The Silent Continent? Textual Responses to the Soundscapes of Antarctica

Although humans tend to prioritize the visual over the acoustic in day-to-day life (Posner, Nissen and Klein), the Antarctic icescape threatens to up-end this sensory hierarchy. Performance studies specialist Mike Pearson notes the "primacy [in Antarctica] of sound over sight," adding that "the ear [is] ever attuned to the cracking of ice" (27). Many of the diaries and published accounts of early exploration of the continent, as well as more recent narratives based on journeys to and across the ice, include myriad references to the unique soundscapes of the region. These typically describe sounds produced by Antarctica's glaciers, icebergs and other forms of ice, its distinctive wildlife, and its highly changeable and often extreme wind conditions. Above all other aural elements encountered in Antarctica, however, silence has become the most prominent recurring theme in the literature since the earliest days of human exploration of the continent.

The word 'silence' is often used to describe a perceived lack of sound, although some writers clearly adopt a broader definition that encompasses low-level environmental sounds, resonating more with the conceptions of silence put forward by John Cage (8, 22–23), R. Murray Schafer (256) and Gordon Hempton (Hempton and Grossmann). While in recent decades developments in sound recording technologies have enabled the recording and representation of many of Antarctica's different types of soundscapes, silence (even if understood as low-level ambient sound) tends to be far more difficult to capture – aurally, it often loses meaning outside its context. To think about this key component of Antarctic soundscapes, then, we need to turn to written texts which record subjective responses to silence and give it particular significance. Similarly, existing literature and historical documents provide the only "earwitness accounts" (Schafer 8) of historical experiences of Antarctic soundscapes. Through these texts, we can begin to understand some of the various

meanings that sound and silence hold for people who visit Antarctica and, by extension, come to understand even more about the meanings humans attach to the continent itself.

In this article, then, we explore the soundscapes of Antarctica – especially its silence – and their role in human experiences of the continent, as captured in written narratives from the 'Heroic Era' (1895–1922), when the continent was first explored on foot, to the present day. To provide context for this discussion, we begin by briefly outlining the developments in soundscape scholarship, particularly in relation to silence. We then turn to textual representations of Antarctica's soundscapes, especially references to silence and the different meanings it has held for those visiting the continent. Our aim is to draw greater attention to the role of the sonic in human engagements with Antarctica and to the importance of written texts in capturing the essence and meaning of these experiences. As humans can only ever visit Antarctica temporarily – and most will never visit – these texts become important means of recording and sharing information about the place and what it can be like to actually be there and listen to its soundscapes in person.

Key Developments in Soundscape Scholarship

Environmental soundscapes have played important roles in shaping human experiences and understandings of the world through history. However, only in recent decades have scholars begun studying soundscapes in more structured and sustained ways. Schafer, a Canadian composer, writer and environmentalist, is widely regarded as the pioneer of soundscape studies for his work in systematically exploring and recording – in sound and writing – many of the world's diverse soundscapes. His establishment of the World Soundscape Project (WSP) at Simon Fraser University in the late 1960s and 1970s resulted in hundreds of recordings of soundscapes in Canada and Europe, as well as a range of influential written outputs including educational booklets, noise pollution bylaws and landmark texts including

Schafer's own The Tuning of the World (1977) and Barry Traux's The Handbook for Acoustic Ecology (1978). The Tuning of the World, reprinted in 1994 as The Soundscape: Our Sonic Environment and the Tuning of the World, outlines Schafer's theories on the world's soundscape – that is, the acoustic environment – including how it has changed through human history, the characteristics of different types of soundscapes, how sounds (human and non-human) can be classified, which sounds do and do not "matter" for either aesthetic or ecological reasons, and how we can listen in more sensitive and discriminating ways (Schafer 1994; Kelman 214–15). He refers to silence through the book and in a dedicated chapter at its end, in which he draws on Cage's views to conclude that "When man regards himself as central in the universe, silence can only be considered as approximate, never absolute" and that what most people call "silence" is in fact "quiet" (Schafer 256). Schafer calls for the conservation of "quietude," primarily because (drawing on the words of Indian mystic Kirpal Singh), "when there is no sound, hearing is most alert" (259). Further, Schafer observes that context affects the sonic quality of silence: "When silence precedes sound, nervous anticipation makes it more vibrant. When it interrupts or follows sound, it reverberates with the tissue of that which sounded, and this state continues as long as the memory holds it. Ergo, however dimly, silence sounds" (257). Schafer's theories of silence resonate through most of the more recent scholarly writings on the subject, as well as in numerous written accounts of personal experiences of silence in Antarctica, as we explore further below.

Schafer's groundbreaking work in soundscape studies has informed and inspired many other scholars from diverse disciplinary contexts and led to the emergence of sound studies as a multidisciplinary field in the early 2000s, evidenced through the publication of a series of key texts from that time, beginning with Jonathan Sterne's *The Audible Past* (2003) (Steintrager and Chow 13, 19). With this expansion of interest in sound, the term "soundscape" has become increasingly popularized and brought into the mainstream. Ari

Kelman's article "Rethinking the Soundscape," as well as David Samuels et al.'s "Soundscapes: Toward a Sounded Anthropology," both published in 2010, helpfully explore and interrogate this history, drawing on literature from a range of disciplinary contexts to illustrate how appealing, and simultaneously problematic, the term has become. As Kelman perceptively notes, most scholars adopt Schafer's broader definition of "soundscape" as "any acoustic field of study," rather than engaging at a deeper level with the political and ideological meanings inherent in Schafer's use of the term (Kelman 215–16; Schafer 7).

Our use of "soundscape" in this article relates back to Schafer's original framing in the way that we adopt it to refer to the acoustic environment of an ecologically significant place – Antarctica. However, we also depart slightly from Schafer's use of the term to consider cases where visitors to Antarctica have attempted to listen to the place (including human, as well as non-human sounds) "as it is," with engagement, curiosity and interrogation, rather than with the intention of orchestrating their own sonic experience there (Kelman 218). Moreover, with our focus on written texts, we primarily explore conceptions and interpretations of soundscapes in this article, rather than the sounds themselves, although our own personal experiences of Antarctica's soundscapes during visits to multiple sites on the continent inevitably shape our knowledge of and approach to the topic.

Our research has also been informed by the work of other scholars of soundscapes, especially those who focus on the natural acoustic environment, many of whom have themselves been influenced to at least some degree by Schafer. Prominent among these is acoustic ecologist Gordon Hempton, who specializes in studying and recording quiet sounds, most notably as part of his independent research project "One Square Inch of Silence." This project began in 2005 with his attempts to preserve the natural quiet of a specific location (the "One Square Inch" of his title) in the Hoh Rain Forest within Washington State's Olympic National Park, and now also incorporates sound recordings and a book. The latter, titled *One*

Square Ince of Silence: One Man's Quest to Preserve Quiet (2010), co-authored with John Grossmann, outlines Hempton's views on the qualities and values of silence and why the few remaining naturally quiet places on Earth warrant urgent protection. In the prologue, titled "Sounds of Silence," Hempton defines silence not as an absence, but as "the presence of everything" in the natural soundscape (2), although later he narrows this definition to "natural quiet" (3). While he mentions Schafer only glancingly, Hempton's perspectives on silence and the political thrust of his work – his arguing for the mapping of natural soundscapes and the preservation of quiet places – nevertheless follow a clear line from Schafer. Like Schafer, Hempton notes that exposure to silence sharpens our hearing, leaving us "with a more receptive mind and a more attuned ear" and enabling us to "connect ... back to the land" and "to everything around us," which is vital if we are to confront the "complex environmental crises" facing our planet (2–3, 31).

Other recent research builds on Schafer's and Hempton's theories on the value of natural soundscapes and silence, but also extends their work in useful ways to consider the role and background of the listener in the experience of soundscapes. As Samuels et al. note, Schafer's original "soundscape" concept is limited in "its assumption that sound is only a matter of the vibrations of the source, leaving undertheorized the social, ideological or political positionalities of listeners" (335). Of course, a listener's perceptions of sounds (including silence) in a given environment are inevitably shaped by their identity, with matters of gender, race, class, personality, political views and cultural background potentially affecting their interpretations of the soundscape, meaning that one's overall sonic experience may differ to that of another listener situated in the same place at the same time. Various newer studies have given more attention to listeners as "active social participants" (Samuels et al. 335) and consider issues of identity in relation to listening to, as well as studying, sound. James Steintrager and Rey Chow's *Sound Objects* (2019) and Gavin Steingo and Jim

Sykes's *Remapping Sound Studies* (2019), both edited collections, are excellent examples of recent publications that make interventions into the dominant existing practices in sound studies of focusing largely on European or North American, middle-upper class (and typically male) perspectives. We have endeavored to take these broader considerations into account in our research, including the perspectives of individuals from diverse backgrounds where possible, although most visitors to Antarctica who have written about their sonic experiences have tended to be from Western, middle or upper class backgrounds. Not all are from Europe or North America though, and increasingly, female voices are also being heard among the large chorus of male expeditioners to the continent.

Alongside this growing interest in listeners' perceptions within sound studies, various disciplines within the humanities that have not previously been strongly associated with sound are now also increasingly focusing on human experiences of soundscapes. In the discipline of history, this has formed part of a scholarly "turn towards the sensuous" in recent years that has seen numerous historians focus on sound and aural experience as primary areas of investigation, especially in relation to human engagements with place (Damousi and Hamilton 1). As we do here, these scholars typically draw on text-based records and written accounts of personal experiences to find, in historian Mark M. Smith's words, "the wealth of sensory evidence embedded in ... texts, evidence that is overwhelmingly apparent once, and ironically, *looked* for" (5). In his view, attending to hearing and the other senses should be "conceived of as a habit," "an embedded way of remaining vigilant about and sensitive to the full sensory texture of the past and what the senses tell us about the nature of historical experience" (5).

Human experiences of silence have also received increased attention from scholars of history in recent years. As Canadian historian Joy Parr observes, "silence too has a history," as well as a "reservoir of contemporary meanings" (740). Some of these meanings were

explored as early as the mid-twentieth century by Swiss writer Max Picard in his book *The* World of Silence (1948), in which he stresses that "silence is as much a part of history as noise; the invisible as much a part of history as the visible" (83). Picard's book considers the nature of silence and human experiences of it in a range of contexts (e.g. in speech, language, poetry, time, history, faith and the environment) and focuses particularly on its positive effects, such as its healing potential. He does, however, acknowledge that in relation to the natural world, silence is "conflicting" from a human standpoint because "it gives man an intuitive feeling of the great silence that was before the word and out of which everything arose. And it is oppressive at the same time because it puts man back into the state in which he was before the creation of language ... It is like a threat that the word might be taken away from him again into that original silence" (136). More recently, American author Jane Brox has built on and extended Picard's work in her 2019 book Silence: A Social History of One of the Least Understood Elements of Our Lives, which argues that silence "presents a profound human challenge" because it can be associated with both positive and negative situations – it is both essential to some spiritual practices and employed in other contexts (i.e. prisons) as a form of punishment. She observes it can be "both expansive and unsettling" and can be present as we think and read, even if we "hear" our own voices in our minds as we do so (246, 99). In our busy, noisy modern world, she writes, "silence can seem like a luxury" that will "not present itself" – therefore, if we "want it, [we] have to make space for it" and actively choose to make that space (253–54). As our discussion further below will show, many of these meanings – including silence's capacity to have both positive and negative effects – are apparent in written accounts of personal experiences in Antarctica from the Heroic Era to the modern day, as are examples of individuals purposefully choosing to make space for silence there.

Philosophers of place have also highlighted the value of focusing on soundscapes to find different ways of experiencing – and of understanding our connection to – the places we inhabit and visit. As Jeff Malpas states:

The taking of sound as a primary focus of investigation ... provides a way of shifting our usual experience of things, and doing so with respect to a phenomenon that can itself have an extraordinary and powerful affect. In this fashion, sound can be seen as offering an alternative route for the exploration of our world and our relation to it, providing new ways to experience the places and spaces in which we find ourselves. (9, 11)

Finding new and meaningful ways of engaging with places is particularly important in relation to landscapes (including icescapes) that are rich in ecological value and ones that are under threat due to environmental change. Indeed, soundscapes and our experiences of them are integral to how we view, appreciate and even protect wilderness areas. As philosopher John Andrew Fisher recognized in the late twentieth century, sounds "play a role in our conception of wilderness. The definition of wilderness in the [US] federal Wilderness Act of 1964 includes as a requirement for a potential wilderness area that it have 'outstanding opportunities for solitude.' Part of the notion of solitude is that one can escape from the sounds of modern civilization" (169). As a consequence of this definition of wilderness, the United States' Bureau of Land Management (BLM) has used the infiltration of anthropogenic noise (e.g. from traffic, planes and industry) as a reason for not giving official "wilderness" status to potential wilderness areas (178). In this context, Fisher explains, "solitude" does not mean "the total absence of sound," but rather the "absence of human-made sounds" and the presence of "a background of low-level sounds that provide a sonic carpet on which other sounds of nature appear to great effect" (170). In his eyes (and ears), the silencing of

anthropogenic sounds allows humans to listen with greater appreciation to natural sounds occurring in a soundscape, echoing Schafer's theories from more than two decades earlier.

The increasing interdisciplinarity of soundscape studies has also extended its reach to literary scholars, with critics focusing on examining experiences of soundscapes, including silence, as detailed in literary works (see e.g. Picker). Such research highlights the value of textual descriptions of soundscapes, especially for the light they shed on soundscapes of the past and the meanings humans have attached to the acoustic environments of specific locations over time. Importantly, this work also points to the capacity of text-based descriptions of soundscapes to connect readers with places that they are unlikely to experience directly. When it comes to remote and inaccessible places, areas that are under threat due to environmental change, and/or sites particularly rich in ecological values, text-based records provide valuable alternative means through which the broader public can gain a more complete sensory understanding of what it is like to actually *go there*, without contributing further to the physical human footprint in these locations. We now turn our attention to the soundscapes of a place that exemplifies these qualities: Antarctica.

Antarctic Soundscapes

During the last decade, several researchers from a range of fields have begun investigating the role of sound in human experiences of Antarctica. Most of this work focuses primarily on music, including soundscape-based compositions, created during (or resulting from) visits to the continent.² Less attention has been paid to environmental sounds as they are encountered in-situ in Antarctica, although the 2015 edited collection *Antarctica: Music, Sounds and Cultural Connections* (Hince, Summerson and Wiesel) includes several insightful essays that explore listening and silence (Leonard; Nicol), especially as described in early exploration narratives (Griffiths "Introduction"; Pharaoh; Martin). This book combines creative and

scholarly contributions by performing artists, humanities scholars and a scientist, and demonstrates growing interest in considering sound in connection with Antarctica.

This attention to Antarctica as a multi-sensual, and particularly an acoustic, environment is a corrective to a century of emphasis on the region's spectacular visuality, in which photographers and filmmakers have played such a key part in mediating the continent's identity. However, the turn to the acoustic also poses a particular challenge in a place that has stereotypically been associated with a lack of sound, to the extent that it is widely referred to as "the silent continent."

Arguably, this stereotype is as much a product of a colonial attitude towards the unknown as a description of a lived encounter with place, as it had been applied to other southern continents before being transferred to Antarctica. Michael Cathcart notes the way in which a "geography of silence" was employed by British colonizers to describe Australia, as a way of rendering the continent ahistorical, empty and unpeopled (51). A similar logic was used by colonialists to Africa (Hoving 274), which was sometimes referred to in the press as "the silent continent" (see e.g. "An Awful Insect"). Newspapers were using the same kind of phrasing to describe Antarctica in the early twentieth century ("In Antarctica"). By 1955, when William H. Kearns, Jr and Beverley Britton published their collection of stories about Antarctica, *The Silent Continent*, the phrase had clearly become a staple moniker that needed no justification. Antarctica was "silent" in the same way that it was "mysterious," a "sleeping giant," and a "strange and alien land" (1). Silence here is a metaphor for lack of knowledge rather than any empirical statement on acoustic experience. Nonetheless, as we will show below, silence is also considered a key characteristic of Antarctica in a very literal sense by a variety of explorers and travelers.

The difficulty of reproducing silence as a key aspect of Antarctic experience has itself been the subject of literary response. Laurence Fearnley's short story "The Piper and the Penguin" deals with a composer who (like the author herself) spends time in Antarctica as an artist-in-residence with the New Zealand national program. The story is told from the perspective of the composer's wife, who receives in the post a series of enigmatic photographs that she interprets as "silent images of captured noise" (248). The last package contains a seemingly blank cassette tape, which the composer, on his return, listens to endlessly. His wife eventually realizes that it is not blank but rather a recording of the continent's silence, which her increasingly reclusive husband is trying to recapture; in the end, the tape "silence[s] their relationship" (246). As Fearnley's story suggests, silence can be both alluring and deadening; moreover, a situated experience of silence is far more challenging to convey to a remote audience than an encounter with sound.

In the remainder of this paper, then, we turn to written narratives in order to understand the affective experience of silence in Antarctica. We focus first on early exploration accounts written prior to the construction of permanent stations, airfields, established shipping routes and regular telecommunications, when anthropogenic noise was confined only to the activities of the expedition to which the writer belonged, and sometimes only to the writer himself (these early accounts are inevitably written by men). We then turn to more recent travel and exploration narratives, arguing that while these suggest a far noisier continent (at least in the sections occupied by humans), the encounter with silence continues to be described in terms very similar to those used by early explorers. For some twenty-first century Antarctic travelers, silence has become an increasingly valued and sought-after experience; for others, it is so unsettling that considerable preparations need to be made to avoid it.

Silence as a Palpable Presence in the Early Exploration of the Antarctic Continent

Silence is a leitmotiv that recurs in various guises in many of the diaries and published accounts emerging from early Antarctic expeditions, from both the "Heroic Era" of (primarily) sledge-based travel and the following "Mechanical Era" of the 1920s–1940s, when planes and other vehicles played a larger role in expeditions. This is especially true of those accounts written by explorers who wintered over and/or who journeyed across or sojourned in the continent's interior plateau. Of course, the early explorers heard many sounds in Antarctica, especially along the coastline with its abundant wildlife (particularly during the summer months) and ice cracking, calving and moving through water. The sound of wind traveling with varying degrees of force was also encountered regularly, as were anthropogenic sounds from the ships, sledges and from the men themselves. However, as Nicol points out, the explorers would have found the noisy coastline "a distraction as they set their sights inland to the colourless, lifeless interior" (167) – the region that, in terms of geographical and imperial achievement, attracted their attention.

A striking feature of early accounts of silence in the far south is its experience as a palpable presence. Historian Tom Griffiths notes this tendency to materialize silence in his book *Slicing the Silence* (189) and in his introduction to the collection *Antarctica: Music, Sounds and Cultural Connections* (10), providing several examples that we expand on here. Carsten Borchgrevink, the leader of the first expedition to overwinter on the Antarctic mainland (the *Southern Cross* or British Antarctic Expedition, 1898–1900), for example, reported that as the winter encroached, "The darkness and the silence weighed heavily on one's mind. The silence roared in our ears, it was centuries of heaped-up solitude" (Borchgrevink 135). Similarly, American explorer Richard Byrd noted in his diary, during the winter he spent alone at the Bolling Advance Base, a tiny weather station he established beneath the surface of the Ross Ice Shelf, "The silence of this place is as real and solid as sound. More real, in fact, than the occasional creaks of the Barrier and the heavier

concussions of snow quakes" (*Alone* 141). When Australian explorer Douglas Mawson presented to a former sledging companion a copy of his expedition narrative *The Home of the Blizzard* (first published in 1915), he inscribed it with a slightly adapted Antarctic version of the last verse of Robert Service's Yukon poem "L'Envoi," which, with its reference to "the silence calling," likewise gives silence a positive quality as a voice.

Some explorers welcomed Antarctica's silence, ascribing to it a form of homeliness and peace. This was certainly the case for Laurence McKinley Gould, chief scientist and second-in-command of Byrd's first Antarctic expedition (1928–1930). Gould embraced the silence of the south during the long winter night: "This is a land of silence. One stands in the midst of it without any feeling of oppressiveness. It is an expanding sort of silence. It is inviting. It is the natural state here and I like it – I have come to feel at home in the midst of it" (65). Byrd also took pleasure in and comfort from Antarctica's silence on more than one occasion. As he recalled in *Alone* (1938), the book he published about his winter in deliberate isolation during his second Antarctic expedition (1933–1935), at times the silence helped him to feel that he was part of a bigger picture – the universe – thereby giving him the sense that he was not actually *alone*, but at one with nature. Early in his stay at the Bolling Advance Base, during a walk on the Barrier on 14 April 1934, he "paused to listen to the silence":

My breath, crystalized as it passed my cheeks, drifted on a breeze gentler than a whisper. ... The day was dying, the night being born – but with great peace. Here were the imponderable processes and forces of the cosmos, harmonious and soundless. Harmony, that was it! That was what came out of the silence – a gentle rhythm, the strain of a perfect chord, the music of the spheres, perhaps. It was enough to catch that rhythm, momentarily to be myself a part of it. In that instant I could feel no doubt of man's oneness with the universe. (*Alone* 85)

A few weeks later he still found the silence of the Barrier utterly captivating – so much so that he was "straining to listen – for nothing, really, nothing but the sheer excitement of silence" (*Alone* 119). One of the primary reasons why silence may have been so appealing to Byrd, Gould and other pioneering Antarctic explorers is that the expeditions themselves – not to mention the many months of planning and preparation beforehand – were extremely busy and crowded endeavors, with little time or space for quiet thoughts or experiences. As Byrd wrote in *Alone*, "most of the time [expeditions] move in fearful congestion and uproar, and always under the lash of time" – as a result, the only way he could experience the "quietude" he desired was to spend a winter alone on and within the ice (5).

While the experience of silence may at times have provided a welcome break from the cramped conditions on board a ship or in a hut, other early Antarctic explorers discovered that it could be unexpectedly unsettling. It not only reinforced their feelings of extreme isolation, but also conjured up thoughts of death. When Louis Bernacchi, a member of Borchgrevink's *Southern Cross* expedition, first laid eyes on the continent in February 1899, he observed that its "most striking features were the stillness and deadness" (64). He elaborated on this in his book, *To the South Polar Regions: Expedition of 1898–1900* (first published in 1901): "Enveloped in an atmosphere of universal death, wrapped in its closely-clinging cerements of ice and snow, the one expression of the Antarctica of to-day is that of lifeless silence" (ix). Later in the book, describing the scenery from the top of Cape Adare, he again associated the continent's silence with death: "The silence and immobility of the scene was impressive; not the slightest animation or vitality anywhere. ... Around us ice and snow and the remnants of internal fires; above, the sinister sky; below, the sombre sea; and over all, the silence of the sepulchre!" (78).

Similarly, Charles Laseron recalled that as the first polar winter approached for the Australasian Antarctic Expedition (1911–1914), the men's ear-drums would "throb" with an

"intense, utter silence" that could "literally be felt," making it seem "as if the whole world is dead" (South with Mawson 95-96). This was a feeling with which one of Laseron's fellow expedition members, meteorologist Morton Moyes, became all too familiar when he was inadvertently left alone in a hut on an ice shelf for nine weeks. He had expected to be left alone there only for a single week, and as he waited with mounting concern for his overdue companions, with no sounds to mark time or provide relief from the monotony, he found that the silence only amplified his sense of loneliness and his anxiety. As he later recalled, "The first impact was the sudden silence and I could not get used to it. I found it oppressive and unnerving. It was not the mere absence of noise; it was something more substantial and selfcontained than that" ("Season in Solitary" 21). Not knowing whether his friends would return, he tried to lift the "heavy burden of silence that gave no peace" by playing recordings on a gramophone ("Season in Solitary" 23). Finally, when they returned, it was through sound that he became aware of their arrival: he heard the distant singing of a sledging song. At first, he thought he was "going dippy," that the "solitude had at last beaten [him]," but as he ran outside and confirmed the sound was emanating from his friends, he was so overwhelmed that his "heart almost stopped" ("Season in Solitary" 23; quoted in Exploring the Antarctic, 53). The sound of his friends returning freed him from the burden of silence and simultaneously signified life.

Even Byrd, who deliberately chose to isolate himself in the continent's interior, occasionally found the lack of sounds in Antarctica disturbing. In late 1928, during his first night camping out on the ice, before establishing a base for 'Little America' in the Bay of Whales, he jotted in his diary: "It is as quiet here as in a tomb. Nothing stirs. The silence is so deep one could almost reach out and take hold of it" (quoted in *Little America* 90). He was prompted to think of death again during the winter he spent alone as part of his second Antarctic expedition. In early May 1934, during a few days when the wind subsided, he

noticed that "a soundlessness fell over the Barrier," and it had a range of effects on him: "I have never known such utter quiet. Sometimes it lulled and hypnotized, like a waterfall or any other steady, familiar sound. At other times it struck into the consciousness as peremptorily as a sudden noise. It made me think of the fatal emptiness that comes when an airplane engine cuts out abruptly in flight" (Alone 119). On another occasion, he confessed that any sound – even sudden and potentially frightening ones – offered relief from the sameness of silence: "A moment ago there came a tremendous boom, as if tons of dynamite had exploded in the Barrier. The sound was muffled by distance; yet, it was inherently ominous breaking through the silence. But I confess that any sound which interrupts the evenness of this place is welcome" (Alone 101). His silence was broken in a different way in mid-June, as he battled the effects of carbon monoxide poisoning from his poorly ventilated heating stove and radio generator. He later wrote that he was "literally shaken by the thumping" of his heart as he lay curled up in his bunk, mumbling "like a monk fingering his beads" (Alone 214). Yet, in "the calm between the rushes of pain," when his involuntary vocalizations ceased, "the silence crowded in," haunting him with the very real threat of death (Alone 214).

The uncanny impact of a period of silence could be even more strongly felt if preceded by continuous sound. The katabatic winds that sweep from the center of the Antarctic continent to its coast are the most prominent source of such sound in early exploration accounts, as signalled by the title of Mawson's expedition narrative *The Home of the Blizzard*. Mawson's men consistently write about wind noise, particularly on sledging journeys when it prevented them from having exchanges with others in the same small tent. "We can't read aloud owing to the flapping of the tent making our voices inaudible," complained Laseron in his sledging diary (14 November 1912). But lulls in the wind could be disconcerting in themselves: Mawson describes the time between hurricanes at the expedition

Main Base in Commonwealth Bay as marked by an "intense, eerie silence" (77). If such a calm spell occurred at night, the silence was so noticeable and disconcerting that "one would involuntarily wake up ... and be loth to sleep 'for the hunger of a sound'" (77). Although Mawson may later have embraced a romantic vision of "the silence calling," his lived encounter with silence was quite different.

As these examples show, many of the experiences described by the early Antarctic explorers resonate with established theories of silence: for these men, silence was typically perceived as "something" rather than "nothing"; it could encourage active listening and a feeling of connection to a place; and it could have positive or negative connotations depending on the listeners' context, leading them to either "make space for it" or actively try to avoid it. The themes of lifelessness and death in many of these early responses to Antarctica's silence are also in keeping with geographer Yi-Fu Tuan's assertion in *Passing Strange and Wonderful* (1993) that "soundlessness begets a sense of deadness. Life involves movement, and when living things move, they generally make some kind of sound. Soundless movement can seem uncanny, ghostlike, and vaguely threatening" (70). However, the accounts described here suggest something beyond even the deathliness associated with stillness: silence itself takes on an active, mobile, menacing quality that is inseparable from the isolation and physical vulnerability of those who experience it.

Nevermore? Antarctic Silence and Noise in an Era of Science and Tourism

With the construction of numerous scientific stations in Antarctica from the mid-1950s, human inhabitation of the continent shifted from short-term, temporary outposts to continuously occupied settlements that were regularly resupplied with personnel and supplies, by both ship and plane. This change produced an immediate nostalgia for the "heroic" past, including its silence. New Zealand poet Dennis Glover encapsulates this

sentiment in his playful sonnet "How Does My Good Cousin Silence?" (1963), which apostrophizes the continent as silence itself, although a silence that has subsequently descended into rowdiness. When the speaker hopes forlornly that the Pole can be "silent as before," a crowd of scientists, naval personnel and logistical committees reply, in an echo of Edgar Allan Poe's raven, "Nevermore."

Despite these changes, Antarctic narratives continued to reiterate the idea of the "silent continent," positioning themselves with respect to but not repudiating the stereotype. A 1990 collection of environmental essays by celebrities and activists, written in the context of protests against an Antarctic mining convention, was called *Antarctica: Voices from the Silent Continent* (Adams). Historian Tim Bowden titled his history of Australians in Antarctica *The Silence Calling* in reference to Mawson's poem. Griffiths's above-mentioned narrative of his own journey to Antarctica as a historian, *Slicing the Silence*, consciously writes into this tradition. Griffiths's title refers to his icebreaker cutting through the Antarctic ocean and sea ice at the beginning of the summer season, but he ends his book with the thought that returning Antarctic expeditioners themselves carry home with them a quality of silence, if only temporarily. However, reading late twentieth and early twenty-first century narratives of Antarctic travel makes it clear that whether one encounters a "silent" or rowdy continent depends very much on the purpose, mode, role and itinerary of the traveler. The sonic experience of the continent has diversified along with its visitors.

The majority of contemporary visitors to Antarctica probably never encounter silence even in the qualified sense of low-level environmental sound. Tourists now outnumber scientists and base personnel by a factor of ten, and over ninety-eight percent of them travel by cruise ship (or an air/cruise combination) to and from the Antarctic Peninsula, the long mountainous finger of land and ice that extends from the southern continent towards South America (IAATO 16). This region, including the islands off the Peninsula's northwest coast,

is particularly popular for tourism due to its proximity to Argentina and Chile (the journey by ship from Ushuaia typically takes just two to three days), its relatively mild climate compared with the rest of the continent and its plentiful wildlife during the five-month summer season (from November to March), when most of the voyages operate (Liggett 383). During the summer months, penguins come ashore to lay their eggs amid rocky outcrops around the coastline, to raise their young and carry out their annual molting. Penguin rookeries are favored landing sites for tourist voyages and, by their nature, are typically very noisy places. At any given moment, an array of different penguin vocalizations can be heard. These sounds are often accompanied by a range of others, such as calls from different birds, sounds from seals that have come ashore, whales surfacing, lapping waves, and/or the occasional boom and crack resonating from nearby glaciers. Most tourists, therefore, encounter a rich sonic environment in Antarctica that is the opposite of what early exploration narratives, as well as the later histories mentioned above, might have led them to expect.³ In our own experiences, even during the quieter moments of a tourist visit to the Antarctic Peninsula, it is impossible to escape sounds entirely, be they from engines (from the ship or zodiacs); wildlife; glaciers; ice and water moving; and/or those produced by humans as they move, take photographs and videos, and chatter. Operators sometimes designate certain parts of visiting sites as 'silent' zones, asking tourists to refrain from speaking so that only natural sounds are audible, but these periods of quiet are inevitably punctuated by anthropogenic noise as the visitors cough, stumble on rocks, operate their cameras, and zip/unzip their backpacks and parkers. While cruises that offer the option of camping overnight on the continent present greater opportunity to escape anthropogenic sound, for the most part the journey is accompanied by near-constant noise.

Unsurprisingly, travel narratives produced by writers who have taken cruise-ship journeys – which include essays by Jonathan Franzen and Helen Garner, as well as Jenny

Diski's memoir Skating to Antarctica (1997) – rarely mention an experience of silence. Even in a quiet moment, Garner records "the buzz and hum of the radar, the dull rumble of the engine, and out on deck the rushing of the wake" (17). Franzen notes a moment of silence while he is on a certain deck of his ship where its engines are "inaudible," but this is quickly broken by tourist activity: a Zodiac is "noisily launched," a drone "unleashed" (208). As a birder, Franzen is particularly alert to the sounds of Antarctica's creatures, the "spiralling festive bray" of the King penguin that has a "soothing effect" when emitted by a large colony (217). Diski, who goes to Antarctica on a cruise-ship in an attempt to replicate the sense of "white oblivion" she experienced in a "psychiatric hospital" as a young woman, looks for "a white, empty, unpeopled, silent landscape" (2, 127). Her first landing (at the subantarctic South Georgia) provides quite the opposite sensation: it is "neither white nor solitary," and takes place against both intrusive anthropogenic sound – "the click and whirr of motorized snapping" – and noise of penguins so loud as to reach "the pain threshold" (165, 153, 177). In Antarctic proper she experiences a period of comparative silence: "The only noise was the buzz of the Zodiac engine. There was no wind, no screaming penguin, and when the Zodiac stopped at the foot on an iceberg, no sound at all, except for the water lapping against the wall of ice" (231). This is, however, a brief moment in a comparatively noisy cruise.

For non-tourists, Antarctic experience is not always quieter. Any extended stay on the continent necessitates the use of buildings and other infrastructure and resources, including various modes of transport, which bring with them a cacophony of anthropogenic (including mechanical) sounds that are not always easy to avoid. Griffiths discovered this during the summer of 2002–2003, when he traveled to Casey Station with the Australian Antarctic Division as an Arts Fellow: "When I visited Antarctica, I yearned to ... escape the throb and thrum of engines – even the ship at rest, at anchorage, was constantly drumming, cranking and sighing in order to sustain the community on board. The station hummed with its own

technology" ("Introduction" 12). Sound artist Philip Samartzis also found an unexpectedly diverse array of sounds at the stations he visited during his two Australian Antarctic Arts Fellowships (awarded in 2009 and 2015):

Everything was a surprise, from the most basic sound of a water pump, to the discharge of dynamite in a quarry. Sound infuses every aspect of life in Antarctica. ...

For instance powerful diesel generators sound throughout the station, informing the soundscape ecology of the built environment with a deep and persistent thrum. It is the most vital piece of infrastructure on station and its presence is as much a comfort as it is a source of irritation. ... Silence therefore does not exist at Davis or Casey, as these generators are active all the time. The presence of katabatic wind activates various components of a station such as metal railings, cane lines, restraining cables, metal crates brimming with refuse, discarded fuel drums, and air vents. Construction and transport operations punctuate the station during working hours, while garrulous elephant seals occupy the evenings. Carving icebergs ricochet from the coast, while the sea freezes and melts at regular intervals creating an assortment of ice floes that wash up on the beach. (Quoted in Philpott and Samartzis 347)

Although anthropogenic sounds tend to dominate the soundscapes of Antarctic stations, as Samartzis observes, these sounds are often set against a backdrop of biological and geophysical sounds from the surrounding environment (if the human noise levels are low enough to hear them). Samartzis accepts the full range of sound events as true of the Antarctic experience, but he also acknowledges that his preferred sound experiences occurred "well away from station," when he was "concentrating on icebergs, sea ice, glaciers and frozen lakes" (quoted in Philpott and Samartzis 348). Such experiences led him to conclude: "The sounds voiced by Antarctica's ice shelves, glaciers, icebergs and sea ice contest one of the great misconceptions about the continent ... that it is a place delimited by a rigid and

mute set of conditions. Yet concealed within the frozen veil of ice is a startling aggregation of sound which demonstrates how remarkably protean the continent actually is" (Samartzis 176). For Samartzis, then, the "silent continent" is a cliché that rhetorically flattens a rich sonic environment.

Perhaps the most reliable way to experience natural "quietude" in Antarctica today – at least, more than fleetingly – is to move beyond the perimeter of the continent and into its interior, away from the noisier fringe. However, excursions inland are off-limits to most tourists and are usually only possible for scientists and other research program personnel to carry out in the company of others (such as field training officers), using specialist equipment and adhering to strict safety and environmental protocols. Moreover, as Douglas Quin noticed during his first summer in Antarctica with the National Science Foundation's Antarctic Artists and Writers Program (in 1996), anthropogenic sounds follow the human body into the field like a shadow. 4 For Quin, the "extraordinary silence" that enveloped him during a visit to the Taylor Valley, meant that his "most profound listening was inward" (3).⁵ He recalls that when "Sitting on a scree slope in the Taylor Valley, on a windless afternoon, the only sound I heard was that of my pulse, a dull thud and swish against the hood of my parka" (3). Quin's observation is a reminder of Cage's and Schafer's assertions that, from the human perspective, silence is only ever "approximate, never absolute" (Schafer 256). Such rare experiences, however, underline the importance of the extended stays on the continent that are made possible through the artists and writers fellowships offered by various national Antarctic programs.⁶ These fellowships, which typically last weeks to months in the austral summer, often permit excursions or longer field trips away from the periphery that allow for more intimate, embodied engagements with the icescape and its soundscapes.

Writers-in-residence granted the opportunity of mobility within the continent recount experiences of silence remarkably similar to those described in early exploration narratives.

In a 1988 article in *Harper's Magazine*, travel and nature writer Barry Lopez describes flying down to Antarctica "with earplugs firmly in place" against the engine noise, and even when he arrives, he longs to avoid the busyness of his initial destination, McMurdo Station: "one goes through so much to leave the hammering and hawking of civilization behind" (66). Once in the field in the Dry Valleys region, however, he experiences "a silence dense as water," a stillness that is "visual as well as acoustical" and has "an edge to it." Like many early explorers, Lopez experiences the silence as an unsettling presence: "I felt no security with the Earth here" (67). On a later visit to Antarctica, however, he experiences the relative lack of sound in the continent's interior in far more positive terms as a form of peace and freedom from intrusion: "I enjoy the sort of mental space this kind of isolation affords.... No phone rings. No doorbell, pager, or intercom sounds. No one knocks" (Horizon 436). Another travel writer and writer-in-residence, Sara Wheeler, entitled a chapter of her Terra Incognita: Travels in Antarctica "The Other Side of Silence," in reference to the novelist George Eliot's description of the "roar which lies on the other side of silence" (67). Wheeler's figuring of silence as a roar, and later as "the accumulation of centuries of solitude" (106), repeats Borchgrevink's description: "silence roared in our ears, it was centuries of heaped-up solitude." Like Quin, she encounters a quiet so total that she can hear "the blood pumping round my head" – an experience she likens to the underwater environment she has experienced through scuba-diving (105). And like Lopez, Wheeler finds Antarctic silence peaceful and life-enhancing, a "reprieve" from the noise of civilization (269). "We had been living in the silence between movements of a symphony," she writes, closely paraphrasing scientist David Campbell's earlier description ("It is like the silence between movements of a symphony" [The Crystal Desert 51]). By the late twentieth century, then, writing about Antarctic silence – whether describing an unnerving or comforting experience – recycles an established series of tropes.

More sustained modern-day encounters with silence in Antarctica are perhaps only experienced by the handful of adventurers who travel by ski alone or in small groups (that is, with no help of mechanical apparatus) across the continent, mimicking the sledging journeys of the Heroic Era. Roger Mear and Robert Swan's narrative of their attempt to repeat Robert Scott's journey to the South Pole, In the Footsteps of Scott, includes a chapter entitled "The Silent World," which details their departure from the business of McMurdo Station into the interior. For some, silence becomes the defining quality of the journey. Norwegian Erling Kagge, the first person to travel to the South Pole solo and unsupported, draws on this experience (along with journeys to the North Pole and the top of Mt Everest) in a book entitled Silence: In the Age of Noise, first published in Norwegian in 2017. Kagge describes Antarctica as "the quietist place" he has ever been, with the only noises emanating from the wind and his own movement – a "stark contrast" with the Arctic, which is an oceanic environment where "you are surrounded by constant noise" (12, 27). Like earlier explorers, he gives silence a positive quality – it is "something" rather than "nothing" (80), something he can "hear and feel," something that "adhere[s]" to him (12, 16), a way to experience the world mindfully (29) and to access the inner self (25). To find silence is to find "your own South Pole" (128). As his title suggests, silence for Kagge is also a "luxury" that must be searched for in a period dominated by human-produced noise (1, 66), a view that echoes Brox's perspectives on silence mentioned earlier. Forced to take a radio with him by the airline that flies him to the edge of the Antarctic continent, Kagge throws the batteries in a rubbish bin on the plane (12); silence is a conscious choice, not a default, even in the "silent continent."

The flipside of this choice is the ability, in the twenty-first century, to avoid experiencing Antarctic silence.⁷ Australian James Castrission, who with Justin Jones made the first unsupported and unassisted return journey to the South Pole, could hear "the silence

echo[ing] loudly" in his ears as the plane that took them to their starting point flew away (98). Unlike Kagge, 'Cas' and 'Jonesy' go to some length to displace this silence, bringing solar-powered iPods and using music as a "performance-enhancing drug." They trek to the Pole to a curated soundtrack of their favorite pop music, podcasts and Harry Potter audiobooks, Cas's "biggest problem" being that "the earphones kept falling out" (105). Cas and Jonesy's Norwegian rival likewise prepares against the threat of silence: "he had four iPods with him because without them he'd go nuts." The Australian pair themselves struggle when a series of cloudy days renders their iPods inoperable: they are left with only each other's company, "but even then the silence could be deafening" (123). The sense of silence as an oppressive, aggressive force expressed by early explorers remains evident in this and other very recent Antarctic narratives.

Conclusion

Through this article, we have drawn on written texts as a particularly suitable and valuable medium for recording and conveying human experiences of soundscapes, and particularly Antarctica's silence. By focusing on the element of silence, we have demonstrated that human experiences of Antarctica's soundscapes have evolved over time, reflecting broader changes in the ways that humans have engaged with the continent, from the early explorers who had little in the way of infrastructure or resources, to tourism and modern science programs. While anthropogenic noise has increased in parts of the region since the midtwentieth century, the idea of silence still strongly informs narratives of Antarctic experience, although it has taken on a more benign quality in contrast to the oppressive silence often remarked on by earlier explorers. Nevertheless, the descriptions of silence in contemporary narratives often recycle tropes found in earlier accounts, which themselves resonate with recurring themes in the scholarly literature on silence, particularly the notion of silence as a

material, felt, haptic presence. In the twenty-first century, silence in Antarctica is still described in both positive and negative terms – on the one hand as a "luxury" providing peace and a "reprieve," and on the other as unsettling, "deafening" and offering no sense of security – although it is not now as readily associated with death. As we have established, silence is now a much rarer commodity in Antarctica, especially for tourists, while for non-tourists (including scientists, support personnel and visiting artists and writers) it now needs to be actively pursued, and is also easier to actively avoid (through portable listening devices).

Our study has highlighted just how important listening to soundscapes, especially silence, can be to human engagements with place, particularly ones that are remote, inhospitable and/or important for environmental reasons, such as Antarctica. As several scholars, as well as Antarctic expeditioners, mentioned in this article have observed, silence is when hearing is "most alert" and our minds "more receptive" (Schafer 259; Hempton 2), creating ideal conditions for us to connect with the natural environment and begin to confront the crises affecting it. This is particularly important in relation to Antarctica: in the Anthropocene, the continent is increasingly understood as "an environment irrevocably altered by remote human action" (Leane and McGee 1) even while it continues to encompass some of the world's few remaining large expanses of wilderness and, indeed, natural silence. With the ongoing need to protect the icescape, and conserve its soundscapes, written accounts of personal sonic experiences there are likely to continue to be valuable – both in terms of mediating the Antarctic experience for those who are unable to travel there and in increasing understanding of the meanings humans have attached to the continent over time.

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¹ Antarctica is both a barometer of environmental change and crucial to global climate processes (see Klekociuk and Wienecke).

² See, for example, Wiesel; Hince, Summerson and Wiesel; Philpott and Leane; Philpott and Samartzis; Philpott "The Sounds of Silence"; Philpott "Sonic Explorations"; and Philpott "Promoting Environmental Awareness."

³ Marine scientist Stephen Nicol makes a similar observation in his essay titled "Antarctica: Surround Sound":

[&]quot;As most visitors to the Antarctic arrive by ship in summer, the chaotic, noisy and nasally challenging spectacle of life on the fringe is what greets them" (166).

⁴ Quin traveled to Antarctica with the same program again in 1999. He visited a third time as the location sound recordist for the 2003 PBS *Nature* documentary *Under Antarctic Ice*, narrated by Hilary Swank.

⁵ The Taylor Valley, located west of McMurdo Sound at approximately 77°37'S, is the southernmost of the three large Dry Valleys in the Transantarctic Mountains, Victoria Land.

⁶ See Nielsen and Philpott (5–6).

⁷ While some of the explorers of the Heroic Era composed sledging songs to break the silence during long and arduous journeys across the ice, the intense physical demands of man-hauling meant that giving voice to them was not always possible (see Philpott and Leane 698, 710). In recent years, the availability of portable listening devices has meant that music/sounds can be experienced more passively during long treks across the ice.