

How to capture sound perception? Ethnographic approaches to an ephemeral phenomenon and its (im)material dimensions

Jana Stadlbauer^{1,*}

¹ *Katholische Universität Eichstätt-Ingolstadt, Ostenstraße 26, 85072 Eichstätt, Germany*

Abstract

Embedded in approaches from the anthropology of the senses and sensory ethnography, data from a doctoral project is used to investigate how research into auditory sensory perception can be methodically realised. The research project entitled “Searching for ‘Sound’” uses an actor-centred approach to investigate doing sound and sound perception in the context of an ethnography of auditory culture, specifically the hi-fi scene and its listening culture. The focus is on the challenge of explicating perception and various forms of external and self-observation.

Keywords

Sound perception, ethnography, methodology

1. Introduction

Listening to music has been one of the most popular leisure activities in Germany for years. According to the latest ‘Leisure Time Monitor’ survey by the ‘BAT Stiftung für Zukunftsfragen’ (Foundation for Future Studies), 82% of the 3,000 respondents aged 18 and over said they listen to music at least once a week. [1] Acoustic accompaniment to everyday life is therefore very popular among the population. From the perspective of empirical cultural studies as a science of everyday life, the following questions arise with regard to such reports: Where, in what social setting and everyday leisure activities do people listen to music? What medium is used to listen to music - after all, it can be assumed that the music listened to is (also) “technologically produced and mediated sound” [2].

So who listens to what music and how? In short, what significance does this activity have for music listeners? These questions can be applied to a special group of people who explicitly practise listening to music as a hobby and who attribute particular importance to listening in their own four walls. This refers to the hi-fi scene that exists in various Western and European countries, including Germany, the country under investigation. The members of this scene have a special relationship to ‘listening to music’, which they practise via a scene-specific ‘doing hi-fi sound’. I am focussing on this ‘doing’ in my doctoral project and am therefore looking at the scene-specific meaning of ‘sound’, concentrating on the German-speaking world. Linked to this is always the question of how this ‘doing sound’ can be researched from an ethnographic perspective. Because sound is a fleeting medium. Sounds resound, they reach our ears and they fall silent. The sound we have just heard is gone forever; it is gone almost as soon as it is heard. This volatility not only poses a general challenge for the object of investigation ‘sound’ - when it is almost permanently disappearing - but also for its perception and processing as a ‘datum’ in ethnographic research.

In order to focus on this problem, I would like to invite to a methodical walk to explore approaches to counter this. After an introductory warm-up, I will summarise established approaches and methods, which I will illustrate with examples from my PhD project. In this project based at the

^{6th} International Conference on Creative\Media\Technologies (IConCMT), November 27-28, 2024, St. Pölten, Austria

* Jana Stadlbauer.

✉ Jana.Stadlbauer@stud.ku.de (J. Stadlbauer)



© 2024 Copyright for this paper by its authors. Use permitted under Creative Commons License Attribution 4.0 International (CC BY 4.0).

KU Eichstätt-Ingolstadt with the working title 'Searching for Sound' I choose an actor-centred approach to the world of sound perception within the framework of an ethnography of auditory culture. The project focuses on forms of 'conscious' private music reception based on the hi-fi scene and its listening culture. It asks how 'sound' in its material, affective-sensual, physical and lifeworld dimensions is negotiated, produced and manufactured by music listeners. The research can thus be understood as an "ethnography of sound" [3], which "set out to describe and reflect upon the sound world of a particular group of people who may share a space or who are linked through a set of shared practices." [3]

While previous research on the so-called hi-fi discourse has taken a historical approach, examining scene magazines [4][5] or trade fairs [6], for example, in this actor-centred approach I focus on private listeners and scene members. In doing so, I explore the question of how they search for, construct and find 'sound' in their homes. Using the ethnographic approach as a method [7][8], I conducted formal and informal interviews with scene members and carried out participant observations. I visited nine hi-fi trade fairs and some scene events in German-speaking countries and conducted in-depth interviews with around 30 people. Some of these people contacted me via a call for research in an online forum or I found them via the snowball system. I visited some people at home and listened to music with them on their systems.

I came into contact with the hi-fi scene through my previous work as director of the Radio Museum and intensified this for my research. Just as there is no such thing as 'the' hi-fi scene, there is no such thing as 'the' hi-fi listener - the scene and its members are too ambivalent for that. Nevertheless, to give a picture, it can be stated that my field of research is strongly male-dominated and that my research participants were born between 1950 and 1970. Their years of birth fall within a historically significant period with regard to the 'hi-fi world'. While the term 'high fidelity' had been around since the 1930s, it was given a concrete definition and purpose from the mid-1960s onwards. In Germany, the so-called 'hi-fi standard' regulated the combinability of components and guaranteed a certain level of quality for the sound image. [9]

The aim of 'High Fidelity' was the "creation of a high-quality sound offering that is orientated towards people's perceptual capacities" [10]. This brings the special listening form of the scene into focus, which is aesthetically and technically charged and determined. [10]

'The question of 'correct' hearing characterises the high-fidelity discourse. Technical measurement tests are contrasted with our own perception of sounds [...]." [11] [5] Against this background, it is extremely important for ethnographers to understand how scene-specific listening is practised, i.e. 'how' it is heard and perceived aurally. If there are also ideas of 'right' and 'wrong' listening, then these must be tracked down, described and questioned with regard to their realisation. Such specific "forms of analytical listening" [11] and thus this specific form of perception have not yet been described from an ethnographic perspective, especially in the field of cultural studies.

The listening practice of the hi-fi scene follows a specific reception dispositive [12] with regard to 'correct listening', which locates the seated and silent listener in the line of sight of the system, consisting of loudspeakers and the playback system, whereby there is also a 'right' and 'wrong' sitting in the so-called 'sweet spot' [13]. In this physical situation and perceptive reception posture, I also listened in and with the field, in living rooms at home or at trade fairs. During this research I was confronted with methodological challenges regarding the question of how to ethnographically research and record auditory perception. As described above, 'sound' and its perception is not a phenomenon that can be observed or described visually, which is why participant observation, as it is 'usually' carried out, reaches its methodological and epistemological limits [14]. I would therefore like to find out what other approaches are possible within ethnographic research.

In the research process, I have encountered some peculiarities, irritations and surprising paths in this regard, which I take as an opportunity to reflect on how sound perception can be ethnographically researched, recorded and made accessible. I will describe these problems and possible approaches in three points. The first point is the phenomenon of 'silencing' the field, which is the starting point for methodological reflection. With participant observation and learning the

language of the field, two established research approaches are attempted, whereby these are adapted to the object of investigation of sound reception.

My aim is to use these observations by others and myself to sensitise people to the difficulty, but also to the possibilities, of exploring sensory, in this case auditory, perception. I summarise the key findings on these aspects in a conclusion.

2. Warm-up and equipment check

Before we embark on the methodological path, let's first take a look at our equipment: what approaches do we have in our 'luggage'? Overall, it can be observed that research into the senses in the field of empirical cultural studies has experienced an upswing in the last ten to fifteen years. It is based on approaches from the 'anthropology of the senses' and is linked to the 'affective turn' [15], in which the focus on the body, feelings and senses can be localised.

After the 'senses' were marginalised in scientific research for a long time, especially with regard to the sense of hearing [16]. "However, by excluding the affective realm of the researchers themselves, cultural studies also managed until recently to overlook the sensory perception of those being researched." [16] As mentioned above, this has recently changed, both in terms of focussing on sensory perception as a research topic and the inclusion of the emotions and affects of the research subjects [17], which is certainly also related to the establishment of autoethnographic approaches. [18] The shift towards the sensual can be observed in various disciplines, such as in the historical sciences [19], which have turned their attention to historical sounds and soundscapes, as well as in musicology and sociology [20]. Some approaches are united in interdisciplinary sound studies and are also represented by Science and Technology Studies. As far as Empirical Cultural Studies are concerned, it can be said that the first sporadic approaches in the 1980s and 1990s saw a strong upswing in the last decade. [16] From this point onwards, the so-called 'affective turn' [15], can be observed, a turn towards feelings and affects. [21][22] Associated with this, the body also increasingly came into focus, with "perceptions and experiences of the world through the body increasingly taking centre stage in analytical attention" [23].

For ethnographic research, which includes, for example, conversations and participant observation, this meant that questions about the methodological use of the (researcher's) body increasingly arose and, inspired by the 'Anthropology of Senses' [17] [24] and autoethnographic approaches, answers were increasingly found. [22][25] The question of perception plays a particularly important role in ethnographic research methodology, which is based on participant observation and conversations in all kinds of situations and always in interaction with people, places and situations. After all, one's own impressions are written down, for example in memory protocols and later in the analysis, and are thus also included in the data corpus. [7] In empirical cultural studies, the focus on the senses and (one's own) physical sensations and experiences has been and continues to be discussed under two aspects: On the one hand, it is generally about the stronger thematisation of senses and affective phenomena as an object of investigation; on the other hand, there is a tendency to integrate sensory experience more strongly into the research process itself. [25] In a way, my research project combines these two strands. From a methodological point of view, we are thus in the realm of sensory ethnography, the speciality of which Jochen Bonz emphasises: "From a methodological point of view, sensual ethnography emphasises self-exposure and attentive perception, which in principle forms an integral part of the ethnographic method of participant observation." [26] Sensual ethnography stresses what is already inherent in ethnographic research: attentive observation 'with all senses'. Here, too, different degrees of involvement of one's own body are possible, sometimes it is indeed pure observation, but sometimes researchers are also physically involved themselves or try to experience cultural phenomena and social practices of a field 'on their own bodies' [27]. This is not only about becoming physically aware of one's own self, but also about becoming aware of one's own person, the role assumed, implicit assumptions and any existing frameworks. 'Conscious' subjectivity in the research process, for example in the context of

autoethnographic observations, serves to make the subject matter comprehensible, to clarify and to fathom it.

With these introductory words in mind, we now set out to discover methodological approaches.

3. Methodical Steps and Stumbling blocks

3.1. Talking and Not-Talking

During my field visits and discussions, I was confronted with a phenomenon that, to stay with the metaphor, signifies a first steep ascent up the methodological path: I was confronted with the fact that the field (from my point of view) fell silent with regard to my actual research interest. This 'silencing' was evident, for example, at the trade fairs I visited, where commercial suppliers presented their products in demonstrations and workshops while the visitors sat in front of the systems to listen. What was remarkable here was the particular silence with which the audience reacted to what they were hearing - or did not react, at least not visibly and therefore hardly comprehensible for participating observers. The observational data collection instrument therefore did not provide any data on the object of investigation. I had no choice but to note in my field notes: 'Nobody talks'.

The silencing of the field took place in another way that was initially irritating for me: Although the scene members told me in great detail and comprehensively about their hi-fi hobby in the interviews - the conversations often lasted three to four hours - they have hardly thematised 'sound' or its perception. Asked directly or indirectly to describe their affective sound experiences, the participants talked in detail about their devices such as amplifiers or speakers, about the construction of their system, about purchases, repairs and optimisations to components and their technical characteristics.

The 'search for sound' as an original research topic developed more and more into a matter of the researcher searching for 'sound' in the field. This represents the starting point for further methodological considerations, which are presented below.

3.2. Observing

After this challenging climb, we now unpack the binoculars from our methodical rucksack. After all, one methodical response to this challenge can be 'observation', or more specifically, the observation of one's own perception. Even if the field falls silent, there is still the possibility of making one's own researcher body epistemically fruitful. According to Jochen Bonz, "sensual ethnography meets with the increasingly practised autoethnographic research approach in the conviction that without the researcher's own intensive experience with the object of investigation, no knowledge about it is possible." [26] In a field situation at a trade fair, I experienced how my own body experience contrasts with the observed body behaviour of my field. During various presentations, I noticed how my body reacted to the music with movement: My foot, my knee, my toes bounce along, my shoulders sway, my head tilts to the beat. This action is in complete contrast to the situation of the field players, who sit still, rigid and silent. I was really stunned - my physical-auditory impression and my visual impression in the room simply didn't match.

This description of an embodied difference between myself and people in the field shows that, according to Friederike Faust and Stefan Heissenberger, the bodies of the researchers "position themselves relationally to the bodies of the research participants and [...] thus open up certain perspectives for us" [28]. By recording my bodily reactions, i.e. by auto-ethnographically "reflecting on my own experience" [29], I arrive at statements about sound expectations, listening modes and forms of reception - with regard to myself and, in contrast, also about the field. The "lack of understanding for the foreign listening experience" [30] articulated by me here as part of the "*ethnographic alienation*" [30] is based on the contrast to my "own, bodily listening attitude" [30], the reflection of which represents a further element of the research methodology.

Therefore, the irritating self-observation in turn enabled further analytical and methodological developments. This was possible because I took my experiences into my conversations. If the field

actors could not talk to me about their emotional and physical reactions, my idea was to try to thematise my bodily reactions. The idea was that this could be a relief for the interviewees, as I assumed that they would be uncomfortable talking about their own feelings. My own observation of myself, in which I outed myself as an 'outsider', was a vehicle for triggering discussions about the behaviour I had observed. This led, for example, to insights into field-specific forms of reception and triggered statements about own physical actions when listening.

Based on various observations and statements, my assumption is that the reason for not speaking and not reacting physically is a fear of leaving oneself defenceless, so to speak. By naming your own perceptions and feelings, you would make yourself vulnerable. You don't want to expose yourself to this risk when meeting unknown people. Your own hearing is too closely linked to your own person, your own body, your own identity. Hearing people are sensitive and vulnerable, especially in this field that is strongly characterised by technical norms. This is because the hi-fi scene recognises 'right' and 'wrong' hearing, with strong technically justified beliefs in objectification. As a researcher, I was able to act 'more freely' in the field in this respect, as it is obvious that I am not part of the scene and that the usual (physical) behaviours there do not apply to me and do not need to be applied.

For the next methodological metres, it is therefore appropriate to make yourself vulnerable as a researcher by communicating your own sensory impressions. Opening up to the researcher gives the researched person a leap of faith. By mirroring their own feelings, it is easier for the other person to enter this affective-emotional level and describe their own sensory impressions. The researcher experiences the scepticism and reluctance to disclose her own bodily experiences' first-hand and can therefore understand the reservations about showing her own vulnerability. [22] According to my field experience, making oneself vulnerable enables a breakthrough into the world of meaning of others.

3.3. Learning Language

A second challenge shared by the field and the researcher concerns verbalisation. Verbal statements about perception come up against verbal limits, but, according to Katrin Amelang and others, despite the problems of translation, words must be found for physical states [3]. This takes us into the thicket of explication on our walk. Field and researcher are equally challenged to explicate their perceptions and to find linguistic forms of expression [31].

Realising how difficult this is for my interviewees, I tried to provide narrative support by asking them about their memories of particular music and sound experiences. Precisely because listening experience and (body) memory are closely related [32][33], I hoped that the interviewees would find access to their emotions at the time through the reminiscent narrative, and possibly also a way to describe them. For example, I asked: "Can you remember any musical experience that really left a lasting impression on you and that you still remember today? It totally touched me, flashed me...?" This actually works to a certain extent, as interviewees tell me about "goosebump" moments or experiences that "really got to them". Nevertheless, two interviewees break off at a certain point. They find it hard 'to put into words' or can't "explain" "because it [...] is such an emotional story."

Another methodological aid to facilitate speaking was listening together. As a "researcher *participating in listening*" [30], it was important for me to experience the practice of listening on my own body, with my own senses in the everyday and listening spaces of the scene members [34]. This also allowed me to observe the interlocutors with their bodies, in their location in space, in their listening posture. "A bodily *hearing perspective* encompasses all these habitualised listening expectations and archived sound memories." [30] I visited 18 of my dialogue partners at home and listened to music with them. They showed me their systems, they or I selected the music on CD, vinyl or via streaming. We sat listening on the sofa or in armchairs and the music, what we listened to together, was enough of an occasion to talk about 'sound'. The concrete integration of the shared sensory experience into the research situation was elementary, as evidenced by the fact that the participants relaxed noticeably and talked more freely.

If it was not possible to listen together, the interviewees found it much more difficult to explain their perception of sound. One interviewee tried to describe a disappointing listening experience at a trade fair to me, as 'something' was missing for him: „Um, if you were to ask me about that Something, I wouldn't even be able to elaborate on it. If I were sitting there and heard that, I could tell you straight away: that's missing. But it's difficult to analyse it now, isn't it?"

Finally, after much careful listening, I would like to show another methodical way of finding the 'sound' in the field. As mentioned at the beginning, the interviewees spoke at length about their devices. In the course of the research, I learnt to recognise and understand this as their language, as their 'speaking about sound'. After all, "learning the language of the field" [35] is part of "the ethnographic desideratum" [35]. In the de-thematisation and over-thematisation of the material, the field's own way of speaking about sound is revealed by means of the devices. The sound characteristics of the devices, often technically argued, make it possible to extract insights into the sound aesthetics of the scene and listening expectations. I ask one person: „How would you describe the sound of the loudspeakers?" And the answer is not a description of the sound, but a reference to the solid, high-quality technical features of the device: "They have a decent bass foundation. They also have a decent tweeter." They are talking about the technical characteristics of the devices, as these are responsible for the sound according to field logic. The components used and their quality determine the sound and the technical features are vocabulary for certain ascribed sonic qualities.

4. Cool Down and Conclusion

After this eventful walk, I come to the cool-down and summarise. As has been shown, "[the] self-evidence of sensory perception and interpretation [...] has long been overlooked by a disembodied folklore and/or cultural anthropology, precisely because these processes are not necessarily accessible to the eye" [36]. Although the focus on the perception of research subjects and researchers strengthens sensual approaches, the problem remains that purely visual observation, on which 'classical' participant observation is based, is not (or no longer) sufficient to investigate such phenomena. However, turning to the inclusion of the body opens up new challenges for ethnographic methodology: "The return of the body to methodological reflection (...) starts with the basically long-known 'translation difficulties'. Looking at one's own use of the body as a researcher (...) continues to provoke the question of how implicit bodily experience, body-bound experiences, affective states and sensory perceptions can be recorded and analysed." [22]

Ethnographic data collection is doubly challenged when investigating sound perception: not only is the object of investigation itself fleeting, but the physical and emotional reaction to what is heard is also fleeting and immaterial. Here, too, the mood that has just been experienced is constantly disappearing. A brief goose bump, a flashback of a few seconds or other, often unconscious reactions to acoustics are not permanent. What's more, these reactions are often non-verbal. The emotions to the sounds are just as invisible as the sounds themselves. And we often find it difficult to put these emotions into words. Ethnographic research is confronted with a phenomena of speechlessness, missing concepts, problematic verbalisation and complicated explication. [23] [37] Therefore, the specific language learning of the field is of particular importance in order to be able to recognize and translate verbal and non-verbal utterances. The vocabulary of the field sometimes does not match the language that the researcher expects or is able to converse in. Recognizing and working through this language barrier as a limit to access and understanding can lead to new insights for the analysis of the field situation and what happens in it. According to field logic, this specific 'doing sound' takes place in the ("right") combination of different actors: According to the interviewees, space, technology and their own physical location lead to 'good sound'. Based on the field research (narrative conversations, listening to music together), an exciting symptomatology emerged: when asked to describe their affective sound experiences, the participants talk in detail about systems, amplifiers and loudspeakers as well as their attributed acoustic properties. The article took this tension between im-materialities as an opportunity to present the challenges and possibilities of researching (sensual) perception. Only by observing my own physical reactions in contrast to those

of the field actors, only by concentrating on myself as a subject and my body, was I able to recognise fundamental barriers and hurdles in the research process as such. These include, for example, different aesthetic conceptions of 'sound' and its forms of reception, which in turn are expressed in the positioning of one's own body and in dealing with affects. In the exemplary case of the hi-fi scene, for example, this concerns the physical-spatial localisation within the reception dispositive. "If one takes the implications of the fundamental contextuality of musical experience seriously, it is important to empirically analyse precisely these dispositives in order to better understand the significance of the technologies used in each case for the genesis of musical emotions." [12] And it is precisely for this particularity that the researcher's own experience is suitable. Ethnographic research addresses this with various forms of storing experiences: These are translated into notes and writing and recorded and stored using technical aids such as videos. According to Georg Breidenstein and others, "ethnography also means [...] the professionalised competence of verbalising the non-linguistic". [7] Whilst learning the language of the field and during their own sensory experience, there is also the particular challenge of what Jochen Bonz describes as 'self-exposure'. [26] Researchers sometimes find themselves in situations in which they are explicitly asked to express themselves in front of and in the field. Expressing oneself means externalising one's own feelings and impressions - sometimes a delicate undertaking in the research process. For my research, however, this often meant overcoming barriers and building mutual trust.

This article showed various methodological possibilities for dealing with these problems and exploring sensory phenomena and practices. Specifically, various methodological forms of access and their challenges from the spectrum of sensory ethnography were presented, such as autoethnography, narrative-recalling speech and the shared sensory experiences. I am aware that this selection can sometimes be very field-specific, I suspect that, especially in the field of the senses, adapted approaches are required that are appropriate for the respective field situation. In order to make the world of experience of the field actors and researchers ethnographically accessible and to collect data, there are other approaches, such as participatory artistic methods [37], the greater inclusion of body language or the analysis of metaphors used to describe sensory perceptions. [32]

My aim with this article is to encourage other researchers to think about how much of their bodies, how much of 'themselves' there is in their research, because "science is always also embodied practice and always makes use of researchers' bodies in some form." [12]

References

- [1] BAT Stiftung für Zukunftsfragen: Ranking der beliebtesten Freizeitaktivitäten der Deutschen im Jahr 2024 (Ausübung mindestens einmal pro Woche, 2024. URL: <https://de.statista.com/statistik/daten/studie/200166/umfrage/beliebteste-freizeitaktivitaeten-der-deutschen/>
- [2] T. J. Pinch, K. Bijsterveld, New keys to the world of sound, in: T. J. Pinch, K. Bijsterveld (Eds.), *The Oxford handbook of sound studies*. Oxford Univ. Press, Oxford, New York 2012, pp. 3-35.
- [3] T. Rice, *Ethnographies of Sound*, in: Michael Bull (Eds.), *The Routledge companion to sound studies*. Routledge, London, New York 2019, pp. 239-248.
- [4] A. Björnberg, Learning to Listen to Perfect Sound: Hi-fi Culture and Changes in Modes of Listening, 1950-80, in: D. B. Scott (Eds.): *The Ashgate Research Companion to Popular Musicology*. Farnham, Surrey 2009, pp. 105-129.
- [5] J. Schröter, A. Volmar, "HiFi hören. Hifi-Praxis für kritische Käufer und Fachhändler." Eine Fallstudie zum Problem der Analyse historischer Medienpraktiken, in: B. Ochsner, R. Stock

- (Eds.): *senseAbility - Mediale Praktiken des Sehens und Hörens*. transcript Verlag, Bielefeld 2016, pp. 149-168.
- [6] E. D. Barry, *High-Fidelity Sound as Spectacle and Sublime, 1950–1961*, in: S. Strasser, D. Suisman (Eds.): *Sound in the Age of Mechanical Reproduction*. University of Pennsylvania Press, Philadelphia 2010, pp. 115-138.
 - [7] G. Breidenstein, S. Hirschauer, H. Kalthoff, B. Nieswand: *Ethnografie. Die Praxis der Feldforschung*, UVK Verlag, Konstanz, München, 2013. doi: 10.36198/9783838539799
 - [8] P. Atkinson, A. Coffey, S. Delamont et al. (Eds.): *Handbook of ethnography. Principles in Practice*, Routledge, 3rd ed., Los Angeles, London, New Delhi, Singapore, Washington DC 2007.
 - [9] S. Gauß, *Das Erlebnis des Hörens. Die Stereoanlage als kulturelle Erfahrung*, in: W. Ruppert (Eds.): *Um 1968. Die Repräsentation der Dinge*. Jonas Verlag für Kunst und Literatur, Marburg 1998, pp. 65-93.
 - [10] C. Jost, Christofer, M. Pfeleiderer, *Audiowelten. Über den ästhetischen Eigenwert von -Klangtechnologien und Musikmedien - zur Einführung*, in: B. Benjamin Burkhart, L. Niebling, A. van Keeken et al. (Eds.): *Audiowelten. Technologie und Medien in der populären Musik nach 1945 - 22 Objektstudien*. Waxmann, Münster 2021, pp. 7-15.
 - [11] C. Dörfling, *Von der Liebe zum Hören. Direktschnitt, Direct Metal Mastering und die (Un-)Möglichkeit audiophiler Tonträger*, *Musiktheorie - Zeitschrift für Musikwissenschaft* 36 (2021): 32-45.
 - [12] S. Lepa, *Emotionale Musikrezeption in unterschiedlichen Alltagskontexten. Eine wahrnehmungsökologische Perspektive auf die Rolle der beteiligten Medientechnologien*, in: A. Volmar, J. Schröter (Eds.): *Auditive Medienkulturen. Techniken des Hörens und Praktiken der Klanggestaltung*. transcript Verlag, Bielefeld 2013, pp. 373-391.
 - [13] F. Kühne, *Sweetspot – Das ist die ideale Hörposition im Stereo-Dreieck*, 2024, URL: <https://hifi.de/ratgeber/sweetspot-das-ist-die-ideale-hoerposition-im-stereo-dreieck-178278>.
 - [14] G. Spittler, *Teilnehmende Beobachtung als Dichte Teilnahme*, *Zeitschrift für Ethnologie* 126 (2001): 1-25.
 - [15] A. Reckwitz, *Die Materialisierung der Kultur*, in: F. Elias, F. Albrecht, M. Henning et al. (Eds.): *Praxeologie. Beiträge zur interdisziplinären Reichweite praxistheoretischer Ansätze in den Geistes- und Sozialwissenschaften*. De Gruyter Berlin 2014, pp. 13-25.
 - [16] R. Bendix, *Symbols and Sound, Senses and Sentiment. Notizen zu einer Ethnographie des (zu-)Hörens*, in: R. W. Brednich (Eds.): *Symbole. Zur Bedeutung der Zeichen in der Kultur*. 30. Deutscher Volkskundekongreß in Karlsruhe vom 25. bis 29. September 1995. Waxmann Münster 1997, pp. 42-57.
 - [17] S. Pink, *Doing sensory ethnography*, 2nd ed., SAGE, Los Angeles, 2015.
 - [18] C. Ellis, T. E. Adams, A.P. Bochner, *Autoethnografie*, in: G. Mey, K. Mruck (Eds.): *Handbuch Qualitative Forschung in der Psychologie*. VS Verlag für Sozialwissenschaften (GWV), Wiesbaden 2010, pp. 345-357.
 - [19] D. Morat, *Introduction*, in: D. Morat (Eds.): *Sounds of Modern History. Auditory Cultures in 19th- and 20th-Century Europe*. Berghahn, New York 2014, pp. 1-9.
 - [20] H. K. Göbel, S. Prinz, (Eds.): *Die Sinnlichkeit des Sozialen. Wahrnehmung und materielle Kultur*, transcript Verlag, Bielefeld 2015.
 - [21] A. Reckwitz, *Kreativität und soziale Praxis. Studien zur Sozial- und Gesellschaftstheorie*, transcript Verlag, Bielefeld, 2016. doi: 10.14361/9783839433454
 - [22] K. Amelang, S. Bergmann, B. Binder, A.-C. Vogel, N. Wagener-Böck, *Körpertechnologien. Einleitende Bemerkungen zur Refiguration des Körperlichen aus ethnografischer und gendertheoretischer Perspektive*, in: K. Amelang, S. Bergmann, B. Binder et. al. (Eds.), *Körpertechnologien. Ethnographische und gendertheoretische Perspektiven*, Heft 70 of *Berliner Blätter*, Panama Verlag, Berlin, 2016, pp. 7-20.
 - [23] B. Sieferle, *Die Körperlichkeit sozialer Wirklichkeiten. Theoretische Positionen und die Methode der Teilnehmenden Beobachtung*, in: A. Treiber, R. Wenrich (Eds.):

- Körperkreativitäten. Gesellschaftliche Aushandlungen mit dem menschlichen Körper. transcript Verlag, Bielefeld 2021, pp. 177-202.
- [24] Howes, David (Eds.): The varieties of sensory experience. A sourcebook in the anthropology of the senses, Univ. of Toronto Press, +eToronto 1991.
 - [25] L. M. Arantes, Kulturanthropologie und Wahrnehmung. Zur Sinnlichkeit in Feld und Forschung, in: L. M. Arantes, E. Rieger (Eds.): Ethnographien der Sinne. Wahrnehmung und Methode in empirisch-kulturwissenschaftlichen Forschungen. transcript Verlag, Bielefeld 2014, pp. 23-38.
 - [26] J. Bonz, Acid House als Grenze des praxeologischen Kulturverständnisses. Zum Realismus der sensuellen Ethnographie, in: L. M. Arantes, E. Rieger (Eds.): Ethnographien der Sinne. Wahrnehmung und Methode in empirisch-kulturwissenschaftlichen Forschungen. transcript Verlag, Bielefeld 2014, pp. 233-250.
 - [27] A. Antony, Aktive Teilnahme - Sinnlich-leibliche Erfahrung als Instrument und Gegenstand ethnografischer Praxis, in: K. Braun, C.-M. Dieterich, T. Hengartner et al. (Eds.): Kulturen der Sinne. Zugänge zur Sensualität der sozialen Welt. Königshausen & Neumann, Würzburg 2017, pp. 199-206.
 - [28] F. Faust, S. Heissenberger, Eine Frage des Trainings. Methodische Überlegung zum Forscher_innenkörper als Erkenntnissubjekt, in: K. Amelang, S. Bergmann, B. Binder et al. (Eds.): Körpertechnologien. Ethnographische und gendertheoretische Perspektiven, Panama Verlag, Berlin 2016, pp. 68-82.
 - [29] B. Bönisch-Brednich, Autoethnografie. Neue Ansätze zur Subjektivität in kulturanthropologischer Forschung, Zeitschrift für Volkskunde 108 (2012) 47-63.
 - [30] H. Schulze, Der Klang und die Sinne. Gegenstände und Methoden eines sonischen Materialismus, in: H. Kalthoff, T. Cress, T. Röhl (Eds.): Materialität: Herausforderungen für die Sozial- und Kulturwissenschaften, Wilhelm Fink Verlag, Paderborn 2016, pp. 413-434.
 - [31] H. Schulze, Über Klänge sprechen. Einführung, in: H. Schulze (Eds.): Sound Studies. Traditionen - Methoden - Desiderate. Eine Einführung. Transcript Verlag Bielefeld 2008, pp. 9-15.
 - [32] M. Johnson, The Meaning of the Body. Aesthetics of human understanding, The University of Chicago Press; University Presses Marketing, Chicago, London, Bristol 2008.
 - [33] J. van Dijck, José, Remembering Songs through Telling Stories: Pop Music as a Resource for Memory, in: K. Bijsterveld (Eds.): Sound souvenirs. Audio technologies, memory and cultural practices. Amsterdam Univ. Press, Amsterdam 2009, pp. 107-119.
 - [34] S. Misoch, Qualitative Interviews, De Gruyter Oldenbourg, Berlin, 2019.
 - [35] P. Nowodworski, Die Sprache des Feldes lernen. Nonverbale Kommunikation im Umgang mit Menschen mit 'tiefgreifenden' Autismus-Spektrum-Störungen, in: A. Pöferl, N. Schröer, R. Hitzler et al. (Eds.): Leib-Körper-Ethnographie. Erkundungen zum Leib-Sein und Körper-Haben. Oldib Verlag, Essen 2023, pp. 263-275.
 - [36] R. Bendix, Was über das Auge hinausgeht: Zur Rolle der Sinne in der ethnographischen Forschung, in: Schweizerisches Archiv für Volkskunde 102 (2006) 71-84.
 - [37] I. Reimers, Ess-Settings als Versammlungen der Sinne. Zum Problem der Greifbarkeit sinnlicher Wahrnehmung, in: L. Arantes, E. Rieger (Eds.): Ethnographien der Sinne. Wahrnehmung und Methode in empirisch-kulturwissenschaftlichen Forschungen, volume 45 of Edition Kulturwissenschaft, transcript Verlag, Bielefeld 2014, pp. 75-90.