

**GRIEVED TO DEATH: ECO-NECROTURISM AND EQUITABLE ACCESS TO THE WORLD'S DISAPPEARING
NATURAL WONDERS**

**POTENTIAL ALTERNATIVE TITLE: ECO-NECROTURISM AND PUBLIC LAND MANAGEMENT: LAST CHANCE
TOURISM, ECOLOGICAL GRIEF, AND THE WORLD'S DISAPPEARING NATURAL WONDERS**

Robin Kundis Craig and Katrina F. Kuh

ABSTRACT

Last Chance Tourism. 500 Places to See Before They Disappear. 100 Places to Go Before They Disappear. *As these (real) book titles attest, climate change—often in combination with loss of biodiversity—has created a new kind of ecotourism, which we term eco-necrotourism—the mournful desire to see natural wonders before they are lost or transformed forever. As a scholarly topic, eco-necrotourism emerges from the intersection of two separately-observed phenomena: the long-acknowledged phenomenon of last-chance tourism and the relatively recent naming and explorations of ecological grief. While these two phenomena have become active topics of discussion in other disciplines, this Article is the first, we believe, to discuss their intersection and the emergence of eco-necrotourism as legal problems. Thus, this Article's primary contribution to the legal literature is to demonstrate to readers—and hopefully to the public lands managers throughout the world who have so far resisted fully acknowledging the phenomenon—that eco-necrotourism is both real (at least for certain public natural wonders) and potentially important for land managers who must increasingly deal with climate change and its impacts. The exact implications of eco-necrotourism for managers will, of course, vary according to the impacts that a public space is actually experiencing and how tourism intersects with those impacts. Nevertheless, at least three consequences for management are worth considering: shared learning among similarly impacted public spaces; extending cultural memory of the impacted place; and, at least for some places, more creatively supervising access.*

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I. INTRODUCTION

Glacier National Park is losing its eponymous features. Created in 1910 as one of the United States' first ten national parks, Glacier National Park used to have over 100 glaciers that covered about 25 acres.¹ Now, only two dozen ice packs deserve the name "glacier," and they are all melting.² Within a few decades, there may be no glaciers left in Glacier National Park.³

For some, Glacier National Park's fate is one reason among many to get serious about climate change. For others, it's a reason to visit ASAP.⁴ Ignoring the 2020 "COVID blip," where only 1.7 million people visited, since 2016 Glacier National Park has entertained roughly 3 million tourists each year, a decided increase from its average of roughly 2 million visitors per year between 2008 and 2015.⁵

Welcome to the world of eco-necrotourism: recreational travel to see the world's natural wonders and species before they die.

In the larger tourism literature, as Part II will discuss in more detail, this kind of travel is generally referred to as "last chance tourism."⁶ We choose the less catchy moniker "eco-

¹ Scottie Andrew, *Some of Glacier National Park's glaciers have lost as much as 80% of their size in the last 50 years*, CNN TRAVEL (Sept. 16, 2020), <https://www.cnn.com/travel/article/glacier-national-park-melting-sc-trnd/index.html#:~:text=Global%20warming%20has%20accelerated%20glacier%20melt.&text=Between%201966%20and%202015%2C%20all,would%20be%20gone%20by%202020>.

² *Id.*

³ *Id.*

⁴ Marcello Rossi, *People Are Flocking to See Melting Glaciers Before They're Gone—Bringing Both Benefit and Harm*, ENSIA (Apr. 26, 2019), <https://ensia.com/features/melting-glaciers-tourism-impacts/>.

⁵ *Number of Recreational Visitors to Glacier National Park in the United States from 2008 to 2021*, STATISTICA (Mar. 2, 2022), <https://www.statista.com/statistics/253875/number-of-visitors-to-us-glacier-national-park/>. See also Rossi, *supra* note 4 ("At Glacier National Park in Montana, where the 26 active glaciers that remain of the original 150 or so are poised to vanish in a decade, the volume of visitors grew noticeably over the past five years.")

⁶ Raynald Harvey Lemelin, Emma Stewart & Jackie Dawson, *An Introduction to Last Chance Tourism*, in LAST CHANCE TOURISM ADAPTING TOURISM OPPORTUNITIES IN A CHANGING WORLD 4 (2012) (Lemelin, Dawson & Stewart eds.) [hereinafter LAST CHANCE TOURISM] (defining last chance tourism "as when 'tourists explicitly seek vanishing landscapes or seascapes, and/or disappearing natural and/or social heritage.'" (citation omitted). In the foreword, Kenneth Shapiro defines last chance tourism as "[t]he desire on the part of travelers to experience destinations motivated by the knowledge that these places are on the verge of changing, or disappearing, forever," *Id.* at xiv, and other

necrotourism” to emphasize that some of the emerging modes of last chance tourism derive from more than just a consumeristic desire to get all one can while one can, akin to K-Mart “blue light specials,” Black Friday shopping madness, and Disney’s marketing genius in releasing classic moves “from the vault” for purchase.⁷ Instead, and importantly, we engage as well the emerging literature on ecological grief, which increasingly documents that many people experience a real grieving process as beloved places visibly change under the triple influences of climate change, biodiversity loss, and the cumulative impacts of more traditional anthropogenic stressors such as pollution and development. Eco-necrotourism is one manifestation of this grief over the upcoming loss of a place, akin to a last bedside visit to a dying relative.

This Article deliberately limits its focus to public places valued primarily for their natural and ecological features. By “public,” we generally mean government-owned land set aside as a park, preserve, or place of recreation, although in some cases lands technically in private ownership but opened to the public might also be worth considering. Publicly-owned natural wonders often carry a presumption that they are at least nominally open to anyone who can meet the requirements (if any) for entrance. In many countries they are also often subject to the law and politics of indigenous or local resident claims or impacts, species protection, public preferences, and public financing. Finally, decisions about how these places are run and who can access them to do what are usually subject to public accountability and maybe legal challenge. Thus, to a degree much greater than for privately-owned natural wonders, eco-necrotourism will increasingly require governments to consider how and for whom they manage these natural wonders as part of these places’ climate change-driven transformation or loss.

The focus on places valued primarily for their natural and ecological features serves two purposes. First, these are the places on which climate change is likely to be a significant cause of their impending disappearance, making that disappearance less stoppable or reversible. Cultural wonders such as art and ruins are often not as subject to climate change’s influence. Second, while many—indeed, probably most—of these places are also subject to more immediately controllable human stressors such as pollution and development, it is the

contributors to the text define it as “a tourism trend whereby tourists travel to endangered natural sites to see them before they vanish or are irrevocably transformed.” Chris Lemieux & Paul Eagles, *Last Chance Tourism in Canada’s Protected Areas Management Implications and Emerging Ethical Considerations*, at 197. Other terms used to describe this activity include doom tourism, extinction tourism, catastrophe tourism, climate tourism, climate sightseeing, global warming tourism, and see it before it’s gone tourism. Lemieux, C. J., et al., *The End of the Ice Age?: Disappearing World Heritage and the Climate Change Communication Imperative*, 12 ENVIRONMENTAL COMMUNICATION 653–619 (2018) & Dawson et al., *Ethical Considerations of Last Chance Tourism*, 10 J. OF ECOTOURISM 250, 251 (2011).

⁷ Some scholars have characterized the last chance tourism market as a “unique interaction between humans and their environment in the context of a kind of ‘limited time offer’ imposed by global environmental change.” Lemieux, C. J., et al., *The End of the Ice Age?: Disappearing World Heritage and the Climate Change Communication Imperative*, *supra* note [], at 12.

foreseeability of climate change impacts, in combination with the likely inevitability of committed warming and relatively long times involved (e.g., decades for Glacier National Park) that both prompt a grief response and allow a last-chance tourism industry to emerge. Other anthropogenic means of destroying a place generally do not allow for the relatively long-term *anticipatory* grief that gives rise to eco-necrotourism. Intentional short-term destruction, like the Taliban's attack in February 2001 on the two giant Bamiyan Buddhas in Afghanistan,⁸ usually occurs too fast for anticipatory tourism. While many grieved the destruction—sometimes figured as an actual death⁹—*after* it occurred, neither the limited ability to anticipate the event nor the violence of its execution allowed for last chance tourism. In contrast, destruction through development, pollution, overuse, and climate change often proceeds as a “death by a thousand cuts,” with no one decision or event signaling broadly that the end is near.

This Article offers the first examination of last chance tourism and ecological grief as public lands management issues. It argues that both the increasing ability to project climate change's impacts on the world's natural wonders and the aspects of individual and cultural grief that eco-necrotourism encompasses should prompt the government agencies who manage these public spaces to anticipate new demands and needs—to be able to cooperate in developing increased scientific understanding of the changes occurring and humans' responses to them, to participate in extending and preserving cultural memories of iconic places and their transformation, and to think creatively about access during the transformation.

At the same time, we acknowledge that climate change, special natural places, and eco-necrotourism will interact in a variety of different ways, ranging from situations where last chance tourism makes little to no difference to the course of how the place disappears or transforms to situations where eco-necrotourists become the preventable cause of the place's decline or the tipping point stress that induces a transformation that the place might otherwise resist—at least for a few more decades.

This Article proceeds in four parts, exploring several different literatures in the process. Part II delves into the tourism and management literatures to explore last chance tourism and its relationship to climate change. Part III, in turn, looks to psychology to illuminate the recently described phenomenon of ecological grief. Part IV examines eco-necrotourism itself and new demands that managers should anticipate as a result of the collective anticipatory mourning of places that climate change is transforming. Specifically, Part IV posits first that the awareness of climate change's impacts should spur cooperative information exchanges among the world's public land managers with respect both to how certain kinds of physical, chemical, and biological changes are actually unfolding in ecological parks and, importantly, as to how human beings are actually responding to those changes. Second, one likely response will be demands to extend

⁸ *The Death of the Buddhas of Bamiyan*, MIDDLE EAST INSTITUTE (Apr.18, 2012), <https://www.mei.edu/publications/death-buddhas-bamiyan>.

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the cultural memory of the place. These demands may be archival—i.e., preservation of cultural through increased documentation (written, photographic, and film) of the place’s historical states of being, its current existence, the changes it experiences, and its ecological and cultural importance—but they will also likely be experiential and generational, taking the form both of increased demands to visit and increased virtual access, especially by young adults and children. Finally, for certain places, actual physical access is likely to become a management issue.

I. LAST CHANCE TOURISM IS A REAL PHENOMENON

A. Climate Change as a Driver of Change in Protected Places

Anthropogenic climate change is now accepted, both scientifically¹⁰ and legally,¹¹ to be to be a real phenomenon caused primarily by emissions of greenhouse gases from humans’ burning of fossil fuels such as coal, petroleum, and natural gas. While climate change’s trajectory over the next century could still be significantly influenced by stronger global policies to reduce anthropogenic greenhouse gas emissions,¹² scientists increasingly conclude that the accumulation of greenhouse gases in the atmosphere have probably already committed the world to a global average temperature increase of at least 2°C¹³; business-as-usual scenarios could push the increase closer to 4°C by 2100 or shortly thereafter.¹⁴

Climate change is already affecting many of natural places that humans have set aside legally as “special”¹⁵ at all levels of government—World Heritage Areas, national parks, state preserves, marine protected areas, and county and city parks, and a variety of other designations.¹⁶ Four federal protected parks in the United States aptly illustrate this reality.

In Florida, Everglades National Park is one bad hurricane away from transforming into something else. Rising seas and worsening storm surges are the primary climate change threats to the Everglades’ unique low-elevation and subtropical ecosystem, which is “home to many rare and endangered plants such as tropical orchids and herbs, some of which are found only in

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¹⁵ *E.g., What We Know About Climate Change*, NATIONAL PARK SERVICE (updated Aug. 20, 2015), <https://www.nps.gov/ever/learn/nature/ccintrosknow.htm> (noting that, in U.S. National Parks, “winter ranges of bird species have shifted north in more than 50 parks, small mammals’ habitats have shifted upslope in Yosemite, and conifer tree mortality has risen in four parks”).

¹⁶

south Florida.”¹⁷ As the National Park Service explains, “Nearly flat and surrounded on three sides by rising seas, Everglades National Park is already feeling the effects of a warming climate. Sea-level rise has brought significant changes that are being observed on the landscape, and more are sure to be seen in the years ahead.”¹⁸ Specifically, the global warming-induced increase in the rate of sea level rise around south Florida “threatens to outpace the ability of plants, animals, and processes of the Everglades, which are already being affected by sea-level rise in many ways, to adapt.”¹⁹ Sea-level rise is already causing groundwater and soils in the park to become salty (salinization), and it is unclear whether the variety of species that live in the park—and that constitute some of the major attractions for tourists—will survive.²⁰ Canals built in the early 20th century to drain the “swamps” for farmland and to control flooding now exacerbate the impacts of accelerating sea-level rise, providing “a pathway for salty ocean water and sediments to travel inland, especially during high tides or with the help of strong wind and surge from tropical storms. In recent years, the interior freshwater marsh has disappeared almost entirely, and nearby lakes have filled almost completely with marine sediments.”²¹

MORE EXAMPLES

Thus, even at the lower end of global warming projections, climate change has potentially devastating consequences for these natural wonders, which serve as places of recreation, scientific study, and education, generating experiences of relaxation, awe, wonder, sublimity, appreciation—and yes, also the experiences of mosquito bites, charred cooking over a campfire, and uncomfortable encounters with wildlife that provide the fodder of shared memories and funny tales in the future. For many people, these special public places become part of their lives—with the result that climate change has the potential to induce place-based grief. The clearest evidence of this grief is econecrotourism, a form of last chance tourism.

B. Last Chance Tourism: An Overview of the Literature

¹⁷ *Sea-Level Rise in Everglades National Park*, NATIONAL PARK SERVICE (updated Aug. 24, 2015), <https://www.nps.gov/ever/learn/nature/cceffectsslripark.htm>.

¹⁸ *Everglades: Climate Change*, NATIONAL PARK SERVICE (updated Feb. 26, 2018), <https://www.nps.gov/ever/learn/nature/climatechange.htm>.

¹⁹ *What We Know About Climate Change*, NATIONAL PARK SERVICE (updated Aug. 20, 2015), <https://www.nps.gov/ever/learn/nature/ccintrosknow.htm>.

²⁰ *Sea-Level Rise in Everglades National Park*, NATIONAL PARK SERVICE (updated Aug. 24, 2015), <https://www.nps.gov/ever/learn/nature/cceffectsslripark.htm>.

²¹ *What’s Happening to Cape Sable?*, NATIONAL PARK SERVICE (updated Sept. 9, 2015), <https://www.nps.gov/ever/learn/nature/cceffectscapesable.htm>.

Tourists have long travelled to witness perceived “lasts,” including everything from the final voyage of the *Queen Elizabeth II* to the last game played at the historic Yankee Stadium.²² This drive to travel to take advantage of last chances is known in the literature, unsurprisingly, as “last chance tourism” (LTC). Nevertheless, “[d]espite the historic existence of LCT (i.e. due to ongoing changes in built, socio-cultural, and political environments), the phenomenon has only recently received notoriety and traction because of an increased understanding and observation of environmental change brought about by climate change.”²³

In the context of last chance tourism motivated by perceptions of global environmental change, media attention preceded academic inquiry. Media and travel publications highlighted last chances to travel to see places with regularity in the 1990s, and by the early aughts numerous guidebooks focused on last chance tourism opportunities.²⁴ Scholars from numerous fields outside of law,²⁵ including leisure, tourism, anthropology, geography, and sociology, have since identified, defined, and examined different aspects of last chance tourism.²⁶ Indeed, Working Group II of the for the most recent (2021-2022) Intergovernmental Panel on Climate Change (“IPCC”) Fifth Assessment Reports, which focused on Impacts, Adaptation, and Vulnerability, raises last chance tourism in numerous contexts, often in the context of discussing the climate change impacts of tourism markets.²⁷ The IPCC report defines last chance tourism as “a niche tourism market of individuals who explicitly seek to visit vanishing landscapes and/or disappearing flora and fauna”²⁸ and identifies its occurrence in numerous locations, observing that “[c]limate-driven damage is motivating ‘last chance’ tourism to see key natural heritage and

²² Dawson et al., *Ethical Considerations of Last Chance Tourism*, *supra* note [], at 254.

²³ *Id.*

²⁴ Lemelin, Stewart, & Dawson, *supra* note [], at 3-4.

²⁵ A few legal scholars have touched on last chance tourism. Kristianna Anderson, Note, *Fatal Attraction: Preserving Polar Bear Populations Through Tourist Regulation in Norway’s Arctic*, 52 GEO. WASH. INT’L L. REV. 99 (2020) (discussing tourism regulation in Norway’s arctic); Lauren C. Lewis, Comment, *Unicorns of the Sea: Narwhals and Arctic Cruise Ship Tourism*, 20 OR. REV. INT’L L. 583 (2019) (analyzing arctic cruise ship tourism).

²⁶ E.g., LAST CHANCE TOURISM, *supra* note []; Harvey Lemelin & Paul Whipp, *Last Chance Tourism: A Decade in Review* 316, 317 in HANDBOOK OF GLOBALISATION AND TOURISM (2019). There is also a broader literature that examines the impacts of climate change on tourism, and tourism on climate change, more generally. See e.g. TOURISM, RECREATION AND CLIMATE CHANGE (Hall & Higham eds. 2005). For an overview of the myriad and complex ways that climate change and tourism intersect, see *id.* at Figure 1.1. In 2007, the UN World Tourism Organization, United Nations Environment Programme, and the World Meteorological Organization, with the support of the World Economic Forum and the Swiss Government, convened the Second International Conference on Climate Change and Tourism, in Davos, Switzerland, which produced the *Davos Declaration Climate Change and Tourism: Responding to Global Challenges* wherein participants underscored the intersections between tourism and climate change and endorsed the need for policies advancing the “quadruple bottom line” of environmental, social, economic, and climate responsiveness. MEETING THE CHALLENGES OF CLIMATE CHANGE TO TOURISM : CASE STUDIES OF BEST PRACTICE 255 (D’Amore & Kalifungwa eds. 2013).

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²⁸ Climate Change 2022: Impacts, Adaptation and Vulnerability, Working Group II IPCC Sixth Assessment Report at 1973 (citation omitted) [hereinafter “IPCC Working Group II Report”].

outdoor attractions, for example, [the Great Barrier Reef in Australia] . . . and Franz Josef and Fox Glaciers [in New Zealand]. . . .”²⁹

Despite the recent growth in academic attention, basic facts about last chance tourism remain unknown, uncertain, and unexplored. For example, the last chance tourism literature lacks a definitive accounting of the prevalence of last chance tourism. The growth of tourism in some climate-threatened areas and studies of traveler motivation indicate that the last chance phenomenon is real and likely growing,³⁰ and tourism scholars describe last chance tourism as an “evolving niche tourism market.”³¹ For example, in a survey administered to visitors to the Athabasca Glacier in Jasper National Park, in Alberta, Canada, “[t]wo of the top five motivational factors [for visiting] relate to the disappearance of the glacier, suggesting that visitors . . . are aware of the glacier’s accelerating retreat, and are coming to visit the glacier at least in part to see the evidence of this retreat.”³² Concepts of last chance tourism are also being invoked with respect to an increasingly wide range of geographies. While initially concentrated on the cold regions,³³ the concept of last chance tourism is now being discussed with respect to myriad other locations, including some that “may not be disappearing at all,” because “last chance tourism is perception-based and not necessarily grounded in actual vulnerability or impending extinction.”³⁴ Some scholars caution, however, that the extent of on-the-ground last chance tourism may be overstated by media accounts.³⁵

²⁹ 1625 (citations omitted).

³⁰ Lemelin & Whip, *Last Chance Tourism: A Decade in Review*, *supra* note [], at 318; Groulx, M., et al., *Motivations to Engage in Last Chance Tourism in the Churchill Wildlife Management Area and Wapusk National Park: The Role of Place Identity and Nature Relatedness*, 24 *JOURNAL OF SUSTAINABLE TOURISM* 1523-1540 (2016) (analyzing surveys of polar bear viewing tourists in Churchill, Canada and discerning evidence that tourists were motivated to visit because of last chance tourism) (“Overall, these findings reinforce the limited extant LCT literature that suggests a desire to consume vulnerable landscapes is a distinct and identifiable travel motivation.... They also support the proposition that LCT visitors seek to use exotic and authentic places to distinguish themselves as elite travellers....”) (citations omitted); Z. Abrahams, G. Hoogendoorn & J.M. Fitchett, *Glacier Tourism and Tourist Reviews: An Experiential Engagement with the Concept of “Last Chance Tourism,”* 22 *SCANDINAVIAN JOURNAL OF HOSPITALITY & TOURISM* 1 (2021) (finding some evidence of last chance motivation among travelers to a subset of glaciers but little evidence that it produces meaningful ambassadorship); Annah E. Piggott-McKellar & Karen E. McNamara, *Last Chance Tourism and the Great Barrier Reef*, 25 *JOURNAL OF SUSTAINABLE TOURISM* 397-415 (2017) (documenting a desire to see the Great Barrier Reef before it disappears in many travelers).

³¹ Jackie Dawson *et al.*, *Last Chance Tourism: A Race To Be Last?* 133, in *THE PRACTICE OF SUSTAINABLE TOURISM* (Hughes, Weaver & Pforr eds. 2015).

³² Lemieux, C. J., et al., *The End of the Ice Age?”: Disappearing World Heritage and the Climate Change Communication Imperative*, *supra* note [], at 10, 16 (“LCT motivation is a central part of the reason tourists visit the Athabasca Glacier in JNP.”).

³³ Lemelin & Whip, *Last Chance Tourism: A Decade in Review*, *supra* note [], at 317; Dawson *et al.*, *Ethical Considerations of Last Chance Tourism*, *supra* note [], at 251.

³⁴ Dawson *et al.*, *Last Chance Tourism: A Race to Be Last?*, *supra* note [], at 135. .

³⁵*Id.* at 138 (referencing the “disconnection between the extent to which last chance tourism is actually occurring on the ground and the disproportionate amount of attention the idea is attracting in the media”).

The existing literature on last chance tourism centers on questions oriented toward the tourism industry, such as marketing and economic impact.³⁶ Some themes and issues emerging from the existing literature on last chance tourism are, however, useful for thinking about this article's focus on econecrotourism and access.

As one example, last chance tourism can promote strategies for dealing with climate change. Early discussion of last chance tourism recognized that it is often connected to "first chance tourism," or the idea that "when something disappears, something else appears" such that "LCT (opportunities arising through vulnerability caused by changing conditions) is linked to first chance tourism (opportunities arising through new conditions)."³⁷ Climate change reshuffles tourist decisions in many ways and some destinations have even sought to promote what might be thought of as mitigation and adaptation tourism. The Tata Destination Region in Morocco, for example, sought to appeal to tourists in part by modeling mitigation and adaptation strategies:

Because of the interest in climate change from the major source markets to the region, including France, Germany, Spain and England, it was decided to highlight climate change as a theme. Two sub-themes were also developed:

(a) Living with a hotter climate: the people of the region are familiar with adapting to and coping with 50°C-plus temperatures. Their architecture, lifestyle and customs reflect these conditions and provide important lessons for their western European market.

(b) Visiting a low-carbon destination: This implies converting the region from one of relatively high carbon consumption, from both the residents and tourists, to one that conscientiously seeks to reduce carbon emissions.

The tourism development criteria and project proposals were based on these two themes.³⁸

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³⁷ Margaret Johnston, Arvid Viken & Jackie Dawson, *Firsts and Lasts in Arctic Tourism*, in *LAST CHANCE TOURISM* at 16. Examples of first chance tourism might include "paddling to the North Pole instead of skiing, new expedition cruise itineraries throughout the arctic" because "[w]ith changes in the extent, thickness, and distribution of sea ice, coastal sites and communities formerly inaccessible will become more accessible, especially for marine transportation." *Id.*

³⁸ James MacGregor, *Combating Climate Change Through Strategic Destination Planning: A Quadruple Bottom Line Approach*, in *MEETING THE CHALLENGES OF CLIMATE CHANGE TO TOURISM: CASE STUDIES OF BEST PRACTICE* 165-66 (D'Amore & Kalifungwa eds. 2013). See also *id.* at 172 ("What was initially considered a "negative" – the increased regional temperatures due to climate change – became a "positive" feature. It was possible to exhibit to tourists: (a) The impact of carbon emissions and subsequent global warming on the destination (and in particular, a desert

Although the focus of this article is on vulnerable, disappearing environments and related management considerations, it is important to note that the creation of first chance tourism resulting from dynamic environmental conditions (and perhaps even mitigation and adaptation tourism) can likewise present important new questions relating to management.

C. The Ethics of Last Chance Tourism

The last chance tourism literature reflects significant unease about, and growing exploration of, ethical aspects of last chance tourism. This includes ethical questions relating to the “sustainability paradox.”³⁹ The “paradox between sustainability and last chance tourism” reflects the fact that visitation, through transport emissions that exacerbate climate change as well as direct local impacts, contributes to degradation of last chance destinations.⁴⁰ In evaluating last chance tourism from the perspective of the leisure and tourism industry, a question often raised is whether “by rushing to see these fragile destinations, tourists are hastening their demise. In other words, by calling attention to these places, we run the risk of doing further damage – we are loving them to death,”⁴¹ or, in the words of other scholars, “loving an already dying destination to an early death.”⁴²

Although tourism contributed an estimated 5% to 14% to overall warming (predominately as a result of emissions from aviation) in 2005, with significant growth projected,⁴³ and although last chance tourist destinations have historically been relatively remote (requiring significant transportation emissions to access), studies suggest little traveler concern about the impact of their travel on destination environments.⁴⁴ One researcher, observing “that the carbon impact of participants’ travel behaviours is at clear odds with their

environment); and (b) Local, traditional knowledge practices that can demonstrate how to effectively live in a hot environment (i.e., with a warming planet). These two messages are very compelling and, when tested, proved to appeal to the current (and presumably future) visitor market.”)

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⁴⁰ Lemelin & Whipp, *Last Chance Tourism: A Decade in Review*, *supra* note [], at 317. Notably, the IPCC recognizes that “[t]he ethics of promoting LCT has been questioned considering that more visitation to sensitive sites increases local impacts as well as travel-related emissions.” IPCC Working Group II Report at 1973 (citations omitted).

⁴¹ Kenneth Shapiro, Foreword, xv-xvii *LAST CHANCE TOURISM*, *supra* note [].

⁴² Dawson et al., Ethical Considerations of Last Chance Tourism, *supra* note [], at 255.

⁴³ Fotiou et al., *Climate Change Adaptation and Mitigation in the Tourism Sector: Frameworks, Tools and Practices 15* (2008). **[NOTE, NEED TO UPDATE THIS NUMBER?]**

⁴⁴ Johnston, Viken & Dawson, *supra* note [], at 34 (“[V]isitors appears to be only marginally aware of their own direct impact on the Antarctic environment and of their indirect impact through the greenhouse gas emissions caused by their trips. They also do not appear too concerned about it....”).

self-perception as being concerned about climate change and connected to nature,” refers to it as the last chance tourists’ “penchant for doublethink.”⁴⁵

While the last chance tourism literature often expresses hope about the potential for last chance tourism to yield environmental benefits through education and consciousness raising,⁴⁶ data about whether or to what extent last chance tourism fosters pro-environmental behavior or prompts visitors become ambassadors⁴⁷ for conservation are mixed and uncertain.⁴⁸ One study of cruise ship tourism in Antarctica found that the greenhouse gas emissions produced by these trips is approximately eight times higher than that of the average international tourism trip and discerned no beneficial impact on the environmental concern and motivation of travelers.⁴⁹

The sustainability paradox is often considered in evaluating the propriety of marketing locations as last chance destinations.⁵⁰ Some researchers argue that transportation emissions from tourism and global environmental impacts must be considered in evaluating ecotourism, and last chance tourism, as an economic development strategy. One researcher, arguing against ecotourism as a form of economic development in the Solomon Islands in light of associated

⁴⁵ Groulx, M., et al., *Motivations to Engage in Last Chance Tourism in the Churchill Wildlife Management Area and Wapusk National Park: The Role of Place Identity and Nature Relatedness*, *supra* note [], at 1536.

⁴⁶ Chris Lemieux & Paul Eagles, *Last Chance Tourism in Canada’s Protected Areas*, in *LAST CHANCE TOURISM*, *supra* note [], at 207 (observing that “[p]arks offer the potential to educate millions of visitors annually on climate change impacts and their implications for natural assets” while conceding that “[t]he role of tourism in environmental education is well known, but how exactly last chance destinations are used for education efforts have only been explored in a nominal way.”); Groulx, M., et al., *Motivations to Engage in Last Chance Tourism in the Churchill Wildlife Management Area and Wapusk National Park: The Role of Place Identity and Nature Relatedness*, *supra* note [], at 1535 (“[T]here may be an opportunity to use these concepts to rethink how visitor experiences in parks and protected areas might create places of social connection that can motivate climate action.”).

⁴⁷ The bylaws of the International Association of Antarctica Tour Operators, a group founded to promote the safe and environmentally responsible private-sector travel to the Antarctic, for example, includes as an objective: “To create a corps of ambassadors for the continued protection of Antarctica through education and the opportunity to experience the continent first hand.” IAATO Bylaws, Article II, Section H.

⁴⁸ Lemelin & Whipp, *Last Chance Tourism: A Decade in Review*, *supra* note [], at 319; Jamie D’Souza, Jackie Dawson & Mark Groulx, *Last Chance Tourism: A Decade Review of a Case Study on Churchill, Manitoba’s Polar Bear Viewing Industry*, *J. OF SUSTAINABLE TOURISM* 3 (2021) (“Existing research suggests that tourists can create an emotional bond with the environment and may in turn be encouraged to make positive changes to their lifestyles and behaviours at home.... However, such changes may be rather dependent on individual context, as LCT studies have also shown an inconsistency between tourists’ values towards environmental issues and behaviours.”) (citations omitted); Miller, et al., *On the Edge of the World: Examining Pro-Environmental Outcomes of Last Chance Tourism in Kaktovik*, 28 *J. OF SUSTAINABLE TOURISM* 1703–1722 (2020) (summarizing studies, concluding that the connection between last chance tourism and pro-environmental outcomes is complex and context-dependent, and suggesting some strategies for structuring the last chance tourism experience to better promote pro-environmental outcomes).

⁴⁹ Eke Eijgelaar, Carla Thaper & Paul Peeters, *Antarctic Cruise Tourism: The Paradoxes of Ambassadorship, “Last Chance Tourism” and Greenhouse Gas Emissions*, 18 *J. OF SUSTAINABLE TOURISM* 337-54 (2010).

⁵⁰

transportation emissions, observes that it is not “a stable environment where considerable resources should be used to develop a hitherto virtually non-existing activity which probably contributes to the problem” of climate change.⁵¹ On the other hand, last chance tourism can provide badly needed economic benefits, including in places that are highly vulnerable to the impacts of climate change.

Last chance tourists tend to be extremely privileged, wealthy and well-educated residents of the Global North.⁵² This fact provides another ground for questioning the ethics of profiting from last chance tourism. One scholar connects last chance tourism to colonialism, observing:

While the nature of Empire has subtly changed, from colonial power to a boundless global capitalism, the role of ecological sovereignty remains much the same. Today, as we have already noted, another process has come to the fore where ecologically oriented travel is concerned. For if the explorer’s appointed task was to be the *first to see* and ‘bring home’ some aspect of the natural world, thereby accruing both ‘symbolic’ and ‘material’ capital for themselves and their imperial employers, then the over-exploitation of the natural world that this process directly fuelled has altered the situation considerably. The process of objectification that marks the excision of ethical relations to the world’s other (more-than-human) inhabitants is now party to the destruction of the natural world on an unprecedented scale. Today it is the scarcity of species and habitats due to their treatment as nothing more than ‘resources’ for states and corporations that adds urgency to bio-prospecting and to ecologically oriented travel in general.⁵³

Other scholars raise concerns about the potential harms of suggesting that local populations, particularly Indigenous people, are disappearing along with the environments they inhabit. These scholars emphasize the need for education to inform visitors “that while sites may be transformed through climate change, local people are living and adapting to these changes, and will continue to do so in the future.”⁵⁴ Focusing on the “social, cultural and political dimensions

⁵¹ Eke Eijgelaar, “Last chance to see the Solomon Islands?” *Response to Marlies Haider*, 1 *TOURISM DESTINATION MANAGEMENT INSIGHTS* 1, 8 (2017).

⁵² Groulx, M., et al., *Motivations to Engage in Last Chance Tourism in the Churchill Wildlife Management Area and Wapusk National Park: The Role of Place Identity and Nature Relatedness*, *supra* note [], at 1526 (“The LCT market is composed largely of wealthy, well-educated individuals from industrialized western countries (e.g. Germany, Australia and United States), and includes a higher proportion of females (citing Dawson et al., 2010; Eijgelaar, Thaper, & Peeters, 2010).”).

⁵³ Mick Smith, *The Biopolitics of Last Chance Tourism*, *in* *LAST CHANCE TOURISM*, *supra* note [], at 159.

⁵⁴ *Id.* at 171.

of last chance tourism and its impact on local populations,” they urge recognition that local populations are not disappearing, they are adapting:

[I]f people are coming to visit the Arctic because they believe it is disappearing, they can through experiential tourism and interpretation be challenged on these opinions. They can also be shown how the communities are dealing with, and adapting to climate changes. Therefore, the experience does not have to be all about doom and gloom, it can also be about strength and resilience.⁵⁵

D. Managers’ Responses to Last Chance Tourism

Another interesting insight from the last chance tourism literature is that attitudes of natural resource managers⁵⁶ about last chance tourism are complex and conflicted. Managers are often uncomfortable with treatment of the lands that they manage as last chance tourist destinations. One survey, for example, found that managers were “quite concerned with their destination being listed” as a last chance tourist destination “due to the negative connotations that last chance tourism has with their mandates of sustainability and protecting natural resources for future generations.”⁵⁷ Managers explained:

that protected area management mandates revolve around research, protection and education of the public, and to assist in managing natural areas for their evolution over time, so that no one ever ‘will be facing the last chance’ to experience these destinations. As such, last chance tourism, in the minds of many of the respondents, but especially protected area personnel, is a term that is at

⁵⁵ Raynald Harvey Lemelin & Gary Baikie, *Bringing the Gaze to the Masses, Taking the Gaze to the People the Socio-Cultural Dimensions of Last Chance Tourism*, in *LAST CHANCE TOURISM*, *supra* note [], at 168-69.

⁵⁶ Tour operators likewise appear resistant toward “last chance” framing; researchers suggest that media may play the largest role in focusing on last chance tourism. Jamie D’Souza, Jackie Dawson & Mark Groulx, *Last Chance Tourism: A Decade Review of a Case Study on Churchill, Manitoba’s Polar Bear Viewing Industry*, *J. OF SUSTAINABLE TOURISM* (2021) (“Studies to date show little to no evidence that tour operators themselves are supporting the concept of LCT, nor are they marketing their industry as such

.... Promoting the vulnerability and potential disappearance of their attractions would seem contradictory for these industries.... Instead, visual, written, and verbal communications carrying messages about LCT destinations tend to be transmitted by media sources like news outlets, travel writers, social media, and television programs....”) (citations omitted).

⁵⁷ Daniel H. Olsten, Rhonda L. Koster & Nicki Youroukos, *Last Chance Tourism? Public Sector Views of Marketing Endangered Tourism Destinations in North America*, in *LAST CHANCE TOURISM*, *supra* note [], at 109,

odds with sustainable management strategies and ideals.”⁵⁸ As explained by one manager, “Our mission . . . is to preserve and protect this unique place for today and *future generations*. A designation like last chance leaves little hope for those future generations.”⁵⁹

Managers resisted the characterization of areas that they managed as disappearing or dying: “While acknowledging that they are preparing for and studying the effects of climate change on the protected area ecosystem, this group of respondents did not see their destination as being under the threat of disappearance, but rather evolution and change.”⁶⁰

Despite the reticence of natural resource managers to embrace last chance tourism, the last chance tourism literature recognizes a key role for managers with respect to managing both direct and indirect (emissions) impacts from last chance tourism:

LCT in protected areas has the potential to generate a host of impacts on local environments, economies, social networks and on visitors themselves. Some will be positive (e.g. revenue reinvestment in conservation initiatives) while others will be negative (e.g. biophysical impacts from infrastructure). As both gatekeepers and stewards, park agencies and tour operators have a key role to play in monitoring and mitigating such impacts. Clearly, this includes impacts related to the production of greenhouse gases from visitors willing to overlook the externalities of their travel choice . . . , which in Churchill (1.548.61 t/CO₂) can be » 634 times higher per visitor that the average tourism experience (0.25 t/CO₂)....⁶¹

Last chance tourism researchers emphasize the importance of last chance tourism for natural resource managers, observing that “given the realities of climate change and the fact that many media actors are already shaping motivations within the LCT marketplace, it is dangerous for managers to simply ignore the existence of this motivation and its implications for meeting the mandate of parks and protected areas.”⁶²

⁵⁸ *Id.* at 109-110. See also *Id.* at 111 (“The messages we want to convey are clearly laid out in our legal mandate and supporting legislations, and are along the lines of ‘these things are here for you and your children.’ The concept of ‘you’d better come now because your kids won’t get to’ isn’t really part of our culture.”).

⁵⁹ *Id.*

⁶⁰ *Id.* at 110.

⁶¹ Groulx, M., et al., *Motivations to Engage in Last Chance Tourism in the Churchill Wildlife Management Area and Wapusk National Park: The Role of Place Identity and Nature Relatedness*, *supra* note [], at 1536.

⁶² Lemieux, C. J., et al., *The End of the Ice Age?": Disappearing World Heritage and the Climate Change Communication Imperative*, *supra* note [], at 17.

At this point, however, the last chance tourism literature does not directly engage with central questions relating to management of and access to the disappearing environments most likely to become last chance tourism destinations. One group of last chance tourism scholars, however, recognizes the importance of exploring these questions:

The ethical dimensions of LCT management (e.g. what species or other valued resources should be saved and what are the obligations to future generations who will have to live with, and possibly bear the costs associated with, management decisions made today) clearly require further deliberation in public policy on biodiversity conservation throughout the world. Whose ethical beliefs and standards will determine the management approach pursued? What role does the local voice have compared with national or international interests, especially when the vulnerability extends to the interaction of local people with their resources that happen also to be tourism resources?⁶³

III. ECOLOGICAL GRIEF IS A REAL PHENOMENON

DEVELOP GRIEF LITERATURE

IV. IMPLICATIONS OF ECO-NECROTOURISM

- A. Shared Learning Among Similarly-Impacted Places
- B. Extending Cultural Memory of the World's Disappearing Natural Wonders
- C. Supervising Access

CONCLUSION

⁶³ Dawson et al., *Ethical Considerations of Last Chance Tourism*, *supra* note [], at 260.