Captured Birdscapes: Artistic Research, Research Art, and Living Cultural Heritage

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Abstract: *This article centres on the Birdscapes exhibition held in 2022 at the Nature Museum in Lucerne, Switzerland. The exhibition's primary objective was to convey the research processes and findings of a project that explored human-nature connections, with a particular emphasis on the auditory, sonic, and musical dimensions of people's interactions with their physical environment. The paper underscores the potential for expanding similar initiatives beyond academic boundaries and highlights the importance of integrating sound installations and objects within museum spaces while also fostering critical reflections.*

Introduction

Between September 16 and November 3, 2022, the Lucerne Nature Museum featured an exhibition exploring the auditory connection between humans and birds. This exhibition was the result of a project initiated in 2018, which included a mobile 'birdscape listening room'[3] whose primary goal was to disseminate the team's findings to a broader audience and raise awareness of the distinct soundscapes that surround us as part of our intangible heritage. The university's Interdisciplinary Clusters programme (ICs) allocated funding for two members from the School of Design, Film, and Art, one of whom was sound artist Martina Lussi (Fig. 1). Their role was to assist the research team in developing new formats for research mediation.

Fig. 1: Sound artist and ICs project member Martina Lussi in front of the Nature Museum Lucerne, Photograph by Helena Simonett, September 2022.

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3 The project "Seeking Birdscapes: Contemporary Listening and Recording Practices in Ornithology and Environmental Sound Art" (2019–2023) was funded by the Swiss National Science Foundation (#182813) and carried out by four research associates from the Competence Centre Music Research Education, School of Music, Lucerne University of Applied Sciences and Arts.

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In this article, we explore the diverse conceptual underpinnings of the Birdscape exhibition, providing a comprehensive exploration of the exhibition itself. This examination will also highlight the challenges faced during its realization, offering insights for future endeavours. Lastly, we will share introspective reflections and pertinent considerations about the process of exhibition-making.

Sound in the Museum

Museums have long been integral to (ethno-)musicology, primarily in the realm of archival work. The discipline of comparative musicology emerged in the wake of technological advancements in music recording, marking the inception of musical archives. In the era predating fieldworkers like Bronisław Malinowski,[4] extensive expeditions adopted a holistic approach to data collection. This involved ethnologists, linguists, adventurers, and missionaries recording music worldwide, followed by analysis and evaluation conducted by the so-called 'armchair' musicologists.[5] Over time, the comprehensive approach to data collection gradually evolved into a fragmentation across various specialized disciplines. This shift mirrored the gradual compartmentalization of knowledge into distinct academic fields, a trend also reflected in the establishment of academic departments within universities.

This persistent division also highlights the differentiation between sound phenomena, regarded as intangible cultural aspects, and tangible objects suitable for presentation in a museum. The effort to bridge this gap presents a challenge within the field of comparative musicology. Significant initiatives in this realm have been spearheaded by institutions like the Museum für Völkerkunde (Museum of Ethnology), and later the Ethnological Museum Berlin. Notably, Kurt Reinhard, director of the Berliner Phonogramm-Archiv from 1952 to 1968, created pioneering radio programmes that broadened the accessibility of early recordings to a wider audience.[6] However, this can be seen as an exception in that period.

To this day, museums typically prioritize human visual perception and material culture. They have a rich history of music iconography dating back centuries. Music, as an exhibition theme, is predominantly featured in the musical instruments section of universal museums or in independent musical instrument museums.[7] Even in music museums dedicated to composers or famous bands, visual aspects such as devotional objects dominate. The integration of sound objects into visual arts, exemplified by performances like Jean Tinguely's Méta-Harmonie music machines, represents a more recent phenomenon.[8] Over the past twenty years, some museums have been exploring new approaches, such as the Pitt Rivers Museum in Oxford, England, which invites artists to present the music archive.[9] This topic is also addressed at the Musée d'ethnographie de Genève (MEG), where a current project focusses on developing ethical protocols for archival recordings and their use within exhibition contexts.[10] There are two main approaches to the incorporation of archives and contemporary ethnographic recordings into soundscape installations within exhibition settings. They are either housed in specially designated spaces, such as the Nordamerika Native Museum in Zurich,[11] or integrated directly within the exhibition halls themselves.[12] The latter trend aims to reunify ontological entities of sound and related objects, extending beyond solely musical instru-

4 Malinowski was one of Europe's most important anthropologists of the first half of the twentieth century and an eminent, yet controversial, fieldworker. His writings on anthropological field methods laid the groundwork for early anthropology by popularizing the concept of participatory observation. See Delgado Rosa and Vermeulen 2022.

5 The term 'armchair' implies a passive, non-participatory approach, associated with scholars who analyse and write about music and cultures from a distant or theoretical standpoint, without actively engaging with the people, communities, or contexts they are studying.

6 Koch, Wiedmann and Ziegler 2004.

7 Meyer 2018.

8 De Visscher 2018: 14.

9 De Visscher 2018: 17.

10 „Resocialization of Sound: Collaboration in Research, Archiving and Dissemination with Amazonian Collectives", Swiss National Science Foundation #220198.

11 Schoer 2014.

12 Lewy 2021; Alonso Amat et. al 2021.

ments. This process can be interpreted as a form of decolonization insofar as 'music' concepts based on a unity of the material and immaterial are considered.

There has been a growing interest in incorporating music and sound within museum spaces. However, numerous challenges persist, mirroring some of the hurdles we encountered in our project. Yet, the integration of sound installations stands out as effective means to elevate the auditory experience for museum visitors, fostering a heightened awareness and appreciation of the sonic elements within the curated environment.[13]

Research Period: Fieldwork and Interviews 2019–2021

At the beginning of the project, the research team created a database with interview recordings, field notes, and soundscape recordings. The data were analysed using MAXQDA. The majority of the qualitative data collection took place in Switzerland. To gather comparative material, two field studies were conducted in Iceland and the Ebro Delta in Spain. Both locations have a unique avifauna, with the avifauna in Iceland differing significantly from that of Central and Western Europe.

The Covid-19 pandemic made it challenging to have in-person interactions with people, impacting interviews and observations of participants in 2020 and 2021. Nevertheless, a total of 39 interviews were conducted, with about two-thirds of the respondents being individuals with ornithological interests or professionals in the fields of ornithology and bioacoustics. The remaining third of the respondents had an artistic and/or musical interest in bird soundscapes. Participant observation also included attending various ornithological field courses, conducted by organizations such as Birdlife Luzern and Birdlife Barcelona, and an excursion with researchers from the Swiss Ornithological Institute in Sempach. Additionally, there was a focus on autoethnographic work and field recording.[14] During fieldwork, we recorded the biospheres we individually or collectively visited. The Wauwilermoos nature reserve emerged as the primary study site for our team, leading to the creation of a documentary film (Fig. 2).

Fig. 2: Léon Hüsler and Martina Lussi recording the dawn chorus in the Wauwilermoos, Photograph by Helena Simonett, April 2022.

13 See, for example, Schoer 2014; Schoer, Brabec de Mori, and Lewy 2014; Lewy 2015; Alge and Wilkins 2023.
14 Jäggi 2022.

Various themes and core areas emerged during the research process of the four main project team members, resulting in diverse insights that needed to be integrated into the exhibition.

Helena Simonett continued her eco-musicological research, with an emphasis on Indigenous traditions in the context of global ecological crises.[15] She lectured and wrote on the ways in which Indigenous peoples interact with the human and non-human components of their environment, challenging the dualistic thinking in Western philosophical and scientific discourses.[16] Based on an analysis of interview data from the Birdscapes project, she was particularly interested in explaining Indigenous ontological perspectives to a Western audience and questioning the concepts of 'nature' and 'culture'.[17] The shift from the 'auditory' to the 'ontological turn' brought about a rethinking of the habitual dichotomies of our senses. Together with Matthias Lewy, she also curated the exhibition at the Nature Museum Lucerne.

Lewy conducted field research in Catalonia and Switzerland, focusing on the distinct perceptions of sight and sound, as well as the various forms of communication between humans and birds. In his work on Birdscapes, he emphasized that, unlike the transspecific communication observed among Indigenous specialists in South America, European epistemologies are rooted in intra- and interspecific forms of interaction. Utilizing grounded theory to analyze the European field research data, he developed a naturalistic ontology primarily articulated within the conceptual realm of nature/culture. To compare modern (European) and Indigenous sound ontologies, human-bird relationships in animistic cultures were further explored.[18] This comparative analysis led to a novel understanding of how sight and hearing intersect with different 'auditory knowledge cultures'[19] concerning bird sounds and the concept of 'birdness'. A particular research focus was placed on comparing anthropological discourses on mimesis with the bioacoustic conceptual world of the naturalistically oriented modern era. To effectively convey such complex scholarly topics to museum audiences, Lewy employed artistic and experiential methods (see 'Sound Installation I' below).

Natalie Kirschstein initially focused on the auditory aspects of well-being techniques such as mindfulness and deep listening and how these practices impact human responsibility towards the environment.[20] The creative exploration of bird calls through songs, stories, and sound art also reveals much about the human relationship with the so-called natural world – both the tangible and the imagined. The ecological potential of this type of engagement became an ongoing interest. Her work on sound evolved into a multisensory approach towards perception that also raised methodological questions and culminated in a method based on a 'sonic ethnography of walking'.[21]

Patricia Jäggi's fieldwork in Switzerland and observations of the Icelandic avifauna in the summer of 2021 led to a re-evaluation of conventional perspectives on the bird sound worlds (or birdscapes). Ethnographic experiences with wild living birds and conversations with numerous people emphasized the need to expand the traditional focus on the songs of songbirds – prevalent in ornithology, bioacoustics, music, and sound art – to include 'noisy' bird species as well as sounds of flight and other movements.[22] Discussions, autoethnographic experiences, and field recordings yielded yet another key insight: the concept of 'silence'.[23] The audio-technological aspects of bird sound recording were among Jäggi's other interests as she conducted extensive recordings in Iceland.

Exhibition Space

Drawing from the subprojects of each research team member and their varied theoretical perspectives on the collected data material, the planning of the exhibition commenced, taking into account space and financial resources as crucial planning factors. The spatial conditions were determined

15 Simonett 2021.
16 Simonett 2024a, 2024b.
17 Lewy and Simonett 2022.
18 Lewy 2024.
19 Brabec de Mori and Winter 2018.
20 Kirschstein 2020.
21 Kirschstein and Simonett 2024.
22 Jäggi 2023.
23 Jäggi 2021a, 2021b.

by the museum. Our project was assigned two rooms on the upper floor: a larger one for temporary exhibitions and a smaller, dark one for film screenings (Fig. 3). The rooms are connected by a spacious area displaying vitrines on various topics, such as the geology and mythology of the Lucerne region. To guide the visitors from one room to the other, we used some of the museum's exhibition specimens of prepared birds, suspended from the ceiling. Given that temporary exhibitions like ours require adaptability, and easy instalment and removal of room dividers and exhibition materials in a way that does not damage the infrastructure, we chose to construct a division wall using wood fibreboard, as well as sturdy wooden boxes to safeguard the audio equipment. All elements had to be securely fastened and child-proof, as the rooms were not monitored by museum personnel. Essentially, the exhibit had to operate autonomously.

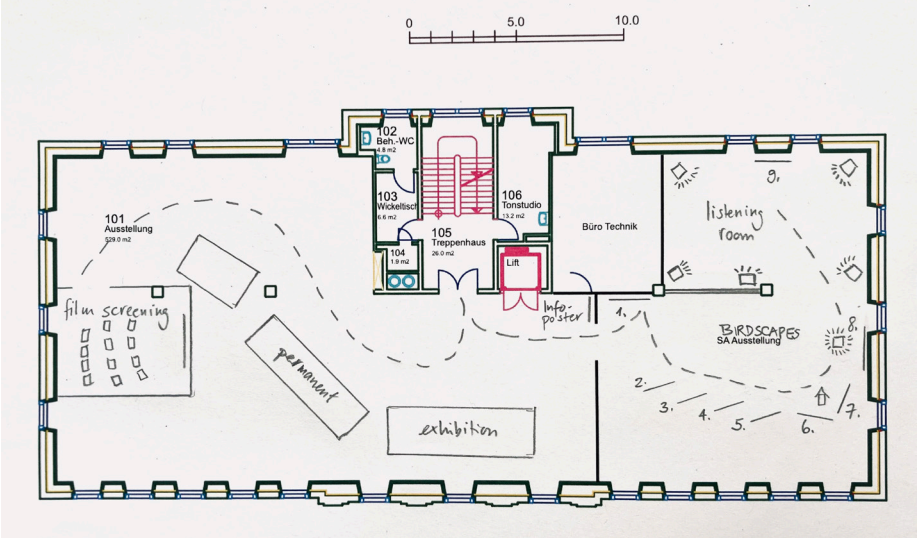

Fig. 3: Floor plan: temporary exhibition room of 100 square metres (right) and film screening room (left).

Fig. 4–7: Dividing the exhibition room with a temporary wall and mounting the audio installations and posters, Photographs by Helena Simonett, September 2022.

We brainstormed various exhibition formats with the aim of informatively presenting our research. However, we quickly realized that a comprehensive representation within an exhibition format would not be feasible. Due to budget constraints, we eventually chose to create posters featuring introductory texts and questions for each individual subproject (Fig. 6). QR codes on the posters allowed visitors to access additional information on the project's website, providing avenues to explore articles, images, videos, and sound compositions.

In addition to our research primarily conveyed through posters, we also sought a sensorial exploration of the human-bird sound relationship with two sound installations. One of them was Lussi's *Subpolar Birdscapes in Transformation*, played through speakers, creating an atmosphere throughout the space as visitors viewed the posters. In-depth listening became possible behind the dividing wall, where visitors could sit on stools or rugs and immerse themselves in the 4-channel soundscape (Fig. 7). The second installation, linked to Poster 8 (What do you hear?), was audible when standing underneath a holosonic speaker positioned on the ceiling with a limited sound radius of about one square metre. Both will be discussed in more detail later.

Upon entering the room, visitors were visually guided from the first poster, on the left, which provided an overview of the Birdscapes project and the subtopics, along a series of posters on the right, all visible from the entrance. Poster 1 bore a lenticular image featuring two types of swallows: the Arctic Tern *Sterna paradisaea*, which was central to Jäggi's fieldwork in Iceland and Lussi's sound installation, and the *Elanoides forficatus*, discovered in the Venezuelan Gran Sabana by Lewy.[24] The latter bird is perceived by the Indigenous people living there as the embodiment of the *mawarí* spirit woman named Kumarak Pachi (see poster 8). The oscillating images represented the different forms of perception and the attribution of meaning to bird bodies and calls that emerged from our research. Thus, one of our objectives was to illustrate the modern Western method of classifying beings, which differentiates between categories such as humans and birds, based on specific assumptions about their internal attributes (such as subjective and mental properties) and external characteristics (such as material properties), and to encourage visitors to question these assumptions.[25]

Mediation of Research Questions

The Conceptual Dilemma

The notion that birds sing challenges the deeply ingrained Western concept that music and the sonic arts are exclusive to humans.[26] Since most birds living in urban areas belong to the category of so-called *songbirds* (*Singvögel*), there is a widely embraced notion that birds sing or partake in musical activities, as conveyed in the lyrics of the well-known German children's song where birds both sing and make music (*singen und musizieren*).[27] Hence, we confront a conceptual dilemma – what constitutes 'music'?

Strangely enough, music seems to be one of those phenomena that are omnipresent but most difficult to grasp. Music scholars have made various attempts, producing books such as *Was ist Musik?*

24 Seren Simonett created the drawings of the swallows and the lenticular image, which can be viewed in action on the project website: https://www.hslu.ch/de-ch/hochschule-luzern/forschung/ausgewaehlte-projekte/birdscapes/?sourceurl=/%20birdscapes [29.02.2024].

25 The French anthropologist Philippe Descola has outlined the four major types of ontologies in his seminal book, *Beyond Nature and Culture* (2013 [2005]): naturalism (scientific or modern ontology), animism, analogism, and totemism. These ontologies arise from the interplay of similarities and differences between humans and non-humans in terms of interiority and physicality. See "Acoustic Mimesis" below.

26 Ullrich and Trump 2023: 2. See also Brabec de Mori 2017; Sorce Keller 2010, 2012, 2019.

27 The spring song, "Alle Vögel sind schon da" (All the birds have arrived), was written by August Heinrich Hoffmann von Fallersleben in 1835 and set to music by Ernst Richter.

(What is Music?),[28] *Contemplating Music*,[29] *Disciplining Music*,[30] and *Rethinking Music*,[31] all without arriving at more than a vague definition. Joseph Kerman, one of the prominent American musicologists of his generation, for example, holds that "Music is composed, performed, and listened to".[32] A similar Eurocentric view is expressed in Hans Heinrich Eggebrecht's entry in the *Riemann Musik Lexikon*: "[Music] is — within the scope of this word: in the Occident – the artistic creation of sound […]".[33] In the updated 2012 edition, he acknowledges the difficulty of formulating a single definition of music due to the variety of styles and functions, and the pluralism of conceptual ideas. *The New Grove Dictionary of Music and Musicians* assigned Bruno Nettl, a prominent ethnomusicologist, to craft the entry on music, presenting a perspective distinct from musicological definitions.[34] In the subheading "Music as a universal phenomenon", Nettl briefly addresses the issue of "whether music is human-specific or whether other species have music too".[35] He then quickly asserts that ethnomusicologists view music as a *human* universal – only to once again question fixed conceptualizations of music in the last sentence of his entry: "Thus, one may argue whether the sounds of an orchestra tuning up are music; or John Cage's work, *4'33"*, in which no sound is heard; or the sounds produced by computer programs, any more than the 'singing' of birds".[36]

Indeed, most music scholars appear to deliberately avoid undertaking the task of defining music, emphasising that the concepts of music are culturally dependent.[37] As Philip Bohlman states,

> The ethnomusicologists of the 1950s had brought about a radical new way of disciplining music, of determining even what music might be. Music could no longer be understood simply as an expressive phenomenon only of the self, for it ineffably reflected the presence of the Other in a world that both self and Other inhabited.[38]

Early ethnomusicologists aimed to investigate the music of 'all cultural strata of mankind'. The term 'Other' in this context did not extend to other-than-human entities.[39] While musical expressions of non-Western (Indigenous) people, particularly the ones related to rituals, challenge the Western notion of 'music', Bohlman recognizes that "Western art music has been our music all along, and it therefore refracts the language with which we describe another music".[40] Simonett elaborates on this predicament on her museum poster:

28 Dahlhaus and Eggebrecht 2001 (1985).
29 Kerman 1985.
30 Bergeron and Bohlman 1996.
31 Everist and Cook 1999.
32 Kerman 1985: 20.
33 The whole sentence in the original is: "[Musik] ist – im Geltungsbereich dieses Wortes: im Abendland – die produktive Gestaltung des Klingenden, das als Natur- und Emotionslaut die Welt und die Seele im Reich des Hörens in begriffloser Konkretheit bedeutet und das als Kunst in solchem Bedeuten vergeistigt 'zur Sprache' gelangt kraft einer durch Wissenschaft (Theorie) reflektierten und geordneten und daher sinnvollen und sinnstiftenden Materialität" (Eggebrecht 2012: 441). Similarly: "Musik im europäischen Sinne ist mathematisierte Emotion oder emotionalisierte Mathesis" ("Music in the European sense is mathematical emotion or emotionalised mathesis") (Dahlhaus and Eggebrecht 2001 [1985]: 41).
34 "Selecting from a number of alternative viewpoints, this article addresses issues and approaches to perspectives that exhibit the great variety of the world's musics and of the diversity of cultural attitudes and conceptions of music" (Nettl 2001: 425).
35 Nettl 2001: 435.
36 Nettl 2001: 436.
37 In fact, Kerman's ethnocentric view is also espoused in his assertion that "Western [art] music is just too different from other musics" (1985: 174) that it can be compared with non-Western musics or studied with ethnomusicological methods.
38 Bohlman 1996: 117. He continues to explain: "The ancestors against whom the new ethnomusicologists of the 1950s turned were clearly identifiable because of the disciplinary rubric *vergleichende Musikwissenschaft*, comparative musicology. The problem posed by comparative musicology that so plagued ethnomusicologists in the 1950s was one of distance, namely, the gap between our music and the music of the Other. Comparative musicology, by its very nature, took that gap as a given, as a fixed element in a skewed cultural equation in which the canonic presence of Western art music was also a given. In essence, the study of another's music began only after its hypothetical relation to Western art music had been established" (120).
39 Sorce Keller 2012: 168.
40 Bohlman 1996: 133.

> Although the musical practices of non-western (Indigenous) peoples had been acknowledged as music [by comparative musicologists], they were often characterized with the adjective "primitive".[41] The distinction between "natural man" and "civilized man", now considered evolutionary and Eurocentric, was advocated, among others, by the comparative musicologist Curt Sachs in his 1930 book *Musik der Fremdkulturen* [Music of Foreign Cultures].[42]

The idea of Indigenous people as 'natural men' had also solidified in the United States, where the vast collections of Native American recordings were housed at *nature museums* – as was our Birdscapes exhibition. Simonett provocatively encourages visitors to contemplate the implications embedded in the concept of the songbird as 'nature's musician'.[43]

> Does it suggest that, unlike the (civilized, cultivated) human, the bird belongs to nature, and consequently, its vocalizations are purely genetic (biological)? In other words, is birdsong to be understood solely as a function for attracting mates and defending territory?[44]

Interestingly, the question of whether animals possess music was raised in the early years of the discipline. In 1911, musicologist and experimental psychologist Erich M. von Hornbostel queried whether birds' sonic production could be considered songs in a musical sense.[45] George Herzog, who had served as Hornbostel's assistant in the Phonogramm-Archiv Berlin before emigrating to the United States in 1925 to study anthropology, reflected on the matter, stating, "If music may be defined (excluding the functional aspect for the moment) as patterning of sound, then it can hardly be denied that animals and birds make music. Music is, of course, a particular type of sound patterning".[46] Several decades later, British anthropologist and ethnomusicologist John Blacking proposed a concise definition of music as "humanly organized sound", limiting musical capacity exclusively to humans. Furthermore, he stated, "Music comes from the core of culture, but music can itself also affect the culture's other domains".[47] The influence of anthropology, particularly the writings of Alan P. Merriam, on its emerging sister discipline is apparent in Nettl's condensed definition of ethnomusicology as "the study of music in and as culture".[48] According to Merriam,

> [m]usic sound is the result of human behavioural processes that are shaped by the values, attitudes, and beliefs of the people who comprise a particular culture. Music sound cannot be produced except by people for other people, and although we can separate the two aspects [the sound aspect and the cultural aspect] conceptually, one is not really complete without the other.[49]

More recently, zoomusicologist and composer Hollis Taylor has challenged the prevailing belief in human exceptionality which denies musical agency to birds.[50] She argues that birdsong is often excluded from definitions of music due to the pervasive influence of ideas associated with art music and the insistence on a rigid separation between nature and culture, which neglects more contemporary concepts like the natureculture continuum. She and her colleague Dominique Lestel have analyzed the songs of the Australian pied butcherbird and concluded that

> [b]irdsong may be relevant to inquiries into a range of issues on the natureculture continuum, including memory; music cognition, perception, and auditory processing; music's evolutionary origins and biological basis; the search for universals; and the comparison of the faculties of music and language.[51]

41 See, for example, Nettl 1956.
42 Excerpt from poster 2, our translation.
43 Kroodsma 2005. See also the Introduction to this issue (Simonett and Jäggi 2024).
44 Excerpt from poster 2, our translation.
45 Hornbostel 1986 (1911): 86.
46 Herzog 1941: 4.
47 Blacking, 1973: 116.
48 Nettl 1980: 1.
49 Merriam 1967: 6.
50 Taylor 2010; 2013; 2017.
51 Taylor and Lestel 2011.

However novel, these concepts still operate within the Cartesian nature-culture dichotomy, as scholars in both the social sciences and humanities persist in working within the established parameters, tethered to a Western scientific ideology. The definition of culture, for example, still revolves around "the non-genetic transmission of traditions across generations" – hence, "[C]ulture, in humans and in animals, is learned and not inherited", as the two authors conclude.[52] The distinction between innately acquired and learned songs, or 'natural' and 'cultural' birds, is also made by *Finkers* (finch masters) in the German Harz region of Saxony-Anhalt. Young finches are trained in a specific song repertoire in order to be eligible to participate in singing contests (*Finkenwettkämpfe*) – a tradition that has been documented by ethnomusicologist Tiago de Oliveira Pinto. Since his work fits squarely into the themes addressed in our Birdscapes project, we decided to incorporate his findings into our multiperspective exploration of the human-bird-sound relationship at the museum.

To participate in competitions a finch requires a minimum of three years of preparation, during which the finch master is his primary caregiver and mentor. "During this learning period, no contact is allowed between the future contestants and the sonic outer world of the wild and free singing finches in the surrounding forests".[53] The relationship between the birds and their owners becomes very close. Young birds need regular sonic input to acquire skills that do not develop naturally or automatically. Birders use recorded birdsongs to teach their mentees the 5 or 6 songs needed for competing.

There are three types of competitions: beauty singing (solo), distance singing (in two rows), and circle singing (in concentric circles) (Fig. 8). The beauty criteria encompass syllabic accuracy, slow and even delivery, and pitch accuracy. Songs that do not meet the beauty criteria, called *Latscher*, are considered 'ear-insulting'. This dichotomy between beauty songs and *Latscher*-songs clearly shows the difference between 'culture birds' (*Kulturvögel*) and 'nature birds' (*Naturvögel*) since the latter songs are mainly found in nature. Ultimately, humans transform natural sounds into cultural soundscapes, and the stories surrounding birdsong among the Harz birders unveil insights more about humans than the songbirds themselves. Birdsongs are evaluated based on well-defined aesthetic principles established by human judgment.[54]

The focus in the *Finkenwettkämpfe* is on the auditory experience since the primary participants, the singing finches, remain hidden from the audience (and the judges) and perform inside a cage covered in white cloth adorned with embroidered images of the birds. Our exhibit featured an older bird cage (see Fig. 5–6), which served to problematize not only the birding tradition in the Harz, but also the general treatment of birds by humans.[55] The second poster, dedicated to "Birdsong as a Living Cultural Heritage" thus thematizes the keeping of wild birds in captivity (Fig. 8).

Towards the end of the twentieth century, bird and nature conservation activists took a stance against the finch tradition in the Harz. These efforts nearly led to the dissolution of the *Finkenwettkämpfe*. To save the tradition, finch enthusiasts founded the Harz Finch Guild and submitted a proposal for the finch competitions to be recognized as UNESCO Intangible Cultural Heritage in Germany in 2011.[56] Nevertheless, there is a growing concern that the finch-whispering tradition may not survive in the next decades, given the dwindling number of younger bird keepers. In addition, the *Finker* face an unprecedented loss of songs as a result of the rapid decline in the natural bird population in their region due to "modern mass and industrial agriculture, environmental pollution, as well as a general increase in noise on the ground and in the air".[57] However, the exploitation of natural resources, neglect of ecological balance, and a prioritization

52 Taylor and Lestel 2011: 58.
53 Oliveira Pinto 2020: 5.
54 Oliveira Pinto 2020: 19.
55 When discussing birds in this context, there is a tendency to focus on songbirds, overlooking the remaining other avian species: of all birds on the planet, the biomass of farmed poultry makes up 70%, with just 30% being wild (Carrington 2018).
56 https://www.unesco.de/kultur-und-natur/immaterielles-kulturerbe/immaterielles-kulturerbe-deutschland/finkenmanoever-harz [29.02.2024].
57 Oliveira Pinto 2020: 21.

of human-centric concerns that contribute to the ongoing crisis are a product of the modern Western worldview that, simply put, separates 'culture' from 'nature'.

VOGELGESANG ALS LEBENDIGES KULTURERBE:
DAS BEISPIEL AUS DEM HARZ (DEUTSCHLAND)

Tiago de Oliveira Pinto

Zum Schutz der Singvögel / Tierethik

Seit dem Mittelalter bis zu Beginn des 20. Jahrhunderts ist belegt, dass den besten Singvögeln vielfach das Augenlicht mit Säure genommen, bzw. die Augen ausgestochen wurden. Der Gesang der blinden Vögel galt als besonders inbrünstig und ästhetisch wertvoll.

Für den Wettbewerb wurden jedoch bald keine erblindeten Mitbewerber mehr zugelassen. Die Kritiker gegen die Grausamkeit an den Tieren stuften vor allem die Singvögel als besonders natur-, daher auch als Gott-nah ein. In kulturphilosophischer Manier waren einzelne Vogelkundler immer wieder davon überzeugt, dass sich der Mensch bei der lebendigen Anschauung der Natur einer befriedenden Wirkung aussetzte, die sich am Ende auch gegen soziale Aggressivität würde durchsetzen können. «Blutige Kriege selbst» würden an Bedeutung verlieren, weissagte Pernau 1754, denn diese «lieblichen Geschöpffe Gottes», die Vögel, vermögen es, den Menschen besondere Freude zu bringen. Tierquälerei oder das Töten von Singvögeln wurde bald als verwerflich betrachtet und entsprechend geahndet.

Kurz vor der Wende zum 21. Jahrhundert waren es Verbände und Vogel- und Naturschutz-Aktivist:innen, die sich ganz gezielt gegen den Finkenbrauch im Harz positionierten. Bei Aktionen im Rahmen der Gesangswettbewerbe drückte sich allerdings nicht nur der Einsatz für das Tierwohl aus, sondern auch das Unverständnis jüngerer Generationen, was die tiefere Bedeutung des Finkenmanöver als gelebte Tradition betrifft. Die Tierschutzaktionen führten zuletzt dazu, dass sich der Harzer Finkenbrauch in den 1990er Jahren kurz vor seiner endgültigen Auflösung befand. Im Versuch, diesem Niedergang entgegenzuwirken, schlossen sich einige der aktivsten Finker 2011 zur «Buchfinkengilde Harz» zusammen. Diese Gilde reichte den Antrag um Aufnahme des Finkenmanöver in das UNESCO Bundesdeutsche Verzeichnis des immateriellen Kulturerbes ein. Die Forderungen der Tierschutzverbände führte bald zu grösseren Käfigen und verbesserte die häusliche Haltung der Singvögel. Schliesslich fand auch eine Auseinandersetzung des Expertenkomitees der Deutschen UNESCO Kommission mit den Forderungen des Tierschutzes statt. All dies zusammen führte dazu, dass heute wieder ca. 100 Vogelfreunde im Harz von Sachsen-Anhalt und Niedersachsen die Wettbewerbe von Gesangsvögeln weiter aufrechterhalten. Sie tun dies im Einklang mit den neuesten Kriterien des Tierwohls, ohne dadurch den historischen Kulturbrauch einschränken zu müssen. Dieser wurde im Jahr 2015 als UNESCO immaterielles Kulturerbe in Deutschland anerkannt.

Wenn dennoch die Sorge gross ist, dass die Tradition um die Singvögel und deren Schönheitsgesänge keine weiteren 10-20 Jahre überleben wird, so hängt dies damit zusammen, dass es kaum mehr jüngere Halter der Singvögel gibt. Somit geht auch das Wissen um die Schönheitsklasse der Vogelgesänge verloren, was dazu führt, dass es bald keine «Kulturvögel» mehr geben wird, sondern nur noch «Naturvögel».

Der österreichische Ornithologe Ferdinand Adam von Pernau beschreibt 1754, wie Singvögel am besten zu «fangen, einzustellen, abzurichten, zahm zu machen» sind, vor allem auch wie «ihnen fremden Gesang zu lernen» sei. Alles beginnt und setzt sich im Vogelkäfig fort.

Im Harz nennt man den Käfig, mit dem Vogelliebhaber ihre Finken zu Hause halten, das Bauer. In diesem Bauer werden die Singvögel auch zum Wettkampfplatz befördert. Für den Transport und für den öffentlichen Wettkampf werden die Bauer in weisse und bestickte Tücher eingewickelt. Dieses Einwickeln erfolgt derart, dass die vier Enden des Tuchs zu einer Tragetasche über dem Käfig verknotet werden. Die Vögel, die zum Wettstreit antreten, sind daher für Aussenstehende nicht zu sehen, nur zu hören.

Noch um die Wende zum 20. Jahrhundert waren die Bauer ca. 15 x 15 cm hoch und breit. Heute müssen sie mindestens 50 x 60 cm gross sein. Der Hauptunterschied zum Vogelkäfig liegt wohl darin, dass die Bauer relativ kompakt, vor allem auch schmucklos sind. Sie sind reine Gebrauchsgegenstände, frei von jeglichen ästhetischen Details. Diese beschränken sich alleine auf die Stickerei des sie umhüllenden weissen Tuches.

Fig. 8: Poster 7, "Birdsong as Living Cultural Heritage", also gives voice to the critics of this tradition.

With a specific emphasis on Lewy's research among Indigenous people in Venezuela, we aimed to question the ontological privilege of Western thinking and knowledge.

Acoustic Mimesis

In his seminal book, *Beyond Nature and Culture*, the French anthropologist Philippe Descola argues that the Western scientific way of differentiating between classes of beings is based on specific assumptions about their interiority (such as the mind, the soul, or consciousness: intentionality, subjectivity, reflexivity, feelings, and the ability to express oneself and to dream) and physicality (such as external form, substance, the physiological, perceptive and sensorimotor processes) — assumptions that may not be shared by other societies.[58] He proposes four fundamental generative principles that impart meaning to the various possibilities of human existence: naturalism (modern scientific ontology), an-

58 Descola 2013 (2005): 116.

imism, analogism, and totemism. An animistic ontology is incompatible with a scientific (naturalistic) one, as animists hold that the physicalities of various classes of beings are discontinuous from one another, while their interiorities are continuous. From an animist perspective, animals have bodies that are different from human bodies, but their souls, minds, and cultures are similar to those of humans.

Lewy's posters (3: "Acoustic Mimesis" and 8: "What do you hear?") illustrate these concepts through the medium of sound. To avoid the conceptual dilemma outlined by Simonett, Lewy adopts the term 'modes of existence', suggested by the French philosopher Bruno Latour.[59] This approach broadens the scope of thought and language to encompass not only humans but also a myriad of other entities. Through two examples, poster 3 illustrates how the perception and intentionality of perceived sounds are not exclusive to humans. Firstly, baby burrowing owls (*Athene cunicularia*) utilize auditory mimicry, imitating snake sounds as a deterrent against predators. This sonic strategy underscores the dilemma encountered by Westerners who dismiss the idea of intentional and reflective vocalizations in animals.[60] From an animal-philosophical perspective, one might ask: How do the baby burrowing owls acquire the knowledge that their enemies are frightened by the rattlesnake? Is this not also a form of empirical knowledge passed down through generations among the particular species? Does it not represent a kind of reflection that is usually reserved exclusively for humans?

Secondly, Lewy relates a story in which sound plays a pivotal role in healing a girl bitten by a rattlesnake. The Indigenous healer utters a magical incantation in the ritual language of the Pemón, saying, "I am a pawik" – referring to a pawik bird (*Mitu tomentosum*). This formula is used to manipulate the snake venom to which the pawik is immune. In Pemón ontology, snake venom is understood as an entity capable of hearing and seeing like a human being. All animals and plants are perceived as human-like in terms of their interiority, with all entities equipped with the same senses as humans. Transspecific communication, therefore, occurs on a human level. Since healers have received their songs and magic formulas from animal or plant spirits, the language used is comprehensible to all entities, both humans and other-than-humans (such as the snake venom). Furthermore, the formula "I am a pawik" is also used as a form of mimicry. In contrast to Western thinking, this Indigenous ontology emphasizes a different appreciation of the senses. While sight is assigned a higher value in the Western world, Indigenous people place more faith into auditory perception than visual. Since the pawik is impervious to snake venom, the healer's continuous repetition of the formula leads the snake venom entity to believe it is in the body of a pawik bird rather than a human, prompting it to leave the body.

Lewy's poster on acoustic mimesis was related to the lenticular image on poster 1, as well as the sound installations on poster 8 (Lewy) and poster 9 (Jäggi and Lussi).

Sound Installation I

The sound installation associated with poster 8 was only audible when standing beneath a holosonic speaker positioned on the ceiling in front of the poster (Fig. 3). In contrast, Lussi's sound composition could be heard throughout the room. Lewy encouraged visitors to contemplate what they were hearing while reading the poster text (Fig. 9). Indeed, without Lewy's background explanation, one would not comprehend the soundscape, produced by what the listener would simply perceive as a male voice embedded in various environmental sounds. It is a recording of a song addressed at the spirit woman Kumarak Pachi, sung by a well-known Pemón singer and recorded by Lewy in 2005. The spirit woman is renowned for her capacity to abduct human souls. To retrieve such souls, shamans need to establish a connection with the spirit woman by singing the song of the swallow-tailed kite. According to the Pemón, this bird has the spirit woman's interiority (soul).

59 Latour 2013 (2012).
60 Donald 2015.

Fig. 9: Poster 8: "What do you hear?"

Through song, shamans create a timescape which encompasses both the mythological world and the present.[61] Shamans must be careful to prevent their own soul from remaining with the spirit woman during the transformation, as otherwise their physicality (body) would die. The issue of physicality and interiority, in terms of body and soul, is visually reflected on the poster: the image on the left depicts the interiority, i.e., the form of the spirit woman's soul. To healthy non-shamans, the spirit woman appears as a bird, as shown on the image on the right (Fig. 9). However, sick people who gaze at the mountains and perceive the spirit woman instead of birds are close to death: their souls have already departed from their bodies and can only be brought back from the world of the spirits by a shaman's singing to the Kumarak Pachi.

The concept of integrating sound and storytelling was derived from the concept of 'sound stories', a collaboration between Lewy and his colleague Bernd Brabec for an exhibition on Amazonia in the Musée d'ethnographie de Genève.[62] This concept was subsequently expanded and refined in collaboration with Indigenous communities for a permanent exhibition at the Humboldt Forum Berlin.[63]

61 Lewy 2023.
62 Lewy 2018.
63 Lewy and Brabec 2023.

Sound Installation II

Lussi's 25-minute 4-channel birdscapes composition offers a purely auditory experience that may not require extensive explanation. Nonetheless, poster 9 presented background information on the source materials and the creation of the piece *Subpolar Birdscapes in Transformation*[64] to enhance visitors' understanding. Most sound samples were taken from the corpus of recordings made by Jäggi in Iceland during the summer of 2021, comprising over 34 hours of recorded environmental sounds from various bird habitats around Lake Mývatn and the seashores, providing a rich collection of sound material for artistic exploration, for analysis, or for simple listening pleasure.[65] The recordings, captured with ambisonic microphones to represent the sound environment in three dimensions, provide insight into the audible life, diversity, and variety of water, sea, and coastal birds, including those in large breeding colonies.

Lussi explains her composition as an assembly of a variety of sounds emitted by the birds, including not only calls but also the sounds of their movements in water and air. She also integrated elements such as wind, rustling grass, waves, human voices, jackets and tents, passing cars, and even a distant open-air concert. The piece aims to offer room for diverse auditory perspectives on the boreal bird world by arranging birdscapes from Jäggi's field recordings and enriching them with synthetically generated sound textures through filtering, processing, layering, and other techniques. Lussi translated Jäggi's Icelandic sound experience by manipulating recordings made on land to evoke the sensation of submersion underwater and by incorporating artificial wind sounds that sweep across the four speakers. What may initially appear as genuine wind noises to the audience is generated from noise and a dynamically shifting bandpass filter. A gradual transition towards lower frequencies orchestrates an immersive journey, leading the audience through moments of effortless fluidity and unforeseen disruption. This intentional manipulation of auditory perceptions seeks to disorient listeners, as astutely noted by one visitor.

This composition thus diverges from ambient soundscapes tailored for relaxation, serenity, enjoyment, and overall well-being, as presented in Kirschstein's work in poster 5. Bird recordings frequently serve as a conduit for mindfulness practices, aiming to heighten concentration, stimulate creativity, enhance vitality, and alleviate stress and anxiety. Publications like *The Art of Mindful Birdwatching*[66] indicate a burgeoning interest in this pursuit, a trend that predates the Covid-19 lockdowns. In contrast, Lussi's composition aims to create a unique auditory journey, prompting reflection on the potential implications of bird and human sounds and silences amid the ongoing ecological crisis and humanity's interconnectedness with the surrounding environment. Accordingly, Jäggi (poster 4) advocates for redefining the concept of 'soundscape' as an active auditory-sonic practice, transcending the notion of a mere assemblage of sound-producing entities. This paradigm shift suggests that practices involving listening and sound art could play a pivotal role in fostering an auditory-sonic cohabitation that spans across species boundaries — the perpetual dilemma of the modern world.

Live Performances at the University's Music Department and the Nature Museum

To conclude the project, we convened a two-day conference in Lucerne, gathering a diverse array of participants.[67] The conference also served as a platform to explore the enduring fascination with bird vocalizations by contemporary composers and sound artists, featuring two live concerts. *Gardenscape* (2020), by Canada-born, Glasgow-based composer and researcher Emily Doolittle, drew inspiration from a wood pigeon that had made its home in her garden during the Covid-19 lockdown. It was performed by violinist Hannah Schoepe, a master's student at the music department. Patricia Jäggi provided the accompany-

64 https://soundcloud.com/hochschuleluzern-musik/subpolar-birdscapesin-transformation-binaural [29.02.2024].
65 Samples are available at https://soundcloud.com/user-505460012 [29.02.2024].
66 Thompson 2017.
67 https://www.hslu.ch/de-ch/hochschule-luzern/forschung/ausgewaehlte-projekte/birdscapes/konferenz/ [29.02.2024].

ing electronically generated soundscape.[68] *Þráhyggjufugl (Obsession Bird)* (2019), by Icelandic composer Hildur Elísa Jónsdóttir, was premiered by Maral Yerbol, a Kazakh flautist and master's student at the music department.[69] The composition was inspired by the medieval saga of Queen Gunnhildr, a woman skilled in magical arts who transformed into a swallow to confront her enemy.

Before and during the conference, the sound installation *Pirol* (2017) by Marie-Cécile Reber was exhibited at the music department. The piece involves the reconstruction of melodic fragments from recorded songs of the oriole. The intention was to create a disorienting auditory experience for the listener, as the melodic sequences, although not occurring in nature, still bear a resemblance to a bird's singing. *Pirol* was showcased in one of the music department's 'sound towers', occupying a 20 square meter, 7-story-high space of concrete and glass.

Within the context of the university's Interdisciplinary Clusters program, a live performance was developed for the museum, the aims of which are described by Marie-Louise Nigg in "Art Mediation: Non-/human dialogues and imagination spaces".[70] Artists Anna Lena Eggenberg and Sophie Germanier created a piece called *Of Decay & Friends*.

Fig. 10: Anna Lena Eggenberg and Sophie Germanier dancing for the sparrows and the museum visitors, Photograph by Helena Simonett, September 2022.

68 https://www.hslu.ch/de-ch/hochschule-luzern/forschung/ausgewaehlte-projekte/birdscapes/kuenstlerische-beitraege/gardenscape-und-prahyggjufugl/ [29.02.2024].
69 https://www.hslu.ch/de-ch/hochschule-luzern/forschung/ausgewaehlte-projekte/birdscapes/kuenstlerische-beitraege/prahyggjufugl/ [29.02.2024].
70 https://www.hslu.ch/de-ch/hochschule-luzern/forschung/ausgewaehlte-projekte/birdscapes/art-mediation/ [29.02.2024].

Audio-visual Arts: Films at the Nature Museum

Situated on the same floor as the Birdscapes exhibition, tucked into the back corner to the right of the entrance, is a smaller room designated for film screenings (Fig. 2). Given the availability of this space for showcasing films, we decided to commission bachelor students from the university's School of Design, Film, and Art to create short films as part of the project. The first one, the documentary *Ganz Ohr: Akustisches Erwachen des Wasser- und Zugvogelreservats Wauwilermoos* (*All Ears: Acoustic Awakening of the Wauwilermoos Water and Migratory Bird Reserve*), was produced by Léon Hüsler, together with Martina Lussi.[71] This film emphasizes the aesthetics of data collection and explores themes such as attention, sonic habitat, and the use of technology. The documentary depicts the researchers at dawn in the Wauwilermoos nature reserve, showcasing the acoustic impressions of the morning birdlife and the use of various recording devices and microphones, including the Zoom H4, the 'Shot Gun', and the parabolic and ambisonic microphones. The film allows viewers to experience what each device captured acoustically.

A second film, titled *Vogelstimmen in der Musik* (*Birdsong in Music*), was produced by Maya Baur and Samuel Röösli.[72] This film presents a condensed version of ornithologist and amateur musician Christian Marti's lecture of the same title.[73] It showcases the biological and musical facets of birdsong through musical performances, singing, and whistling.

Conclusion: Reflections on Content and Presentation

Because sound itself has no inherent meaning, people's conceptualizations of sound (and ultimately music) may differ quite drastically, even if they have been socialized in the same world. At the outset of the project, we assumed that people listen differently to 'nature sounds' such as bird vocalizations, depending on their training (e.g., ornithologists and musicians) as well as their personal biographies. Indeed, the study of sonic environments offers an interesting link between the natural sciences and the humanities, and between avian bioacoustics and the recent interest in environmental sound art and in Indigenous sound ontologies.

Tweaking Taylor's question "Why do musicians engage with birdsong" to make it more provocative, we ask: Why do musicians engage with birdsong, even though birdsong is not directed at the human species?[74] Human fascination with birdsong indeed has a long history, as does the tradition of creating compositions inspired by birdsong. Prior to the invention of recording devices capable of capturing sound audibly or visually (sonogram), composers necessarily relied on a finely tuned ear for analytical field transcription of bird vocalizations. The French composer and ornithologist Olivier Messiaen (1908–1992) is a notable example. Despite the advanced sound recording technology available in the 1950s, Messiaen preferred to manually transcribe the songs of birds in their natural habitat. His "imaginative transmutations"[75] of birdsongs reached their zenith with two scenes in the opera *Saint François d'Assise* (1983).[76] An analysis of the 'little bird concert' as well as an audio sample were included on Poster 2.[77]

71 https://www.hslu.ch/de-ch/hochschule-luzern/forschung/ausgewaehlte-projekte/birdscapes/kuenstlerische-beitraege/ganz-ohr/ [29.02.2024].
72 https://www.youtube.com/watch?v=9UdIGRjg_qs [29.02.2024]. The film is accessible with either German or English subtitles.
73 https://www.pronatura.ch/de/2023/interview-christian-marti [29.02.2024].
74 The original text is: "While birdsong is not directed at the human species, we (from philosophers to just plain folk) have a long history of being charmed by it. Why do musicians engage with birdsong?" (Taylor 2011: 2).
75 Trevor Hold (1971: 122) argues that Messiaen's birdsongs represent "imaginative transmutations" rather than "authentic transcriptions".
76 Michaely 2006.
77 The poster included a QR code to the audio link: https://www.youtube.com/watch?v=ZIsxP9xcqG4 [29.02.2024].

With the incorporation of Oliveira Pinto's examination of the finch whispering tradition in the Harz region into the exhibition, our intention was to provide an additional perspective on "a very intimate and fundamental human relation to [birdsong]" – albeit one also rooted in "aesthetic knowledge and natural values"[78] prevalent in the Western world. Visitors were appalled to learn that until the early twentieth century, caged songbirds had their sight impaired either by the application of acid or by gouging out their eyes. This practice was driven by the belief that the songs produced by blind birds held a special fervency and aesthetic value. While such treatment may no longer be practiced, the object status assigned to animals (including birds such as chickens) remains, continuing to allow for other practices, such as shredding billions of male baby chicks alive because they are deemed worthless to their owners.

Addressing the human-animal relationship, cultural anthropologist and philosopher Barbara Noske advocates for self-reflection and critical examination of one's assumptions, quoted on poster 2:

> Much as we would like to free animals from their object-subject status by showing that the human-animal discontinuity is far from absolute and that animals do indeed resemble us a great deal, we may nevertheless remain trapped inside anthropocentric bias. We may fail to acknowledge and respect animals' Otherness. Basically we face a dilemma in that there seems no option to imposing upon animals either object status or *human* subject status.[79]

It was one of our primary objectives to draw visitors' attention to such dilemmas and encourage them to contemplate more deeply their own relationship with birds, bird vocalizations, and the birdscapes that surround us as part of our intangible heritage. During numerous team meetings, we analyzed exhibitions featuring alternative museum-like experiences and discussed both feasible and unfeasible ideas.

We faced multiple challenges, not least the question of how to present three years of research on birdscapes in a museum setting. With a focus on the auditory, we were reluctant to write long texts, although studies have shown that museum visitors welcome additional explanations, stories, models, or illustrations as a helpful context for objects in exhibits.[80] Financial constraints, an odd museum space, and a shortage of personnel and time presented further challenges for planning the Birdscapes exhibition. However, we turned necessity into an advantage by opting for an audio-visual presentation that would spark the imagination of museum visitors and allow ample space for listening. Our goal was to foster curiosity and ambiguity by placing objects, including sound objects, in unconventional contexts, while also providing opportunities for diverse sensory experiences. To provide additional context for exhibition objects such as the bird cage and sound installations, we supplemented them with texts and media, weaving stories around these objects.

Modern museums, such as the Lucerne Nature Museum, are exploring innovative approaches to deepen the museum experience and enhance its impact by connecting objects with individuals' experience outside the museum. To foster a comprehensive 'visitor-object experience', museologists Wood and Latham advocate for the establishment of a 'web of connections' by the exhibit team.[81] This involves integrating diverse viewpoints from within the museum (such as those of the Birdscapes research team members) and beyond (including an appreciation of visitors' diverse existing knowledge about the topic) to create significance. Within this framework, visitors are encouraged to interact with objects intended to challenge their perspectives and foster meaningful connections. While limited resources prevented us from conducting a survey study with a larger sample of visitors about the Birdscapes exhibition, we did have the opportunity to engage in conversations with some of them during their visit. Whether it was the Covid-19 lockdowns amplifying people's awareness of their

78 Oliveira Pinto 2020: 20.
79 Noske 1997: 157.
80 Schwan and Dutz 2020.
81 Wood and Latham 2016: 11.

surroundings or a growing concern about the decline in bird populations, visitors in general appeared attuned to the soundscapes we share with avian species.

The processual nature of creating the Birdscapes exhibition, which ranged from conception and planning to realization and evaluation, repeatedly led to new insights. Our goal was to visually emphasize the ontological discrepancies in the perception of bird bodies using a lenticular image. At the same time, we aimed to convey this symbolic visual differentiation through auditory means. While Lussi's composition filled the entire 100-square-metre space, a shamanic chant resounded in a limited area of one square metre, deliberately obscuring animistic sound ontologies within the Western paradigm. Thus, the modern individual can only detach themselves from their human body through the realm of imagination, envisioning themselves, for instance, inhabiting the body of a bird. In a naturalistic ontology, this necessitates the invention of 'art', whereas it constitutes a fundamental principle in animistic ontologies.

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