of re-localization

A re-modelling of the "appended localization" in the phenomenology of sensory environments must address the dynamic relation between the localization of sensations and the re-localization of perceiver's position. Within the sonic research, this leads among others to the question of echo-localizations.

5.7 The multi-sensory approach

A sonic phenomenology must revise Husserl's adoption of the classical distinction between the primary and the secondary qualities. The various ways of sensory perception do not differ in degree but in forms of spatialization; moreover, these forms merge within the lived experience. Accordingly, phenomenological descriptions of sonic environments do not explore only acoustic perception, but pay attention also to situations when sounds blend with visual, tactile, olfactory, or gustatory sensations.

These seven points not only summarize conclusion of this article and define phenomenological approach to the topology of sensory environments, but they also offer principles that can be applied in order to elucidate how acoustic perceptions (and, in this respect also sounds) create sonic environments. This task, which I aim to fulfill in continuing elaboration of this article, must employ the full-range phenomenological-topological description of acoustic experience that monitors not only locations and locating of sounds but also re-localization of their hearers.

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