Introduction: Sound as Popular Culture

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Researching sound as popular culture is the study of sound as both an integral and constitutive part of culture. The investigation of sound as popular culture would be more aptly described as a study *through* sound than a study *about* sound. An examination of sound as popular culture explores epistemologies reaching beyond the dualisms of subject–object and text–context. Those three research goals guide the direction of this volume: in the first section ("I. Outlining a Non-Discipline") through fundamental reflections on a series of ontologies and epistemologies of sound, as well as on specific terminologies and research methods; in the second ("II. Formations of Listening") by analyzing historical and contemporary case studies on how listening and listening's relation to sound was and is conceptualized in various sound cultures; and finally ("III. Producing Sonic Artifacts"), by describing, questioning, and reconceptualizing how practices of sound generation are applied by practitioners in the diverse fields in which sounds are produced, mastered, distorted, processed, or enhanced since the midtiventieth century.

The Sound of Consultants and Clouds

We are watching a video, listening to a monologue. A sound expert is standing in front of an audience—is he a designer? A consultant? A musician? All of the above and more? He is equipped with all of the state-of-the-art miking and amplifying technology that is necessary these days for an internationally accessible lecture series. He is quite tall, and appears calm, sincere, and dedicated. He says: "Over the next five minutes, my intention is to transform your relationship with sound" (Treasure 2009, 0:16). His speech is well articulated but still easygoing, adapting the rhythm of professional speaking to the strict time frame of this TED Talk, the world-famous lecture series on "Technology, Entertainment, Design."¹ The sound of his voice is not only attuned to the auditorium in which he is performing; it also transmits well and efficiently over the laptop speakers through which people can experience the lecture online. Over the course of the video clip, a wide range of everyday sounds (traffic

sounds, alarm sounds, jackhammers, so-called brand sounds), "natural" soundscapes, and, of course, music is intermittently emitted and mixed in with the speaker's voice. In addition, the audience intervenes acoustically as a laughing crowd from time to time, affirming the entertaining elements provided by the speaker. He is on a mission, and his whole appearance—bald head, earnest stare, and relaxed attire with loosely cut yet fitted pants and shirt-apparently coincides with the audience's idea of what an intellectual creator who might provide them with novel insights should be. He is a successful advocate for listening and for raising general awareness about the audible. His manner of presentation is fully in accordance with the internationalized American style of presenting academic content, namely in that superficially optimistic, and as such deeply paternalistic, way that has been so intensely promoted for decades now through the Californian Ideology (Barbrook and Cameron 1996): an ideology that comes along as an assemblage of concepts stemming from post-1960s countercultural bohemia, networked digital technologies, "free market" fantasies, and hip(pie) entrepreneurship. Our speaker is presenting and performing a culturally and historically unique form of the practices and knowledge of consultants in the twentyfirst century. And it does not come as a great surprise that a "society of consulting" (Pias and Vehlken 2010, 9), with its consultants for diverse areas, such as business, marriage, finance, fashion, academia, drugs, has also produced-rather sooner than later—a consultant for sound.²

The video then proceeds to run through some of the last decades' more general assumptions in sound theory. The speaker starts off by reproducing some of the most common yet very specifically exemplified claims about how sound resonates within individual bodies ("Sounds are affecting your hormone secretions all the time, but also your breathing, your heart rate ... and your brain waves" (Treasure 2009, 0:50). Some of the examples he presents reflect approaches by sound research pioneers such as R. Murray Schafer; but all of the examples present these fundamental claims as absolute and irrefutable truths. Contrary to the sound research pioneers' "sentimental" ecologist approach (Hosokawa 1984), as was developed in the ecology movements of the 1960s and 1970s, the speaker seems to be in a rather good mood, looking confidently ahead to the potentials of a sonic future. He is speaking the truth: the truth about sound. This supposed truth is revealed to us through technical diagrams and statistics that promise an easily manageable chart of "outcomes" that are quite convenient for Westernized consumer culture and employee culture: physiological, psychological, cognitive, and behavioral. The terms chosen by the consultant to speak about sound stem from a vocabulary most commonly associated these days with the language of science and economics: *bandwidth*, processing, activity, productivity, model. Sound increases the productivity or effectiveness of its listeners—and according to this speaker, that is its only conceivable significance. Instead of describing sound as a culturally and historically specific phenomenon and concept explicitly, as has become common practice in

sound research over the last years, this speaker is interested in offering a "better" life to—dare we say: Westernized?—Subjects through sound.

In any case, the assumptions about sound—exemplified here by the speaker Julian Treasure, chairman of the Sound Agency, a consultant company specialized in designing sound for corporations and brands-do not stray completely from contemporary sound scholarship. Treasure's assumptions do indeed selectively represent some elements of an approach toward material culture and sensory studies that is currently relevant in sonic theory. As such, the consultant does actually manage to promote a transfer of infobits from sound research. However, the manner in which it is done and the mission that lurks behind the speaker's litany stem from the aforementioned knowledge and practices of consultants. As such, it is riddled with implications, mannerisms, and biases that are not at all part of current research—research that has quite different implications, mannerisms, biases: the need to present hermetic, expert knowledge; and the need for an intricate, sometimes even incommensurable analysis and narcissistic argument (as in the case of this introduction perhaps). In contrast, a sound consultant's performance is conducted in a strongly populist and educating manner albeit pedagogically reductionist—which seems to be the behavior required for the TED lecture series' most successful presentations—a series that has served as the Olympics of Californian Ideology. Rather than being about ambitiously presented "objective" truth (which even in accordance with the strictest positivism would imply its future falsification as well as its purely tentative nature), the consultants' sound knowledge is a strategic knowledge; even if—and this is the trick—it promotes general and nonindividualistic "objectivity," it follows a pragmatic and quite personal interest and ambition.

To clarify the most striking elements and basic assumptions of this objectivistic analysis of the consultant's presentation we can take a closer look at two especially disconcerting statements. The first refers to a common notion about the general relevance of music: "Music is the most powerful form of sound that we know that affects our emotional state" (Treasure 2009, 1:20). This statement might be described as meaningless from a research perspective, and more an example of proselytizing than of actual scholarship. Yet precritical claims such as this one are actually included in any educated citizen's common knowledge about cultural practices in music today. In such cases, musical anthropology is boldly extended to a musical education, even a musical eschatology, which we can call an "audiopietism" (Schulze 2007), or even a kind of "theology of sound" (Sterne 2011). In this context, shifting one's focus to sound and music is understood as an improvement strategy for Subjects, one which has even be linked to a mystic hope of universal salvation and redemption scenarios. However, the consultant's bias toward promoting the general relevance of sound and music for contemporary culture becomes even more apparent in another remarkable statement from this presentation: "recognition + association = power" (Treasure 2009, 3:50). To exemplify this, he provides two examples from the canon of contemporary popular culture's sound design: the iconic starting chord in the Beatles' *A Hard Day's Night* (ibid., 3:54) and the ascending semitone of John Williams's famous shark motif for *Jaws* (ibid., 4:00). Although there is no mention of this point, it is obviously necessary to recognize a specific sound as being a part of popular culture in the first place in order to associate anything with it—only then is it possible that this association will have some powerful impact on the listener. The physical effect of sound on the body is culturally defined through a reference to the material and sensory dimensions of popular culture. Sound thus becomes a materiality through which the visceral and affective potentials of popular culture can be shaped.

In these examples, the speaker repeatedly refers to findings that were proven by empirical research and presents them as unfalsifiable; but is that not a contradiction in itself? As Jonathan Sterne noted: "Claims about the transhistorical and transcultural character of the senses often derive their support from culturally and historically specific evidence—limited evidence at that" (Sterne 2003, 18). At first glance, this paradox is quite pervasive in the field of popular culture in regard to sound theory and it hints at popular culture's vitalist and decidedly presentist approach, even if such a vitalist und presentist potential is itself constructed. Sound, in particular (and the ambitious theoretical reflections upon it), is indeed a genuine part of popular culture in the twenty-first century. Both the claim that there is a dire need for a more subtle and refined consideration of sound and the call for more research into the domain of individual listening habits and specific listening environments are widely thought to be statements of high distinction denoting a refined life experience. The consultant therefore ends his talk with the following mesmerizing mission statement for a heightened sonic awareness in everyday life: "If you're listening consciously, you can take control of the sound around you. It's good for your health. It's good for your productivity" (Treasure 2009, 5:20). Such an improvement of the Subject through a shift toward sound resonates strongly with audiopietism and the theology of sound mentioned above. However, along with the consultant's audiopietism comes a particular specificity: It rejects any metaphysical qualities or transcendent utopias. Thus, becoming a "better" Subject through a greater sensitivity for sound signifies something very concrete in the case of sound consultancy and Californian Ideology, namely, becoming a more successful, free, and creative entrepreneur.

Although that presentist approach leads to an energetic, focused, and quite convincing argument, right here, right now, the downside is that it brings a subjective fallacy into play if it is falsely accepted as an example of valid research: this narrow research field's rather limited evidence and the individual lifetime experience of one sole speaker are extrapolated to be of general relevance to, and even insight into, every possible anthropological, historical, or cultural situation—now and forever. An extremely strange assumption. However, the consultant's claims about the "general"

effects of sound should not be misunderstood as academic knowledge and criticized as such, but rather, first and foremost, they should be treated as consultant knowledge. And as that form of knowledge, the consultant's sound claims serve a strategic function. Their aim is to create a convincing and vital presence and performance in the TED Talk format, thereby putting the topic "sound" on the agenda for a public that is presumed to understand that "scientific knowledge" is synonymous with "objective" knowledge. Although the consultant does not specifically discuss culture in the presentation, culture is in fact implicitly present throughout his entire talk. In other words: even if he does not address popular culture, the presentation *itself* constitutes a very characteristic part of contemporary popular culture, one which can be associated with strategies of "creative" self-improvement and self-marketing. This consultant performance has proven as a useful starting point for an analysis of particular aspects of popular culture and to outline this volume's epistemological interests. However, the discourse it offers is itself not really helpful for the development of a challenging concept of popular culture.

The TED Talk is not the only platform where we observe sound being incorporated into the Californian Ideology, into practices and business models, and into the Subject's strategies for improvement that correspond to those values. Moreover, its inclusion became particularly obvious when the radical transformation of the media industry through the tech industry's file-sharing platforms in the late 1990s was regarded as a model for a more general industry change, covering many top-selling industrial sectors. The film industry is one obvious example, but there is also the electric power industry-both of which have been affected by the so-called sharing-economy first practiced in the music sector. Furthermore, this shift towards an incorporation of sound can be deduced from the increased interest of leading tech companies' in audio companies-such as Apple's acquisition of Beats Electronics and Beats Music in May 2014, or Eric Schmidt's extensive visit to the headquarters of Native Instruments' Berlin in October 2014. Sound is therefore present and productive in the deterritorialized Californian Ideology. It does not make a significant difference if sound's promises of salvation are true or false. The only thing that matters in this context is whether the articulation of sound and salvation promises functionality and produces real practices and worlds.

Currently, audio streaming services are exploring and capitalizing on the typical sound consultant's plea for an improvement of the (listening) Subject through the control of the sounds in her or his environment.³ If we listen in this way carefully enough, we might capture another auditory phenomenon, a phenomenon that has been formed by a combination of digitalization and *ubiquitous listening* (Kassabian 2013): the constant playing of music using various streaming services with differing but converging business models and pricing structures. As people navigate their own individual way through the day, these services accompany them, to an even greater

extent than previous tools for ubiquitous, mobile, and personal stereos: they are easier to carry around on your daily routes than a *KLH model 11 portable record player* (introduced in 1962), a *Sony Walkman* (introduced in 1979), a *Sony Discman* (introduced in 1984), or an *Apple iPod* (introduced in 2001). With its presumed immaterialization, the commodification of ubiquitous listening rose to an unforeseen level. And this immaterialization is a delusion: it is nothing but the clever obfuscation of its highly refined and in part irresponsibly inexpensive material carriers via all of the cables, interfaces, software suites, server farms, mastering and postproduction companies, and all of the satellites and the space launch programs behind them. This rapid development of a globalized commodification of ubiquitous sonic and musical experience is currently one of the core drivers of global sound culture and entrepreneurial culture.

These days, the distribution, sharing, and consumption of sound in its manifold guises— (co-)organized by numerous audio platforms (such as SoundCloud), streaming services (such as Spotify), online music stores (such as Beatport, iTunes, and Amazon), but also by the vast amount of other hosting, streaming, and sharing services that are considered illegal according to most current legislation and jurisdiction—is a core part of what we call popular culture. Historically speaking, it is quite astonishing how quickly quasi-universal access to such a variety of sound productions has been made possible through the rapid expansion of worldwide digital data networks and their related business models. Ubiquitous music has thus become a major paradigm of twenty-first century popular culture: turning that music into your life soundtrack is presumably one of the fundamental selling points for any contemporary form of music consumption. Apparently, we seem to require this soundtrack for our everyday lives. It drives our turntables, it fuels us; it is our most effective click track for performance, desire, digestion, and rest. Businesses such as SoundCloud operate, capitalize, and monetize on popular culture's need for it. Their business model focuses mainly on the storage of sound data, providing online software interfaces for sound transmission and reproduction. In addition, they are involved in big data harvesting, data which is then sold to numerous clients in the industry and in the state administration, as well as-we must assume nowadays, unfortunately—a tacit data trade to globalized, networked secret intelligence services, such as the "Five Eyes." SoundCloud's intention is to provide a software environment that fosters, animates, and encourages the consumption and exchange of sound productions. This might sound like mere marketing lingo, but it does indeed quite accurately describe the performative activity that a company like SoundCloud simultaneously inspires and exploits. The principle characteristics of the sound productions in popular culture also play into this: the relative brevity of the pop song, the established commodified form of sounds, the public media personas related to its products, and the easily accessible options for data transfer and cultural exchange provided by a pop

soundtrack make it the perfect currency in current popular culture. The undisturbed circulation of capital and profits are only lightly disguised in these products, and a pop capitalism profits best from globalization. In the case of SoundCloud, in the beginning it actually combined Stockholm's innovation-friendly research and development environment with the recruitment-friendly, highly skilled, and comparably low-salary market of freelance artists, designers, programmers, and information architects working in Berlin. Finally, they engaged attorneys in London, making good use of the strong, capital-friendly business laws there. That meant that all of the different aspects of the company's initial development—its foundation, employee recruitment, and establishing of legal offices-were scattered all over this continent, a quite common business practice in globalized capitalism: the actual market forces operate beyond the laws of any one nation-the consumers and employees, however, are still forced to live in accordance with those particular national laws for the most part, with that specific local lifestyle, costs of living, and taxation level. The everyday culture of digital pop is a culture that involves playing cleverly between the various legislative systems, workday time zones, and urban as well as other social environments. For the companies running contemporary popular culture, nations and specific cultural traditions are primarily cultural artifacts to be capitalized on; it is as if, for them, they are simply hindrances to their business that only exist on paper. And their consumers-meaning all of us, including you-enjoy this immensely. Companies such as SoundCloud, but also Apple and Amazon, are using pop sound productions as their most attractive elements, teasing us to turn them into indispensable sources of joy, inspiration, and energy in our lives. We love paying for them-with money, but with our spare time and valuable person-based data as well.

While the kind of consultant sound knowledge that prevailed in the TED Talk discussed above is also at play here, what is more effective in this case is the knowledge of the users, listeners, producers, social networking aficionados, and the notorious *prosumer* (Toffler 1980), although the concept of the "productive" consumer has recently turned from a desired utopia into a quite often worn-out reality. At the core of early twenty-first-century popular culture is a mutual interpenetration of digital business models, employee culture, and sound production and performances. The knowledge of how to listen in culturally specific ways and how to perform and produce sounds in effective and capitalizable ways is what drives these businesses and their clients—us. The "Empire" of which Hardt and Negri (2001) spoke is actually a sonic one: a sonic empire. The sensory culture of listening techniques and of sound practices as well as the empire's highly refined material artifacts, its interventions, architectures, and mannerisms have yet to be described at the intersection of popular music studies, sound studies, and cultural studies.

Studying Popular Culture through Sound

In all their diversity, the chapters of this volume promote sound as a subject through which popular culture can be analyzed in an innovative way. In that respect, this book is *about* the manifold sounds of popular culture. From everyday sounds, such as the sound images of radio stations (Schopp's "Records on the Radio" and Föllmer's "From Stationality to Radio Aesthetics") to the mediated screams of a baby monitor (Mihm's "Baby Monitor"), from the sounds of computer games (Grimshaw's "Computer Game Sound") to audio lectures (Nardi's "Critical Listening"), from the noises and sounds of special mass events in places such as soccer stadiums (Bonz's "Soccer Stadium as Soundscape") and dance clubs (Butler's "Listening Orientation"), to rather idiosyncratic vernacular practices such as playing records backward to search for hidden messages (Smith's "Over-Hearing")—sound and the discourses, technologies and practices with which it is correlated are part and parcel of popular culture's many domains.

Even if the sounds of popular *culture* include the sounds of popular *music*, the former cannot be reduced to the latter. Sound can be aestheticized, but does not have to be aestheticized as music to become a subject for sound as popular culture. That is, this volume is linked to popular music studies to the extent that these studies deal primarily with the sound of popular music, and not first and foremost with, say, cultural contexts, visual worlds, lyrical content, or the music industry's institutions (Diederichsen's "Sound/Music"; Fabbri's "Concepts of Fidelity" and "Syd's Theme"; Seay's "Sonic Signatures"; and Zagorski-Thomas's "Sonic Cartoons").⁴ However, in contrast to popular music studies, the contributions in this volume also analyze sounds beyond music, between contingency and design. That statement links this volume, once again, to the academic field of sound studies as it has developed since the late 1990s, with an interest in sounds as culturally and historically specific phenomena that correlate with general culture theoretical questions how specific concepts of sound and listening are involved in the constitution of subjectivity, knowledge, or modernity (Burkhalter's "Sound Studies across Continents"; Schulze's "Sonic Epistemology"; Maier's "Sonic Modernities"; García Quiñones's "On the Modern Listener"; Burkhalter's "World Music 2.0"; and Bonz's "Distorted Voices").⁵ Even when the sound of popular culture resonates and is reflected in the monographs, anthologies, and articles from the domain of sound studies, there are two prevailing trends: the study of sound in the more "exclusive" expert spheres, such as labs, test sites, studios, and clinics, or in the "everyday" sphere. These two spheres do indeed overlap with popular culture, but popular culture is not reducible to those spheres. Moreover, and we can identify this as a third trend, prominent publications in the sound studies field deal with sound in the context of avant-gardist sound art, which is usually conceptualized in strict differentiation to the popular. Therefore, the conceptualization of sound as popular culture still identifies a research gap in the academic field of sound studies. Contrary to approaches

from the perspective of the history of science, the study of sound as popular culture is not restricted to an examination of expert environments, forms of training, or knowledge; it does not seek to follow the trend toward scientification and refinement, searching for a means to further elevate some particular discourse or research area. Unlike approaches that follow the category of sound as an artistic entity, an examination of sound as popular culture is not limited to aestheticized and specifically theorized forms of sound production and their simultaneously transformed listening practices and aesthetic discourses. And in contrast to established and often monolithic approaches in absolute favor of analyzing everyday practices, an analysis of sound as popular culture respects the impacts of non-everyday contexts on sound—and their effects on social differences (Nardi's "Sound and Racial Politics"; Erlmann's "Invention of the Listener"; Diederichsen's "Existential Orientation").⁶

While popular culture is still an underrated object of study in sound studies, sound in turn remains inadequately examined in the field of cultural studies that examines popular culture (based on its inclusive and broad concept of culture).⁷ Surprisingly, some of the anthologies and monographs coming out of this academic field are still exploring popular culture as a comparatively silent culture: "Popular culture is chiefly marked by four characteristics: visualization, commodification, entertainment and technology" (Betts and Bly 2013, 4). Thus, in regard to such publications, there is clearly an urgent need to tune or to "retune" popular culture. This tuning of popular culture is the optimization of popular culture's epistemological potential. We, as researchers, are attuning ourselves to popular culture through an analysis of its sounds. As opposed to the famous intention to holistically, eschatologically explore the tuning of the world (Schafer 1977), this attunement, with its research subjects and its research methods, makes a great effort to remain quite purposefully in the realm of popular culture. In that sense, in this volume cultural studies is tuned to a level at which sound studies and popular music studies can be recognized as part of the same discourse. In the process, the cultural practices concerning sound should no longer be seen as mere semiotic or signifying processes that refer to some outerworldly model of reference to super-signs, but as thoroughly material, physical, perceptual, and sensory processes that integrate a multitude of cultural traditions and forms of knowledge, for example, musical or technological, and which form an actual new discourse. This volume is guided by this approach in order to focus on the historical and cultural specificity of sound by referring to specific practices, technologies, and discourses (Maier's "Sound Practice"; Bijsterveld's "Ethnography and Archival Research"; Mrozek's "Historicization in Pop Culture"; Birdsall's "Sound and Media Studies"; Kassabian's "Listening and Digital Technologies"; Théberge's "Listening as Gesture and Movement"; Schulze's "Corporeal Listening"). Moreover, by using sound as a subject to analyze popular culture, this book is not only *about* sound. In fact, it goes one step further—it is a study *through* sound. The chapters of this book therefore provide an analysis of crucial aspects of popular culture, its echoes and recordings from the past, its resonant presents but also—by listening to the contradictions, breaks, and discontinuities—its possible futures.

The basic goal of this book is the articulation of popular culture through the study of sound. Through an examination of the noises of a baby monitor, it has become possible to analyze changes in domestic space beginning in the 1960s, including a new organization of the parent-child relationship. Looking at sub-bass frequencies as they were produced by the sound systems of 1970s disco culture allows us to explore crucial aspects of a history of listening that is related to a history of nonlistening (Papenburg's "Enhanced Bass"). Through a study of loudness in popular music, we can identify listening practices that are designated as "legitimate" or as "illegitimate" (Binas-Preisendörfer's "Loudness Cultures"). Observations of video game sound design and location-aware technologies facilitate the study of a militarization of the senses and the ambiguity of sensory distance (Bull's "Technological Sensory Training"). An analysis of the sound of popular music productions allows for an elaboration of a conceptualization of recorded sound (Wicke's "The Sonic"; Großmann's "Phonographic Work"; Papenburg's "(Re-)Mastering Sonic Media History"). And, as shown above, the Californian Ideology can be investigated through a study of the sounds of consultants and clouds.

The French economist, author, ex-bank director, and former presidential adviser Jacques Attali developed a similar methodological approach to sound. Even if Attali's historiography and lofty adherence to a romantic notion of the autonomous Subject might appear to some rather dubious and outdated today, his concept of music, and the methodological implications provided the necessary momentum for the development of *sound as popular culture* as a method. For Attali, music "is a way of perceiving the world. A tool of understanding" (1985, 4). Thus, Attali's book is not about music "itself," not about music as an "autonomous" entity, and moreover, not about music's "Other"—noise. Instead, it is about attaining an understanding, an awareness of the power relations in culture and society through music and about the changing boundaries between music and noise.⁸

Using sound as an epistemological "tool" in this way leads to at least two problems or epistemological risks: the problem of either only functionalizing and *instrumental-izing* sound or only of *metaphorizing* sound. On the one hand, an epistemological functionalization of sound can be very productive for cultural analysis. Using sound as a tool enables us to move beyond widespread approaches to sound from any art or fan tradition.⁹ In this approach, we do not refer—at least not primarily—to any specific sound because we think it is a great piece of art or because we are affected by it as fans. On the contrary, we refer to a particular sound because it has the potential to assist in the study of a certain aspect or relevant issue of popular culture. In other words, sounds that are not aestheticized as music can also be useful for dealing with

these research questions. This point is reflected in this book's contributions on multiple levels. On a very basic quantitative level, it includes a diverse set of contributions that are quite explicit in not dealing with sound as music. On a more specific level, the contributions that do deal with sound as music use it as more of an indirect tool for the study of a particular question concerning popular culture. With that being said, on the other hand, the employment of sound as a mere tool for the study of the organization of popular culture and its power relations has an apparent blind spot: the fact that sound has a constitutive function for popular culture. Sound does not only reflect popular culture; it plays a part in the transformations of popular culture. It is therefore necessary to transform Attali's *tool* of understanding into an integral approach for the study of popular culture as a whole.

We can add here that in sound as popular culture the "as" does not merely articulate a metaphorical relationship, a purely hermeneutic interpretation of sound as something (popular culture) that is not sound in the literal sense. Rather than marking a metaphorical construction based on a similarity, the "as" here works as a metonymy based on contiguity. Thus, the contributions to this book analyze sound as a crucial part of popular culture, and not as a metaphorical "as if" interpretation. Or, to put it differently: popular culture is not silent, but (re)sounding. In contrast to the methods discussed above, this book studies sound as both an integral and constitutive part of popular culture. Therefore, the "as" in sound as popular culture contributes more to an integral understanding than to a functional one: how the two concepts, sound and popular culture, are interrelated, interwoven, and how they reciprocally represent and reference each other. In sound as popular culture, the preposition "as" does not mark a definite and systematic functionalizing of the one for the other: If that were the case, the presumably broader concept—popular culture—would overshadow the narrower—sound. In similar situations, the presumably narrower concept never even really appears in that kind of research concept; it is often seen as no more than a used and abused concept, a rather minor distinction. In this volume, however, it is the symmetry between the two concepts that finally makes it possible to explore their actual and specific interrelations. The choice of using "as" instead of "and" or "in" situates this book within a specific methodological discourse. The usage of "as" marks a strict distinction from methodologies that reproduce a dualistic subject-object schema, leading to sound being analyzed as sound "itself," thereby decontextualizing it as such, or to it being examined as an object or text that exists in a dualistic relationship to a subject or a context. We deploy the preposition "as" as a kind of exoteric code word that permits access to an epistemological world that differs from the epistemologies of conjunctions such as "and" or "in."¹⁰ The conjunction "and" tends to reproduce an epistemology in which "sound" as well as "popular culture" are two entities or objects that exist primarily independently from one another and interact with each other secondarily, selectively—rarely, in fact. While "and" tends therefore to reproduce

epistemologies that are based on this subject–object schema, the other option "in" tends to reproduce epistemologies that are based on a context–text schema. The epistemological consequences of the usage of "as" are thus quite radical; they do not only imply a collapse of dichotomies of musical texts and contexts; they imply that music theory (in a general sense) *is* cultural theory—and vice versa.¹¹

Besides this problematic subject-object dualism, the epistemological value of the study of sound and music as "text" is itself limited. Wicke (2003) points out that the transfer of the concept "text," which came to music analysis from linguistics and literary studies, has the quite unspecific and often misleading function of somehow associating music with "meaning." The concept of text in literary studies is-according to Wicke—a "category which is bound to writing as a linearly constructed code," which would also imply the fundamental metaphor of "reading," which is actually external to many musical and sonic practices. In his anthropology of the senses, David Howes explores precisely this difference in critical differentiation to "language games. Culture as discourse. World as text" (2004, 1). Instead of "reading" culture, Howes argues for the "sensing of cultures"; instead of cultural texts, he analyzes "empires of the senses." Along similar lines, the authors represented in this volume are not analyzing sound as text—instead, they are analyzing sound through all its performative actualizations as a complex, layered, and convoluted sensory and cultural artifact. The historical, contemporary, and future cultures of the popular appear to be accessible through sound and to function through it as well. Sound is not incidental to popular culture: it is fundamental to it.

Notes

1. TED started as a conference forum as early as 1984. Since 1990, there has been an annual TED conference, which took place in California until 2013. Since they were made available online in 2006, the TED Talks have gained significant momentum. In 2001, the journalist and publisher Chris Anderson became the TED Talks curator.

2. See the growing body of manuals on topics such as sound branding, sound design as a part of product design, or—though a bit outdated—ringtones (e.g., Jackson 2003; Schifferstein and Hekkert 2008; Bronner, Hirt, and Ringe 2014).

3. On the cultural analysis of the transformation of mediated listening spaces and mobile forms of music, see also Born 2013; Gopinath and Stanyek 2014.

4. The study of the exploration and economization of the "sound" of popular music as "hit sound" began in the 1970s and 1980s (see Kealy 1979 and Théberge 1989). The "sound" of music is still a crucial and productive subject in the research on the specific status of "produced music," which has been an active research field for a few years now (see Frith and Zagorski-Thomas 2012) and which studies music as situated "in terms of its sensory materiality" (Johnson and Cloonan 2009, 13). Even if the analysis of the "sound" of music is not solely a musicological endeavor (see

Gracyk 1996), it provides the possibility of specific musicological access to popular music studies. Therefore, Shepherd and Wicke identified a specific musicological contribution to the "essentially interdisciplinary undertaking" of popular music studies stemming from the analysis of sound in popular music (2003, 94). Musicological approaches in this research field analyzing "the specific character of sounds recognized as musical within popular music" (2003, 94); see also Garcia Quiñones's ("Sound Studies versus [Popular] Music Studies") as well as Großmann and Hanáček's ("Sound as Musical Material") contributions in this vol. to the well-established and still extremely productive discourse on sound in musicology.

5. For a delineation of this research field, see the pertinent volumes by Bull and Back (2003), Pinch and Bijsterveld (2012), Sterne (2012), and Novak and Sakakeeny (2015).

6. As may become clear, we prefer the concept of popular culture vis-à-vis other adjoining concepts, such as vernacular culture or everyday life culture. There are certainly smooth transitions between these concepts, but each concept establishes a specific focus. While vernacular culture remains a historically broad concept that is not restricted to modernity, we can conceive of popular culture as being inherently connected to modernity. The same is also true for everyday life, which has become a prominent object in academic research (see Lefebvre [1947] 1991; de Certeau [1980] 1988). The prominence of the category everyday life in current sound research is astonishing (see, e.g., DeNora 2000; Bull 2007; Sloboda 2010; Herbert 2011). The category has nearly developed a cultural critical potential in the present, when even the most marginal phenomenon is presented and marketed as an "event." By all means, the study of daily or ordinary routines and their individual appropriations is definitely necessary; nevertheless, popular culture also encompasses distinctly more exceptional spheres, such as recording studios and clubs.

7. In the United States, the study of popular culture gained institutional momentum within academia through the Popular Culture Association (founded in 1969), and the *Journal of Popular Culture* (first issue in 1967), which put the study of subjects such as detective stories, comics, movies, popular music, and TV programs on its agenda (see Browne 2002). For the discussion of popular culture in popular music studies that is critically based in British cultural studies see Wicke 1992 and Kassabian 1999. For an overview of the multiple meanings of the concept "popular culture," see also Hecken's chapter in this vol.

8. We can therefore read Attali's method as an early example of an acoustic epistemology. The knowing of the world through sound became a prominent method for sound studies relying on concepts such as "acoustemology" (Feld 1996). While Steven Feld based the concept of acoustemology—which he defines as "local conditions of acoustic sensation, knowledge, and imagination" (1996, 91) or as "sounding as a condition of and for knowing" (97)—on ethnographic research he conducted outside of Western modernity (in the "exotic" rainforests of Papua New Guinea), the concept has been picked up and developed to analyze sonic modernity as well, most prominently through anthropological sound research (Porcello 2005, 270; Rice 2012; Born 2013), and also beyond its focus on the Western world (see Eisenberg 2013). We can add here that Attali's acoustic epistemology is—contrary to Feld's—not interested in the description of a coherent and consistent "world" but is instead focused on the tensions, contradictions, and power relations. In this regard, it is close to Michel Foucault's analysis of power, and thus includes

categories such as the "Other" or the "Outside." This becomes particularly evident in Attali's analysis of music, in which he positions it in relation to its Other, that is, noise.

9. These traditions are also still very much alive in popular music studies. While the art tradition is interested in proving that selected forms of popular music are "art" (whatever that is exactly), the fan tradition is interested in raising the reputation of the worshiped hero. While the art tradition has lost momentum over recent years, the fan tradition has gained momentum. Both approaches have remained relatively unproductive at the level of cultural theory.

10. Early implementations of this usage of the preposition "as" can be found in ethnomusicology, in relation to what Richard Middleton (2003) called the "cultural turn in ethnomusicology." In the early 1970s, ethnomusicologist Alan Merriam (1977, 204) defined ethnomusicology as "the study of music as culture." Based on that definition, Bruno Nettl (2005, 217–228) distinguished three approaches to, or perspectives on, (ethno)musicological research: (1) "music in its cultural context" (2), "music in culture," and (3) "music *as* culture." While Nettl argued that the first two approaches presuppose a specific concept of music that exists independently of culture, he sees the third approach as one in which music is an integral part of culture: "The study of music as culture would require the integration of music and its concepts and its attendant behaviour and indeed, all musical life, into this kind of a model of culture" (ibid., 217).

11. Especially in the case of musicological research that is grounded more in the fields of cultural studies and anthropology than in a tradition of "art" scholarship, numerous examples for the productivity of the "sound as" or "music as" approach can be found. Robert Fink (2005) studied disco and "minimal music as cultural practice," John Shepherd—still relying on the problematic text analogy—analyzed music "as social" (Shepherd 1991) and "as cultural text" (Shepherd 1992). The study of sound and music not as sound and music in and of itself but as something else—that is, as popular culture in the case of this book—bears some similarities to what Georgina Born (2010) called a "relational musicology" and what Richard Middleton (2003) defined as a "cultural study of music." Whereas Fink used minimal music and disco to analyze an "excess of repetition" in "postindustrial, massmediated consumer society" (Fink 2005, x), Anahid Kassabian (2013) used "muzak" to analyze the formation of the concept of "ubiquity," which later became prominent in concepts such as "ubiquitous computing."

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