



**Corpus – Dispositive – Persona**  
**Formants of an Anthropology of Sound**

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*Published in:*  
Svensk Tidskrift foer Musikforskning

*Publication date:*  
2018

*Document version*  
Publisher's PDF, also known as Version of record

*Document license:*  
[Unspecified](#)

*Citation for published version (APA):*  
Schulze, H. (2018). Corpus – Dispositive – Persona: Formants of an Anthropology of Sound. *Svensk Tidskrift foer Musikforskning*, 100, 117-132.

# Corpus – dispositive – persona

## Formants of an anthropology of sound

*Holger Schulze*

Sound is not an abstract or immaterial entity. Neither is it ephemeral or imaginary, nor even solely personal and sentimental. Sound is material and physical; it is an effectively physiological and visceral, corporeally and bodily affecting phenomenon. Right now, I am standing here, in the *Humanistiska teatern* at Uppsala University – and I am speaking to you.<sup>1</sup> I am holding a keynote lecture, a lecture that includes audio examples and, later on, questions from you, the listeners, and efforts from me, the speaker, to match your interests and critique with adequate replies – all of this, unsurprisingly, is a complex sensory and corporeal activity. This activity in which you and I are engaged together activates and makes use of the manifold material properties of this very specific lecture hall: a lecture hall with a refined technological means of amplifying the sounds of all humanoid speakers in this hall, be they standing at this lectern or seated around the auditorium; and with another refined set of technologies for the visual projection of visualisations, graphics, formulas, citations, keywords or anything that might illustrate a lecture.

The lecture I am holding right now would surely be a significantly different one if it were to take place in another lecture hall, with another amplification system, and also with other material expectations for a lecture situation in another research culture, in another framework of a discipline. This listening and sounding situation right now and right here has material constituents that are not arbitrary – and as such they contribute to my speaking, my moving freely in this space or my gestures towards the large screen behind me, looking at the medium size screen at the other end of this hall, as well as checking the disposition of statements and visualisations on my small tablet computer right here, at the lectern. These constituents are only some of the materials that an anthropology of sound and its formants might conduct research upon. But before I explore these formants of an anthropology of sound in more detail, I wish to expand on these two concepts themselves: what are *formants* – and what actually is an *anthropology of sound*?

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1 This article is an edited transcript of a keynote lecture given at the conference *Musikforskning idag* at Uppsala University, Sweden, 13–15 June 2018. The conference was arranged by the Swedish Society for Musicology and the lecture was sponsored by the Tobias Norlind-samfundet för musikforskning.

The concept of formants has been established in acoustics since the late nineteenth century – but it was a Swedish researcher, Gunnar Fant, who half a century later proposed a viable definition, one which still holds true and is used by acousticians today. Fant defined formants as 'the spectral peaks of the sound spectrum' (Fant, 1960, p. 20). According to this definition, a formant represents not the totality of the characteristics of a particular sound, but merely its most energetic aspects. Those frequencies, where most of the energy in a sound are layered and concentrated, is called a formant. It is a relational category, not an absolute one. In this respect it is a breathtakingly precise category with which to characterise a sound because it introduces an adequate amount of selectivity into the way we measure sounds. So much now for the first term I am working with in this lecture today.

The second term of an anthropology of sound might seem more familiar to my audience here, but it probably also needs some further explication. Whereas an area like *musical anthropology* is established and relates largely to traditions of field research and ethnographical field research as such, there are many other traditions of anthropology in various research cultures that could be addressed: starting with biological and philosophical anthropologies, and not yet ending with historical and cultural anthropologies. These last two species of anthropology are especially important for the framework of approaches in which I am situating my research. The anthropology of sound I am working on, now for about 15 years, follows a research tradition of *Historische Anthropologie* or *Historical-cultural anthropology*. Its research principles and its research approaches have been conceptualised and researched in the most divergent areas by a number of initially Berlin-based researchers since the early 1980s. These researchers came from all sorts of home disciplines such as cultural history and ethnography, performance studies, literature studies, and visual as well as sensory studies, from philosophy and various areas of regional studies. In the early 1980s they came together at the Freie Universität Berlin to review and to rework the age-old and often hopelessly essentialist, eurocentric and androcentric, decidedly bourgeois, ableist, and Western research tradition of anthropology. Until then, most of the approaches to anthropology branded as philosophical or biological were apparently mainly interested in preserving an existing social, habitual, biological, and philosophical state of how to think about 'The human being'. A being who to a large degree would resemble, rather unsurprisingly, the lifestyles and habits of its white, male, professorial or aristocratic authors. Contrarily, the Berlin researchers of those years, such as Dietmar Kamper, Hans-Dieter Bahr, Gunter Gebauer, and Christoph Wulf at the Interdisciplinary Center for Historical Anthropology, were decisively interested in the quirky, the weird and exotic, the idiosyncratic and more troublesome questions concerning anthropology. Together with colleagues not only from Western

Europe or North America, but also from South America, from the Middle East, from East Asia, China, Oceania, and Africa, they founded the international, peer-reviewed journal *Paragrana* – with topics such as: *Selbstfremdheit* (vol. 6: Self-strangeness), *Muße* (vol. 16: Idleness), *Töten* (vol. 20: Killing), *Fuß* (vol. 21: The foot), and *Unsicherheit* (vol. 24: Insecurity). The second ever volume of *Paragrana* to appear was devoted to the subject of *Das Ohr als Erkenntnisorgan* (The ear as an organ of knowledge) (Kamper, Trabant and Wulf, 1993).

This focus on the auditory and the sonic, on listening and sensing, is a direct result of the constant interest of this research strand of historical anthropology in the corporeality and sensory experience of individual creatures on this planet. After an assumed *End of man* – Western, white, middle-class, academic males in an idealised cliché of being as fully educated as they are athletically trained, a 'mythical norm' (Lorde, 1984, p. 116) which is actually nowhere to be found, I feel urged to add – and in the advent of an intensely globalised, mediatised, commodified, and heavily networked period of the late twentieth century, a fundamental reflection seemed fascinating once again: what varieties, what forms of excess, transgression, and invention, what potential is there, in this creature one might be now tempted to call instead a *humanoid alien*?

With the notion of a humanoid alien (Schulze, 2018) a differing, deviating and diffracting thinking of the sensory, the corporeal, the cultural and the sonic, the audible, can set in. Historical anthropology represents this non-disciplinary endeavour to re-search the contemporary, future and past transformations of this strange and alien entity called *the human* across cultures and eras. The question I therefore ask recurrently in my anthropology of sound regarding a given listening or sounding situation – also in this lecture today – is the following:

*Which implicit or explicit anthropological concept are we using when we speak about sound in a specific historical, local, chronotopical, technological, sensorial, aesthetic and wider cultural context? Or, more directly phrased:*

*What expectations and claims about humanoid aliens like you and me can be detected in a cultural artefact – regarding the issues of sounding and of listening?*

In order to answer these questions I will focus on three formants of an anthropology of sound. In these formants *the spectral peaks of the research spectrum* – resonating with Gunnar Fant's definition from 1960 – can be found. I will not try to explicate the entirety of the characteristics of an anthropology of sound to you today, but rather the most energetic aspects of this anthropological approach. These three formants allow us to excavate and to scrutinise the individual anthropological concepts addressed in a situation of sounding or listening. The three formants are: the *sensory corpus*, the *auditory dispositive* and the *sonic persona*.

## The sensory corpus: bodies, experiences and idiosyncrasies

In this very moment, sitting in this auditorium – or later, reading the edited and published version of this talk – you as a listener or reader are also not an immaterial and bodiless entity. You are a person with a certain, rather unique set of bodily characteristics, also with a wide variety of material attachments such as clothes, underwear, a notebook or tablet, maybe jewellery, a bag of some kind close to you, maybe a drink, a coffee, an assortment of pens, maybe an implant or two securely placed in your body, maybe wearing glasses, hearing aids or a cardiac pacemaker, maybe even an artificial organ. These are only some of the common material constituents of a close listening situation for academics in these years, the late 2010s. These constituents were, obviously, very different in a similar situation 10, 30, 50 or 100 years ago; and they all will surely be very different again in 10, 30, 50 or 100 years. However, they might differ not so much as one would expect – but distinctively – from academics in other areas of the world; but they would again differ from more specialised fields in academia where another set of persons, lifestyles, habits and experiences constitutes the audience at such an instance. Finally, there is next to no doubt that the individual bodily characteristics of each one of you differ greatly from any other person sitting close to you. There is a universe of differences in all possible and intricate details that makes you and your seating neighbour almost as alien to each other as another extra-terrestrial species, finding your individual homeworlds in thoroughly different dimensions of the cosmos.

In this environment I would now like you to take some time to confront yourself with a rather radical example of sound art and sound production. I would like you to listen right now – in interrupting your listening to my talk, interrupting your reading of this article, this transcript of the talk – to a recording by the American composer and sound artist Maryanne Amacher: *Dense boogie I* (Amacher, 1999, track 5). You need to listen to this piece at full volume and – if you can bear it – you should listen for at least two of the over four minutes of its duration; at best you should of course listen to the whole piece, right now. So: right now you can stop reading this article – and you can take up your reading after listening to this piece.

– – *Right now, you are listening to Maryanne Amacher's Dense boogie I (ibid.)* – –

The piece finally ended – and maybe some of you experienced moments of fear, of unease and annoyance, maybe even pain or at least some strong and not so agreeable sensations. Perhaps some of you suspected that your ears were severely hurt during this listening experience – only comforted by an additional assumption that I would probably not let this happen (unless I were a radically irresponsible and sadistic being who enjoyed inducing pain, fear and anxiety in his audience members). Some of you might

already be familiar with the sound effects and the uncommon and somewhat unpleasurable sonic experiences this piece provided. They are so-called *otoacoustic emissions*. First documented and analysed 1978 by David T. Kemp – thus often called *Kemp echos* – these emissions are sounds generated by the actual physiological constituents of the inner ear. Your ears, that is to say, produced this music. You were the instrument being played. Usually one hears sounds from the outside world resonating with and entering our ears; however, in this case, the sound source is not outside of you or me, but inside of us. We ourselves are the sound source – or at least some minuscule parts of us, in the inner ear. Some of you might indeed have heard all of these otoacoustic emissions, some of you maybe did only hear some of them, some of you were very hurt, others not so much. These differing experiences however do not only stem from your individual listening biography, but also from your individual physiological traits. As your aural reactions arise in connection with minuscule parts of your body, these parts are obviously as different in each of us as our other body parts, organs and extremities differ from each other. My left hand looks different from your left hand; my lung, my earlobes or my testicles are formed differently than yours. Also, all the tiny parts in our inner ears differ largely. They are never identical, they differ to a great extent.

These differences in our corporeal substance, if you will, are especially important today when speaking about the myriad creatures and beings who we are – across the intersectional spectrum, across the roles of gender, age, abilities, assumed heritages and class status. In these categories one finds the substantial and materially tangible diversity that the life forms most of us represent, embrace, enjoy and perform. The *sensory corpus* (Nancy, 1992; Schulze, 2018) of all of these life forms are not the least identical: even if the anatomical traits might on the outside look or function in a rather similar or at least comparable way, the bodily experience and the sensory body that one develops are more often than not incomparable to others. A sensory corpus is idiosyncratic by definition. This multiplicity of life forms is probably best represented by the ubiquitous discussions around gender normativity and all the debates around idiosyncratic and individualised sensibilities. For instance, on some of the more joyfully strange bathroom signs you can recognise a mermaid or a centaur, also an android, Batman, a pregnant person, an elderly person, a person with a priest habit and another person with a superhero cape, as well as various other specimen of humanoid aliens. But even this excessive diversity in bodily shapes, in corporeal traits and even in material substance and physiology does only approximately represent the even bigger diversity in personal and situated sensibilities. One of the best examples of this diversity is surely the diversity of body shapes, size, muscular training or fat distribution, of apparatuses attached and of prosthetic body parts that one can see represented in contemporary athletes across

all sports – paralympic corporealities included. Looking at the mere corporeal diversity of these trained bodies one might then understand the variety of the (at least) dozens of corporeal sensibilities we have to acknowledge as a reality; as soon as one adds all the non-trained bodies and creatures – like me for instance, shaped mainly by family and everyday life, by professional activities, by sexuality, commuting, and consumption – one arrives at a much larger sum of specimens, tens of dozens of them maybe. If you then would care to multiply this corporeal variety with the currently existing variety of hundreds of countries, of landscapes and environments on Earth, with the thousands of languages and cultural communities on this planet one might grow up in: then we get a slight idea of the incredible amount of diversities present and vibrating and active right now. I would not dare, frankly speaking, to reduce the myriad of highly diverse and idiosyncratic ways of experiencing, sensing, thinking and performing on this planet to any small one-, two- or three-single digit number of types of different humanoid aliens. They, we, are alien and diverse to each other, to our ways of sensing, listening, sounding and performing. This multitude of idiosyncrasies characterises everyone's sensing and experiencing and listening. These humanoid aliens therefore constitute the kind of people to which you and I belong; and we have not yet included the sensibilities of our kin, all the animals and plants and mycelia, who also populate this sad dirtball we call the Earth.

We are this multitude of humanoid aliens, a multitude not easily reduced to one individual pattern of experience. The reason for this complexity lies, apparently, in the many intersecting and interfering aspects and factors formed by corporeality, culturality, historicity and, last but not least, technicity. If one would try to list some of these factors that play into one's experience in a given space and its listening situation, one might for instance recognise the *embodied sonic experiences* as one starting point framing the whole subsequent listening experience; then one would need to add some individual *intentional projections* with which one would enter this very situation – enhanced and complicated then by a large and possibly infinite number of *corporeal perceptions* occurring and entering one's body and sensibility. Underneath all these rather *immediate reactions* on the one side one needs to take into account the *sensory remanence* with which this experience is also grounded. All of this *situatedness of the listening experience*, including its historical and technological traits, is then in addition interwoven with *dis/connected memories*. It is a highly intricate amalgamation of current, recent and past as well as anticipated, desired and hoped for experiences that go into this melange of an actual sonic experience. But this melange, I explored in this section more in regard of its situated and its experiential aspects of the *sensory corpus*, this melange is to a maybe even larger degree constituted also by some more stable material forces in place.

## The auditory dispositive: apparatuses, commodities and the capital

The locations and the environments in which one listens to music, sounds, conversations, lectures, or indeed any kind of noise or signal, these places of listening are not irrelevant to the process of listening. The venues and arenas in which we listen are never innocent. With their materials, their architectural structure, their embodied history, their decay or polished newness, their technological equipment, perhaps original or perhaps following recent renovation, allowing for amplification or recording of sound or signal transmission, which informed the construction of the edifice, with all the arrangements for seating an audience and for performance spaces for musicians and speakers, with all these material constituents of a space, the propagation of sound is being sculpted and one's experience of listening is shaped. The rooms in which a sound occurs are the first amplifiers of this sound. There is one performance of a modern classic that for me still represents in almost the best way possible this complexity of the material predispositions necessary to make a listening experience possible – the *Bedingung der Möglichkeit* of listening, the basic conditions of its mere possibility. This performance took place in the year 2004 in the Barbican Hall in London, 52 years after the first staging. The piece in question was performed by the BBC Symphony Orchestra in a concert together with pieces by Aaron Copland, Henry Cowell, and Charles Ives – and broadcast live during prime time on a Friday evening. *4'33"* by John Cage, the piece to which I refer, has been performed in a wide variety of concert halls and sound art venues, often by pianists, but also with almost all imaginable arrangements and ensembles ranging from the German jazz musician and comedian Helge Schneider in a famous late night show, *Die Harald Schmidt Show*, in 2010, to a metal band and even a charity project (Arns and Daniels, 2012). But when listening to this orchestral interpretation from 2004, one aspect of the piece that often is overlooked (or perhaps 'underheard') is stressed. In this mediated orchestral performance it becomes intriguingly obvious how a whole institutionalised cultural and technological apparatus of education, training, of monetary investments, of research funding and developing extravaganza, of airtime, of engineers and technicians, of musicians and cameramen, of producers and assistants, is gleefully wasted in less than five minutes. Cage's famous composition clearly is also a punk piece, wasting away the whole of this material, the cultural apparatus that constitutes music culture and concert practices as of today. It is a visible and an also slightly audible destruction. It exposes the cultural and the sonic capital at play in every mediated orchestra and musical performance in the twenty-first century.

The sound of annihilating some of this capital, though, is not so much audible if one listens merely to the sounds of the assorted musical instruments. More loudly and more distinctively, one can hear the destruction of institutionalised restraints. And because



the whole apparatus no longer focuses on actual musical sounds, the much larger universe of ignored sounds, outside the musical instruments, become audible and amplified: a multitude of incredibly tiny noises, of *petite perceptions* (Leibniz, 1765) becomes audible. All the ambient noises of architecture, of people gathering, of the humming and hissing of technology, of irritating insects or disturbing coughs or sneezes – all these minuscule sounds that factually constitute any listening experience, materially, all of these sounds become overly audible. What one hears through this new multitude of sounds is then the whole disposition of materials, actors and constellations of substances; you hear, if you will, the *dispositive* in place – or: the *apparatus*.

The terms 'apparatus' and 'dispositive', as well as the whole of the so-called 'apparatus theory', derive in the main from a single article from 1970, written by French film theorist Jean-Louis Baudry: *Effets idéologiques produits par l'appareil de base* (Baudry, 1970; translated as *Ideological effects of the basic cinematographic apparatus*, Baudry and Williams, 1974/75). In this article, Baudry explores the function of the outstretched technological apparatus for the cinematic experience. He writes:

Between 'objective reality' and the camera, site of the inscription, and between the inscription and projection are situated certain operations, a work which has as its result a finished product. (Baudry and Williams, 1974/75, p. 40)

This timid and rather abstract phrase refers to an immensely far-reaching and highly consequential insight: any experience that is mainly guided by, focused on, or taking place through mediating apparatuses, necessarily generates a new and artificial specimen of perceptual subjectivity. Baudry therefore states: what one hears or sees or senses constitutes a transcendental subject: 'le sujet transcendentale' (Baudry, 1970, pp. 20–22). Yet, this subject is indeed a double one: it means that only in the very situation in the midst of the apparatus the subject one perceives on-screen is actually generated – not before and not after; but it also means that the subject or the person who perceives is generated only in this situation in the midst of the apparatus. The whole technical dispositive is neither innocent nor without consequence, neither transparent nor immaculate. It is framing mediated experience from both ends: it generates the members of the audience as perceiving actors – and it generates the content in its specific form that these very audience members then perceive. The control of the mediated experience is immense if not close to total. While today this can be called a fundamental axiom of media theory, it was a ground-breaking insight in film studies of the 1970s.

It was only recently, in 2008, that the German musicologist Rolf Großmann proposed to translate this crucial article for film and media studies and the analysis of what it means *to watch a movie* into the area of sound studies and its analysis of what it means *to listen to music* (Großmann, 2008). In his article *Verschlafener Medienwandel* (liter-

ally 'Overslept change of media') he proposes, with various examples from technological history to performance practices, to leave behind an anthropocentric description of musical performances with a focus mainly on composition, aesthetics, and virtuosity of the participating instrumentalists. He offers instead to focus more on the intricate relations between and among all the technological apparatuses, material artefacts, performance spaces, bodily techniques, and various other practices and artefacts present in a performance. The technical dispositive is performing together with its humanoid collaborators. The above-cited quotation from Baudry's article would then, translated into the terminology of sound production, read as follows:

*Between the recording device and the audible reality, between the storage of a recording and its playback, a process of editing takes place – only at the end of which can the final sonic artefact be found.*

A dispositive of this kind consists, further following Baudry, of an entire technical as well as a habitual side, the two of which are irreducibly intertwined. They constitute each other mutually and continuously; to focus only on one side of the apparatus would qualify as a misunderstanding of this concept. The apparatus of a concert, for instance, consists not only of the orchestra, musical ensemble or band, the scores, rehearsed pieces or pre-produced tracks for software suits running at the performance. Essentially, it consists to the same degree of the integral process of miking and mixing, of room acoustics and of postproduction, of the distribution of various sorts of loudspeaker systems inside the room, on-stage and outside the concert hall. It consists also of a certain building made to house a performance, a certain order of seats or a certain way in which the audience is allowed to fill the floor, of security controls, of an established process of buying the tickets, of waiting and buying drinks or snacks, of entering the concert hall, of the process of preparing the stage, maybe music playing in the back or artists preparing the audience for the main act on-stage, the product placement all around this concert venue, and if one is expected to dance on the floor. It is this ritualised and thoroughly organised process that allows listeners to indulge in and to joyfully regress in a kinaesthetic, corporeal, and also partly introspective, partly exhibitory state of an externally guided, rapidly exciting, and experientially rich imagination. The apparatus is an apparatus that generates mediated experiences. Your and my imaginations are guided by the dispositive through all sorts of characteristics that also transform it into a true commodity. Sound production, musical performance and listening to sound and music have become, in the networked and thoroughly mediated societies all over the twenty-first century globe, almost inseparable from their property as commodities. Sound and music are perfect commodities, farmed and exploited on a massive scale. Their sonic capital lies in precisely this exploitation by the apparatus.

The apparatus, as has been shown in this section, is not merely restricted to one physical location and its technical instalments. There is a wide range of physical prerequisites that make listening possible, but also limit its possibilities in order to capitalise on it. The nineteenth-century phonograph, for instance, made recordings and playback *possible*, but only with a very *limited* frequency range, which also held true for later radio transmissions, studio recordings, various hearing aids and field recordings with mobile equipment. The walkman, again, made certain listening experiences *possible*, but only with a very *limited* selection of commodified recordings, which also held true for later sound reproduction technologies such as surround sound or wavefield synthesis systems and even the contemporary streaming services on offer today. And finally, digital sound production technology since ProTools has made sound productions of a certain complexity first of all *possible*, but only when agreeing to the various *limiting* dispositions of listening, of frequency visualisation and of access to certain sound properties through this software – which also held true later on, regarding for example the range of software instruments, of live performance tools or of new digital hardware interfaces and the ubiquitous DJ-software. All of these new technological possibilities materialise and enable ever-growing new ranges of listeners and users just by restricting their liberties through the specific materialities of their commodities and their function in a capitalist economy at the same time. The emergence of a new auditory dispositive at a moment in cultural history resembles a new implant in one's senses, habit and practices:

A new auditory dispositive is being established in all of these cases: It gets implanted into my sensing and my hearing body. It is a form of sensorial and habitual surgery, inserting a new piece of technologically enhanced hearing aid into a corpse. Thus, once one managed to assimilate this new habitual hearing aid into one's body, one will for sure experience completely different forms of auditory events: auditory events one never before had experienced. (Schulze, 2018, p. 51)

## The sonic persona: traces, sensibilities and experiences

In this very situation, when you are reading this article, the written version of a keynote lecture presented at a conference, you might sit in an office, at your desk, you might read it while commuting, in a train or plane, you might have downloaded a file of this text on one of your mobile devices and you might read or skim it in any place you wish. The situations listed here are manifold, yet they are all significant in the sonic traces and in the affordances they offer to you. Your sensory corpus is, undoubtedly, also in this very moment enveloped and engulfed in prominent sounds and ephemeral noise-scapes that will shape and tailor your perceptual identity, your sensible self: your sonic persona. You might experience yourself as irritated by the construction site around the corner, or

you are eagerly awaiting the visit of a friend or colleague, so you are – aside from skimming this page – also listening if you can detect her or his steps approaching your door. You could be wearing headphones or earbuds, listening to one of your favourite recordings these days, maybe streamed from your preferred online service. Or maybe you are intensively trying to block out all the traffic noises and the sounds of other passengers in this train, to be able to focus your attention on this particular article.

Being a sensory corpus means being under pressure from the auditory dispositives that constitute contemporary lives in today's heavily networked and thoroughly mediated societies. However, what potential does the concept of the sonic persona actually have? Maybe it is too much attached to a concept of social resistance – or to a last romantic resort of an all-too idealistic dream of some pure and untainted identity and individuality?

There are examples of two persons whose lives and professional practices exemplify the way the concept of a sonic persona might lead the way into a sonic understanding: an understanding of how humanoid aliens like you and me encounter, interact with and experience sounds. Both examples are, indeed, humanoid aliens who expanded, or still expand, contemporary notions of knowledge as well as technological or post-technological practices of sound in their times. The first person is Wallace Sabine, inventor of the reverberation algorithm, who lived between 1868 and 1919; the other person is Daniel Kish, inventor and teacher of human echolocation, who was born in 1966.

Wallace Sabine was one of the first professors in physics at Harvard University to focus on sound. He never received the title of a PhD, but he undertook the crucial research that led to the so-called *reverberation algorithm*: a formula that is still used to calculate, design and build edifices with a certain acoustic characteristic for speech, for music or for conversation or teaching. In Sabine's research and biography one can find a remarkable set of inclinations and idiosyncrasies that in the end made his sonic persona very tangible and also present in the public sphere. As a researcher, Sabine established the mentioned formula for reverberation that is applied across various situations and is supposed to be applicable to all sorts of listeners; yet, Sabine himself was a most unusual listener. His colleagues emphasised his almost excessive pleasure in the meticulous listening that guided him also in his experiments. In order to find constituents and variables for reverberation at the later stages of his experiments, he mechanised and automated some parts of his measuring; yet, during the earliest stages of these experiments all the measuring and the timekeeping was done by himself. He placed cushions and tapestries, people and chairs in the hall, he let the organ pipe project a sound – and he measured the time it took for this sound to be inaudible. His very own, quite eccentric and excessive listening capability and audiophilia, so to speak, guided him in his actual research. He himself listened to the sonic traces in the space he researched on; his idio-

syncratic sensibility and experience were actually the only constituents of the measuring apparatus that lead him to construct mechanical tools that could take over his tasks. To sum up: a crucial and ground-breaking research project that in the end led to a global standardisation for listening (Thompson, 2002, pp. 33–44), to a norm, an almost 'mythical norm' (Lorde, 1984, p. 116) that neither you nor I actually represent, this research was done by a person, a humanoid alien, who himself would never have been included into the very norm he developed. So, he who did research on and established this norm could do so only because he himself did not at all represent the properties expressed in this norm. To define it, Sabine had to sense, to listen to, and to be outside of this norm. It was his idiosyncrasies in sounding and listening which enabled him to establish a norm that would later push aside all idiosyncrasies. The dialectics and ambivalences, if not explosive blind spots, in research, regarding idiosyncrasies and norms, corporealities and formulas, are breathtaking.

Daniel Kish, the second person I would like to speak about as a sonic persona, is still – at the time of writing – the first and only blind person with an official licence to teach other blind or seeing-impaired persons how to navigate in everyday life (Kish, 1982). If one just thinks a few seconds about this fact, it becomes quite clear how ignorantly and weirdly contemporary bureaucratic and administrative structures in modern societies act towards all the idiosyncratic sensibilities and abilities of citizens in their precincts. How could it be possible, that lawmakers would assume that only persons who are *not seeing-impaired* would be adequate and educated guides and teachers for persons who are? This perspective can only be assumed if one accepts the aforementioned mythical norm of an idealised and perfectly trained corpus, representing an androcentric, eurocentric, heteronormative, athletic, and radically non-impaired person – without any biographical traits and taints, accidents and inclinations. This mythical ideal, as we all know very well, doesn't exist at all. On the contrary, persons like you and me – sonic, sensory, corporeal and sensible, responsive and intentional personae – navigate through their everyday lives by actually using all the sensibilities, inclinations and idiosyncrasies they might have. Idiosyncrasies not only limit the possibilities of their personae but simultaneously endow them with sometime surprising capacities. Similarly, the limits of our technological apparatuses also capacitate us for new discoveries and emerging cultural practices. Possibilities and limitations are again interlinked in this case. This struggle between existing normative dispositives and individual urges and idiosyncrasies to transcend those dispositives is therefore not only an object of research in science history – it represents at the same time also a necessary potential struggle for researchers and their listening bodies and sonic sensibilities:

A sonic persona is made out of a sensory corpus struggling with changing auditory dispositives. In these struggles, one negotiates a viable persona. The listening body of a researcher is hence an example of this sensory corpus under pressure. Yet, it is an indispensable ground for sonic research. Corporeal epistemologies rely on the researcher's corpus [...] following sonic traces. (Schulze, 2018, p. 157)

Something like what is described here was and is the starting point for Daniel Kish's development of *human echolocation* into a teachable, trainable, learnable and applicable skill. Kish expanded, starting with his very own experiential and listening body, the rather visucentric, ancient myth of 'facial vision' (Supa et al., 1944; Worchel et al., 1947) that described in previous centuries the practice of human echolocation by blind persons – into a research-based set of skills and sensibilities which he trains participants in. The set of *corporeal listening techniques* (Schulze, 2016) Kish developed includes, for instance, the palatal click, passive echolocation (e.g. skin sensibility, kinaesthetic sensibilities) as well as active echolocation. These practices are used by Kish himself all the time in his own daily life and worldwide travelling, and his training made them accessible both to seeing-impaired and not seeing-impaired persons. Participants who successfully completed one of his trainings are then indeed capable of navigating by themselves, without assistance of a person who is not seeing-impaired, through everyday situations in the public sphere and in their personal living spaces. They can ride a bicycle or play basketball – and score points! All of these activities are then actually living proof of the malleability, plasticity and trainability not only of the brain as such but of all the individual skills and practices a person has acquired over the years. One's personal set of sensory skills and corporeal practices is not fixed; it can be expanded into realms of expertise and sensibility that can seem almost supernatural or superhero-like to outsiders or novices of this training. What once might have been termed *disabilities* can soon turn into a major set of new sensibilities and practices.

The framework of an anthropology of sound – which is what I have hoped to show in this article – can provide an access to these skills and sensibilities. When focusing on the introduced formants of the *sensory corpus*, the *auditory dispositive* and the *sonic persona* it becomes possible to move the attention of research slightly away from an almost obsessive fixation on the intricate possibilities and limitations of technology, and towards the (at least similarly) intricate possibilities and limitations of anthropology. With this move, I hope also to contribute towards achieving a research goal that Michel Serres proposed over 30 years ago:

L'émission l'emporte sur l'écoute, nous savons comment lancer un son et comment il se propage, nous pouvons le relayer, nous savons mal recevoir. (Serres, 1985, p. 147)

*We know how to project a sound and how it propagates; we are bad at receiving.* An anthropology of sound intends to unfold the knowledge and the practices of receiving sounds. Yet, the descriptive set of skills and sensibilities that might be stated on anatomical charts and in measured results of average sensibilities is not normative for all the potential sensibilities of receiving and of practice one might imagine. The activities of musical virtuosity, of high-performance sports, of several art forms and crafts between creating perfumes, intricate sculptures, imagery, clothing or woodwork, certain refined practices of preparing foods or beverages, they all embody this urge and this endeavour to transcend the seemingly normative limits of skills and sensibilities in humanoid aliens like you and me. Yet, these activities tend to be ignored when the goal is standardisation.

Instead of unnecessarily limiting the potential capacities in humanoid aliens by stating a fixed and normative framework of sensibilities and skills, I would propose the following as my primary conclusion after this brief journey into an anthropology of sound. Might it not be better to provide enough space and leeway in contemporary scientific, technological and also cultural and habitual frameworks to include even the most unthinkable, maybe uncomfortable, even annoying, or thoroughly strange and irritating individual idiosyncrasies and inclinations, as possibly positive and fruitful options for how you and I might perform and enjoy our lives? A sonic persona can potentially perform some of these new and unforeseen perceptions and experiences. Yet, to restrict a persona to the aforementioned mythical norm of standardised sensibilities and habits might do more harm than even imagined – to the individuuum foremost, but also to societies and cultures as a whole. Out of the most erratic and most disturbing idiosyncrasies today, I might conclude, new steps into yet uncharted territories of humanoid aliens and their future existence might yet be taken.

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## Abstract

### Corpus – dispositive – persona: formants of an anthropology of sound

Sound is a material, an energetic and invasive entity in one's life. As a constituent in sensory experiences it is one of the major objects of research in an anthropology of the senses in general: it provides an entry point for the exploration of sensibilities, corporealities and idiosyncrasies of all those humanoid protagonists present in a listening situation.

This article introduces three formants that shape an anthropology of sound: the *sensory corpus*, the *auditory dispositive* and the *sonic persona*. These three formants guide an approach to research on sounding and listening that intends not to exclude or even to reduce – but to stress and to focus on – the materiality, the agency and the erratic existence of all those very soft machines (W. S. Burroughs) contributing to a given sonic experience.

As a result, the understanding of listening and sounding then moves away from a large number of assumed claims and truisms regarding the impact of sound, the role of technology, the phenomenology of music and the listening experience.

This article is an edited transcript of a keynote lecture given at the conference *Musikforskning idag* at Uppsala University, Sweden, 13–15 June 2018. The conference was arranged by the Swedish Society for Musicology and the lecture was sponsored by the Tobias Norlind-samfundet för musikforskning.

### Keywords

Corpus; dispositive; persona; anthropology; sound.

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