

Cryonarratives for Warming Times: Icebergs as Planetary Travellers

In the Anthropocene, icebergs have moved from the periphery to the centre of global public consciousness, their ephemerality and mutability ominously signalling the mobile and impermanent nature of the polar regions. With ice sheets and ice shelves increasingly unstable as ocean temperatures rise, humans feel implicated for the first time in the creation of these objects. The calving of a huge tabular berg is now a political event, framed by media headlines worldwide not simply as a visual spectacle but also as a source of communal guilt, fear, anxiety and anger. Yet such icebergs can endure for decades beyond this sensationalised moment, wandering peripatetically through the oceans and interacting with human and nonhuman actors in diverse and unpredictable ways.

This chapter proposes a new term, 'cryonarrative,' as a shorthand for the kinds of stories that humans are telling about ice in the contemporary period, and looks at the particular cryonarratives being applied to icebergs. Within media and tourist discourse, icebergs are often subject to reductive narratives that render them as symbols of human doom or aesthetic objects for human consumption. As a remedy to this anthropocentric approach, I argue for the advantages of characterising and narrating icebergs as travellers on a planetary scale.

Ice Humanities and Cryonarratives

With environmental ice increasingly recognised as pivotal to the future of humanity and the planet it inhabits, cultural scholarship has shifted in recent years from examining human activities on, in, over and about ice to understanding ice as a nonhuman force that interacts with humans in unpredictable ways. As Klaus Dodds and Sverker Sörlin observe in their introduction to this volume, a growing number of critics focus on ice's agency, with different emphases and to different degrees: ice is a 'nonhuman actor' (Boorst, 2010), 'a vital force in the universe' (Glasberg, 2011: 232), 'alive, creaturely and desiring' (Duckert, 2013: 71). These approaches sit alongside – and not always comfortably with – calls to historicize ice: to understand icy regions not as wildernesses, wastes or forms of emptiness, but as historically complex environments that are both materially and culturally produced (e.g. Antonello, 2017).

This shift towards ice within the humanities has in turn generated new and useful coinages that merge the scientific idea of the cryosphere with human ways of making meaning. These include 'cryo-politics,' to take account of how ice functions physically and discursively within geopolitics (Bravo and Rees 2006: 207-208); 'cryoscape,' to describe 'a coming together of human epistemic practices with the physical phenomena that constitute the cryosphere' (Nüsser and Baghel 2014: 150); and 'cryo-history,' to encompass the emerging work within environmental history and anthropology analysing the coupled changes of human societies and ice across time (Sörlin 2015).

Coming from the perspective of literary studies, I propose a related term, 'cryonarrative,' to describe contemporary stories in which ice and humans are closely interconnected. This term could encompass a diverse range of specific ice-centred narratives: fiction, from popular ecothrillers such as L.A. Larkin's *Thirst* (2012) to literary works such as Ilija Trojanow's *Ice Tau* (2011); travel accounts and memoirs such as Jonathan

Franzen's *The End of the End of the Earth* (2016) and Elizabeth Bradfield's poetic memoir *Toward Antarctica* (2019); and screen texts, including documentary films like Werner Herzog's *Encounters at the End of the Earth* (2012), feature films such as Youyin Wu's romance *Till the End of the World* (2018) and television series such as the recent thriller, *The Head* (2020). Depending on how tightly it is defined, the category could potentially comprise a huge array of texts, genres and subgenres.

Cryonarratives could also refer to broader and less easily pinned down narrative framing strategies that play out repeatedly across mainstream media, informing the stories that individuals place around their own encounters, mediated and material, with icescapes. These include narratives of ruination (Nuttall, 2019: 7), vanishment (Dodds 2019: 3) and heroic rescue (Glasberg 2011: 222), all of which have particular social and political implications. By self-consciously paying attention to these cryonarratives, we are better able to work to challenge elements of them where necessary and to identify new ones that better address contemporary challenges.

Although narrative framings are already implicit within the concepts of cryopolitics, cryoscape and cryohistory, 'cryonarrative' draws our attention to the specifically literary aspects of the stories we tell about ice – particularly the generic patterns that we draw upon. This literary term alerts us to how concepts such as plot, character and point of view function in stories of ice: who are the protagonists (human and nonhuman), how are they represented and what familiar or unexpected roles do they play? For example, in a previous analysis of Antarctic-set ecothrillers, I have argued that icescapes are often themselves active characters – or perhaps more accurately, actants in the narratological sense: they are key structural elements in the story rather than simply 'setting'. In these thrillers, icescapes work in 'ambiguous alliances with both the human heroes and villains,' resulting in 'narratives of human/nonhuman alliance that reflect new ways of thinking in the Anthropocene' (Leane, 2019: 88, 97).

One of the potential problems of 'cryo-' terms is an overly homogenous approach, leading to abstract discussions of 'ice' and monolithic representations of complex geographical places. Some of the most influential cryo-analyses, such as Julie Cruikshank's *Do Glaciers Listen?* (2005), not only focus on specific ice features but also demonstrate their rich connections with particular communities and places. Certainly it is possible and productive to identify general characteristics of ice – such as its tendency to be in process, transition and movement. However, ice occurs on the planet not in the abstract, but in particular places, times and forms, and narrative accounts suited to one kind of ice in a particular part of the planet (for indigenous Arctic communities, for example) may not be extrapolatable to 'ice' elsewhere or in general.

Within the short space of this chapter, then, I want to focus on the narrative frames that are and might be attached to one particular kind of ice in one region of the world: Antarctic icebergs. The specific characteristics of icebergs – their ability to be identified as discrete, if mutable, objects; their temporal and spatial extent; and their unpredictable routes – enables them to be apprehended not simply as 'ice' but as individual actants that enact specific planetary trajectories. In the Antarctic, where icebergs are remote from any established human communities, this apprehension is almost always mediated, either remotely through written, visual and aural texts or more directly through tourist operators and guides. How, this chapter asks, might these cryonarratives look if we consider icebergs themselves as planetary travellers?

Icebergs and/as Travellers in the Anthropocene

The present pandemic period, when human travel has been disrupted, abandoned or indefinitely postponed, provides a unique moment at which to turn our attention to nonhuman travellers. Travel writing scholarship has recently started to incorporate the nonhuman as agent rather than backdrop. Much of this work focusses on human travellers' encounters with non-human animals, who are occasionally themselves framed as co-travellers rather than simply passive 'travellees' to be seen and experienced by humans (Leane 2020). Critics have only just begun to consider the role in travel writing of 'not only sentient animals or other biological mechanisms, but also impersonal agents, ranging from water to hurricanes, from mineral to bacteria, from mountains to information networks' (Kantarbaeva 2018: 8). Work of this kind emphasizes the agency of landscape features but seldom extends to considering such objects *as* themselves travellers – presumably because such geological features, while far from static, do not tend to move from place to place, at least on human temporal scales.

In this sense, icebergs are unusual. Of course, movement (along with phase transition) is a characteristic of ice in general: glaciers flow, collapse, retreat and advance; sea ice moves on ocean currents, and appears and disappears seasonally. Icebergs, however, are both discrete, autonomous objects and mobile over large distances. While they may ground or remain hemmed in by sea ice for long periods, their lifetimes are usually characterized by journeys. Their slow beginnings as proto-bergs – parts of glaciers and icesheets – can last thousands of years, while after calving, depending on their size and the temperature of the surrounding water and atmosphere, they may last weeks, months, years or decades. With knowledge of prevailing currents, their journeys can be predicted at a broad although not a detailed level. The journeys of icebergs above a certain size, however, are known precisely, as they are tracked by satellite to avoid posing a hazard to shipping. For centuries, humans have speculated about controlling and diverting this travel, with iceberg-towing schemes to provide water to dry nations having been touted periodically since the nineteenth century (see e.g. Ruiz 2015; Morgan 2018). However, apart from small-scale diversion of bergs from oil rigs in the Arctic, such geoengineering schemes have remained fantasies.

The unpredictable mobility of icebergs means that they are readily characterised as travellers. This is a literary rather than a philosophical argument: I do not contend that icebergs can be conceptualised ontologically as travellers in the intentional sense of human or animals. Nor do I suggest that icebergs can be the subject of travel narratives as conventionally conceived, given that these are normally defined as first-person accounts written by author-travellers (Youngs, 2013: 3). Cryonarratives are written by human observers, aided by technologies. However, in the sense that icebergs' journeys are materially encoded in their shape, colour and composition, as well as scoured out (in the case of large bergs) on the ocean floor, they might be considered in a sense as co-authors of their own stories.

For cryonarratives written in the Anthropocene, there are advantages to rhetorically positioning icebergs as travellers. Unlike narratives of rescue, ruination, vanishment, elegy, or apocalypse, narratives of iceberg-travellers must necessarily be episodic and open-ended. While human impact on calving or melt-rate must be part of any contemporary iceberg's journey, such an approach does not assume that icebergs' only significance lies in their role in an anthropocentric story. Moreover, figuring icebergs as travellers puts them, at a structural level, in a symmetrical relationship with the human travellers who encounter them.

The narrative of idea of iceberg-as-traveller is one that has been utilised effectively before, in Richard Brown's book, *Voyage of the Iceberg: The Story of the Iceberg that Sank the Titanic* (1983). Anticipating the nonhuman turn by a couple of decades, Brown deliberately decentres the human tragedy of the cruise vessel in favour of following the iceberg with which it collided. His intention is to challenge demonised stereotypes of the berg by presenting its own story – a story that is thousands of years long (beginning with the

berg's likely origins in a Greenland glacier) and in which the *Titanic* collision is one of many human and nonhuman encounters. Inspired by Brown's book, historian Ben Maddison and I published a short cryonarrative that adopted the genre of the biography to tell the story of a large tabular iceberg named B-9B that originally (as part of a larger berg, B-9) calved from the Ross Ice Shelf in 1987 (Leane and Maddison 2018). We used this genre normally reserved for humans purposefully and provocatively as a way of drawing attention to the berg's individuality, longevity, and role as an actor in various natural-cultural events. However, our biography is simultaneously a travel narrative, as B-9B's long (and ongoing) life was/is inevitably a restless one, with the iceberg driven by deep ocean currents, grounding for years in shallow areas, colliding with and changing other ice formations, occasionally causing havoc to human expeditions, and eventually being drawn into climate change debates.

In the next section, I turn to another giant Antarctic iceberg – one whose 'birth' in 2017 was far more prominent than B-9B's. While this new iceberg was quickly enrolled in an apocalyptic story of catastrophic melting ice, I argue that a more productive and less anthropocentric cryonarrative might be constructed around the idea of this iceberg, and others like it, as planetary travellers whose journeys are entangled with, but not reducible to, human events and activities.

Creating a Monster? A-68 as Planetary Traveller

People were impressed by the first magnificent photographs of icebergs in the process of creation, but, although no iceberg is quite like any other iceberg, the generic similarity is pronounced. A rather brief period of awe was succeeded by the thought that while it was really very clever of science to know all about icebergs and climate and so on, it did not seem to be much good knowing if it could not, resultantly, do something about it.

– John Wyndham, *The Kraken Wakes* (231-32).

John Wyndham's cold-war science fiction novel *The Kraken Wakes*, first published in 1953, begins with its protagonists gazing out at a group of grounded icebergs, appearing 'like sudden white mountains' (5). What initially seems an impressive polar icescape is quickly transformed into a far more disturbing and defamiliarising scene as the reader learns, in the third sentence, that these bergs have floated up the English Channel. The disturbing nature of the view lies not in what the icebergs are but *where* they are. Newspaper reports of the breaking up of polar ice recur throughout the narrative, which comprises a long flashback from this opening scene. In the Antarctic, there is 'news, via New Zealand, of glaciers in Victoria Land shedding huge quantities of bergs into the Ross Sea, and suggestions that the great Ross Ice-Barrier itself might be beginning to break up ... The Filchner Barrier ... and the Larsen Ice-Shelf were both said to be calving bergs in fantastic numbers' (233-34). The spectacular icebergs are greeted by the public initially with an 'attitude of polite patronage of Nature' at the 'clever turns she put on to edify and amuse the human race' (234), but opinions begin to change when the phenomenon is revealed to be the work of an alien civilization living in the deep sea. While Wyndham's novel can clearly be read as a Cold-War fable – some believe the icebergs are the work of 'the Russians' before the real alien culprits become apparently (232-33) – it takes on new significance when read in the context of the Anthropocene, with its out-of-place icebergs appearing as a portentous signal of unnatural change on a planetary scale.

Over sixty years after the publication of *The Kraken Wakes*, an iceberg was making headlines very similar to those described in Wyndham's novel. In early 2017, a growing rift in the Larsen C iceshelf was reported worldwide in tones of suspense and growing alarm (e.g. Rice 2017) until, in mid-July, the split produced one of the largest icebergs on record. As in Wyndham's novel, the initial calving of the huge berg generated a reaction something like awe. However, this emotion was tempered by the suspicion of human complicity in the event. Less than two decades earlier, Antarctic travellers could gaze upon icebergs purely aesthetic objects providing escape from their own lives and problems. Australian writer Helen Garner, in an account of an Antarctic tourist journey taken in the summer of 1997-8, describes herself while watching a calving scene as 'strangely at peace,' reflecting that 'None of these gargantuan cataclysms has anything to do with *me*. Nothing is *my fault*' (2001: 22; original italics). In 2017, such detachment was no longer possible. As Bruno Latour writes, in the contemporary period 'there are no more spectators, because there is no shore that has not been mobilized in the drama of geohistory. Because there are no more tourists, the feeling of the sublime has disappeared along with the safety of the onlookers' (2017: 34). When the *Titanic* and the Arctic iceberg collided in 1912, this could be interpreted as a hubristic tragedy of humanity against nature and the iceberg itself vilified as an 'icy demon' (Brown, 1983, p.7). By contrast, while A-68 was dubbed a 'monster' by press (Amos, 2018), the potential implication of human action in its creation made it seem more like Frankenstein's monster, with humanity's hubris found not in challenging nature but in tangling with it.

Over the subsequent weeks, then, as announcements of A-68's arrival turned to interpretations of its significance, reports of the berg took on an increasingly concerned and politicized tone. Vice News gave readers '3 reasons to worry about that huge iceberg that broke off Antarctica' (the instability of the shelf, sea level rise and the event being 'a sign of things to come') (Lubben, 2017). In an article in *WIRED* headlined 'Antarctic icebergs and crushing existential dread,' Adam Rogers mused on whether humanity could recognise the calving event 'not just as megasized glaciological action but as yet another piece of the global weirdness ... that tells us Earth is getting hotter, the seas are rising and we are all in trouble,' and asked whether the iceberg might 'galvanize action to fight climate' (2017). The climate activist organisation 350.org strove to make this vision a reality, petitioning the US National Ice Center to name the berg '#Exxonknew', in reference to their Twitter campaign to draw attention to the oil and gas company ExxonMobil's contribution to climate change (Packard 2017). A-68 was 'the first iceberg to become a star on social media' (Amos 2021).

Throughout the calving event, scientists were at best divided over whether to attribute the iceberg's existence to climate change (Mosher 2017). Collapses strongly linked to planetary warming, such as those at the neighbouring the Larsen A and B, had taken a different form, with pooling meltwater on the ice surface causing sudden disintegration rather than the calving of a single giant berg from a rift. Even while acknowledging the instability of the Antarctic icescape, glaciologist Helen Fricker, writing in *The Guardian*, pointed to the breaking-off of large bergs as a component of the 'normal processes of a healthy icesheet ... part of the background against which we must look for real change' (2017). Thus while in an affective sense A-68 acts as a symbol of the enormity of climate change, scientifically the casual connection is less straightforward and is tied to the iceberg's earlier history of travel, prior to its autonomous existence, when it was part of the Larsen C ice shelf.

The calving of this giant iceberg was certainly, in Sörlin's phrase (2015: 327), a 'cryo-historical moment,' but its existence extended well beyond this moment. Glaciologists had been following its gestation – the growing rift in the ice shelf – for several years (Luckman 2017). It was this broader narrative context that enabled them to understand the berg in the framework of the ice shelf as a whole, rather than a sudden object of fear in a

human-centric drama. And while the iceberg's fifteen minutes of fame passed, it nonetheless retained media salience as its journey continued.

During the following years reports on the progress of the iceberg – by now named, more conventionally, A-68, according to its location and timing of origin – appeared periodically in the news as it floated off in a peripatetic but broadly predictable north-easterly path. As A-68 was very thin compared to its area, parts of the berg sheared away to form separate icebergs A-68B and A-68C, with the larger remaining part now technically A-68A. By 2020, even as the impact of the COVID-19 pandemic began to be felt across the globe, the berg's activities were still making world news as it launched 'a run for it' (Amos, 2020b), heading past the sea ice limit and into 'Iceberg Alley,' and threatening to further disintegrate (see also e.g. Hambling 2020; Carbone 2020). Media reports of A-68's wanderings were often framed in the context of the warming and destabilizing ice of the Peninsula, and other icebergs that were far smaller but more immediately linked to climate change – such as B-49, which calved from thinning and retreating Pine Island Glacier (Amos, 2020a) – generated attention, benefitting from A-68's ongoing media halo. By late 2020, the iceberg remnant was approaching the island of South Georgia, and media reports began to focus on the potential impact of it grounding near the island and blocking the foraging routes of penguins and seals (Hansen 2020) – effectively spoiling the travel plans of other nonhumans. On 10 April, however, it began disintegrating into hundreds of smaller bergs – too small to be systematically tracked. At this point, according to an Australian Bureau of Meteorology bulletin, 'Iceberg A-68A ha[d] completed its journey' – a journey which covered more than 4000km and continued for nearly 4 years (Lieser forthcoming 2022, 15).

While the narrator of *The Kraken Wakes* might consider all icebergs as generically similar, A-68 – which, at over a trillion tonnes at its calving, must have been the largest single mobile object on Earth – had a size, singularity and longevity that marked it as a distinct planetary actant with an individual history and future trajectory. As a traveller whose journey was long-term and episodic rather than just a sensational media event, A-68 was an ongoing reminder of impact on Antarctic ice, but was also more than only a threatening 'monster' or an avatar of human doom.

While A-68's path lay east of typical cruise-ship itineraries in the Antarctic Peninsula, its peregrinations were not irrelevant to leisured human travellers. In late December 2019 – not long before COVID-19 put a pause on almost all Antarctic tourism – the *National Geographic Orion*, a vessel operated by Lindblad Expeditions, ventured into the Weddell Sea and sailed along the edge of the massive berg (Bluestein 2019). In the next section, I turn to the iceberg tourism industry, asking how human visitors to the Antarctic might be encouraged to consider A-68 and all icebergs as fellow-travellers with their own individual stories rather than simply visual commodities to be aesthetically admired and photographically captured.

The End of Travel? Iceberg Tourism

We'd rather have the iceberg than the ship,
although it meant the end of travel.

– Elizabeth Bishop, 'The Imaginary Iceberg' (1983: 4)

These famous opening lines of Elizabeth Bishop's poem 'The Imaginary Iceberg', first published in 1935, have a strange prescience when one reads them today. Contemporary poet and Antarctic tour guide Elizabeth Bradfield notes in her prose-poem memoir *Toward Antarctica* (2019: 67) that she recalls these lines whenever she sees an iceberg, and elsewhere admits to reciting the poem, 'transgressive and true,' aloud to the guests she guides in a

Zodiac around polar ice (2016: n. pag.). The travel blog 'Adventure365' quotes the entirety of Bishop's poem in celebration of World Poetry Day, adding that 'it's got us all inspired to venture to Antarctica and join a sailing expedition aboard a tall ship!' and providing the hyperlinks to direct customers to just such an adventure (Another World Adventures, 2020).

When Bishop's poem first appeared, only two decades after the *Titanic* disaster, icebergs would have been present in the public mind particularly as a hazard to shipping. They were dangerous and unpredictable objects that could put an end to travel very literally. This sense of threat is latent in the poem, in which the iceberg appears slightly sinister as well as beautiful, its self-adornments 'like jewelry from a grave.' Yet Bishop's poem anticipates a time in which icebergs would be less a danger than an attraction for ships – the tourist ships that ply the polar regions. In the poem's second stanza, the iceberg (along with the sailor who watches it) is figured as a theatre actor whose curtain rises 'on finest rope that airy twists of snow provide,' one who 'dares [...] upon a shifting stage.' The iceberg performs for its human audience, who, despite their stated communal preference, inevitably choose the ship, as it departs for warmer climes. Bishop's iceberg, however, is not simply a passive object of the human gaze. The iceberg itself returns the gaze – it 'stands and stares' at the observer – and, although 'stock-still' in repose, it threatens to 'wake' and 'pasture' upon the surrounding snowy ice, its 'field.' Figured as a nonhuman animal, the iceberg has a latent liveliness and agency.

In the twenty-first century, the choice posed at the beginning of Bishop's poem between the iceberg and the ship takes on a disturbingly literal meaning. With their construction of a choice between the means and object of travel, her lines seem to inadvertently point up the ironies of this industry. Antarctica received almost 75,000 tourists in the summer of 2019-20, the vast majority of them travelling by cruise-ship (IAATOa, 2020). This was a steep increase on the previous year's figures, continuing an exponential climb that has characterised the industry – with a dip during the Global Financial Crisis – since it began in earnest in the early 1990s. Travelling to Antarctica requires, for almost all tourists, first travelling by plane or ship to the bottom of South America, and then taking a cruise journey to the northern end of the Antarctic Peninsula. In doing so, they create a carbon footprint that has been estimated at 5.44t of CO₂ per passenger (Farreny et al, 2011) – higher than both the global and the highest national average (in the US) of emissions per person per year (Friedlingstein 2019: 1810). Cruise tourists thus contribute to the demise of the Peninsula's icescape even while they enjoy its aesthetic pleasures. Read in this context, 'The Imaginary Iceberg' becomes an unexpected poem of last-chance tourism.

In early 2020, the choice between iceberg and ship became suddenly redundant when the majority of global travel was put to an abrupt end by the COVID-19 pandemic. With cruise-ship tourism – including in the Antarctic – a significant vector in the pandemic, the future of the industry is currently uncertain. Whether the so-called 'Anthropause' (Rutz et al, 2020) will produce, like the Global Financial Crisis, only a hiccup in an otherwise steady rise of the sector or will prompt an entire rethinking of vessels, destinations, itineraries and experiences, remains to be seen (Frame and Hemmings, 2020). We are thus in a forced period of inaction and reflection on the cultural significance and physical implications of the ice continent as a tourist destination.

Iceberg tourism has been the subject of very little critical attention to date. While there is a robust body of scholarship focussed on the polar tourism industry, few studies look in any detail at the particular attractions and impact of encountering ice itself as part of this experience. One exception is Anita Lam and Matthew Tegelberg's 'Dark Tourism in Iceberg Alley,' which focusses on sightseeing off the Newfoundland Coast (along with the commercial harvesting of Arctic icebergs for bottled water and other drinks).¹ Lam and Tegelberg use the literary framework of noir crime narratives to approach their topic, making

a connection between the ‘mean streets’ of hardboiled fiction and the ‘alley’ along the coast of Canada where Greenlandic icebergs collect, to consider ‘how the human conquest of nature appears as a form of slow violence in the Anthropocene noir’ (146). Within this literary framework, Lam and Tegelberg read iceberg sightseeing as a form of ‘dark tourism’: ‘melting icebergs are transformed into nonhuman death spectacles for sightseeing tourists ... Couched in a narrative of purity, [iceberg consumption] has been sold in ways that conceal the dark, ecological costs associated with commodifying iceberg deaths’ (2020: 148).

While Lam and Tegelberg analysis is provocative and stimulating, it also provides an instructive example of the construction of a cryonarrative around a pre-existing generic framework, the noir crime narrative – one which imposes particular roles on the material environment, in this case figuring icebergs primarily as passive victims of human consumerism. In keeping with the materialist turn, Lam and Tegelberg contend that ice is agential with its own ‘vitality and liveliness’ (2020: 154), but they do so in order to interpret the melting of icebergs as equivalent to human death. In this conceptualisation icebergs, which are melting from (or before) the moment they calve, are therefore always dying.

Iceberg tourism in Antarctica necessarily takes a different form to that described by Lam and Tegelberg. While tourists in Newfoundland can ‘hunt’ icebergs on their own itineraries along coastal routes, guided by marketing material and an online app (Lam and Tegelberg 2020: 160), in Antarctica icebergs are almost entirely inaccessible to the independent tourist, aside from a small number of private yachts. Rather, Antarctic iceberg encounters are inevitably curated, with passengers viewing icebergs from a ship and, for more close-up encounters, in Zodiacs driven by guides. And while Lam and Tegelberg point to the ways that iceberg consumption is nationally fostered through government economic policies. Antarctica’s international status and governance provides different opportunities and risks. Operators must abide by the environmental specifications of the Antarctic Treaty System, but at present the industry itself – organised by the International Association of Antarctica Tour Operators (IAATO) – is largely responsible for setting standards around environmental impact.

This curation of the Antarctic experience opens the possibility that iceberg tourism could be deliberately framed in a way that both acknowledges the ‘darkness’ of the experience while remaining open-ended enough to turn this knowledge into positive action. Is it feasible that, as Adam Rogers hoped for A-68, icebergs might be used to galvanize tourists’ environmental consciousness through purposeful narrative framing? There are admittedly reasons to be sceptical of such a vision. Despite the long-standing idea, vigorously promoted by IAATO and individual operators, that Antarctic tourism creates ‘ambassadors’ for the continent, the evidence of this claim is mixed at best (e.g. Vila et al, 2016). And although tour operators already run on-board lectures raising awareness of anthropogenic warming, the timing, nature, extent and efficacy of such endeavours is not yet clear.

Nonetheless, the curated and self-organised nature of Antarctic tourism do open the possibility for purposeful story-telling, and existing citizen science activities suggest the potential for systematically engaging tourists in environmental endeavours (Farmer, 2020). IAATO’s advice to its members goes beyond the practicalities of visitor numbers per site and approach distances to animals to include less tangible of the experience, including how the operator mediates and markets the experience (IAATO 2020b and 2020c). The discourse of ‘last chance’ tourism, for example, is explicitly discouraged by IAATO in favour of an emphasis on protection. IAATO’s guidelines do not yet extend as far as advice to tour guides and on-board lecturers on framing particular encounters. It is possible, however, to imagine a tour experience that, through mediation, not only enables tourists to admire the aesthetics of icebergs as photogenic objects but also encourages them to contextualise their features – location, size, shape, colours, debris – within a travel narrative. Where might an iceberg have

travelled from and where is it headed to? How might human actions – particularly anthropogenic warming – have contributed to its source, its route and its fate? ‘Celebrity’ icebergs such as A-68 could be tied into this narrative in order to incorporate a broader context of thinning and destabilizing iceshelves against a background of natural calving.

Moreover, polar tourists’ encounters with icebergs are not only impacted by the way in which these objects are marketed and mediated, but also by the ‘pre-imaginaries’ they bring to their journeys – that is, ‘the narratives used to make sense of the touristic experiences’ (Bislev and Smed, 2018: 39, 36). One study found that icebergs were the second biggest element in tourists’ images of Antarctic prior to their travel (after penguins) (Bauer 2001: 156); people bring to Antarctica their own ‘imaginary icebergs.’ The cryonarratives that circulate in culture – via literature, film, non-fiction accounts and the media – provide a framework within which human-iceberg encounters take place. One important area of future research into the form and impact cryonarratives is qualitative analysis of the stories that tourists from different cultural backgrounds bring with them, and how these combine with both their own direct experiences of polar ice and the mediation offered by the operator. Here, I suggest that cryonarratives in which icebergs are characterised as continually travelling, rather than continually dying, provide tourists with a richer and more open-ended framework against which to consider their own environmental behaviour.

This chapter has put forward some reasons for characterising and narrating icebergs as dynamic co-travellers with their own histories and futures. The interest in the journey of the giant iceberg A-68 points to an appetite for such narratives, which could in turn be drawn upon to contextualize and frame tourist encounters with polar ice. Through such open-ended cryonarratives of travel, icebergs can be transformed from symbols of human destruction and doom or static objects of the tourist gaze to mobile, active and unpredictable planetary actors whose journeys are interconnected with our own.

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¹ There are 'iceberg alleys' in both the North and South Atlantic, with currents sweeping icebergs from the Arctic and Antarctic respectively down the coast of Labrador towards Newfoundland and northeast from the top of the Antarctic Peninsula.