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Autor: Simonett, Helena / Jäggi, Patricia

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Introduction: Of Birds, Music, and Silence

Helena Simonett¹ and Patricia Jäggi², Lucerne University of Applied Sciences and Arts

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Abstract: *Birdsong has long been a source of fascination for humans. Interest in the intricate connection between human perception and the acoustic characteristics of diverse environments is prominent across various academic disciplines, as emphasized in this special issue. Employing a multi-sited ethnographic approach, the "Seeking Birdscapes" project (2019–2023) centred on examining the listening practices of individuals with ornithological and musical training. Its goal was to understand their auditory sensibilities and how they conceptualized their experiences and perceptions within so-called natural settings. Based in a music department, the project also sought to reevaluate the importance of (human and non-human made) sounds and explore the use of technological media in the context of avifauna.*

Introduction

Birdsongs have a distinctly musical quality. This is why ornithologist Donald Kroodsma referred to birds as 'nature's musicians', drawing from a long tradition of attributing musical characteristics to the vocalizations of songbirds.³ Aristotle admired the clear and organized singing voices of birds, which he found different from the chaotic calls of other animals. Charles Darwin attributed to birds "a taste for the beautiful".⁴ Recent research even indicates that the hermit thrush shows a preference for musical intervals found in Western tonal systems.⁵ It is no coincidence that we refer to bird vocalizations as 'songs'. Much like human music, bird songs are often considered aesthetically pleasing to our ears.⁶ This similarity may be a significant reason for our enduring fascination with these avian vocalizations.⁷ They have been incorporated into musical compositions by Vivaldi, Beethoven, and Messiaen,⁸ studied and analyzed by ornithologists and scientists, recorded by sound artists, appreciated by professional birdwatchers and enthusiasts alike. Humans seem to share a special connection with birds and their songs.

While most people in Western societies have a general understanding of the term 'music' and what it means to them, scholars often grapple with the concept of music defined as 'humanly organized sound'.⁹ This definition has faced criticism for its anthropocentric nature as it tends to exclude the intentional sound practices and meaningful sound organization found among non-human entities.¹⁰ Organized sound (or 'music') stands in opposition to noise – or, as Jean-Jacques Attali phrased it, music

1 Author's email address: helena.simonett@hslu.ch.

2 Author's email address: patricia.jaeggi@hslu.ch.

3 KROODSMA 2005.

4 DARWIN (1871) 1981: 108.

5 DOOLITTLE et al. 2014.

6 HARTSHORNE 1968.

7 ROTHENBERG and ULVAEUS 2011; ROTHENBERG 2019.

8 DOOLITTLE 2008; CURTIS and TAYLOR 2010; MARTI 2013. See also the lecture by Christian Marti on "Vogelstimmen in der Musik", <https://www.hslu.ch/de-ch/hochschule-luzern/forschung/ausgewaehlte-projekte/birdscapes/kuenstlerische-beitraege/vogelstimmen-in-der-musik> [29.02.2024].

9 This definition of 'music' was coined by BLACKING 1973. As a social anthropologist, Blacking was interested in music as a universal human behavioural capacity, considering it an intrinsic and necessary component of human sociality, central to our understanding of humans as social beings.

10 MARTINELLI 2008, 2009; SORCE KELLER 2010, 2012.

constitutes “the organization of noise”.¹¹ In contrast, noise is frequently associated with modern phenomena, including industrialization, urbanization, global overpopulation, and transportation systems, all contributing to pervasive environmental noise pollution. The concerns arising from technology’s impact on the natural environment in the 1970s spurred the fields of acoustic ecology and soundscape studies, which in turn inspired acoustemology, sentient ecology, ecomusicology, and other approaches that explore how people relate to the acoustic properties of environments.¹²

While the auditory world around us grows ever more cacophonic and threatens our very health, Rachel Carson’s environmental science book, *Silent Spring*,¹³ evoked a dystopian vision of a spring without birdsong due to the destructive effect of synthetic pesticides. It struck a chord more than half a century ago, initiating an environmental movement, and continues to resonate in current public discussions on the devastating effects of the global human footprint on natural environments.¹⁴ Environmental degradation, the extinction of species, declining biodiversity, melting polar ice, rising sea levels, overpopulation, food scarcity, and air and noise pollution, among other concerns, transcend the scope of environmentalists. These challenges have also entered the broader discourse of musicology, particularly in the field of ecomusicology.¹⁵ In 2007, the American Musicological Society approved the formation of the Ecocriticism Study Group (ESG), which has since facilitated interdisciplinary discussions on music and the environment.

The ubiquitous feeling of a looming environmental crisis has reinvigorated scientific and public attention and interest in ecologically intact natural spaces. A growing number of people not only visit nature parks and habitats but also technologically mediatize their auditory perception of ‘nature’ by recording and using ‘wild and natural’ sounds for artistic as well as scientific purposes.¹⁶

By investigating human’s auditory relation to birdscapes, i.e. scapes inhabited by birds, the SNSF-funded project “Seeking Birdscapes”¹⁷ aimed to contribute to understanding contemporary societal concerns regarding human impacts on the environment, shifts in people’s engagement with their physical and auditory surroundings, sound reevaluation, and the use of technological media.

Exploring Listening Practices

The growing attention to acoustic phenomena and sound cultures during the past three decades has caused a veritable ‘auditory turn’ in the humanities. The human ear has been situated in ever wider cultural, social, and technological contexts by exploring specific, but complex, auditory spaces, sound practices, and transcultural settings.¹⁸ Anthropological thinking in the 1980s turned toward the senses and their significance for understanding cultural experience.¹⁹ Steven Feld’s sound ecology of the Kaluli of Papua New Guinea and Anthony Seeger’s musical anthropology of the Suyá people of the Brazilian Amazon stressed the priority of sound perception over vision for people living in the rainforest.²⁰ This

11 ATTALI 1985: 4.

12 SCHAFER 1977 (sound studies and acoustic ecology); FELD 1982 (acoustemology); ANDERSON 2000; INGOLD 2011 (sentient ecology); ALLEN and DAWE 2016 (ecomusicology).

13 CARSON 1962.

14 PERRINGS 1997; MULHAUSER 2009; SODIKOFF 2012; MONACCHI 2015; RYAN 2015; see also *Biodiversity Exploratories*.

15 Publications that address the negative impact of environmental changes on natural resources, particularly those related to material culture, include: ALLEN (2012) on the endangered musical woods, like the Panneveggian spruce used in high-quality violins; SIMONETT (2016, 2021) on the climate-induced disappearance of giant silk moths, whose cocoons are used in making leg rattles in Mexico, RYAN (2015) on the overharvesting of eucalyptus trees, which poses a threat to gumleaf and didjeridu music-cultures.

16 BIANCHI and MANZO 2016; KRAUSE 2016; FARINA and GAGE 2017; WRIGHT 2022.

17 “Seeking Birdscapes: Contemporary Listening and Recording Practices in Ornithology and Environmental Sound Art”, [Swiss National Science Foundation \(#182813\)](#).

18 BAUMANN 1999; SMITH 2001; THOMPSON 2002; STERNE 2003; ERLMANN 2004; BULL and BACK 2006; SAMUELS et al. 2010; SCHOON and VOLMAR 2012; VOLMAR and SCHRÖTER 2013; NOVAK and SAKAKEENY 2015; SYKES and STEINGO 2019.

19 HOWES and CLASSEN 1991, 2014; HOWES 2005.

20 FELD 1982; SEEGER 1981, 1987.



new focus on the 'auditory world-making and world-knowing', the interrelation between people and their acoustic environment, was coined by Feld as 'acoustemology'. By highlighting the auditory mode of sensorial experience of Indigenous people, he (and other acoustemologists) repeatedly criticized Western civilization as being ocularcentric.²¹ Feld's rhetoric of antivisualism at that time resonated very strongly with ethnomusicologists despite calls for an integrative approach to the senses.²² Expanding on Feld's insights into birds' role in the lifeworld of the Kaluli, we set out to also explore non-Indigenous people's auditory entanglement with their natural (particularly their avian sonic) surroundings.²³

Sound spaces, however, pose an analytical challenge because they are not fixed objects for which a definite (de-)coding system can be applied.²⁴ Since sound itself has no inherent meaning, listening involves complex processes of socially negotiated sensemaking and knowing – processes that complicate any scientific inquiry into listening.

From Soundscapes to Birdscapes

Perceived as a primarily biological phenomenon, bird sound production has so far not attracted huge interest in the humanities.²⁵ In music related disciplines, the very concept of 'music' has been the main obstacle for taking bird sound seriously. Musicological analyses of birdsong-inspired compositions tend to consider bird and animal sounds as extra-musical references and, hence, of lesser importance for the structure of the musical composition.²⁶ Only recently have music scholars begun to question common musicological "conceptions of nature as an epistemological or musical wellspring".²⁷ The musical appropriation of bird sounds by humans has been found in various singing and music-making practices worldwide, but without having yet generated its own field of inquiry within musicology or anthropology.²⁸

Although comparative musicologist George Herzog already questioned the idea of music as a uniquely human phenomenon in the *Bulletin of the American Musicological Society* in 1941, the idea was not been widely embraced by scholars until François-Bernard Mâche's 1983 publication *Music, Myth and Nature*.²⁹ Mâche, a French composer and student of Olivier Messiaen, called for a 'musicology of animals', which he coined 'zoomusicology'.³⁰ Zoomusicological inquiry into the musical aspects of animal sound rests upon the assumption that animals (human and non-human species alike) communicate through sound based on aesthetic decisions. However, zoomusicology sees itself as the study of the music-like aspects of sound communication among non-human animals, in particular whales and birds.³¹

While specific songs of birds may be deemed 'musical' in that they share certain features such as specific melodic intervals with human music, there is also a tendency to perceive birds as an integral part of our *natural* soundscape.³² The study of sonic environments offers an interesting link

21 For earlier critical voices, see McLUHAN 1964; IHDE 1976; ONG 1982.

22 SAMUELS et al. 2010.

23 LEWY 2023; SIMONETT 2024.

24 WINKLER and MOSCH 2011.

25 THORPE 1961; MARLER and SLABBEKOORN 2004.

26 RUFENER 1959; HARLEY 1995; HILL and SIMEONE 2007; DOOLITTLE 2008; CURTIS and TAYLOR 2010; TAYLOR 2011; NADA 2016.

27 REHDING 2011: 410.

28 FELD 1982; BAUMANN 1999; SIMONETT 2016; BRABEC DE MORI 2015.

29 MÂCHE 1992.

30 MARTINELLI 2008; DOOLITTLE 2008; SORCE KELLER 2012.

31 MARTINELLI 2002, 2009; DOOLITTLE and GINGRAS 2015; TAYLOR 2017.

32 DOOLITTLE 2015: The problem of Western subjectivity, namely the self-categorization of humans within their environment, can be traced back to Cartesian nature-culture dualism. This dualism gave rise to both the intellectual construct of 'nature' as something distinct from the human world, referred to as 'culture', and the perspective that the human world is an integral part of nature. See LEWY and SIMONETT 2022. On the other hand, OLIVEIRA PINTO 2020, in his examination of birdsong contests in the Harz region of Germany, contends that these birdsongs are not naturalistic; instead, they are shaped by humans who raise and train the songbirds. Hence, these learned songs are considered to be products of 'culture' and appreciated as art; they thus move a finch master emotionally more than the ones that "resonate freely in nature" (6).

between the natural sciences and the humanities, and between avian bioacoustics and the recent interest in environmental sound art. Acoustic ecologists' initial interest in soundscapes was based on a concern about the negative effects of man-made noise. The Wild Sanctuary organization, for example, founded by soundscape ecologist Bernie Krause in 1968, was dedicated to recording and archiving natural soundscapes. The World Soundscape Project³³ initiative had a major impact on other scholarly fields as well, including the natural sciences. Its systematic analysis of environmental sounds within a contained temporal and geographical area was adapted by bioacousticians.³⁴ *Soundscape: The Journal of Acoustic Ecology*, launched by the World Forum for Acoustic Ecology in 2000, became a key academic outlet for social, historical, and artistic soundscape research.³⁵

But the soundscape concept has also been criticized for its tendency to regard sound as something merely external, physical, and isolated, thereby overlooking the experiential side and multisensorialness of listening to these scapes.³⁶ Insisting on the sensorial complexities of listening, scholars have called attention to the power of sound to create immersive experiences as well as its medial transformation through sound-reproduction technologies.³⁷ The recording of sounds in the field is a phenomenon that relates to our question regarding people's ecological immersion in sound.³⁸

Taking this soundscape criticism seriously, the "Seeking Birdscapes" project was inspired by cultural ecologist and philosopher David Abram,³⁹ who underlines the interrelatedness of living beings through their common sensory or sentient presence in the world, as well as by anthropologist David Anderson,⁴⁰ who emphasizes the communicative relationship of humans with animals and other components of the environment, a relationship that he termed 'sentient ecology'. A sentient ecological notion of communication goes beyond an anthropocentric ideal of verbal expression and understanding. Sentient communicative relationships can be understood as forms of interspecific intertwinings within multisensory sensemaking. This opens up the question of how an anthropological understanding of sentient ecology relates to current zoomusicological and zoosemiotic knowledge of animal communication⁴¹ — in particular, whether sensemaking, understood by semioticians as a cognitive performance, allows for a consideration of non-cognitive and immersive elements such as sensory learning, experiential knowledge, or intuition.⁴²

Insights into the "Seeking Birdscapes" Project

The "Seeking Birdscapes" project fits squarely into the emerging, dynamic, and multi-perspectival field that is ecomusicology. An ecomusicological approach not only takes into consideration historical and current environmental issues in relation to its core competencies in music and sound cultures, it also redirects our focus on the auditory, sonic, and musical agency of living beings.⁴³ Ecomusicology opens up connections to animal studies (also human-animal studies or zooanthropology), which over the last decade has gained influence in different disciplines within the humanities.⁴⁴ On the other hand, critical

33 SCHAFER 1977; TRUAX 1978.

34 FARINA and GAGE 2017.

35 THOMPSON 2002; CARLYLE 2007; SAMUELS et al. 2010; BIJSTERVELD 2013; CANDAU and GONIDEC 2013.

36 INGOLD 2007; SIMONETT 2014, 2016; WHITEHOUSE 2018.

37 HELMREICH 2010, 2015; GUILLEBAUD 2017.

38 JÄGGI 2022.

39 ABRAM 1996, 2010.

40 ANDERSON 2000.

41 SEBEOK 1972; MARTINELLI 2009, 2010; MARAN, MARTINELLI and TUROVSKI 2011.

42 SIMONETT 2021.

43 REHDING 2011; ALLEN 2011, 2013; TITON 2013; ALLEN and DAWE 2016; GUYETTE and Post 2016.

44 HARAWAY 2008; DEMELLO 2010; CHIMAIRA 2011; SPANNRING 2015; FERRARI and PETRUS 2015; BORGARDS 2016. See, for example, SIMONETT 2021.



ideas developed by scholars of ecocriticism, an earth-centred approach to literary studies, have spurred an ecological thinking across the sciences.⁴⁵ While findings in ecology subvert anthropocentrism and re-evaluate the role of non-human animals,⁴⁶ posthumanist discourse contests superiority and human dominance over nature, and decentres the human by “its imbrication in technical, medical, informatic, and economic networks”.⁴⁷

Taking an ecomusicological position, the “Seeking Birdscapes” project aimed at readdressing questions about the music of Others, including other species, by exploring to what extent human auditory perception is shaped by direct and indirect experience of avian sound spaces, and conversely, how musical-sonic perceptual histories shape the sensemaking of birdscapes. Furthermore, “Seeking Birdscapes” aimed to explore the sonic companionship offered to humans by birds through auditory fieldwork in birdscapes as well as through interviews and conversations. During the project period the research team conducted 39 interviews, of which two-thirds were with individuals with field ornithological interests or professionals in the fields of ornithology, bioacoustics, and ecology and one-third with people with an artistic and musical interest in avian sound worlds. In addition, participant observation during and outside field ornithology training courses, as well as a field trip with researchers from the Swiss Ornithological Institute Sempach enabled the research team to become immersed in the auditory ecology of birdscapes.

By listening to and comparing the research team’s field recordings of different birdscapes in Switzerland, Catalonia, and Iceland, the project was able to demonstrate that human perceptual repertoires have led to a cultural as well as scientific underrepresentation and auditory marginalization of a broad range of bird species and, thus, produce sonic blind spots. Iceland is a country with few songbird species, which raised awareness of the underrepresentation of the sound worlds of seabirds, waterfowl, waders, and other non-passerine birds that breed on the island. Non-passerine bird species as well as sounds of flight and other types of locomotion and movement have been largely ignored in human cultural and scientific domains. The cultural-scientific formation of a canon of bird sound which privileges birdsong of songbirds implies the need for a more holistic approach to bird sound and, ideally, a new understanding which takes a global perspective on birds’ ways of inhabiting the world sonically. Here, contemporary musical works such as Carola Bauckholt’s *Zugvögel* (2012) with its interest in noisy sounds of waterfowl and flight can lead the way to break up so-called perception regimes.⁴⁸

Furthermore, the expansion of a Western or modernist perceptual culture may entail a different understanding of sound in the domains of its effects, such as in Indigenous ontologies of auditory mimesis. While the success of mimicking techniques by which birds are attracted by ornithologists, hunters or the like follows a naturalistic explanation in Western ontology (the bird is deceived), animistic ontology, as in Amazonia, attributes specific powers to the effect of uttered sounds as sound beings, based on a general understanding of a common human interiority of all animals, spirits, and humans. The ability of birds to change their auditory position thus seems to be seen as more variable and powerful in animistic ontologies than in naturalistic ones.⁴⁹ A comparative ontological perspective may therefore further illuminate specific constraints that are currently emerging in the field of human-animal studies. In this context, it should be emphasized that in Indigenous ontology, a common humanity is the basis of all descent, rather than a common animality. Therefore, certain terms such as ‘non-human animals’ do not make sense in this context and refer to the ‘Modern’s dilemma’.⁵⁰

45 GLOTFELTY and FROMM 1996; GARRARD 2004; CLARK 2011.

46 HARAWAY 2008; WOLFE 2010; FERRARI 2015.

47 WOLFE 2010: xv; FERRARI 2015.

48 JÄGGI 2023.

49 LEWY 2024.

50 LEWY and SIMONETT 2022.

Indigenous knowledge can therefore open up stimulating forms of thinking and understanding auditory-sound relationships between humans and animals.

The interview conversations about nature and bird-sound experience led to discussions about ecological crises and environmental commitment which brought to the forefront the uncanny and often humanly unperceived silence that is left behind by decimation and extinction of bird species and which echoes in personal confrontations with loss and solastalgia.⁵¹ Musicians and sound artists who use 'nature sounds' in their creative works or who translate data of nature (such as climate data) to make issues such as the loss of bird species hearable often do so in the hopes of inspiring audiences to greater environmental connection and care. Looking critically at such works raises the question of how such musical and artistic engagement may unintentionally replicate prevalent dynamics of human dominion over and consumerist attitudes towards 'nature'.⁵² Yet artistic and imaginative expressions of the environment and responses to ecological crisis are also deeply meaningful and ecologically necessary.⁵³ This shows once again how the ecological crises are expressions of a fundamental crisis in the human-environment relationship.

The project team's confrontation with bird sounds and birdscapes, as illustrated by these briefly summarized topics, can show how (eco)musicological research is challenged to reflect fundamentally on principles that underly this relationship and our daily perceptions, thoughts, and actions and, wherever possible, the need to radically question them.

About the Contributions

The "Seeking Birdscapes" research project included a conference under the title "Seeking Birdscapes: Musik, Ökologie und die Klangwelten der Vögel" which was held in October 2022. A selection of revised contributions from that conference makes up the main part of this special issue of *SJM*, exploring the intricate and multifaceted dynamics of auditory interactions between humans and birds. The articles examine this topic from various angles, covering musicology, anthropology, ethnomusicology, and an artistic perspective.

Main Articles

In "The Anatomy of a Benign Failure", musicologist Gergely Loch, offers a concise analysis of a sequence from the Hungarian children's film *Barátom, Bonca* (*Bonca, my Friend*, 1975), scripted by acclaimed children's book author Katalin Varga and directed by filmmaker Ilona Katkics. The film sequence portrays a dialogue between a young boy and an older man who records birdsongs in his garden. The man then plays back the tapes, significantly slowing down the songs, resulting in an auditory transformation that renders the birdsongs unfamiliar. An intriguing aspect of the film revolves around the application of a theory originally formulated by ornithomusicology pioneer Péter Szőke in the 1950s, who argued that birdsongs shaped Hungarian folk music. He supported his theory by slowing down recorded tapes and transcribing them into conventional notation, but faced criticism from fellow ethnomusicologists, including Zoltán Kodály. By integrating this already contentious theory into their film, Varga and Katkics perpetuate a problematic cycle of "wishful thinking in science, misinterpretation, misrepresentation and misidentification" (1), as rigorously demonstrated by the author. This is particularly evident in their inclusion of a birdsong that does not correspond to the nightingale song mentioned in the film. Nevertheless, Loch concludes that these errors contributed to the artistic authenticity of the final product, an authenticity inseparable from a strong sense of environmental ethics.

In his ethnographically informed article "Inquisitory Birds", anthropologist and birder Andrew Whitehouse delves into ethical questions regarding the common yet controversial technique of song playback,

51 JÄGGI 2021, 2024.

52 KIRSCHSTEIN 2020.

53 KIRSCHSTEIN, forthcoming.



employed by both scientists and birders to elicit responses from birds. Upon hearing the recording, birds exhibit either aggressive territorial responses or inquisitive social approaches. The long-term impact of song playback on birds' behaviour is not yet well-researched, but it may lead to birds no longer responding to their species' sounds, resulting in a deviation from their presumed natural behaviour. In the current discussions regarding playback ethics which provide insights into our understanding of birds (the human-animal divide), interactions between humans and birds, and the practices and dialogues surrounding the aesthetics of birding, Whitehouse introduces an alternative perspective. Highlighting the human-bird encounter represents a departure from the one-sided exploitation aimed primarily at acquiring (scientific) knowledge. This shift paves the way for a more nuanced understanding of birding, especially when viewed from the birds' perspective, as it has the potential to provide enriching encounters for the 'inquisitory birds' among them.

Ethnomusicologists Natalie Kirschstein and Helena Simonett investigate the auditory practices of a dozen individuals as they 'walk and talk' in a Swiss 'sounding forest' or 'tùn resùn/Klangwald'. Initially centred on auditory practices, their conversations with their interlocutors uncovered the profound interdependence of sensory experiences, particularly in the context of walking. Rather than solely extending Ingold and Vergunst's concept of an 'anthropology of walking' by integrating the auditory aspects of walking and the practices of hearing and listening, they advocate for a 'sensory walking ethnography'. They suggest that adopting an ecological approach to perception can overcome the limitations of the solely linguistic or semiotic perspective that is common in sound-related disciplines. A recurring theme in their conversations was sound and silence, seemingly centred on hearing. However, the authors contend that these experiences in the forest, described as quiet or silent, transcend mere auditory perception, emphasizing the need to consider sound within the broader sensory context that influences perception. Ultimately, they advocate for a more inclusive sensorial approach in disciplines that deal with the realm of sound.

Times and Perspectives

Composer Emily Doolittle's reflective essay delves into a collaborative music-and-text creation, drawing inspiration from seabirds that breed in vast colonies along the cliffs of the Shetland Islands. As a composer and researcher with a fascination for the music-like aspects of sound communication in gannets, Doolittle offers insights into the multifaceted personal experiences and creative methodologies that have contributed to the development of this composition. These profound interactions with gannets find a succinct expression in the essay's evocative title: "Sharp, Loud, Fast, Fierce". The piece *Gannetry* found its inspiration in a poem by Dawn Wood and was written for clarinetist Joanna Nicholson as part of the *Modern Chants* project in 2021.

In "Captured Birdscapes", Matthias Lewy and Helena Simonett analyze the Birdscapes exhibition that took place in 2022 at the Lucerne Nature Museum in Switzerland. The central aim of this exhibition was to communicate the research procedures and outcomes of the SNSF project. Following a brief introduction to the concept of a sonorous museum space, the authors introduce the foundational concepts that underpinned the Birdscapes exhibition, providing an examination of the exhibition itself. Their discussion emphasizes the potential for extending similar endeavours beyond academic realms and underscores the significance of incorporating sound installations and objects into museum environments to promote critical reflection.

Helena Simonett is Professor of Ethnomusicology at the Lucerne University of Applied Sciences and Arts, Competence Center for Music Education Research, Switzerland. She conducted extensive research on Mexican popular music and its global dissemination, as well as on Indigenous ceremonial music and dance in the Northwest of Mexico. Her focus lies on Indigenous ontologies and ecological concerns.

Patricia Jäggi is a Senior Research Associate at the Lucerne University of Applied Sciences and Arts and at the University of Zürich. She works on the politics, identities and histories of sound and listening as well as in the fields of sound art and acoustic ecology. Her research extends also to artistic and mediating formats such as sound and listening walks, sound compositions and workshops on enhanced auditory-sensory perception.

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