

The Routledge Companion to Sounding Art



Edited by Marcel Cobussen, Vincent Meelberg, and Barry Truax

THE ROUTLEDGE COMPANION TO SOUNDING ART

The Routledge Companion to Sounding Art presents an overview of the issues, methods, and approaches crucial for the study of sound in artistic practice. Thirty-six essays cover a variety of interdisciplinary approaches to studying sounding art from the fields of musicology, cultural studies, sound design, auditory culture, art history, and philosophy. The companion website hosts sound and video examples and links to further resources.

The collection is organized around six main themes:

- Sounding Art: The notion of sounding art, its relation to sound studies, and its evolution and possibilities.
- Acoustic Knowledge and Communication: How we approach, study, and analyze sound and the challenges of writing about sound.
- Listening and Memory: Listening from different perspectives, from the psychology of listening to embodied and technologically mediated listening.
- Acoustic Spaces, Identities and Communities: How humans arrange their sonic environments, how this relates to sonic identity, how music contributes to our environment, and the ethical and political implications of sound.
- Sonic Histories: How studying sounding art can contribute methodologically and epistemologically to historiography.
- Sound Technologies and Media: The impact of sonic technologies on contemporary culture, electroacoustic innovation, and how the way we make and access music has changed.

With contributions from leading scholars and cutting-edge researchers, *The Routledge Companion to Sounding Art* is an essential resource for anyone studying the intersection of sound and art.

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*Edited by Marcel Cobussen,
Vincent Meelberg, and Barry Truax*

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Vocal Aesthetics in Digital Arts and Media (MIT Press, 2010), lead editor and contributor, and a forthcoming monograph, *Voicetracks: Voice, Media and the Arts in the New Materialist Turn* (MIT Press). Her collaborative art practice with Maria Miranda (www.out-of-sync.com) has been commissioned and exhibited in Australia and internationally. She is the founding editor of the international peer-reviewed journal *Unlikely Journal for Creative Arts* (<http://unlikely.net.au/>), Honorary Professorial Fellow, Victorian College of the Arts, Melbourne University, and Emeritus Professor, La Trobe University, Melbourne.

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Trevor Pinch was born in Northern Ireland and is the Goldwin Smith Professor of Science and Technology Studies and Professor of Sociology at Cornell University. He holds degrees in physics and sociology. He has authored many books and numerous articles on aspects of the sociology of science, the sociology of technology, the sociology of economics, and sound studies. His books include *Analog Days: The Invention and Impact of the Moog Synthesizer*. He is co editor of the *Oxford Handbook of Sound Studies*. He is also a performing musician with the Electric Golem and The Atomic Forces. He has an honorary degree from Maastricht University.

Andrea Polli is an artist working at the intersection of art, science and technology whose practice includes media, public interventions, curating and directing, and writing. She is currently Professor of Art and Ecology with appointments in the College of Fine Arts and School of Engineering at the University of New Mexico. She holds the Mesa Del Sol Endowed Chair of Digital Media and directs the Social Media Workgroup research lab. She holds a doctorate in practice-led research from the University of Plymouth and her most recent book is *Far Field: Digital Culture, Climate Change and the Poles* (Intellect Publishers, 2011).

Pedro Rebelo is a composer, sound artist and performer working primarily in chamber music, improvisation and sound installation. In 2002, he was awarded a PhD by the University of Edinburgh where he conducted research in both music and architecture. His writings reflect his approach to design and creative practice in a wider understanding of contemporary culture and emerging technologies. Pedro has been Visiting Professor at Stanford University (2007) and Senior Visiting Professor at UFRJ, Brazil (2014). He has been Music Chair for international conferences such as ICMC 2008, SMC 2009, ISMIR 2012. At Queen's University Belfast, he has held posts as Director of Education and Acting Head of School in the School of Music and Sonic Arts and is currently Director of Research for the School of Creative Arts, including the Sonic Arts Research Centre. In 2012 he was appointed Professor at Queen's and awarded the Northern Bank's "Building Tomorrow's Belfast" prize.

David Rothenberg, an ECM recording artist, has performed and recorded on clarinet with Jan Bang, Scanner, Glen Velez, Karl Berger, Peter Gabriel, Ray Phiri, and the Karnataka

College of Percussion. He has twelve CDs out under his own name, including *On the Cliffs of the Heart*, named one of the top ten releases of 1995 by *Jazziz* magazine and *One Dark Night I Left My Silent House*, a duet album with pianist Marilyn Crispell. Rothenberg is the author of *Why Birds Sing*, book and CD, published in eleven languages and the subject of a BBC television documentary. He is also the author of numerous other books on music, art, and nature, including *Thousand Mile Song*, about making music with whales, and *Survival of the Beautiful*, about aesthetics in evolution. His latest book and CD is *Bug Music*, featuring the sounds of the entomological world. Rothenberg is Professor of Philosophy and Music at the New Jersey Institute of Technology.

Linda-Ruth Salter holds a PhD degree from Boston University's Interdisciplinary Studies program. She combined her very different interests and backgrounds with Barry Blesser to co-author *Spaces Speak, Are You Listening? Experiencing Aural Architecture*, which focuses on understanding the human experience of hearing in three-dimensional space. Salter's main focus of research has been to understand the way human beings use and experience space as a cultural artifact. She is an independent scholar. In addition, Salter is a life-long artist and educator in the arts. She draws upon these experiences in understanding sound art.

Franziska Schroeder is a saxophonist and theorist, originally from Berlin. She trained as a contemporary saxophonist in Australia, and in 2006 completed her PhD at the University of Edinburgh for research into performance and theories of embodiment. Her research is published in diverse international journals, including *Leonardo*, *Organised Sound*, and *Performance Research*. She has published a book on performance and the threshold, an edited volume on user-generated content and a volume on improvisation in 2014 (Cambridge Scholars Publishing). She is a Lecturer at the School of Creative Arts, Queen's University Belfast, where she coaches students in improvisation, digital performance and critical theory. www.sarc.qub.ac.uk/~fshroeder

Hillel Schwartz is a cultural historian, poet, and translator. His current research on the history of changing notions and experiences of emergency was awarded a Berlin Prize in Cultural History for Fall 2014 by the American Academy in Berlin. His most recent books are *Making Noise: From Babel to the Big Bang, and Beyond* (Zone/MIT, 2011) and *Long Days Last Days: A Down-to-Earth Guide for Those at the Bedside* (2012). His translations from the Korean, in collaboration with Sunny Jung, have resulted in two volumes of poetry: Kim Nam-jo, *Rain, Sky, Wind, Port* (Codhill Press, 2014); Ko Un, *Abiding Places: Korea South and North* (Tupelo Press, 2006).

Bruce R. Smith is Dean's Professor of English at the University of Southern California. His seven published books include *The Acoustic World of Early Modern England* (University of Chicago Press, 1999) and *Phenomenal Shakespeare* (Wiley-Blackwell, 2010). For Cambridge University Press he has served as general editor for the two-million-word *Cambridge Guide to the Worlds of Shakespeare* (2015). In 2016 his latest book, *Shakespeare | Cut: Rethinking Cut-work in an Age of Distraction* will be published by Oxford University Press.

Jean-Paul Thibaud, sociologist and urban planner, is Senior Researcher at CNRS and researcher at CRESSON (Research Center on Sonic Space and the Urban Environment, UMR1563 *Ambiances Architecturales et Urbaines*) in Grenoble (France). His field of research

covers the theory of urban ambiances, ordinary perception in urban environment, sensory culture and ethnography of public places, anthropology of sound. He has directed the CRESSON research laboratory and is currently the co-director of the International Ambiances Network (www.ambiances.net).

Barry Truax is Professor Emeritus in the School of Communication (and formerly the School for the Contemporary Arts) at Simon Fraser University where he taught courses in acoustic communication and electroacoustic music. He worked with the World Soundscape Project, editing its *Handbook for Acoustic Ecology*, and has published a book *Acoustic Communication* dealing with sound and technology. As a composer, Truax is best known for his work with the PODX computer music system which he has used for tape solo works, music theatre pieces and those with live performers or computer graphics and his multi-channel soundscape compositions. www.sfu.ca/~truax

Paul Vickers is a computer scientist and a chartered engineer. He teaches and carries out research in the computing domain with a particular interest in *sonification*, that is, how sound can be used to communicate data and information. Linked to this he looks at how the aesthetic properties of sonification artefacts affect how they may be used, that is, how people interact with and listen to them. In collaboration with other computer scientists, psychologists, and industrial partners, Vickers is exploring how to apply sonification to application areas such as situational awareness for computer networks, medical image diagnostics, and musical improvisation. He is also working on the development of mathematical models to describe the foundations of visualization and sonification to allow comparisons of visualization and sonification processes at the syntactic, semantic, and pragmatic levels. In July 2014 Vickers performed a stand-up comedy routine based on his sonification research at the Bright Club comedy event.

Salomé Voegelin is the author of *Listening to Noise and Silence: Towards a Philosophy of Sound Art*, Continuum, 2010, and *Sonic Possible Worlds: Hearing the Continuum of Sound* (Bloomsbury, 2014). She is a Reader in Sound Arts at the London College of Communication, UAL.

Mandy-Suzanne Wong is the Editor in Chief of the philosophical journal *Evental Aesthetics*. Since graduating from UCLA with a PhD in musicology, she has contributed over a dozen articles on sound art to *The New Grove Dictionary of American Music*.

John Wynne is an award-winning artist whose diverse, research-led practice includes large-scale sound installations, delicate sculptural works, flying radios and award-winning “composed documentaries” that hover on the borders between documentation and abstraction. His *Installation for 300 speakers, Pianola and vacuum cleaner* was the first sound art in the Saatchi collection. He collaborated with filmmaker Atom Egoyan on a *camera obscura* sound installation for Aldeburgh Music. His work with endangered languages includes a project with click languages in Botswana and another with one of Canada’s indigenous languages. A year-long residency in a heart and lung transplant centre led to a book, a 24-channel installation and a half-hour commission for BBC Radio 3. Wynne is a Reader in Sound Arts at the University of the Arts London and has a PhD from Goldsmiths College, University of London.

GENERAL INTRODUCTION

Marcel Cobussen, Vincent Meelberg, and Barry Truax

We meet on a sunny day somewhere in the center of a European metropolis. We take our seats at an outdoor Italian restaurant, situated on a square next to a surface subway station. Around us we hear a great variety of languages. English, Spanish, German, French, and Italian are fairly easily recognizable; other people's speech is more difficult to identify, e.g., Scandinavian, Slavic, and East-Asian. Quite frequently their conversations—as well as ours—are drowned out by typical city sounds: cars passing by, often using their horns; a South-American band playing traditional folk tunes at one corner of the square, attracting quite an audience; the squeaking brakes of the subway trains, followed by some announcements about rerouting; sirens of police cars, more in the distance; planes, periodically flying over on their way to or from one of the local airports; etc.

After we order, we start talking about our project, this Sounding Art Companion . . .

Sounding Art

MC: Perhaps it is a good idea, even necessary, to explain why we have chosen the term “sounding art,” even though many contributors to this Companion will also examine and elaborate upon it. The term can easily lead to several questions or reflections: Why “sounding art” instead of the more commonly accepted and common “sound art”? What is the difference, if any? What about the “-ing” in “sounding,” which seems to suggest a more active form, as if something is taking place, emphasizing movement instead of stasis, fluidity instead of fixity, perhaps even energy instead of sound? And do we need to say something about the term “art” as well? Can we determine a more or less clear border between sound in general and sounding art? In other words, can or should we regard the soundscape that surrounds us at this very moment here at this square as a (human) composition and therefore as a potential example of sounding art—isn't that what Murray Schafer suggested?—or would this make the concept far too broad? But then, what about game sounds, for example; can we call them “art”? Why limit the scope of this Companion to sounding art instead of investigating sounds in general, some belonging to the art world, others not?

VM: “Art” can be a tricky term indeed. This term, however, does not only refer to the so-called “high arts,” just as artists are not only people who produce artifacts that belong to the “high arts.” “Art” can also denote “skill.” Take a Foley artist, for instance: a person who creates sounds that are to be used in a movie or TV show. It takes skill to be able to

create sounds that convince viewers of their veracity, but these sounds are not artworks in the traditional sense of the word. They do have aesthetic qualities, though. They influence the way viewers interpret the scene these sounds appear in; they may even provide some kind of knowledge to viewers that cannot be conveyed in a non-sonic manner.

This is the manner in which I would like to interpret “sounding art”: human-made artistic and/or aesthetic applications of sound, be it in music, Muzak, sound art, games, jingles and commercials, multimedia events, and sound design. They are human expressions that use sound as material, medium and/or subject matter. These sonic applications are always active, vibrant, in the sense that they have the potential to affect listeners, even if the sounding artwork is about the absence of sound. Hence the suffix “-ing” in sounding arts: it is always participating, influencing, teaching, confusing.

BT: Perhaps it was Katharine Norman who first coined the term “sounding art.” At least her 2004 book bears those words as title. However, she only focused on music related to technologies, as her subtitle “Eight Literary Excursions through Electronic Music” indicates. Whatever her intentions, the phrase neatly avoids the traditional division (if not downright antagonism) between music and sound art in an attempt to embrace both. I also feel inspired by Leigh Landy’s “sound-based music,” which I think tries to embrace all forms of sounding art as music, even if the academy still has its doubts! But, as central to my own creative practice as sound and its sensuousness are, can we embrace Seth Kim-Cohen’s argument about “non-cochlear” art? Personally, I would find that too conceptual as a basis for my own creativity, but I appreciate his move towards integrating music and visual art practice.

MC: What I think is important in Kim-Cohen’s work (as well as in Douglas Kahn’s) is how it seems to caution sound scholars not to focus too much on “sounds-in-themselves,” a rigid and perhaps even old-fashioned materialism. One of sounding art’s most important values is its playing with conventions, its relational aspects, making audiences aware of, for instance, time and spaces, its call for engaging with our sonic milieus, etc. In that sense, sounding art is always social, political, differential, ecological, etc., besides being aesthetical (or anti-aesthetical). Implicitly or explicitly, all these different attitudes one can have towards sounding art should find a voice in this Companion.

From Sound Studies in General to Sounding Art in Particular

VM: Sound studies includes, potentially, the investigation of all sounds, whereas the study of sounding art focuses on the artistic and/or aesthetic applications of sound. Why limit the scope like this? Why not address sound in all its grandeur?

MC: Well, for one, sound studies is such a huge field that a narrowing of scope is necessary in order to be able to arrive at some kind of depth. And of course it is a shame that hardly any attention can be paid to the question of how sounds outside a direct art context—even though many of them are the result of more or less careful design processes—influence and perhaps even regulate and discipline our lives: honking cars, barking dogs, beeping dishwashers, pouring rain, etc. On the other hand, as I already pointed out, sounding art is always already exceeding the mere aesthetic realm: in all its diversity, it also addresses social, ethical, economic, religious, and environmental issues, to mention only a few. Sometimes sounding art may let us experience a “better world” (as does some music); sometimes it makes us aware of unwanted noises that accompany our daily lives. In short, sounding art has the potential to teach us about what sound is or can be, how we deal with sound, what sound can do, and what it might express.

Although perhaps not engaging with sound “in all its grandeur,” as you say, the term “sounding art” at least offers the possibility to question or even to pass over the oft-created dichotomies between sound art and music. I hope that in this book their differences, overlaps, mutual influences, institutional frames, artistic and scholarly contexts, and aesthetic margins can be experienced.

Finally, what seems to be lacking in many publications on what we call sounding art is a thorough discussion of the ontological, epistemological, and methodological implications of being-in-the-world with, through, and in sound. Too rarely, scholars dealing with sound art and/or music touch upon the idea that an aural orientation on the world differs—perhaps even quite fundamentally—from a visual and conceptual one, and therefore they miss the opportunity to productively engage in such discussions.

BT: But artists who seek to deal with sound also too rarely seem well-trained in the many areas of sound studies that their work actually touches upon. In many cases, we can trace this to the narrow pedagogical practices of their training, both in terms of acquiring a knowledge base and, in many cases, even solid technological skills.

So, why don't we address some of these gaps in our Companion by inviting not only sound artists and sound arts scholars to contribute (i.e., those active in the field whose names are already associated with sounding art), but also prominent scholars in many of the other fields across the humanities, social sciences, and technology? We could specifically choose those who have a familiarity with and interest in contemporary art and music and invite them to outline approaches within their own field that could be applied to current artistic work? If we're successful, our Companion would make a unique contribution by not only embracing a more comprehensive view of the field, but also stimulating awareness of its interdisciplinary connections!

At this point in the evening, our meals and drinks being finished, and perhaps energized by the lively soundscape in which we found ourselves, we went our separate ways determined to make this project a reality.

Approximately three years later, after expending much effort, we found ourselves at the same restaurant, this time during a quieter evening that seemed to stimulate a more reflective mood, and we proceeded to review our goals and our strategy for organizing the thirty-six contributions we had received.

Overview

BT: Frankly, I'm quite amazed and gratified by the huge range covered by the contributions we received, but will readers understand how they all fit together, and will they accept our overarching concept of “sounding art”?

VM: Sounding art is definitely more than what is generally called “sound art.” As I mentioned initially, sounding art refers to those artistic expressions that use sound as material, medium, and/or subject matter. This does not mean that sounding art has to consist of sound per se: music is a form of sounding art, just as a soundscape may be listened to as if it were music; but, since silence can also be potentially very telling, artworks that remain silent, yet still are about sound (or the absence thereof), are considered sounding artworks as well. Part 1 of this Companion addresses ontological issues related to sounding art, aiming to reveal its richness and multifacetedness, a richness that will be exploited in the subsequent parts of this Companion.

Part 2 focuses on epistemological questions. More specifically, this part examines the ways in which sound itself can function as a source of knowledge. Sound is able to articulate

events and phenomena in a way that no other medium is capable of. Maybe sounding art is even better able to articulate this than the medium of written language. Sound itself can be a source of information and mediation, and sounding artistic practices can be considered as experiments in which these sonic characteristics are explored. Sonification—the process in which information and all manner of data are presented in an audible form—may be mentioned as one particular example of this. It is an alternative way of presenting, and even gaining, knowledge and information, a way that can be examined through sounding art as well. Moreover, sounding art does not downplay or ignore acoustic complexity, but foregrounds the fact that sound is never simple.

Dealing with sound is, first of all, listening to sound, listening to musical sounds, to natural sounds, to urban and rural sounds, to industrial and electric sounds: in short, listening to the world around us. Listening can be attentive, as is usually the case during concerts, or distracted, such as while cooking or driving a car. Pierre Schaeffer distinguished four different listening modes: listening (taking the origin of a sound into account); hearing (the basic order of perception); attending (the perception of particular features of a sound); and understanding (sound treated as a code or a sign). Is this classification still valid, or do we perhaps need to reconsider it, particularly in an age when listening is often distracted? These and other questions related primarily to listening to sounding art are discussed in part 3.

Whether at home or in a public place, in an urban landscape or in a tropical rainforest, in a car or in a supermarket, we are always surrounded by sounds, sounds that can be interesting or irritating, obtrusive or inconspicuous. However, although industrial enterprises spend more and more money on the auditory features of (electronic) devices, sonic design is still not very developed as a discipline: if urban planners pay attention to the sonic environment at all, it is usually restricted to the reduction of unwanted sounds, of noise. A more creative and perhaps even necessary contribution arises from sounding art interventions within already-existing soundscapes. Furthermore, sound plays an important role in the construction, destruction, and deconstruction of both individual and collective identities. Part 4 examines the ways in which sound is related to space, communities, and identities.

Creating a relation between sound and history can take many different forms: historical developments of certain sonic events can be investigated; arranging and maintaining sonic archives helps to preserve sounds against disappearance; investigating sound can be a methodological tool to rethink histories; previously ignored or unknown historical events can (re)appear through a sonic approach, through the emphasis on sound. The main problem of sonic histories arises from the simple fact that sounds from ancient times have not been preserved. How can we, nevertheless, gain insight into historical sounds, their perception, and their meaning? These and other questions related to sonic histories are addressed in part 5.

Part 6, finally, discusses the relation between sound and technology. Although many sounds are created by natural causes (wind, animals, thunder, etc.), technology has enabled us to expand our sonic possibilities and auditory capacities. Technology has dramatically changed the way we listen to sound, how we think about sound, and how we use sound. We are now able to transmit sounds over long distances, to record and preserve sounds, to alter sounds any way we would like and to amplify them to extremely high levels. Moreover, technology itself is not silent: machines produce sounds, sounds that did not exist before.

Interdisciplinarity

VM: Looking at the diversity of subjects that we address in this Companion, the inevitable question of how to approach all of them arises. Which method or set of methods can we apply in order to be able to answer the questions posed in this Companion? Should we look at sound studies and adopt their methodology? Do they have one?

MC: A few years ago, when several sound scholars were working on establishing a European Sound Studies Association (ESSA), the question of whether sound studies could and should become an independent discipline, the sonic counterpart of visual culture studies, was raised. Although the opinions were divided, a vast majority concluded that the diversity of theories, conceptualizations, research methods, forms of presentation and dissemination of knowledge regarding sound was best maintained by researchers (including artists) working in the margins of already-existing disciplines. Sound can be investigated from almost any angle, and sound studies can include history, philosophy, sociology, and anthropology; the history and sociology of music and art; musicology, ethnomusicology, organology, and sound art; urban, media, cultural, performance, science and technology studies; acoustics and psychoacoustics; medical history and architecture; etc.

On the other hand, the natural sciences, the social sciences, and the humanities can also benefit from the input of sound artists. Their perspective is of utmost importance in the gaining of more understanding, insight, and views on, for example, various cultural, social, technical, political, economic, historical, ecological, spiritual, and religious fields. Sound artists pose different questions or pose questions differently, which might enrich all sciences and research. Their “answers,” however, will always be tentative, cautious, and open to many interpretations—suggestions rather than absolute statements.

VM: I agree that sounding art itself is often interdisciplinary in nature. Many sounding artworks are more than just (about) sound or sounds. Consequently, neither acoustics nor musicology, to name two disciplines in which certain manifestations of sound are studied, nor any other single discipline, is able to fully encompass the questions posed by particular sounding artworks on its own. These questions, such as those pertaining to the role, position, and function of sounding art in contemporary society and the manners in which sounding art can be both reflexive and constitutive of social, cultural, political, religious, ethical, and perhaps even biological or cognitive developments, always demand an interdisciplinary approach, which is why a book such as this is needed. The contributions featured in this Companion will constitute a guide to the practice of studying sounding art and its relations with sonic epistemologies, a guide that, up until now, does not exist, but is sorely needed.

BT: I completely agree, but now that the book is done, I also wonder what has been left out or bypassed, even if we know that there’s a limit to what we can cover. Except for David Howes’ intriguing article about non-Western practices, we don’t offer much diversity in cultural perspectives, even though sound artists often freely “borrow” from them. There’s also a fairly limited range of types of music discussed here, but hopefully it will be easy to extrapolate these ideas in a diversity of directions. From a more personal perspective, as an electroacoustic music composer, I was struck by the extent to which our authors dealing with sound art situated its practices entirely within the gallery and visual arts traditions—that would have been unthinkable twenty-five years ago. Of course such cross-pollination seems desirable in the spirit of breaking down boundaries, but it’s also a bit naïve historically. Despite my occasional nudges, we didn’t receive any mention of, for instance, the text-sound traditions of performance poetry and their extensions into sound works created on fixed

media (or other such practices documented in the 1990 book *Sound by Artists*). Instead, we acknowledge the multiple references in our Companion to Janet Cardiff's *The Forty Part Motet*, which was perhaps the first high-profile gallery installation of multi-channel sound art in 2001, heralding this transition of electroacoustic music into the visual arts context (and simultaneously gaining a wider public profile than electroacoustic music usually ever does).

Well, to be precise, we actually have thirty-nine contributors (three articles being co-authored, plus my own article) as well as two additional editors with introductions, so maybe we've created a 41-part "motet" of polyphonic voices!

Listening

We walk to an art gallery somewhere close to the restaurant, its entrance located in a courtyard of a few blocks of flats. The gallery will be presenting an intimate electroacoustic concert this evening. The two instrumentalists add their sparse improvisations to the slowly evolving soundscapes created on the computer. The sounds interact peculiarly with the sculptures—strange figures with exotic hats—and paintings—mostly abstract and geometrical. The large windows offer a modest and especially silencing contact with the uninterrupted city life. In Marcel's mind the sounds and art objects coalesce and for some unknown reason takes him to tropical rain forests and hills densely covered with trees and plants. Rivendell?

MC: There is still one question I am dying to ask: How do we experience sounding art? Or how *can* we experience it? What I mean is this: the term "sounding art" seems to imply that our contact with this art form will take place through our ears; we should *listen* to sounding art. That is also how Vincent formulated the rationale of part 3: "Dealing with sound is, first of all, listening to sound." However, quite often sounding art appeals to more than just the auditory organ and regions of the brain: film, video, new media, and games almost always involve visuals; sound art and soundwalks add tactility and kinaesthesia; and perhaps we cannot exclude olfactory and gustatory elements either. Listening to me seems a multi-sensorial experience rather than an exclusive aural affair.

VM: Listening is never mono-sensory, but always contaminated by impressions generated by the other senses, and vice versa. In my view, sounding art has the potential to make this explicit. The performance in the art gallery we are visiting is an example of how sounding art may accomplish this. Close your eyes, and you will still see images and impressions. Keep your eyes open, and the sounds will interact with what you see, and the way you interpret the sounds will be influenced by what you are seeing, just as what you are seeing will be influenced by what you are hearing.

Moreover, I believe listening is closely related to the sense of touch: sound literally touches you. Sound waves cause your eardrums to vibrate, but also touch the skin of your entire body. When we are listening, we are also feeling, and this feeling codetermines how we interpret what we are hearing. The presence of sound is both heard and felt.

MC: Although it may not make things easier, I really like the idea that sounding art is more than sounding and more than art, and I like the idea that listening is more than listening, even more than a multi-sensorial experience as it is also affected by (and, in turn, affects) memories, feelings, knowledge, and also spaces and devices, as well as a perhaps endless array of specific situations in which the listening takes place.

BT: I'm very pleased to see that academic discourse is increasingly referring to embodiment in terms of cognition and perception. As I constantly point out to my students, sound as a physical, acoustic phenomenon always affects the entire body, not just the auditory

apparatus. Some writers have even referred to hearing as “touch at a distance” in order to capture its tactility. I also like Tim Ingold’s phrase that sound is not the object of perception but what we “hear in.” This might account for the sense of complete immersion that audiences seem to feel with multi-channel soundscape compositions, for instance. It may even reflect Walter Benjamin’s notion that the appeal of modern media in his day was partly that it brought things closer—which was certainly true with the closely-miked voice on radio.

Furthermore, we can easily correlate auditory experience with all of our physical forms of movement, most obviously with rhythm and tempo, and the type of entrainment such movement creates. Soundwalks capitalize on this correlation in a very simple and direct way. And beyond all the physical immediacy comes the social and cultural relationships that sound mediates, creating what I like to call the “acoustic community,” which are actually many intersecting communities, particularly when we factor in electroacoustic forms of sound making. But that means there is even more to learn about how sonic experiences shape our lives and that raises the exciting question: What will future generations of sounding artists be able to create with that knowledge?

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PART 1

Sounding Art

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INTRODUCTION

Marcel Cobussen

It is a Tuesday afternoon in November, approaching half past four, in a quiet neighborhood near the center of one of the largest cities in The Netherlands. Booting up my PC creates a cozy buzzing, rather like a log fire. The laughing and screaming of kids—schools are just out—is for a moment drowned out by the sounds of a garbage can, brought inside by one of the neighbors. A car passes by, and in the distance I hear the squeaking of train wheels. I begin listening to some of the sound examples the contributors to this Companion have addressed. I listen without headphones and at a rather modest volume so that the musical sounds inadvertently blend with the ambient sounds; the border between them fades—physiologically, as my hearing can no longer distinguish which sound comes from the loudspeakers and which one doesn't, but also culturally: because each sound can in principle become music, the borders between the intra- and extra-musical can no longer be determined by comparing the objective characteristics of the sounds. I ask myself whether the sonification sounds that are playing now are sounding art. And what about the sounds coming from the rest of my environment: the kids, the cars, the trains, the computer, etc.? Do they become art when I listen to them *as if* they were music? And what if they are heard together, the environmental and recorded sounds, together forming a (sometimes) interesting soundscape, albeit not one to which I often pay a lot of attention? And do these questions really matter? How important or relevant is it to call these sounds art, sounding art?

Somehow it seems inevitable and indispensable to demarcate a relatively new concept, domain, or discipline, albeit temporarily, incompletely, unsatisfactorily, and even inelegantly. In order to create a space for something new—sound(ing) art, for example—markers need to be placed, identities constructed, distinctions created, differences and similarities named, histories (re)written, etc. This is what Derrida calls the strategy of in- and exclusion that works both diachronically and synchronically: outside and inside must be clearly captured by creating an unambiguous opposition between them. However, as Derrida (1987) makes brilliantly clear in his text “Parergon” (see also Kim-Cohen's contribution in this part), this is not an easy task: the outside easily enters or becomes part of the inside, and, conversely, the inside needs the outside to constitute itself as inside. A frame—e.g., a frame around something we could call “sounding art”—is not only porous, so that the outside can never be kept completely outside, it also has its own “thickness” or “undecidability”—the frame as a grey zone or space between in which the differences between in- and outside fade. What

belongs to the inside and to the outside is always arbitrary, dependent on decisions that cannot always be rationally or logically justified.

What is, presumably, excluded when using the concept “sounding art”? The visual? The tactile? Although it might be self-evident that sounding art accentuates the sonorous in and of an artwork (even when this component is inaudible), many authors in this Companion explicitly mention the visual aspects of that art form, which are sometimes even more prominent than the sonic ones. John Wynne’s contribution in part 2, for example, almost only addresses certain pictures incorporated in his multi-media installation *Anspyxw*, even though the artwork is about an endangered indigenous (spoken) language, thus clearly sonic.

References to the tactile, too, are often close-at-hand. In “Edison’s Teeth: Touching Hearing,” Steven Connor maintains that how something sounds depends on what touches or comes into contact with it in order to generate the sound; we can never hear the sound of one thing alone (Connor in Erlmann 2004: 157). Sound and touch also meet when we form words with and in our mouth. We can even feel and hear sounds through our teeth, as they are perfectly able to receive and amplify vibrations (Connor in Erlmann 2004: 169). In part 2, David Howes quotes Robert Kauffman who states that in African cultures mouth bows are mainly valued for the ways in which they engage the sense of touch, as their sounds are often barely audible. Also in soundwalks, to which several contributors to this Companion refer, the tactile and the audible meet: the moving body not only produces its own sounds, tactile experiences influence how sounds are perceived. Conversely, what is heard to a certain extent dictates the route of the soundwalker.

So, what seems to be excluded in this concept of “sounding art” often turns out to be included in it: the other senses. In *The Audible Past* from 2003 Jonathan Sterne confirms this by stating that there is “no scientific basis for asserting that the use of one sense atrophies another” (Sterne 2003: 16). Human perception is always synesthetic, all senses influencing each other; there is no such thing as pure vision or pure hearing. In much the same way Veit Erlmann in *Hearing Cultures* from 2004 suggests to “conceive of the senses as an integrated and flexible network,” instead of claiming a (new) monopoly of the ear (Erlmann 2004: 4). In this Companion it is David Howes who explicitly addresses the intersensorial and synesthetic character of sounding art.

Following the problem of exclusion, let’s turn to inclusion: what could or should be included in this term “sounding art”? Here we will touch upon the borders of the second word, the word “art.” For example, is popular music a subcategory of sounding art, or does the word “art” prevent a number of pieces from this genre from being included? On which grounds can we make a distinction between “art music” and “non-art music,” if we would wish to do so at all? What about sounds which are not intended to be art per se, such as field recordings that are not (yet) processed, or various types of sonification, such as those described by Andrea Polli and Paul Vickers in this Companion, for example? Do they already belong to sounding art or not yet, awaiting the moment of incorporation into an artwork? Do we still need someone like John Cage to elevate everyday sounds to art, or has this elevation become a completely arbitrary symbolic act? Are the sounds of birds, whales, and insects already sounding art, or do we need David Rothenberg’s dialogical improvisations to include them in this category? Furthermore, sounding art seems to abolish the assumed opposition between sound art and music, making it irrelevant and outdated. However, does this dispense of the need for refined distinctions, stable strategies of in- and exclusion, in order to be better equipped to communicate knowledge, even while drawing borders seems such an impossible task?

All these considerations and questions can be distilled into this one: to be able to listen to, or experience sounding art, do we need to know what it is? One thing is sure: whether

listening to music by J.S. Bach or Biosphere, whether experiencing sound art by Bernhard Leitner or Francisco Lopez, whether being sonically immersed in game sounds or the overwhelming noise of Sunn O))), I somehow know that certain sounds do not belong to these works; the very same sounds *might be* intrinsic elements of other sounding artworks, they might even interact interestingly to the sounds selected by the artists, but they are excluded from these particular works. I *need* this knowledge—(in)formed by conventions, listening experiences, reading about sounding art, etc.—to be able to concentrate on the sounding art sounds. Ears and mind are always already acting as filters; they make separations. New ideas, new proposals, new theories can put certain (obsolete) conventions and frames to the test, but never remove them altogether. That is not only the message of the General Introduction but also the main message of the first two essays of this Companion, by Leigh Landy and Laura Maes/Marc Leman. Their contributions, however, should not be read so much as an attempt to hermetically seal external borders, but rather as an invitation to reflect on judgments concerning sonic identities and how they come into existence in and through discourses as well as in concrete artworks.

Leigh Landy's term "sound-based music" is coined to expand the domain of music, an emancipatory move to get music lovers interested in works of art that have sound as their most prominent ingredient but which are not usually considered music. It is, however, a win-win situation as it simultaneously liberates music from certain institutional and discursive constraints.

The distinction Landy makes between sound-based music and note-based music as well as his aim to stand up for an art form that has remained in the margins for quite some time resonates in Maes and Leman's contribution. Their essay is meant to carve out a space for sound art, a space somewhere between, on the one hand, "composition" (reflecting our current understanding of the concept of music) and, on the other hand, art that has sound as only an accidental feature. As they write, a proper definition may give it "more recognition and respect as an art form in its own right." Implicitly arguing against the term "sounding art" which might pass over the creation of a clearer identity of sound art, Maes and Leman have formulated criteria to secure an autonomous place for this art form.

Previously I have discussed the strategy of in- and exclusion mainly on the basis of intrinsic qualities: sound versus sight/tactility and art sounds versus non-art sounds. But the question "do we need to know what sounding art is in order to be able to listen to it?" as well as the chapters by Landy and Maes/Leman also demand us to take into account the discourses which surround music, sound-based art, and/or sounding art. Strategies of in- and exclusion, establishing identities, and the creation of categories and classification schemes—strategies which have strong political, social, ethical, religious, and/or economic dimensions—are often a discursive matter, a matter of language, of conceptualizations, of grammatology and syntax, of (re)writing, of (re)formulating. Discursive practices are among the most powerful tools humans have to structure, de-structure, and restructure the world. In other words, to hear certain sounds as music, sound art, or sounding art, we not only need our ears, but also a conceptual framework which makes it possible to identify sounds as such: no sounding art without the concept of "sounding art" even though this concept will always remain provisional, tentative, unstable, inconclusive, dynamic, arbitrary, open for adaptations and imputations. (This is, by the way, applicable to all concepts.)

In order to avoid the traps of essentialism it is necessary to move away from a mere formalism, from naturalism, from "the sounds themselves." Establishing distinctions between, for example, music and sound art, is a semantic act affected by rhetorics and politics, an interaction of sounds with a symbolic grid. This move away from (sounding) elements that conventionally

establish the *ergon*, the work “itself,” towards the (discursive) *parergon*, that which is outside of or next to the work, is what Douglas Kahn in this part describes as “sounds-in-themselves which will always be beside themselves” or what Seth Kim-Cohen in *In the Blink of an Ear* terms “sound-out-of-itself,” after having complained that “sonic theory insists on pursuing the essentialist, phenomenological route already tested and largely rejected by art-historical accounts of minimalism” (Kim-Cohen 2009: 92). The contributions of both Kahn and Kim-Cohen are not meant, in the words of Kim-Cohen, to deal with a “focus on materiality as the central issue but [with] the very notion of a central issue” (Kim-Cohen 2009: 259).

After having made a case for a methodological heterogeneity and heterodoxy concerning the study of sound(ing) art—i.e., an implicit reproach to a narrow formalism—Douglas Kahn lends force to this plea by formulating a critique on John Cage’s exposure to “sounds-in-and-of-themselves” in the anechoic chamber: in order to be able to hear these sounds, Cage needed another sound, the sound in his head telling him that such a thing as “sound-in-and-of-itself” actually exists. In order to make his claim, Cage needed the (inner and *parergonal*) voice of discursivity and conceptualization (cf. Kahn 2001: 190).

According to Kim-Cohen, questioning “sounds-in-themselves” also implies questioning the concept of a work, the sounding work (*ergon*) regarded as an autonomous, self-identical object. Besides discourses, other *parergonal* forces are co-determining our experience of what we habitually call “the work”: past experiences, future expectations, adjacent sounds, other works, institutional settings, curatorial framing, etc. Without these forces, a work can never become a work. However, these same forces not only construct but simultaneously de(con)struct the autonomy of the work.

If we take these claims by Kahn and Kim-Cohen seriously, the question of how to talk or to write about/with/to/around sounding art becomes pertinent and urgent. “No new world without a new language,” intones one of the characters of Ingeborg Bachmann’s *The Thirtieth Year* (1995). If discourse matters, if it codetermines a work and if it deconstructs the concept of a work at the same time, what kind of language is needed to interact with or to encounter sound, sound art, sounding art “works”? Can we treat sounds and sounding artworks in much the same way as we discuss, for example, visual arts? Can we use the same words, the same concepts, the same metaphors, the same theories? How can we reconcile the ostensibly opposite objectives to create conceptual clarity, to found (and find) an independent, proper space for sound(ing) art and, at the same time, to undermine and ignore this clarity by deconstructing seemingly stable concepts such as “sound” and “work”? What language, what sonic fiction, is needed to respect the sonic as sonic, to engage sound ethically, to approach sound(ing) art in its otherness without encasing it in the order of the same as Emmanuel Levinas would say?

“What would it mean *to think sonically* rather than merely *to think about sound*?” asks Christoph Cox in his essay “Sonic Philosophy” from 2013. Being intangible and evanescent, but nonetheless powerfully physical, sound lends credence to an ontology and materialism that diverges fundamentally from most current philosophies and cultural theories. Starting from sound means, according to Cox, to exchange the ontology of “objects,” “beings” and “solid matter” for a “sonic materialism” that privileges a thinking in events and becomings. Sounds are neither static nor qualities of objects or subjects; instead they are temporal and durational, tied to the qualities they exhibit over time: “bodies are dissolved into flows, objects are the residues of events, and effects are unmoored from their causes to float independently as virtual powers and capacities” (Cox 2013).

Thinking differentiality and flux implies giving priority to the verb instead of the noun, and that is exactly what Salomé Voegelin proposes in her contribution, thereby expressing the

contingent and evolving complexity of the sonic event rather than recognizing its form or purpose.

In search of a language that grasps the material of sound rather than its source, in search of a “sonic grammar,” Voegelin derives inspiration from and joins in with Kodwo Eshun’s afro-futuristic neologisms, Hélène Cixous’ ideas of a feminine writing, Saul Kripke’s alternative theory of language, and Julia Kristeva’s plea for undermining the stability of signification. This requires a writing with new words, new and/or incorrect grammar, new syntax, etc. instead of describing the heard according to pre-existing lexica, criteria, and structures. Deleuze and Guattari would probably recognize this as a translation of their ideas of a “minor language” when they charge us to “send the major language racing” (Deleuze and Guattari 1987: 105). Just as a minor language makes us aware of the power relations created, sustained, and perpetuated by a major language, Voegelin’s sonic fiction opens our eyes and ears for the dominance of the visual in our language systems and the effects thereof.

Because a minor language parasitizes upon major ones and thus cannot be separated from it, this returns us to our starting point, the problem of in- and exclusion, or what belongs to sounding art and what doesn’t? Interestingly, the final two essays in part 1 by John Drever and Andrea Polli both deal with “genres” that are not—at least not explicitly—mentioned in the contributions by Leigh Landy and Laura Maes/Marc Leman: soundscapes, soundscape compositions, field recordings, soundwalks, and sonification, with, in their wake, new *parerga* such as science, technology, and politics. Coincidentally, both authors seek the margins or the limits of what can still be called sounding art: is a soundscape already art, or does that depend on how we listen or otherwise relate to it? Is “pure” sonification already the result of an artistic process or does it need more processing and postproduction to become—potentially—art? Drever “solves” the former issue by mainly focusing on (sound) artists who use field recordings in their works. However, the questions he poses in his contribution with regard to the use of recording technologies and the presentation of recorded soundscapes reveal the number of choices and possibilities a recordist has to face: should the emphasis be more on the aesthetic, subjective, associative, and meaningful side, or should a recording be neutral, objective, faithful, and informative? In short, what should prevail: the compositional aspect or, as Peter Cusack calls it, a “sonic journalism” or “docu-music” (Cusack 2012)? And where on this continuum does a field recording or a soundscape become art?

According to Polli, soundscape compositions, soundwalks, and sonification might contribute to a better or different understanding of an environment. A more conscious engagement with sounds may have a remarkable effect on environmental awareness and may promote direct action and research. However, if this idea is still founded on a “sonic journalism,” Polli regards sonification in particular as also being an artistic intervention, because aesthetic and subjective choices determine the audible presentation of data, when, where, and what to record, microphone placement, post-processing, etc. Thus addressing and problematizing the edges between “beauty” and “truth,” Polli’s and Drever’s essays already anticipate a topic that will be dealt with in part 2, namely how sound and sounding art can function as sources of knowledge.

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1

BUT IS IT (ALSO) MUSIC?

Leigh Landy

Preamble

Let's start off with a premise. The experience of organized sound becomes music in the ears of the beholder. Of course, the word *music* has different meanings in different cultures. It also has different meanings within single cultures. In fact, every individual has a view regarding what (s)he considers to belong within the delineation of music. The phrase, "that isn't music" is one often heard when a person listening finds a work too unusual, too loud, too dissonant or abstract, or sometimes even too banal. Therefore when discussing the listening experience of organized sounds—for the purposes of this discussion, the focus is on sounds that are normally *not* called musical notes in the sense of do-re-mi or quarter note, half note, etc.—it should be noted that there is a growing number of people who consider works containing such sonic materials as music. In sum, the attribution of the word music depends largely on the experience base and attitude of the person involved.

The placement of what many call *sonic art* (the plural is also used) is, after about sixty-five years of fruitful development, still up for grabs. There are departments in the UK, where I work, which are called Music and Sonic Arts. Anyone who has studied fundamental logic might conclude that sonic artworks are therefore not music, but most people studying in these departments, if not all of them, do regard this corpus as music.

Sounding art, as defined by this volume's three editors, covers both note-based and sound-based works. This new term is interesting as it reflects a more traditional French usage if *arts sonores* meaning music that existed alongside the *arts scéniques* (performing arts) and *arts plastiques* (fine art). In my view, sounding art is a synonym for music, but not everyone would agree.

In the world of works made from sound, terminology is used in inconsistent ways, perhaps more inconsistently than in general language usage. In this chapter, an investigation into terminology issues will be presented that will lead towards a general delineation of what I have called *sound-based music* (proposed in Landy 2007a, 2007b). However, to achieve this, a tension needs to be addressed between sound art with its roots in fine art (with its particular modes of critical discourse) and other forms of sonic creativity associated with music, such as electroacoustic music. This tension can be relevant to sonic arts makers, arts organizers and

the general audience. Does this relationship stand in the way of sound artworks *also* being experienced as music? I would suggest that such a separation is unnecessary.

How have scholars been investigating such works and their theoretical foundations? The section of this chapter following the terminology introduction focuses on issues related to the development of sounding art's scholarship and to how sounding art is presented in education. The fact that this field is an interdiscipline, to coin a term related to one of sound-based music's greatest pioneers, Pierre Schaeffer (Schaeffer 1966), is of great importance, for the multi-, inter- and transdisciplinary aspects of sounding art and its field of studies can easily lead towards the types of linguistic inconsistencies suggested above. They can also lead towards unique synergies that make sounding art such a special field and can influence how sounding art listeners receive sound-based works as music.

To complement the section on sounding art studies, a crucial focus is the socio-cultural dimension that concerns issues related to dissemination and cultural placement. Having already suggested that the appreciation of sounding artworks as music has to do with personal experience, the question arises: how does one, in today's society, gain an initial experience of works of organized sound when much of it is not that well known? The chapter then moves on from the general to the more specific: an example of sounding art is presented to illustrate points that have been raised. This case study leads to the chapter's brief conclusion.

In an era in which the art of sound organization is growing in terms of appreciation and widening its horizon, it is timely to investigate whether sound-based art consists of completely separable entities or, alternatively, represents a whole of intertwined parts. Having coined the term *the sound-based music paradigm*, alongside the long-existent note-based paradigm, in the 2007 publications, I have already voted for rhizome-like complexes allowing for all artistic articulations of organized sounds as defined above and of organized notes to be interrelated in terms of practice, reception and theory. At a higher level, I would suggest that sounding art might form such a paradigm as well.

Terminology

Music: Vocal or instrumental sounds (or both) combined in such a way as to produce beauty of form, harmony, and expression of emotion.

(Oxford Dictionaries Online)

Indeed there are better and more detailed definitions of music to be found, but this one has been chosen as it reflects what most people would consider music to be. Of course, beauty is as flexible a word, if not more so, than music especially when attached to words such as emotion. (There are, for example, many who thrive on the experience of perceived beauty in horror films whilst others abhor them; idem noise music.) What is more important here is that most sound-based music would not fit into this definition at all. An often-recounted anecdote, reflecting the notion of "in the ears of the beholder," concerns a white South African who was in the same train compartment as I in the 1980s who asked me what I thought of the "so-called music" made by black South Africans playing on drums. His view was that what these musicians played had no melody or harmony and hardly could be called music. As harmony was not present, it would not fulfill the definition either. Still, many would have no issue with calling African drumming music.

Anyone reading this book will have a more liberal attitude toward the question of what music is, one assumes. Our subject, sounding art, and particularly sound-based approaches,

includes various forms of art making that have evolved over the last century catalyzing an ongoing need for a broader definition of music. As a respectable portion of the art of sound organization has the word music as part of its genre or musical category, for example, electronic or electroacoustic music, and has chosen the concert hall and the recording (e.g., CD, online download) as its means of dissemination, the link with general music culture is evident. Nonetheless, a reasonable percentage of sounding art is created outside of music-related venues and dissemination channels. For example, many sound artworks have no clear beginning or end; therefore, a concert presentation or recording would only represent a version of the work. Many such works are made for particular spaces well beyond the concert hall. Prior to determining whether the differing backgrounds imply that these works do not relate to one another, let's spend some time with the main terms in use within the realm of *sound-based sounding art*. I have previously published on this subject, both in the above-mentioned books and on the ElectroAcoustic Resource Site (EARS: www.ears.dmu.ac.uk); this following short survey is taken from *Understanding the Art of Sound Organization* (9–17).

- Organized sound: A term coined by Edgard Varèse to describe his music. Not in general use, but instead a clear description of many of the following terms.
- Sonic art(s): The art form in which the sound is its basic unit. Sonic art should be an umbrella term covering the following entry, sound art, but is used primarily within music regardless of the fact that the word, music, does not appear in its name.
- Sound art: There is no single consistently used definition for sound art. Originating in the fine arts, the term is associated with sound installations, sound sculptures, public sonic artifacts and site-specific sonic art events and could be further subdivided into more specific categories. In many cases context is taken into account in sound art production. Radiophonic or radio art is sometimes related to sound art, perhaps due to the fact that these works are not created for concert performance. However, some radiophonic works are intended specifically as musical works and, more importantly, almost all have a fixed duration whereas many sound artworks do not possess a clear start or end point.
- Computer music: This term covers a broad range of music created through the use of one or more computers. This ranges from a computer composing instrumental music to digital sound generation and manipulation. It also has to do with computers being used for music-related research. Of all of the terms on this list, this one seems least useful regarding sounding art practice today due to its breadth.
- Electronic music: To many, electronic music is music in which sounds are generated through, for example, oscillators and noise generators—traditionally using analog equipment, today digitally. There are some, particularly in the United States, who define electronic music as a synonym for the following term, electroacoustic music.
- Electroacoustic music: Beyond its use in audio engineering that is not directly relevant to this chapter, this term refers to “[m]usic in which electronic technology, now primarily computer-based, is used to access, generate, explore and configure sound materials, and in which loudspeakers are the prime medium of transmission” (Emmerson and Smalley 2001). It is sometimes hyphenated electro-acoustic and the word electroacoustics is used for both musical production and its related field of studies primarily in Canada. Some restrict this term to so-called “fixed-medium,” i.e., pre-recorded works; however, the chosen definition is equally relevant to real-time sonic performance.

- **Electronica:** A term used for innovative popular music, often made in the studio and not intended for live performance. For our purposes, the term covers a subset of the last two terms, electronic and electroacoustic music, representing a reaction to what might be called academic or institutional practice. Here the focus is often on a lo-fi aesthetic.
- **Sound-based music:** A synonym for sonic art, but acknowledging a broadening of the notion of music. Sound-based music is the art form in which the sound, that is, not the musical note, is the basic unit. It differs from electroacoustic music in that the electroacoustic works may have a traditional musical note focus and sound-based acoustic works need not use electroacoustic means. Furthermore, this term accepts that the musical experience is not dependent on works starting and ending at a given point, nor is it dependent on music being ideally presented in a concert hall. It goes without saying that many works fall between note-based and sound-based only content. In sound-based music, the majority of the content is not based on the traditional note-based paradigm.
- **Sounding art:** This term was not included in the 2007 publication. I encountered it for the first time in Katharine Norman's book of the same title (2004). According to this volume's co-editor, Barry Truax, sounding art is "to include both music and sound art, as well as soundscape composition and other context-based work" (personal communication, 2013).

The term *sound-based music* was proposed to open up the boundaries of music to all forms of sound organization, helping listeners to behold all forms of sonic creativity as music. Sonic art theoretically does the same but, as said, it is mainly musicians who use the term. In fact, if it had included the word *music*, no new term would have been proposed. Sonic art remains neutral in terms of what one calls music, thus allowing for, for example, sound art, soundscape composition, noise music, and acousmatic electroacoustic music (music in which the source and cause of sounds cannot be seen) to fall under a single umbrella, as was already the case regarding sound-based music in the 2007 publication. In short, sonic art through its name is not directly concerned with the cultural expansion of the concept of music, whereas sound-based music does just that.

The ElectroAcoustic Resource Site (EARS) proposes a very broad range of genres and categories, related to sound-based music. The scope of this artistic world is vast. It also identifies that most terms relating to groupings of works are categories rather than genres. A genre holds together works with a common sound and musical approach. Terms ranging from sound installations to algorithmic sound-based music do not have a particular sound; instead they have a common medium, tool or method and are thus categories (and can also be note-based). A selection of further genres and categories beyond those already mentioned now follows to demonstrate the diversity of the area: sound-based computer games, glitch (a genre within electronica), granular composition, sound installations/sculptures (including acoustic ones), sound-based IDM (Intelligent Dance Music), sound-based Internet music, sound-based laptop performance, live electronics, lowercase sound (another electronica genre), musique concrète, text-sound composition, sound-based timbral music, sound-based turntablism and sound-based video art (including the sub-category, visual music).

A further dimension related to the classification of artworks made with sounds concerns the context of presentation. For example, where is a work presented/heard and is there a particular audience in mind? The answer to this can range between "I don't care, as long as

it gets performed” to “This piece is made in a particular location involving the sounds and other aspects of people living in a given place—it is about them and for them primarily” and very many other scenarios in between. Clearly the context of presentation of sound-based artworks can have as much to do with a work’s categorization as its relationship with other works. (Note: alongside context of presentation one can equally speak about context within the sonic content in any sound-based artwork; this ranges from contexts from the real world as a focus to more abstract worlds of sound.) The terminology related with this dimension of art making is currently under-developed.

The question is, therefore: to which form or forms of art does a given work belong? This knowledge is important as people do not just listen to music; they normally search for works that belong to one or more types of music in which they are already interested, that is, music that fits within their experience and taste. Some find, for example, site-specific sound art to be a manifestation of the fine arts. However, put to a blindfold test (that is, where listeners are not told to what a given recording belongs or whether it is an audio only or audio-visual work), many listeners will find it difficult to separate certain sound artworks from electro-acoustic music. With this in mind, why can’t a sound installation be both a work of fine art *and* music? Certainly operas are both music and theater, aren’t they?

Sounding Art’s Theory and How It Is Reflected in Education

With practice comes *theory*, or perhaps it is the other way around. In order to gain theory, *education* is involved.

Let’s start at the beginning and ask: in terms of education, what does one need to know about traditional music and/or fine art, not to mention a number of the other fields that will be introduced in this section, in order to study the art of sound organization? Starting from my own field of music, does one have to learn traditional counterpoint and harmony to master this new art form, or are notions such as horizontal and vertical approaches to sonic composition a bit more apropos? Are techniques related to video art and popular music recording production more or less relevant than knowledge of music from the Baroque period or of Indian raga traditions? This latter question may appear a bit absurd, but the potential number of fields relevant to the creation and study of sound-based art is quite high. As said, it is an interdisciplinary.

It is hard to imagine learning about sound-based art without learning about acoustics, psychoacoustics, perception, and perhaps cognition as well. For many, knowledge from computing science, audio engineering and areas within mathematics are not only highly valuable, but also, in fact, essential. Increasingly, people in the field are rather savvy concerning issues related to interactivity.

Many, although not all, will turn at one point towards other relevant fields, such as acoustic ecology, audio-visual theory, cultural and critical studies, media studies, philosophy (e.g., phenomenology) and semiotics. And, more recently, more specialist subjects have been evolving, such as sonification and virtual reality as well as broader subjects, such as sound studies. This rapidly evolving area of sound studies is extremely hybrid as part of it resides outside of artistic endeavor, investigating, for example, the presence and role of sound in specific areas or in an area’s history (see, for example, Sterne (2012), a companion volume to this Companion, and Pinch and Bijsterveld (2012)). The new online *Journal of Sonic Studies* (<http://www.sonicstudies.org>) exemplifies the important initiatives that are appearing to get this young field off the ground quickly.

This leads towards a potential richness of scholarly approaches, which is healthy, as any artistic medium deserves to have its supporting theories investigated from every conceivable angle. This is the good news; however, two forms of less good news accompany it. First of all, the amount of specific new theory that has been created for the benefit of sound-based art is relatively modest. Secondly, there appears to be too little investigation regarding sound-based artworks from a combination of approaches from both fine art and music regardless of which of the two a given work is normally associated with. There is an historical reason for this that will be discussed in a moment.

In *Understanding the Art of Sound Organization* the key contributions to sound-based music theory were presented as a survey. Some eight years later, that list of major contributions would hardly be extended. Spokespersons interested in sound typologies related to sonic morphology include Schaeffer (e.g., 1966; Chion 1983), Bayle (1989, 1993), the MIM group in Marseille (Frémot 2001) and Smalley (1986, 1997 and, concerning space, 2007); regarding sonic construction at micro-level (sounds that are too short to be perceived) include Roads (2001) and Truax (1988); regarding sonic construction at sound event level (Wishart 1985, 1994, 2012) and specific approaches from a host of other authors; regarding acoustic ecology which is related to soundscape composition (Schafer 1994; Truax 1984, 2002); and analytical tools, beyond those already mentioned (Bregman 1994; Emmerson 1986; Landy 1994; Roy 2003). Although this is a nice introductory list of specific theories, it seems a bit short given the sixty-five odd years since the first *musique concrète* piece was completed and about a century after the sound-based initiatives of the Futurists and Dadaists. Of course a significant number of authors have introduced theoretical knowledge ranging from listening strategies to discourse to classification to new means of composition and presentation to new forms of virtuosity, but these go beyond the scope of this chapter. A substantial bibliography can be found on the EARS site, accessible by search term and author. The journal *Organised Sound* is intended to represent a focus for developments within the musicological area of sound-based music studies including works evolving from fine art; of course a number of other journals also include submissions in this field.

Literature related to sound art is copious and will be discussed by other authors in this Companion volume. One of the finest overviews is edited by Helga de la Motte Haber (1999). What is special about this volume and others that followed is the presence of both authors from music and fine art within the same publication. In this particular case, it is also published in a contemporary music series. This is more rare than readers might assume which brings us to the above-mentioned tension, the highly disregarded invisible wall between fine art and music discourse. In fact a closer look at the 1999 “Klangkunst” volume demonstrates each author’s emphasis; most contributors were writing either from a musical or a fine art point of view. Why is this so?

Anyone who has worked in higher education in the arts will be aware of how differently art is taught in comparison with music. Naturally there are common points (e.g., approaches to history, shared philosophy and, where relevant, theory, schools of art that crossed media). However, the analysis of artworks, in our case, time-based artworks in fine art and music, are quite dissimilar. This has ramifications for artistic practice, as the making and understanding tools for those studying in one or the other are quite different as is reflected in artistic production in and discourse regarding, for example, sound art and electroacoustic music. It is suggested that this need not be the case.

Although a generalization, the main perceived gap between electroacoustic music and sound art, beyond their means of presentation, are the more sophisticated sonic composition

methods and techniques which are normally related to music and the more conceptual context-dependent aspects of sound art (soundscape composition, one exception, exemplifies the ability to combine both). Each has developed strengths that are not generally shared with the other, at least when it comes to education and scholarly discourse. Another author in this volume, Salomé Voegelin has articulated this in her talks and writings (see, for example, Voegelin 2016; Voegelin and Gardner 2015; and this volume). Also Brandon LaBelle's contribution in this volume, among other things, touches on this issue. The natural reaction to this is to share practice and its mirror in theory to advantage, yet this is too rarely done and is the main item standing in the way of a sounding art paradigm to function holistically. As stated we are dealing with an art form that is interdisciplinary. Sound-based works often represent a multiple art form. Why can't musicians learn from the communicative experience, the dramaturgically founded intention/reception loop, that is second nature to most sound artists, and why don't sound artists engage more with the tools of electroacoustic composition than they do?

Seth Kim-Cohen (2009, and this volume) reflects upon this tension in a different manner. Where most of this introductory chapter is discussing sound art from the point of view of reception (the eye, the ear, then the heart and the mind), Kim-Cohen is more concerned with the front end, the concept as articulated by the making of a work and consequently its reception as concept by an audience. He is, in a sense, an opponent to what is being put forward here, not solely due to his focus on the concept and all that is related to it, but also due to his search for "a sonic practice distinct from music" (Kim-Cohen 2009: xxiii). On the other hand, he is one of only a few examples of people attempting to merge musical and fine art discourse regardless of a work's genre or origin.

As the field of sound studies evolves, the field of sounding art (or in terms of the present discussion, sound-based music) studies deserves to take advantage of its synergetic potential of bringing together ideas and practices from its many artistic approaches and scholarly foundations. Theory could be developed that would cross more genre/category borders than is currently the case and, in consequence, appreciation and understanding would increase leading towards a much greater leakage amongst the varied communities of interest, in my opinion a desirable scenario. One need not be a specialist in every area relevant to sound-based art as, for example, formalization or sonification will only be of interest to certain artists, scholars and members of the public as will approaches closer to ecology or acousmatic thinking. What a more interdisciplinary approach would infer is that common foundations and specialist concepts could be shared and more generally available to anyone within this wide range of practices.

The Socio-cultural Dimension

How does one access and how accessible is contemporary innovative sounding art? Its socio-cultural aspects in terms of reception and social placement have hardly been investigated. The subject was not mentioned under the preceding section on theory. This is a shame.

The contemporary arts have had a varied history in terms of societal acceptance. The innovative fine arts have been far more fortunate in terms of reception and investment than has contemporary music. Analogously, a good deal of sound art related to fine art has reached a larger public than electroacoustic music has. Major modern museums have offered sound art exhibitions or large-scale installations visited by tens of thousands of visitors, a level of reception only few innovative musical works receive. Sound artists have won a number of national arts prizes, such as Britain's Turner Prize. Yet many nations do not offer a highly

prestigious prize in contemporary music and certainly not in electroacoustic music. Thus the art form's reputation has influenced the accessibility of its work. Both fine art and music are at times controversial and highly innovative, yet there is such a discrepancy in terms of audience with a few exceptions (e.g., composers of simpler, more "user-friendly" music including minimal music, who often do reach a larger audience than most others involved with musical experimentation). Clearly, artists and people involved in the cultural sector could work harder to alter this situation. More importantly, given the proposed view that sound-based and note-based artworks can all be linked together, those interested in sounding art in galleries, museums, and specific sites could very well find concert music of interest, and vice-versa, thus merging these different communities of interest.

Does this difference in reception simply have to do with the fact that fine art is extensively capitalized and thus issues related to the economy of culture are determining factors? Or, at work level, is a sound artwork's link with context or with particular sites of particular importance here, thus making the work more accessible due to experiential links? Might it have to do with the fact that you can walk in and out of sound artworks any time you choose whereas in sounding art presented as music, the norm is to stay for as long as a piece or concert lasts? In short, is the word "music" standing in the way of electroacoustic music's accessibility? (Probably not, as sonic art is not a household world generally.) If a given artist with particular techniques related to sound organization were to make one work for concert performance and another for a site-specific installation, does that mean one might be music and less popular and the other one is not music and more popular? This seems illogical. These are access questions worthy of much greater attention and will help us understand better how the field of sounding art/sound-based music fits together.

Case Study

The case study presented here was discovered during the writing of *La musique des sons/The Music of Sounds* and has been used in a number of presentations ever since. In this way, one can speak of fairly significant blindfold test results with audiences varying in experience and interest. Andreas Oldörp's *Trost für Anfänger* (Consolation for Beginners) is a sound installation that was presented in Saarbrücken in 2002 as part of an exhibition called *Resonanzen*. It was included in the exhibition's catalogue (Schulz 2002) and is described on the artist's website (Oldörp 2002). Here follows a description based on his notes:

At four locations at the space at St. Johann Market metal brackets are mounted on the wall with electrical outlets. They support heating elements that heat 4-liter flasks containing three outlets. The filaments bring the water to a boil, and the steam is passed through silicon hose lines to two organ pipes. The condensation that forms on the way flows back to the dispensing nozzle, that is, a water valve that regulates the flow of the steam and controls its dynamic. The installation takes about 3 litres of tap water per flask daily. . . . The specially made pipes create low-pressure fluctuations in the diverse sounds that are produced. The voicing of the organ pipes is intended to create a uniformly distributed choral sound in the space.

(Oldörp 2002, my translation)

What is clear from the description is that this work has neither a clear beginning nor an end. It is made for a large space. It offers a wink of the eye to musical traditions by way of

his remark regarding intonation and fluctuation, not to mention choral sound quality and it uses organ pipes as its means of sound production. Clearly every other aspect of the piece has to do with the flow of heat and water/steam based on the concept of an ongoing process. “Process” is an approach shared by fine art and music particularly from the 1960s onwards. (Think for example, of the phase process pieces by Steve Reich.)

When introduced to the catalogue’s recording without any information at all—often the case when people do not read program notes until after a performance or hear about a piece on the radio or the Internet until after listening to it—listeners are firstly drawn in by the highly peculiar sonic universe that Oldörp has created here. When asked whether this piece sounds less like music than examples taken from electronic music, acousmatic music using real-world sounds and soundscape composition that are included in the same talk, the vast majority says “no.” It is only then that the piece is described and images from the exhibition are projected. Thus, again, context is relevant to the artistic experience. However given these responses, is this installation both art and music? I believe so.

Conclusion

Does sounding art need a home and, if so, where? For this chapter, the key focus was on sound-based music. In *Understanding the Art of Sound Organization* it was suggested that much of this diverse corpus is not directly relevant to the popular/art music divide of note-based music. Instead its home could be found within what I called “the sound-based paradigm.” The addition that is equally important here is that much of this art of sound organization also crosses the divide between fine art/music. In some cases it crosses other divides as well. For example, soundscape composition has a relationship with music and acoustic communication. Sounding art is indeed an interdisciplinary. It should also have its own home and some of its works should have many homes.

And is sound-based art music? Certainly, in the ears of the beholder (and that includes this author), sometimes even supported by the eyes.

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2

DEFINING SOUND ART

Laura Maes and Marc Leman

1. Introduction

The goal of this chapter is to define “sound art” as an art form that is distinguished from compositions, and even from the term “sounding art.” Many artworks indeed incorporate sound, but not all of these artworks can therefore be called sound art. Sound can be used to set a certain atmosphere, to illustrate something, or to reinforce visual elements. At other times, sound is just a by-product of a mechanical operation, while in other cases it forms the essence of the artwork. Clear definitions are lacking, and this gives the impression that the field has no real “identity,” that it is diffuse and unclear. By providing a definition we believe to contribute to the identification of a new art form.

What do we mean with “sound art”; what defines this art form? Is it possible to come up with a useful set of criteria that define the nature, scope, and meaning of sound art? In this chapter we determine a set of criteria that emerged from describing a large set of artworks that produce or depict sound or that reference to sound. Accordingly, these criteria are not a priori given, or invented from scratch. Instead, they are based on an analysis of a large number of artworks (Maes 2013). The analysis includes works commonly considered as sound art, as well as works that are often mistakenly classified as such. From a methodological point of view, the set of criteria that we come up with is the result of a spiral approach in which we start from a small set, define criteria, and review the analyzed works, then gradually expand the set and refine the criteria until we come up with what we believe is an optimal construction that can serve as a tool for definition, determination, and even classification.

We are well aware of the fact that the provision of a definition may be a risky enterprise, especially in a domain that offers such a broad spectrum of approaches, concepts, materials, and embeddings in cultural and natural settings. However, our motivation is that sound in art has often been neglected in favor of a more visualized approach. We aim at constructing an identity for an art form that focuses on sound (rather than being a piece of art that has sound as an accidental feature), and thus contribute to the recognition and respect that it deserves.

In the second section of this chapter we consider the major aspects that cause difficulties in defining sound art, namely its mix of sonic and visual aspects. In the third section, we describe 13 criteria that, together, span the space in which we can define sound art. In the

fourth section, we bring these criteria together and provide a definition of sound art based on a former empirical analysis (Maes 2013). In the conclusion, we briefly reflect upon the achieved results.

2. Sonic and Visual Aspects of Sound Art

From the outset it seems rather straightforward that the acoustic component stands central in sound art. However, this criterion is not always that unambiguous because it can be difficult to determine whether the sonic or the visual aspects of the artwork are the essence of the work. Visual elements of the artwork not related to the production, reflection, or muffling of sound add to the confusion. Accordingly, the diverse appearances of the sonic and visual aspects as well as the underlying techniques and media of sound artworks do not really contribute to the clear-cut definition that one may hope to establish. In addition, there is no common background of its often multi-disciplinary creators, and the existing descriptions are not homophonous but often remain unclear. In short, the cross-border nature of the art form and the incorporation of elements from other art forms do not lead to a straightforward identification and associated set of criteria.

Moreover, the term *sound art* is sometimes used to label anything that deviates from traditional music practices. However, in order to call it sound art we believe that there should be a material aspect involved. This material aspect can take the form of a tangible object, which either originates from the actual sound source, or from external visual elements not linked to the production of sound, or even from a location.

The sound source can take a large variety of appearances. Although sound art is often associated with electronic sound sources (e.g., loudspeakers), many sound artworks do not rely on them to create sound. In sound art, sound can be produced electro-acoustically, acoustically, or electronically. For instance, the majority of the works of Hans van Koolwijk produce sound on the basis of acoustical energy. Van Koolwijk makes use of bellows to activate flutes or pipes. Conversely, in *Call and Resonance* by Ted Apel, microphones are utilized to pick up the sound of the environment. That sound is then reproduced through loudspeakers positioned in test tubes, whereas in most of Ryoji Ikeda's sound artworks, sound is generated electronically. In addition, the sonic output of sound art may differ a lot. The amplitude of the sound produced by a sound artwork can be deafening, such as the sounds up to 100 dBA produced by the organ pipes of Stephan von Huene's *Totem Tones*, or it can be nearly inaudible like the 16 Hz bass produced by the impressive organ pipes of Gunter Demnig, where sound can mainly be physically felt.

It may seem contradictory at first sight, but sound artworks do not necessarily produce sound. Some works are based on the idea of reflecting or muffling sound generated by the audience or its surroundings such as Marvin Torffield's large and clean structures which simply serve to reflect sound. Other works do not add sound and also refrain from adding material to reflect or muffle sound. Instead, the acoustic qualities of an existing space are put to use. An example is the work of Akio Suzuki, who seeks points of the greatest echo-density in an existing space. As he marks echo points with a specific logo consisting of two footprints—each resembling an ear—surrounded by a circle, the passerby is invited to stand on the mark and to listen.

Whilst most sound artworks employ frequencies within the human audible range (20–20,000 Hz), some works explore the borders of what is humanly audible, either above (ultrasound) or below (infrasound) the audible range. Works that make use of sounds below the

audible range do so to create physical sensations or to visualize these inaudible sounds. Works that make use of sounds above the audible range are more rare. While ultrasound technology has been used in many different fields as a measuring or imaging tool, in the arts it is sometimes used to measure distances or to determine position.

In existing literature and exhibition catalogues, a wide variety of descriptors have been used to label sound art. In general these descriptors relate to different aspects of sound art, such as its kinetic, visual, spatial, and technological aspects. The use of different terms has been widespread and is sometimes inconsistent. The same descriptor can have a different meaning depending on the author that utilizes it and the time frame.

The majority of the existing descriptions of sound art focus on the merging of visual and auditive stimuli (Panhuysen 1987: 4; Toop 2004: 107; LaBelle 2006: 151; Lerman 1987/1993: 29). Other descriptions emphasize its interdisciplinary character (Kneisel et al. 1996: 6) or are based on its place of presentation (Cox and Warner 2004: 415). Bernd Schulz states that in sound art “sound has become material within the context of an expanded concept of sculpture” (Schulz 2002: 14). According to Christian Kneisel, Matthias Osterwold, and Georg Weckwerth, sound art can embrace a wide variety of appearances: “*Klangskulpturen, Klanginstallationen, Environments, Performances, Aktionen, Klangtheater, Klangpoesie bis hin zu medienkünstlerischen Arbeiten mit Radio, Film, Video und Computernetzen* [sound sculptures, sound installations, environments, performances, actions, sound theater, sound poetry up until media art works with ration, film, video and computer networks]” (Kneisel et al. 1996: 6). Also curator and journalist René van Peer looks at sound art in a very broad way and considers field recordings as sound art (Van Peer 2008). In short, there is no consensus on the various shapes sound art can adopt.

3. Thirteen Criteria of Sound Art

In order to determine whether an artwork can be labeled sound art, it is useful to define a set of criteria that span a space within which sound art can be situated. Based on literature study, analyses of exhibition catalogues, the authors’ experience in organizing sound art, and the first author’s artistic practice, 13 criteria have been put forward. These criteria define a broad range of characteristics of sound artworks such as concept, perception, space, site-specificity, open form, interaction, production of sound, performer, narrativity, implementation of techniques and technologies, visual component, endurance, and place of presentation. Each criterion may thereby consist of several conditions that thus span regions of the definition space. In the following section we aim at defining the conditions for each of these criteria.

(1) Concept

Sound forms the starting point of a sound artwork. The generated sound should be a genuine component of the artwork, and not a by-product. Sound should not serve to support visual elements; rather, the visual elements serve to support the sound. Therefore, we can make a distinction between four conditions:¹

1. The production, muffling, or reflection of sound was not taken into account during the creation process.
2. Sound is a by-product.

3. Sound is one of the elements of the work and serves to support its general concept.
4. The production, muffling, or reflection of sound forms the starting point of the work.

(2) Perception

The experience of a sound artwork differs largely from the experience of a performance in a concert hall. Traditionally, a concert hall is divided in a stage—the exclusive domain of the artist—and a section for the public. This clear division has disappeared in most sound artworks. The audience often steps into the work and is part of the work. The perception of the visitor has been individualized as the visitor's route and time spent determines the perception and experience. There is no longer a collective viewpoint and a common starting point and ending point of the experience. Whereas a concert hall strives to bring across the same acoustic experience to all members of the audience, disregarding their seating, most sound artworks want to achieve an opposite experience as the perception changes and depends on the position of the visitor.

Accordingly, we can make a distinction between three conditions:

1. The territory of the audience and the artwork are fully separated from each other.
2. The territory of the audience and the artwork partly overlap.
3. The audience proceeds into the work and is part of the work.

(3) Space

Despite the famous example of Baroque music performed in St. Mark's Basilica in Venice, and many examples in the 20th and 21st century (e.g., Nono, Varèse, Stockhausen), spatial experiments in music remain limited. The division of most concert halls is determined and it often hinders spatial experiments. When music is not conveyed live, but through recordings, there is hardly a medium that can incorporate the element of space in an appropriate way. For example, for the presentation of electroacoustic music, a special installation that allows the spatialization of sound is generally needed. Such an installation requires a special setup which is not always available.

In sound art the projection of sound plays an even more important role. The time dimension of sound becomes less significant, while the use of space comes to the fore. When sound is employed, the given space automatically serves as a resonator of the produced sound and, as a consequence, it has an influence on the work and becomes part of it. In some sound artworks this is explored by using sound to complement, contrast, or emphasize existing features of a space. Other works create their own space within a given location, for example with the aid of directional speakers, the distribution of sound sources in space, or the deployment of sound absorbing, reflecting, or redirecting material. Artists also opt to have complete control over the space by accommodating their work in specifically built constructions. Therefore, a useful distinction can be made between three conditions:

1. The work has no connections with the space in which it finds itself, other than its resonating and reverberating qualities.
2. The work creates a separate space within a space.
3. A complete space is treated as one situation that can be entered by the spectator.