



# Emplacing watery encounters: Listening, care, and embodied knowledge in places of climate change

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## Abstract

The climate crisis is full of marginalized human and more-than-human voices who are systematically silenced by solution-oriented, universalizing discourses. Listening as method is the opposite of silencing; it is an experiential form of knowledge production that conveys intention and care when done cautiously. We posit climate studies can learn from feminist listening practices how to listen rather than silence. Reviewing relevant theory and case studies, we situate listening among diverse actors as *becoming-in-common in-place* through sound, with a focus on Arctic waters. Heightened awareness of acoustic ecologies internalizes sound to place, affecting our understanding of possible actions to enable sustainable climate futures.

## Keywords

Emplacement, place-making, earth kin, hydrofeminism, climate change

## Introduction

Climate change in the Arctic region is a composition of dramatically higher temperatures, flowing water that was once frozen, and new configurations of species (Pecl et al., 2017; IPCC, 2022). The symbolic visual and narrative repertoires of these transformations threatening the High North are powerful, while also detached and anxiety producing. They are influential because they are consistent with scientific evidence (Huntington et al., 2020), and because they reify a particular perspective of climate change in which relations among the climate

system, the hydrological, the ecological, and the human are fixed, while other forms of relationality are too abstract or radical to be taken seriously. As radical scholars working in the High North (Tromsø, Norway), we see part of our work as an ongoing process of intervention to destabilize this epistemic intransigence, to

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continue to theorize and demonstrate alternatives that we believe will positively affect climate discourses through greater consideration of diverse ways of knowing and engaging with the world (Gibson-Graham 2008). Here, we advocate for the expansion of transdisciplinary dialog and research for sustainability decision-making with the sensory. We propose the auditory as a narrative form at the intersection of collective emotion, care, and relational place-making, contributing alternative ways to understand a place and its inhabitants in the midst of a changing climate.

While seemingly both abstract and radical, the idea of listening to the environment is in fact quite theoretically and materially grounded. To locate the auditory vis-a-vis climate change, we draw on three sets of literature and activate a politics of language, making intentional semantic shifts that we believe come together to build an epistemological methodology for listening to climate change. With regards to literature, we work at the intersection of listening geographies (Gallagher et al., 2017; Kanngieser, 2023), feminist studies in sound (Järviluoma et al., 2003; Kheshti 2015, Tiainen, 2018; Loveless, 2020; Voegelin 2020, Goh and Thompson, 2021; Revell and Shin, 2024) and feminist post-humanism (Alaimo, 2008; Barad, 2007; Neimanis, 2017). Place studies enters into our analysis of these literatures in the discussion (Massey, 1994; Cresswell, 2004; Barron et al., 2020). The expanded listening called for by Gallagher et al. (2017) draws attention to entities that are not available to other senses, theorizing listening as an encompassing praxis connecting disparate bodies in order to change them. Feminist thinking and doing support listening to foster engagement with the marginalized and for (institutional) transformation (Ahmed 2022). A hydrofeminist perspective stirs up fixed notions of and associations with places as terrestrial and its bodies as separate entities. It suggests thinking of places instead as relational and transformative, as sites of

exchange over time. Hydrofeminism's focus on water and watery places invites us to examine ongoing environmental crises through lenses of justice, care, responsibility, and interconnectedness. These perspectives contribute to a progressive sense of a place (Massey, 1994). We proceed to situate hearing and listening within the theory of emplacement (Barron et al., 2020) to acknowledge the need for ongoing dialogs within environmental decision-making about how to make different places sustainable for all beings, in communities, in places.

Semantically, we make an intentional shift away from the term more-than-human towards the term Earth kin. In post-humanist scholarship the term more-than-human is often used to animate the non-human world, to raise other living beings into hybrid social relations with humans (Hayles, 1999; Braidotti, 2013; Noorani and Brigstocke, 2018). However, Barron (2015) has written about discomfort with the term more-than-human and the tacit judgements it internalizes about the relationality of humans with other living beings. Taking inspiration from recent Australian scholarship engaging with Country as a key actor (Bawaka Country et al., 2016; Karulkiyalu Country et al., 2021), and building on the work of ecofeminist scholars like Val Plumwood (2003), Mies and Shiva (1993), Carolyn Merchant (1989), and Deborah Bird Rose (2011), we find the term Earth kin conveys senses of connectedness and interdependence among humans, places (Country), and everything that lives around and within us. This move enables relationships with and through sound in novel ways and actively engages in decolonizing the language of human entanglements and interactions with other beings by decentering the focus on the human.

By critically reviewing literature from ecofeminism, new material feminism, posthumanism, and critical place studies we develop the idea of *becoming-in-common in-place* through sound among humans and Earth kin. Onto-epistemological entanglements among

nature, people and Earth kin have been matter of fact in many Indigenous philosophies for millennia (Todd, 2016; Evans and Lee, 2021; Kimmerer, 2020; Nelson, 2019). AM Kanngieser and Métis scholar Zoe Todd (2020) write about how places as societies are constituted such that being and knowing, humans and non-humans, thought and agency are inseparable, and that this is of great importance within Indigenous conceptions of place and land. They explore an ontology in which land, water, and atmosphere co-constitute human knowledge and being. Similarly, according to the Sámi worldview, there is ongoing dialog between humans, (what we are calling) Earth kin, and spirits, all of whom are different kinds of persons. Communication takes place amongst all, which directly benefits human beings in their daily lives and regular activities (Helander-Renvall, 2010; see also Riseth, 2011; Grenersen et al., 2016). As white scholars writing and thinking on Indigenous land about how to listen from and with a place, we acknowledge that we are in mostly privileged positions. We seek to deploy the methodologies of decolonial and feminist listening for thinking emplaced futures, to contribute what we can to these conversations.

*Arctic Auditories: Hydrospheres of the High North*,<sup>1</sup> is an interdisciplinary project based in the Environmental humanities, which seeks to develop strategies for understanding environmental change through sound. It is working to establish novel epistemological methodologies for climate change by activating a politics of place co-constituted by sound. The current paper represents the intersection of literatures, and the tensions arising from those intersections, that resulted in *Arctic Auditories*. Reconsidering listening (as it is conceptualized in sound studies) as a feminist practice (Buyken and Losleben, 2024), we situate it within emplacement (Barron et al., 2020) to invoke conversations among humans and places that acknowledge the agency of “place to create, speak, and teach coexistence

in a more-than-human world,” (Larsen and Johnson, 2017:3). Active listening creates openings to consider different ways of knowing conflict and resistance, and to act differently in place, over time, and in relationship; this grounds Gallagher et al.’s (2017) expanded listening to place. Emplacement theory extends that listening to active and care-full engagement with Earth kin.

The paper proceeds as follows: After reviewing relevant literature, we present three case studies as examples that exemplify the significance of the auditory in relating to and noticing the effects and emotions of socio-natural engagements. In the discussion, we reflect on these case studies and how through noticing bird cries, water sounds, and water’s own agency, we come more fully into relationship with the effects of climate change on places, with meaning for humans and Earth kin. This stirs up fixed notions of and associations with places as terrestrial, and bodies as separate entities, instead suggesting we consider them as relational and transformative. Following from the core premises of hydrofeminism (Neimanis, 2017), there is an explicit aim in our work to reconfigure relations among humans, landscapes and Earth kin for an emancipatory and more open climate politics, encouraging a critical reflection on our relationships with and within waters.

## **Constructing the auditory as a narrative form**

### *Sonic/Listening geographies*

Sonic geographies is an established sub-field in Human Geography with contributions from diverse fields, but few reviews which bring those works together. Paiva (2018) presented a review to help solidify the existence of the sub-field. Our intention here is not to provide another review, but to highlight the scholarship which aligns with our interest in locating the auditory vis-a-vis climate change.

Listening, both how we listen and what we are listening to, has evolved with geographical scholarship over the last several decades. Almost forty years ago, Pocock claimed “sound is a neglected dimension in geography,” (1989: 193) and hoped to make its richness central to geographical epistemologies. His argument was decidedly post-positivist, identifying sound as “information to be described and experienced,” (ibid.) with basic properties that could be enumerated. He emphasized the contributions and significance of sound across personal, social, and environmental experiences. He pointed out that sound was temporal and ephemeral, as unpredictable indications that something was happening in a moment, which nevertheless generated powerful and signifying sensations that connected deeply with the lived, human experience. A key contribution of this work was to introduce geographers to the concepts of *soundscapes* and *soundwalks* (Schafer 1969, 1977/1993).

Geographers have for some time been interested in sonic spaces, building on various epistemological inquiries related to politics, phenomenology, and culture. Research collected under the term soundscapes has been growing since the 1970s (early key works include Schafer, 1969, 1977/1993; Truax, 1978; Westerkamp, 1974/2007), with an archival and activist concern to draw attention to environmental threats. Westerkamp (2002) suggested that the immersive nature of soundscapes was key to enhancing a listener’s sense of and understanding of a place. The term soundscape, as defined by Schafer, has been adapted, developed (Wright, 2022), and criticized (Ingold, 2007; McCartney, 2016), but proven nevertheless useful for many (Sterne, 2013; Sweers, 2017). It has not received as much in-depth criticism by geographers working with the term (Paiva, 2018).

Scholarship on sound coming after the cultural turn has had a new set of language and theory available and enabled poststructural

engagement with sound, especially in terms of affect, emotion, and performativity (Revill, 2016). Revill opens this discursive space by focusing on how sound has agency to co-produce space, rather than simply as an agent in and of itself which affects space. This makes a case for the political agency of sound as a spatio-temporal, potentially transformative, event with phenomenological effects. Paiva (2018) discusses how the sensorial turn in the social sciences drew attention to listening both in terms of emotional and affective content. Following these arguments, we are interested in exploring how sound has political agency in climate change, and how changing acoustic ecologies are in fact a co-constitutive dimension of climate change. Our particular interest is with water sounds, where we understand water to also have agency through different relations (Neimanis, 2017). These connections are further explored in the next section.

In the last ten years there has been a renewed interest in what Gallagher et al. term listening geographies (2017: 1). Going one step further, Kanngieser made an impassioned case to include sound in geophilosophical thought “as a means for opening spaces that challenge hegemonic and violent forms of subjectification, which are productive of contemporary states of ecological and economic crisis,” (2015: 1). “By listening to places and spaces,” they continue, “it is possible to discern uneven, often-obscured, and gradual processes, such as extinction and dispossession... and processes of neoliberal enclosure” (2015: 2). In a more recent paper, they call on Anglo-European eco-sonic art practitioners to decolonize listening activities and critically assess the ongoing deployment of colonial sonic methodologies, European understandings of nature, and assumptions of listener positionalities (Kanngieser, 2023). They argue that only when listening happens in ways that show it to be a caring and responsible act, and as a self-reflective interrogation of what listening can mean, can it unfold its generative potential.

We see clear implications for how the current climate crisis is understood and written about in Kanngieser's bold statements.

### *From andro-eurocentric epistemologies of climate change towards care and entanglement*

Normative narratives of climate change, those which are seen as actionable, are based on empirical, realist research and the rational separation of humans and nature as a prerequisite for understanding the climate crisis (Head and Harada, 2017). A post-humanist reading would add that they are also based on the individuation of the human subject from its surroundings (Neimanis, 2017). Reason and rationality, traits closely linked to masculinity and maleness (Lloyd, 1979; Plumwood, 1993) then become epistemological prerequisites for climate adaptation and mitigation. There is no conceptual or actionable space in these strategies for traditionally feminine-identified traits like emotion or embodiment (Plumwood, 1993) or marginalized subjects as knowers; their (situated) knowledges and a plurality of worldviews are discarded as irrelevant (Haraway, 1988; Harding 1991). Following Barad (2007), we could say that they fall outside the onto-epistemological space of climate mitigation. Emotions may even be viewed as threatening to the practice of effective climate science because the emotions around it are so overwhelming and frightening (Head and Harada, 2017).

While still not widespread amongst decision makers and the broader public, academic discourses on planetary crises are increasingly attentive to the importance and value of emotion, emotional labor (Head and Harada, 2017), and caring relations between humans and Earth kin (Gibson-Graham and Roelvink, 2009; Gibson-Graham et al., 2013; Gibson-Graham, 2016; Barron and Hess, 2020). The care concept formulated by Joan Tronto (1993) has

become an important ethical issue and method in approaching environmental crises (Puig de la Bellacasa, 2017; Barron et al., 2020; Sultana, 2022; Carr, 2023).<sup>2</sup> Puig de la Bellacasa's (2017) posthumanist and new materialist perspective allows for a widening of directions of care, towards complex entanglements in which humans and Earth kin care for each other. Activities for approaching environmental crises, like active listening, are able to become "everything that is done to maintain, continue, and repair 'the world' so that *all* (rather than 'we') can live in it as well as possible," (2017: 161, emphasis in the original).

Active listening as a phenomenological form of knowledge production is differentiated from other forms of knowledge production because it is one where the experience itself cannot be passed down, inherited or stewarded. Listening cannot be written (Western), tested (science), or commodified (capitalism/neoliberal); however, *how to listen* can be passed down. One can teach how to foster and protect the conditions and the entities which produce the desired sonic environments. Where to locate or produce desired sounds must be experienced for oneself through active and ongoing care of place and self. In other words, one can pass down how to embrace listening and environmental stewarding as a unified act.

Thinking-with water blurs boundaries and lines of common maps of places and the planet. Ecomaterialist and feminist posthumanist theory has stirred up understandings of how bodies and materials inter- or intra-act together (Barad 2007, Alaimo 2008, Bennett 2010). Stacy Alaimo's concept of transcorporeality explains how toxic materials enter bodies and has been expanded by Astrida Neimanis, rethinking the human-water-relation and their entanglement in time. Neimanis reimagines how human bodies—constituted of approximately 70% water—and the planet's waters are entangled. Building on Adrienne Rich's thought, Neimanis suggests a hydrological

posthuman politics of location that is created and shifting with the intra-actions (Barad 2007) that happen between humans, materials and Earth kin. We become-with each other in water and scarcity and are intra-corporeally woven together.

### *Feminist listening and acts of communication*

Feminist activism and theory are fundamentally entangled with the activity of speaking and listening. Listening, as both the activity of giving attention to sound and of perceiving utterances of others on interpersonal, institutional, or mediated levels (Sterne 2012), is not restricted to physical aural perception of sounds through the ears. It also includes the corporeal perception of the vibration of sounds as the movement of air or water (Eidsheim, 2015; LaBelle, 2020). Three examples illustrate how *listening-to* has been performed (or demanded) in liberation movements where not listening (and its effects) was the previously accepted norm (Beard, 2017; Maggio, 2007).

In the mid-19th century, the Black preacher, feminist, and abolitionist Sojourner Truth embodied so-called masculine traits (Hampf 2016) and performed what was forbidden to 'respectable'/white women; she successfully inhabited public spaces and was listened to when speaking. Twelve years after Truth's 1851 speech at the Women's Rights Convention in Akron, Ohio its organizer, Frances Dana Gage, wrote it down for publication. "Ain't I a Woman?" is a testimony of a Black woman raising her voice and speaking out about the experience of intersectional discrimination *avant la lettre*. By employing a Southerner dialect that Truth most likely did not speak, the language of the speech reverberated that of many of the oppressed Truth was speaking with and for (Hampf 2016). "Ain't I a Woman?" is an accumulation of questions that evoke an active listener's position. A later version of the

text from 1881 includes some audience reactions, emphasizing the completeness of a communication act of sending a message that is heard and actively received. Claiming listening spaces and demanding listening on the performative and the content level, Truth's/Gage's text is still among the most prominent canonical texts in feminist thought and considered foundational in the development of intersectional theory (Crenshaw, 1991).

In the late 1960s and early 1970s, consciousness-raising (CR) groups became a vital space for the women's liberation movement in the USA and other Western countries. As Pat Caplan recalls the activities in these numerous groups, "listening was crucial and people should listen attentively because everybody had the right to speak and should be encouraged to speak," (Farinati and Firth, 2017: 43). Cornell (2000) emphasized the seriousness with which those learning to articulate their personal experiences were met and heard in the CR groups. Creating homosocial aural spaces allowed for more in-depth probing and expression of personal experiences as political issues. Despite that, expressions of difference and inequality were vital elements, CR groups have been criticized as failing in the liberation of many women because the movement's majority, White feminists, suppressed the utterances of differences across races, sexualities, classes, socioeconomic backgrounds, abilities, ages or nationalities among them. At the time this silencing was justified as being for the sake of unity among women (Mohanty, 1988).

Based on their experiences with what CR groups are capable of and how they failed, the Combahee River Collective (1977/2017), Lugones (2003), Alexander et al. (2003) and Keating (2005) suggested methods for political coalitions for change in which disagreement and conflict are fundamental and necessary for radical democracies. Building on Arendt (1958/1998), Bickford (1996) similarly emphasized that discourse and disagreement are

critical elements of living and thriving democracies. With her landmark text “Can the Subaltern speak?”, Gayatri Chakrabarti Spivak pushed the relation of speaking subject and receiver in the context of colonial production. In a text as much about being heard as speaking, she concluded that while the “subaltern has no history and cannot speak, the subaltern as female is even more deeply in shadow” (Spivak, 1988: 28). In the following years, Spivak nuanced the critique by taking the role of the receiver into account in the act of communication, suggesting that speaking and hearing are both required in order to complete what she called the *speech-act* (Spivak, 1996). Following this logic, not being listened to manifests as epistemic violence as the speech act rests incomplete when Western elite subjects deliberately do not hear others and refuse to recognize and acknowledge what is spoken (Loomba, 2005).

Communication acts are multiple, can overlap, and need to be repeated. The act of communication includes speaking, listening, recognition, and action (Oliveros, 2024: 30). Care-full listening also implies the listener’s self-critical awareness that they might have misunderstood the sender’s message. The acts of “speaking” for oneself (Spivak 1988), “having a voice,” “talking up” (Moreton-Robinson, 2000), “talking back” (hooks, 1989), or “reclaiming a first-person voice” (Tebrakunna country and Lee, 2022), have been central for any women’s empowerment or decolonial liberation movement specifically because they draw attention to the need for complete speech-acts. As Audre Lorde amplifies, the need to listen to other women’s anger across intersectional differences is the fight for empowerment (Lorde, 1981/1997).

Mutual recognition of the entanglements among humans and others (Haraway, 1988; Shiva, 1988; James, 2013; Todd, 2016; Goh, 2017) aligns with Indigenous and feminist notions of understanding and of balancing responsibility and guardianship (Larsen and

Johnson, 2017), creating an opening for extending feminist empowerment through listening to include Earth kin. For example, to respect and uphold mutual responsibilities toward freshwater fish in watersheds around the world, Zoe Todd (2023) suggests learning how to listen with/from fish that are listening with their whole bodies. This recognition only becomes possible when listening to human and Earth kin voices is part of the more encompassing act of communication, one in which humans must stop and listen to not only the pleasant, but also the unpleasant sounds produced by Earth kin and in our sonic environments. This is listening on a continuum from silence to expression, and in democratic rather than possessive or exploitative ways. Such listening questions the subject–object relationship common in how climate politics engages with humans and the nonhuman, by focusing instead on embodiment and situatedness (Goh, 2017). As xwélmexw scholar Dylan Robinson (2020) proposes, an approach that is rooted in how Indigenous epistemologies and Western theories can engage collectively in listening to/in/with places finally begins to move away from the anthropocentrism of listening. Listening with and to places, we maintain, is the necessary foundation for the formulation of new narratives in climate change in which our various intersectional positionalities are acknowledged and contribute to listening as a polyphonic sensory experience.

## **Becoming-in-common in-place with earth kin through sound**

### *Introduction to the cases*

In this section, we present three cases from the literature in which listening is one part of broader acts of communication. The cases were selected to demonstrate a continuum of listening experiences and the importance of sounds for understanding places. Both

presences and absences of sonic relations are noted in the cases: From humans listening to humans about water birds, to conflicts amongst humans with different relationships with water, to listening as a mode of being-in-common with water and place. In the first case, we examine the local political and environmental discourse around coastal seagulls (kittiwakes), who moved into the city of Tromsø, from the coastal zone inside the Arctic circle in Northern Norway. The second case is located outside the Arctic, in Turkey, but we include it here as an excellent example of feminist phenomenological listening in and with water. The third case takes us back to the Arctic to engage with Indigenous listening and the agency of water through dialogical Sámi listening traditions. For each case, we conducted a simple document analysis where we asked the following questions: Who is speaking? Who is listening? What do they hear? What do different listeners recognize similarly or differently? What actions are taken and by whom? What has possibly been misunderstood? We reflect on what emerges from these queries in the following section of the paper.

### *Case 1: Bird call and response*

The black-legged kittiwake (*Rissa tridactyla*) is a species of marine coastal seagull that, for centuries, has lived and bred in colonies of varying sizes in the steep cliff walls along the Norwegian mainland, on Svalbard, Bjørnøya, and Hopen. In 2016, the first individuals moved to the city center of Tromsø, Harstad, and neighboring municipalities. Here, the kittiwakes co-exist with several other species including the common, great black-backed, herring, and black-headed gulls, all of whom differ in feeding and breeding behaviors. By 2022, 68% of the human inhabitants of Tromsø agreed that the city needed to reduce the number of gulls in the center (Wilhelms, 2022). Some said they were disturbed by the

herring gulls flying closely from behind at pedestrians and targeting their street food, others disliked the kittiwakes re-interpreting windowsills as nesting houses, and soiling building facades. A major issue for humans was the song of the kittiwakes when nesting: Described as ‘pleasant’ by researchers of the Polar Institute (Norwegian Polar Institute, n.d.), many other human inhabitants of the city experienced the manifold screams as penetrating and disturbing in their permanence and ubiquity.

Other humans hear the screams of the kittiwakes as wake-up calls to action against the ongoing destruction of Earth kin habitats. While the population on neighboring Svalbard likely grew throughout the 20th century, there have been overall declines in population sizes since the 1990s. Current estimated reductions are between 15 and 30% in Svalbard; the species is assessed as vulnerable on both the European and global red lists (Stokke et al., 2021), and as endangered by Birdlife Norge in Tromsø (BirdLife Norge, 2023). Influencing factors include contamination of their habitats from pollution and oil spills, changes in the availability of their food sources due to fishing, predation, and effects of climate change (Stokke et al., 2021). The effects of global commercial fisheries are especially of concern, as they represent a form of direct competition for food, depriving the birds of their own livelihoods and exposing them increasingly as prey to kleptoparasites and predators (Fauchald et al., 2015) such as the white-tailed eagle, the arctic fox, arctic skua, great skua and the glaucous gull (Norwegian Polar Institute, n.d.). Harsher weather conditions along the seaside have also put the brood and young stock in danger.

A feminist reading of the situation positions the birds as “agents of their own world” (Heister, 2022: 23). A group of kittiwakes chose a future for themselves and their (future) kin by moving to the Tromsø city center in 2016 (Fremstad, 2023). As an urban space, Tromsø promises shelter from predators and harsh

weather, valuable home amenities when caring for self and offspring. An aqueous place, the birds are able to find their livelihood on or under the nearby sea's surface. Like humans who move to the city searching for a better life, kittiwakes made what seemed like a wise choice to move to Tromsø in the face of changing conditions elsewhere, many of them human-induced. Like other immigrants, they have received a mixed welcome. Because of their distinct and powerful songs, they are unwelcome neighbors, further disliked because they are confused with their unwelcome kin who have found diving-bombing humans for food an acceptable alternative to dive-bombing the ocean for fish.

In 2023, an exhibition at the Tromsø Artist Association/Tromsø Kunstforeningen/Romssa Dáiddasiida together with researchers from the Norwegian Institute for Nature Research/Norsk institutt for naturforskning (NINA) gathered diverging voices in a shared exhibition that interrogated the production of a *being-in-common in-place through sound* between the kittiwakes and the people of Tromsø. Some humans expressed their dismay in the face of the new inhabitants, others expressed understanding for the birds' needs; corporations practiced climate-disrupting actions; and the kittiwakes sang and screamed in newly designed breeding hotels in front of the museum, which were directly visible from the exhibit windows.

### *Case 2: from self-care to environmental justice with sound*

Özge Yaka's studies on environmental local movements against run-of-river hydroelectric power plants (HEPP) in the Eastern Black Sea region of Turkey draw attention to the multiple relations among humans and water, including the importance of sound (Yaka, 2017, 2023). Drawing on phenomenological theories of sensory perception, Yaka shows the ways in which women's bodies are "coupled" (Merleau-

Ponty, 2012) with the rivers through the sensory: Looking at, touching and being touched by the river when immersing oneself. The auditory is a vital component; one interviewee goes as far as to equate the absence of the river's sounds with emptiness or death (Yaka, 2017). Through site, touch, sound and listening, rivers and humans co-create an "intimate and corporeal connection" that "is the very heritage that should be transferred to the next generation" (Yaka, 2017:879). Expanding the notion of touch to the inner body, we learn how water is incorporated into women's bodies through drinking and listening. The river itself is also touched by the sounds of the beings in and around it, which changes the acoustic ecology of that place.

The women and the rivers stretch into each other (Bennett, 2010) through sound and touch, and become more-than-human socialities (Tsing, 2013), but these socialities are threatened by others' priorities; in this case a need for electricity. During the liberalization and privatization of the Turkish energy market between 2001 and 2021, the Energy Market Regulatory Authority (EPKD) issued licenses for 1238 HEPP projects (Yaka, 2023), effects of which include water depletion, water quality deterioration, habitat degradation and depletion in the associated biotic communities (Kuriqi et al. 2021). For the first fifteen years local communities went to great efforts to protect the rivers and waterways (Yaka, 2017), preventing over 200 licenses from being issued. Interviews with local environmental activists revealed that the performance of activism was gendered, and so was the reasoning against HEPPs. Men in the movement emphasized fear of large-scale, national and international conflicts; women were driven to advocate for the river's protection as much for self-care as for care for the river. They were motivated by the intimate, daily relationship between the rivers and their bodies, their *being-in-common in-place through sound* and

the sensory with the river, and an understanding that this relationship is a mesh of personal, kin, and local scopes spanning from history into what is yet-to-come.

### Case 3: listening

Whereas cases 1 and 2 are human-centered examples of listening to Earth kin, Pauliina Feodoroff (2022) describes dialogical Sámi traditions of listening in which the river is an active listener. Feodoroff, a Skolt Sámi<sup>3</sup> artist, writer, theater director, mother, daughter and sister, explains that listening is a traditional and foundational activity in the process of transgenerational, cross-species exchange of knowledges between reindeer herders, fishermen, scientists, artists, the Njâuddam river and other Earth kin. Within Skolt Sámi understanding, as in broader Sámi ontologies, listening agency is not restricted to humans or animals. Feodoroff describes the lake as “grandfather lake Sevetti,” a sentient being that “does not tolerate any noise and hardly stands humans at all” (2022: 174). Helander-Renvall similarly describes the relation between humans, Earth kin and spirits in a Sámi worldview as an open-ended multivoiced discourse in mutual care, borne by equality and respect (2010: 49–50).

Understanding the character and ability/agency of planetary beings, based in tradition and lived as of today, complicates the one-directional notion of humans listening to humans or Earth kin, and goes beyond the reciprocal sensory as mode of perception (as described in case 2 and “Feminist listening and acts of communication” section). When Earth kin have agency to listen, for example, when the lake does not tolerate human noise, the anthropocentric conception of listening dissolves. More importantly, it troubles Western hierarchies of listening and being listened to, and of silence and listening, highlighting that waters are listening to humans and are in turn affected. With this mutual vocalizing and listening,

another precondition for *being-in-common in-place through sound* is fulfilled.

### A few remarks on the cases

Engaging in traditional water management practices inclusive of listening and practicing forms of environmental management that take ontological politics seriously pushes on existential boundaries of what must be considered part and parcel of climate change discourse, but it must be taken on its own terms. When we consider listening as a method, we open up discourses on climate change and resource exploitation to the importance and relevance of emotion. Public awareness and feelings about kittiwakes in the urban environment or the destruction of habitats for resource use meant to mitigate nonrenewable energy use force a form of recognition and engagement that has heretofore been dismissed by Western scholarship and policymakers as too spiritual or unscientific. At the same time, Chacon and Kite (2023) warn that the romanticization and simplification of presumably “Indigenous” modes of listening for their inclusion in ecological decision-making risks creating new forms of knowledge colonialism, where “listening to the land” is reinterpreted as an oversimplification separated from its socio-cultural significance as a part of a fundamentally different world view. The act of listening itself is not enough: To know a place even as a foreigner requires, at a minimum, background research, history, stories of a place and its context (Chacon and Kite 2023), and from a feminist perspective we would add that it needs hands-on activism.

### Discussion: emplacing listening

To radically expand our understanding of listening in human geography requires that we also radically expand our understanding of place. To ignore sound as part of what

constitutes a place is to ignore something fundamental about spaces and places. Gallagher et al. (2017) suggest that to ignore the many makers of sound is to ignore a fundamental way of knowing. Said another way; to know and understand a place one must be open to the sonic effects of all beings and materials in that place, as well as to the silences created by their absences. The case studies presented above situate listening as acts of becoming-in-common amongst humans and Earth kin, through sound. This heightened awareness of acoustic ecologies internalizes sound as part of experiencing and constituting places, further affecting our understanding of sustainable climate futures also grounded in relational place-making. Listening to climate change, and its absences, is then fundamental to becoming emplaced through co-constitutive care amongst humans and Earth kin. Using tools from sonic geographies, feminist epistemologies and place studies, we begin to think differently about what it means to listen to the environment. As non-indigenous feminist scholars working intersectionally, we also aim to bring Indigenous and non-Indigenous ontologies into relation with each other to propose ways of understanding places that are not founded on epistemological exclusions of non-hegemonic knowledge systems.

Acoustic ecologies by definition represent knowledge creation in partnership with nature because the listening experience is co-created among humans, Earth kin, and the broader environment. According to Feld (1996), sound sensations, experiences and memories make a place. Then the questions we asked in our case studies regarding “who is speaking?”, “who is listening?” and “what do they hear?” become central to place-making. In the three case studies above it is evident from the texts that there are different speakers: Kittiwakes in case one, the river in case two, and humans in case three. There are different listeners: People in case one, local women in case two, and the

water—in the lake and the river—in case three. However, when one asks about what is heard, elements of subjectivity, uncertainty, and negotiation come into play. It is ephemeral—coming and going in time and across space. It is socially constructed; what is heard is not only the sound, but also what it means: Bird calls are not “just” bird calls; for tourists they convey Arctic charm, for residents they invoke frustration, while for others they are an alarm bell. When women in the eastern Black Sea region of Turkey hear sounds of the river, they also hear life, completeness, intimacy with nature. Others hear potential for clean energy. Sámi ontology suggests water does not like anything too noisy, and we acknowledge that who is speaking may have different understandings of who is listening.

To further locate the auditory in relation to climate change we consider it as a narrative form by engaging a politics of language, and how language co-constitutes place as understood through the emplacement framework (Barron et al., 2020). Here we interpret the cases using the four domains of that framework: Displacement, misplacement, replacement and emplacement. When listeners identify the same sounds as having different meanings, the ways in which they talk about them, relate to them and engage with them often result in different actions which may be in conflict with each other. In the first case, brewing conflict was addressed with art, a transdisciplinary attempt to present divergent voices in the kittiwake debate. Key messages in the exhibit tried to correct misunderstandings about kittiwake identity and reasons for re-locating into town. The exhibit de-centered peoples’ immediate reactions to an annoying sound by providing a more complicated narrative of the displacement of kittiwakes from their native habitat and their subsequent misplacement in downtown Tromsø. The exhibit attempted to provide a care-full response to emplace kittiwakes in the city through

education, to help the public embrace the birds' complex plight and recognize them as part of the material and acoustic ecology of contemporary Tromsø. In the second case, displacement of the natural flow of water for energy production had (unintended?) consequences on local women's practices. Women had been emplaced through their ongoing engagement with local waters, but this emplacement was deemed less valuable than hydropower. In the third case, where following Sámi ontology the river is understood as an active listener, the river's agency is displaced when Western scientific ontology is the only recognized way to understand nature. While major strides have been made in recognizing and addressing the effects of the historical displacement of Sámi from the land, emplacement requires that attention be paid to the ontological politics which continue to exceptionalize Sámi ways of knowing. Emerging from these case studies is that place-making which includes listening and hearing (a complete speech-act) between humans and Earth kin requires the conceptual and material reunification of humans and nature, a key theme across geographic scholarship and one central to emplacement.

Emplacement builds on Massey's (1994) and Casey's (1996) theorizations of place by engaging Earth kin in place-making communities (Barron et al., 2020; Weber and Barron, 2023). To acknowledge sound in and with places, and the communities they are co-constituted by, means to link bodies and their environments through sound where sounds are spatialized across bodies. In the cases presented above we have considered three different examples in which emplacement, either its presence or absence, is central to negotiating through conflict resulting from misunderstandings or disregard for others' ties to places forged through listening. The first case is an attempt to create emplacement through education to resolve conflict among humans and shorebirds. The second shows us that conflict has arisen, at least in

part, due to disregard for emplaced, caring relationships amongst women and water. In the third case, ongoing conflict about who decides based on what knowledge has been highlighted to demonstrate that an emplaced ontology among people and water leads to a completely different form of relational-placemaking (i.e., emplacement) than one based on a universalizing and abstracted ontology.

Hearing is not restricted to the ears, one also hears with the body, internalizing experienced sound sensorily. Phenomena of the real world always first materialize or "become" with discourses, meaning-generating action and technical apparatuses, and in an intra-active way (Barad 2007). This notion goes beyond the inter-action of actors (Latour 1993) to the inseparability of objects and observation apparatuses, knowers and knowing. Karen Barad's notion of intra-action has been recently applied to the realm of sound (Shoemaker, 2021; Voegelin, 2020, Fairbairn, 2022, Buyken and Losleben, 2024). Sounding events are ephemeral, dynamic, and unstable intra-actions in places, which by their very nature destabilize notions of places as specific, identifiable spaces (Gallagher et al., 2017). Listening reveals things to the senses about a place that are not available to the other senses; to constitute place without sound is thus to miss an entire dimension of that place. This becomes especially relevant for climate-affected landscapes if we consider sonic geographies as able to extend beyond the widespread focus on listening. If we consider sound in terms of its vibrational qualities, which can come from many sources and resonate across all types of materials within the atmosphere (Paiva 2018), listening is decentered to make space for other sensorial dimensions of sound for humans and Earth kin. Furthermore, sound is no longer an isolated component of the environment but instead co-constituent of the worlds around us, and subject to changes which deserve to be heard.

## **Conclusion: becoming-in-common in-place through sound**

Becoming-in-common in geography has not been considered part of sonic geographies. Influenced by experiences from feminist listening practices, we have made that connection with the aim of affecting narratives of climate change. We have constructed an epistemological methodology for climate change by activating a politics of place in which the case for sound and attentiveness to acoustic ecologies is co-constitutive of sustainable and relational place-making. But recognition is not enough; the act of listening must build the foundation for future action by including the act of being heard. Actions of sharing, passing down, protecting, teaching, and stewarding a place where listening and hearing can occur are fundamental. These actions enable the ability and freedom to be able to make sounds and to hear.

In our project, we build on feminist epistemologies in which the perception of the world through the body and the senses is central. However, despite the fact that most people orient themselves not only through techniques of vision but also of listening, the significance of this aspect is under-researched. Like other practices and processes of “slow scholarship” (Mountz et al., 2015), expanded listening requires us to slow down and pay attention to other forms of knowledge production around conflict and resistance (Kangieser, 2023; Feld, 1996; Eldridge et al., 2021). Similarly to our work, Noorani and Brigstocke connect listening to climate change as it enables emotional immersion and connection to places and landscapes which are changing with a changing climate (2018). For Cullinan (2011), listening to the rhythm of the Earth is the path to understanding ecologies and creating laws in planetary consonance. Scholars like Kheshti (2015), Kangieser and Todd (2020), LaBelle (2020) or Kyoungwon et al. (2022) call for wild

acoustic justice and a new ethics based on the sensible. Across these texts, sound and the practices and experiences of listening are key parts of what constitute places and emplace humans and Earth kin in them. They represent pathways for social-nature reunification; both of these topics are central discussions in contemporary human geography.

We have situated listening among humans and Earth kin as *becoming-in-common, in-place*, through sound. We have proposed the auditory as a narrative and sensory form in which collective emotion, care, and relational place-making can come together to contribute alternative ways to understand a place and its inhabitants. We do this to locate the auditory vis-a-vis climate change, drawing on three sets of literature and activating a politics of language to make intentional semantic shifts that we believe come together to build an epistemological methodology for listening to climate change. We have argued that this heightened awareness of sonic ecologies further affects our understanding of sustainable climate futures by emplacing sound as part of co-constituted socio-natural relations.

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## **Author contributions**

The authors contributed equally to the production of this manuscript.

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## Notes

1. Arctic Auditories is running from 2022–2026 in Tromsø, Norway. More information is available at [www.arcticauditories.com](http://www.arcticauditories.com).
2. On Indigenous lands as “regions of care”, see Larsen (2016).
3. Skolt Sámi, or Skolts, are a Sámi ethnic group based primarily in Northern Finland, with some Skolts also living in Russia and Norway.

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