

## **The Worth of Nature: Valuations of Glaciers in Alaskan and Norwegian Media Discourse**

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### **Abstract**

This article presents a comparative case study of public valuation of glaciers in Alaska and Norway. The first case examines Alaska's Mendenhall Glacier, which has been central in public debate over the U.S. Forest Service's proposed expansion of the Mendenhall Glacier Recreation Area. The second case centers on Norway's Svartisen glacier, which garnered international attention when the startup company, Svaice, announced its intent to extract glacier ice cubes for cocktail coolers at high-end bars and restaurants. A rhetorical analysis of newspaper coverage relevant to each case reveals that in both debates, instrumental, relational, and intrinsic values are attributed to the respective glaciers, and that government, business, and community actors hold the most power in these conversations. However, nuances within articulations of instrumental value suggest that Norwegian actors strive to balance human and glacier needs, whereas Alaskan actors largely prioritize human needs by constituting the glacier as a utilitarian object.

**Keywords:** Environmental value, glacier, Alaska, Norway, public debate

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The melting glacier is a powerful visual symbol of our warming planet. Many glaciers have already been lost to climate change, and many more are projected to disappear in the coming century (Rounce et al., 2023). As the funeral for the now deceased Icelandic glacier, Okjökull, demonstrates, the loss of a glacier can significantly impact the public memory, heritage, and identity of those around it (Bruns, 2021). However, a glacier's disappearance can also have tangible effects on a community's revenue stream, employment, and long-term financial security (Liestøl et al., 2020). Consequently, the worth of glaciers—already precarious due to the criteria that define their living status (Bruns, 2021)—is constantly negotiated in terms of cultural and economic value.

Environmental valuation is a growing area of scholarship, with researchers from across disciplines investigating everything from the Mississippi River (Warren, 2021) to the Amazon rainforest (Strand et al., 2017). While these studies are telling about how environmental problems are represented in discourse, many analyses center on only one national context, even though “both consequences and responses to environmental crisis differ depending on local politics and local dependency on the environment, as well as cultural understanding” (Sjölander-Lindqvist et al., 2022, p. 1). A cross-cultural comparison of discourse about glaciers, which exist on every continent except Australia (USGS, n.d.), thus speaks to how the “different ways people's voices are communicated, perceived, and manifested” (Sjölander-Lindqvist et al., 2022, p. 14) affect how nature is valued in different contexts.

This article attempts this comparison via two ongoing cases in which value tensions are particularly pronounced. The first focuses on Alaska's Mendenhall Glacier, which has been at the center of a U.S. Forest Service (USFS) proposal to balance increasing tourism with long-term glacial preservation (USFS, 2019). The second centers on the Northern Norwegian glacier,

Svartisen, which made headlines when the startup company, Svaice, announced its intent to turn the melting glacier into cocktail coolers to be sold at high-end bars and restaurants (O'Connor, 2015). We conduct a rhetorical analysis of newspaper coverage of these controversies using analytical categories termed “orders of worth,” or a set of collective principles that evaluate individual viewpoints to identify common values that are generalizable and universally important (Boltanski & Thévenot, 2006 [1991]; Thévenot et al., 2000), to explore how stakeholders in each case mobilize, negotiate, and assign value to these icy beings.

We find that in both cases, glaciers are attributed instrumental, relational, and intrinsic value by government, business, and community actors. However, nuances within articulations of instrumental value suggest that Norwegian stakeholders strive to balance human and glacier needs, whereas Alaskan stakeholders largely prioritize human needs by constituting the glacier as a utilitarian object. Furthermore, we suggest that these perspectives reflect dominant views of nature that warrant further investigation and unpacking if we are to associate local biodiversity loss with global climate change.

In what follows, we explore how environmental values have materialized within larger contexts of U.S. and Norwegian environmental discourses. We then situate the cases that ground this study before accounting for our material and analytical approach. Afterwards, we present the findings of a rhetorical analysis of newspaper coverage relevant to each case, followed by a comparison of these results. Finally, we consider how environmental values are currently shaping intergovernmental Arctic decision-making and how embracing more diverse values may aid in tackling global climate change.

### **U.S. and Norwegian Environmental Discourses**

How humans perceive and value nature has significant implications for environmental decision-making (Pascual et al., 2022). Because it is beyond the scope of this paper to review all environmental value research, the following section will explore how instrumental, intrinsic, and relational values have materialized in U.S. and Norwegian environmental discourses specifically.

Initially, instrumental values ascribe worth to nature based on its economic utility to humans (Chan et al., 2016). This approach aims to measure and assign the “true value” of the environment, which arguably can assuage disagreement over the worth of nature and streamline public policy and decision-making (Matulis, 2014). However, assessing the environment quantitatively ignores alternative ways of knowing that can support environmental conservation, thereby “excluding the wide diversity of human-nature relationships and marginalizing peoples who hold these diverse views and experiences” (Luxon, 2019, p. 322).

By contrast, intrinsic values assign inherent worth and moral significance to nature independent of humans (Justus et al., 2009). This perspective seeks to recognize “socio-ecological and moral concepts like justice and solidarity” (Luxon, 2019, p. 322) and can foster a strong environmental attachment that is useful in inspiring conservation (Noss & Cooperrider, 1994). However, the immeasurability of morality and justice (Justus et al., 2009) makes intrinsic value challenging to define, and the approach has been criticized for overlooking humans’ personal attachment to the environment (Chan et al., 2016).

Finally, relational values acknowledge human dependence on nature for identity and survival (Hourdequin & Wong, 2005). This perspective honors human interaction with, care of, and responsibility for the environment (Chan et al., 2016), echoing the principles of ancient Indigenous, Chinese, and Greek philosophies (Neuteleers, 2020). While it is still unclear how

useful relational values are to environmental decision-making (Chan et al., 2016), it has been posited that “a relational-value framing will be more inclusive and responsible to known aspects of sources of well-being...than instrumental and intrinsic values, particularly when addressing how people make decisions and what they care about” (Klain et al., 2017, p. 2).

Together, instrumental, intrinsic, and relational values have shaped environmental discourses in the U.S. and Norway. In the U.S., ecological consciousness was initiated in the 1800s, when preservationists such as John Muir (Oravec, 1981) and Carleton Watkins (DeLuca & Demo, 2000) inspired relational attachment to and public interest in protecting untouched wilderness (Nash, 2001). In the mid- and late 1900s, environmentalism gained traction following publications such as Aldo Leopold’s “land ethic” (1987 [1949]) and Rachel Carson’s *Silent Spring* (1962). However, by the early 20th century, a competing conservation discourse had emerged that emphasized “the wise and efficient use of natural resources” (Merchant, 2005, p. 128) and shifted American environmental values towards the instrumental, which has since stimulated market-based systems like environmental credits (Robertson et al., 2014).

The preservationist focus of American environmentalism also appeared in early Norwegian discourse. In the early 1950s, a previous view of nature as a robust and everlasting entity was replaced by a view of nature as a fragile body with intrinsic value, necessitating protection from human activity (Andersen, 2017). By the 1970s, influential figures like Arne Næss (1973) inspired a deep ecology movement, which framed environmental debate around a significant outdoor recreation industry and highly vocal protests against developments in vulnerable nature and on Indigenous land (Anker, 2020). From around 1990, Norwegian nature was gradually redefined as “a life supporting production system” for humanity (Andersen, 2017,

p. 319-320); consequently, arguments for environmental protection increasingly shunned the intrinsic value of nature in favor of cost-benefit conservation approaches that treat nature as a resource to be used, but in a manner that does not diminish its utility for humans (Andersen, 2017; Berntsen, 2011).

Climate change has become the focal point of recent environmental debates and policymaking in both the U.S. and Norway (Anker, 2018; 2020; Pezzullo & Cox, 2018), spurred by rising media attention compared to other ecological losses (Bjærke, 2019; Legagneux et al., 2018). In both countries, climate reporting has been largely event-driven and focused on conflict, disaster, and risk (Friedman, 2015; Painter, 2013), resulting in storytelling that frequently perpetuates colonial and capitalist perspectives and neglects Indigenous voices, practices, and knowledge systems (Callison, 2022; Tegelberg, 2021). However, environmental journalism is beginning to highlight biodiversity loss, supported by extensive media coverage of the first global status report from the UN Nature Panel (IPBES, 2019) and journalism's widespread adoption of the term "nature crisis" (Bjærke & Andersen, 2023). Investigations of journalistic coverage of ecological mourning, such as the precarity of the Great Barrier Reef (Bruns, 2020) and the recent "death" of the Icelandic glacier Ökjökull (Bruns, 2021), suggest that media coverage of environmental loss can help amplify local biodiversity challenges to a global level and facilitate alternative orientations to the environment other than the purely instrumental (Hawhee, 2023).

The evolution of American and Norwegian environmental discourses demonstrates a rich history of instrumental, intrinsic, and relational value in both countries. The remainder of this

article will investigate how these values are referenced and represented in mediations of public debate surrounding two icy environments: Mendenhall Glacier and Svartisen.

### **Cases: Mendenhall and Svartisen Controversies**

Glaciers are a recognizable feature of Alaska and Norway, where cool northern climates, mild summers, and generous snowfall provide the precise conditions for developing and sustaining glacial ice (Andreassen, 2022; National Park Service, 2021). However, rising temperatures have dire implications for glaciers in both Arctic regions.

In Alaska, an inventory of the Juneau Icefield reveals that 63 glaciers have disappeared since 2005, reducing the glacier area by roughly 10% (Davies et al., 2022); similarly, twenty glaciers have disappeared in Norway since 2006, and the remainder are described as “very sensitive” to changing climatic conditions (Andreassen, 2022, p. 4). These losses affect local communities, as glaciers are critical to hydropower and tourism and closely intertwined with city revenue and employment (Liestøl et al., 2020). Glaciers also play a critical role in immediate and adjacent biodiversity, with glacial retreat affecting ecosystems such as glacier algae and alpine birds (Stibal et al., 2020). This article compares two glacial controversies in which these human and environmental tensions are especially acute.

Our first case focuses on Alaska’s Mendenhall Glacier, which has been at the center of a USFS proposal to balance increasing tourism with long-term glacial preservation (USFS, 2019). With visitation to Juneau expected to increase 2-4% per year, Mendenhall Glacier and its surrounding Mendenhall Glacier Recreation Area (MGRA) face considerable challenges, including “congestion, long waits, under-capitalized opportunities, and inadequate visitor facilities” (USFS, 2019, p. 2). In 2019, the USFS proposed expanding the MGRA in order to guide the short- and long-term demands of the area and better balance the needs of the glacier

with those of the community. However, public response to the proposal was mixed, and as of February 2023, the plan is undergoing its third public comment period (Canny, 2023).

Our second case concerns the Northern Norwegian glacier, Svartisen, which made headlines when the startup company, Svaice, announced its intent to turn the melting glacier into cocktail coolers to be sold at high-end bars and restaurants (O'Connor, 2015). Svaice received financial support from the county municipality and the enterprise managing state-owned forest and mountain real estate, Statskog, to realize the project. However, the effort attracted massive media attention (O'Connor, 2015) and incited protests by environmental organizations, the tourist industry, and local and national politicians. Moreover, the controversy inspired the novel *Blå* (Lunde, 2017), where the main character sabotages a fictitious company that extracts ice from a fictitious glacier. In May 2019, after a lengthy bureaucratic process, the municipality decided to put the controversial ice cube project on ice (Lysvold, 2019).

In the analysis that follows, we show how media coverage in each location represented the proposals to utilize Mendenhall and Svartisen, and how the stakeholders involved mobilized, negotiated, and assigned value to these precarious ecological bodies.

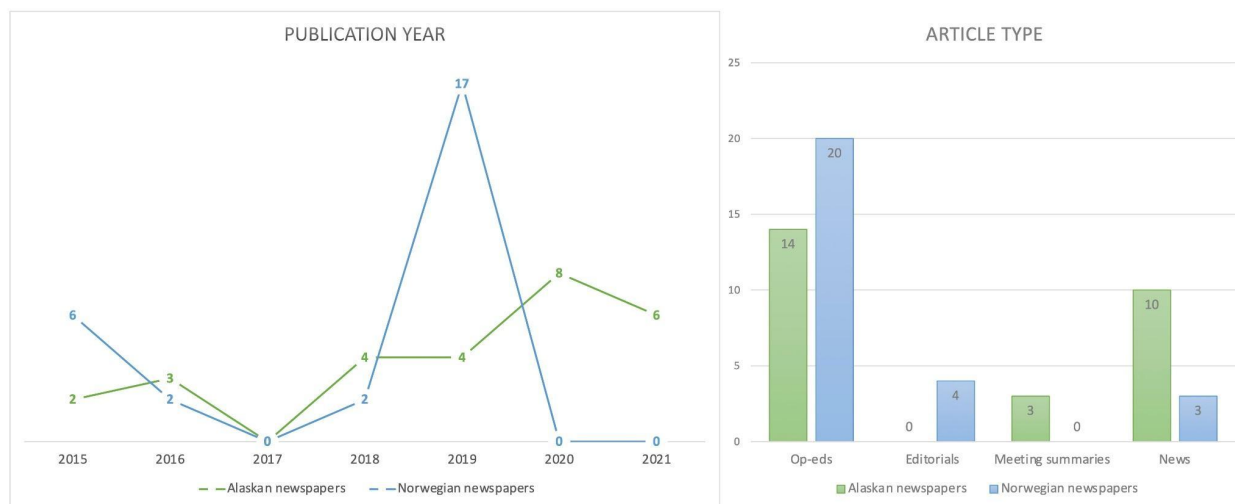
### **Materials and Methods**

This article compares glacial worth in Alaska and Norway by rhetorically examining newspaper discourse. Discursive data were collected using library databases that contained most local, regional, and national newspapers relevant to each controversy (*Access World News* in Alaska and *Retriever* in Norway). Separate search strings were used for each case (“Mendenhall Glacier Recreation Area” OR “MGRA” OR “Mendenhall Visitor Center” in Alaska, “Svaice” AND “Svartisen” in Norway), and data for both cases were gathered between January 2015 and December 2021 to accommodate the starts of both controversies.



The above constraints yielded 218 Alaskan newspaper articles and 268 Norwegian newspaper articles. Following initial data collection, we independently narrowed each dataset to remove duplicates and establish relevance. Given our interest in how environmental values are invoked in public arguments, we paid particular attention to opinion and editorial pieces, which are used to articulate and provide rhetorical evidence for an individual’s position on an issue. Following this data cleaning, a final dataset of 27 Alaskan and 27 Norwegian newspaper articles remained; a breakdown of these articles is shown in Figure 1, and full lists of collected data can be found in the Appendix.

**Figure 1:** Alaskan and Norwegian article dataset



We conducted a rhetorical analysis of these articles to examine how each glacier was assigned value, and how these values were mobilized and negotiated by stakeholders. The aim of this analysis was to understand how these texts referenced and constituted a specific part of nature and how different actors’ strategic use of rhetoric influenced community attitudes and decisions about their respective environments (Peeples, 2015; Pezzullo & Cox, 2018). For the purposes of this paper, our rhetorical analysis was guided by the analytical categories termed “orders of worth.”

First described by Boltanski and Thévenot (2006 [1991]) and expanded by Thévenot et al. (2000), the orders of worth are a set of collective principles that aim to evaluate what is universally valuable and important, thereby exchanging individual viewpoints for generalizable claims based upon the common good. Specifically, this typology presents seven argumentative justifications of worth: market (short-term profit), industrial (long-term efficiency), civic (collective welfare), domestic (tradition and identity), inspiration (emotion), renown (fame), and green (Thévenot et al., 2000). These orders have been used in previous cross-cultural case studies to examine how public good justifications are invoked in debates over political action or policy (Thévenot et al. 2000) and to compare changing valuations of “nature” and “the environment” within one national context (Andersen, 2017). Applying these orders can reveal shared argumentative logic across a community, but merely identifying these justifications says little about the deeper instrumental, relational, and intrinsic values that ground these arguments and the ways in which these values are weighed, contested, and negotiated by individual actors or factions within the group. To address this, we employed the orders of worth to guide a rhetorical analysis of newspaper texts and then used these results to inform our deeper understanding of how the glaciers in each case were assigned value.

In the following analysis, each article was first read for coherency and understanding and then again with attention to the orders of worth (Thévenot et al., 2000). A third reading was conducted to identify rhetorical exemplars of these orders, and these exemplars were then read a final time through the lens of contemporary discussions about environmental values (e.g. Klain et al., 2017; Neuteleers, 2020). The resulting process allowed us to move inductively and deductively between the material, the orders of worth, and broader environmental values to interpret the content, function, and mobilizers of these values in each mediated controversy. The remaining sections summarize and compare the findings of each case.

## Case #1: Mendenhall Glacier Recreation Plan

### *Mendenhall the Material: The Profitability of MGRA*

Mendenhall Glacier's significance to tourism makes it unsurprising that discourse surrounding the MGRA proposal primarily constructed the glacier in economic terms. Specifically, newspaper coverage of the MGRA proposal revealed the use of market worth and industrial worth justifications to demonstrate the glacier's instrumental value to the Juneau community.

Market worth justifications were primarily invoked in relation to the glacier's short-term tourism profitability (e.g. Segall, 2020a; Thévenot et al., 2000, pp. 240-243). Although some residents acknowledged the need to manage MGRA tourism more effectively (Post, 2021), others were comfortable charging ahead: "I'm all for tourism," one resident quipped at an MGRA open house event, "Who doesn't want to see this?" (Hohenstatt, 2020b). Rising cruise ship visitation featured prominently in coverage, with a large proportion highlighting pro-cruise representatives such as the Protect Juneau's Future Committee and the Global Cruise Activist Network, which defended cruise ship travel due to lack of hotel and flight infrastructure and cruise visitors' smaller carbon footprint compared to cars (Zigmund, 2021). Pro-cruise activists also employed market-based, fear-driven arguments by threatening that limiting cruise ship tourism would "devastate the economy, shutter local businesses, force a municipal reckoning, limit the ability of young entrepreneurs to set up shop and raise families in Juneau, and send shockwaves out to other communities that depend on cruise ship travel" (Zigmund, 2021).

By comparison, industrial worth justifications were used in arguments for large-scale infrastructure improvements to increase Mendenhall's long-term profitability (Thévenot et al., 2000, p. 244). Early in the controversy, now-former Director of the Mendenhall Glacier Visitor Center John Neary described the problems facing Mendenhall and the MGRA as extensive,

noting, “We need improvements to traffic flow, trails, viewing platforms, covered viewing areas and food venues” (CCW Staff Report, 2016a). These concerns quickly emerged in discourse, which evolved to focus on facility updates like expanded parking, a boating system to shuttle visitors across Mendenhall Lake, and a second visitor center nearer to the glacier (e.g. Gullufsen, 2018a). While the USFS and the City and Bureau of Juneau Parks and Recreation Department supported these modifications, many residents and environmental groups expressed hesitation or confusion at the lack of long-term strategy (e.g. Gullufsen, 2016). Some criticized the logistics of these changes, with one resident noting that “a lot of the proposal seems to put things where the animals are,” while others worried that increasing trail usage could decrease the value of paid experiences like campsites (Hohenstatt, 2020b). Overall, resident and business stakeholders voiced skepticism at investments that would expand MGRA tourism with no long-term vision, as expressed by retired Forest Ranger Ken Post (2021): “I wasn’t anti-tourism when use in the MGRA was 100,000 visitors, or 200,000 visitors or the 490,000 who used the visitor center in 2019. Now, I’m scratching my head wondering when this is going to stop.”

Together, these market and industrial worth arguments reveal the remarkable consistency with which Juneauites recognize the instrumental value of Mendenhall Glacier. While differences emerged regarding whose needs should be addressed and in what order, the consensus among actors was clear: Mendenhall exists to be monetized and consumed.

### ***Come One, Come All: Sharing “A World-Class Experience”***

The instrumental value of Mendenhall Glacier may be front and center in Juneauites’ minds, but a deeper dive into the MGRA controversy suggests that stakeholders also feel a connection to “one of Juneau’s special places” (Romanoff, 2018). Specifically, newspaper discourse displayed how civic and domestic worth justifications were employed to construct Mendenhall Glacier’s relational value (Thévenot et al., 2000, p. 249; 252).

Civic worth justifications emerged in stakeholder claims that visitors deserved a quality Mendenhall Glacier experience. USFS District Ranger Brad Orr argued that expanding the MGRA was necessary to provide tourists a “world-class experience” (Hohenstatt, 2019b) that fulfilled their yearning to “get up close and personal with fast-melting ice” (Gullufsen, 2018b). Although USFS representatives focused on satisfying visitors’ desires to “chase the ice” (e.g. Gullufsen, 2018a), contrasting perspectives hinted that many of the proposed changes disregarded possible negative effects to Mendenhall Glacier. For example, an interview with Orr promoted portable buildings that would follow Mendenhall as it receded up the valley, but this solution seemingly ignored that increased visitation was a major reason for Mendenhall’s recession in the first place (Hohenstatt, 2019a). Laurie Craig, a 50-year Juneau resident and retired Mendenhall Glacier park ranger, blasted similar drawbacks in USFS’s proposed boating system: “The boat-docks-remote center plan is the most absurd, expensive, foolhardy, and useless aspect of the entire project! The idea of ‘chasing the ice’ is a forlorn hope. Sadly, the glacier is melting at a rate that makes this idea impractical” (Segall, 2020a).

Separately, domestic worth justifications appeared in discourse referencing the connection community members felt to their “favorite backyard glacier” (Craig, 2021). Articles noted that Juneauites associated Mendenhall with some of their best memories (Gullufsen, 2016), and residents like Craig (2020) expressed concern that the MGRA expansion “would turn the Mendenhall Glacier from a unique natural area into a congested theme park.” However, later discourse suggested that the reverence Juneauites initially felt for Mendenhall developed to be more self-serving: for example, rather than urging increased protection for the glacier *from* the public, Craig (2020) advocated to “thoughtfully develop” the glacier to *serve* the public, ignoring an opportunity to galvanize community nostalgia for preservation. Considerations of “reasonable” development increased following the COVID-19 pandemic, when a temporary drop

in tourism enabled residents to recall calmer times (Craig, 2021). “After a summer of quiet, local exploration, I imagine many Juneauites feel more connected than ever to the glacier,” Craig (2021) wrote before asking if it may be possible to “share” Mendenhall “without surrendering it.” While recognizing human relationships with a glacier may mark progress, Craig’s (2021) reflection also implies that Juneauites believe they *own* Mendenhall Glacier, and furthermore, that it is *they* who are sacrificing most in the proposed MGRA expansion.

When viewed independently, these civic and domestic worth justifications indicate Juneauites’ strong relational connection to the experiences and memories attached to Mendenhall Glacier. Yet when combined, these arguments reveal a radical shift in the way that these stakeholders value their relationship with Mendenhall and the agency—or lack thereof—they believe the glacier is entitled to.

#### ***A Glimpse of the Future: MGRA as Climate Indicator***

Mendenhall Glacier’s impending loss was prominent in discourse about the MGRA expansion, thus highlighting the glacier’s importance in and of itself. Arguments for this intrinsic value were constructed using various green worth justifications, which spoke to the glacier’s diverse role in sustainability, tourism, and biodiversity (Thévenot et al., 2000, p. 257; 262).

Multiple environmental actors (e.g. Neary, 2020; Craig 2021; Romanoff, 2018) invoked green worth to assert that protecting the future necessitated focusing on sustainability and renewable energy—which the MGRA expansion was woefully failing to do. Neary (2021) criticized the proposal’s omission of climate-friendly improvements, countering that “Renewable energy is a positive, organizing theme for our future and it is wholly lacking in [the USFS] proposal.” Similarly, Craig (2021) framed the MGRA expansion as an opportunity to think bigger, emphasizing that “We need creative ideas for the future, not just old pave-over plans.” All three actors offered suggestions to make the MGRA plan more sustainable, from replacing

building heating systems with geothermal heat pumps to partnering with the City and Bureau of Juneau on an electric bus system (e.g. Romanoff, 2018). “At the glacier there is a great opportunity to educate about how to mitigate climate change,” wrote Neary (2020), which could benefit both the glacier and future generations.

Green worth also emerged in community frustration over the proposal’s lack of consideration for the environmental damage caused by tourism. One resident pointed out the cognitive dissonance of continuing to develop the glacier as it disappeared:

So far, I haven’t heard the Forest Service identify what are the problems... It sounds like too many tourists... is the best reaction to that more facilities?... Can we take a step back and look at other ways other than adding more facilities? And the issue of the glacier melting out of view, well, maybe that has something to do with the 27 buses coming there everyday. (Gullufsen, 2016)

Others echoed that failing to address out of control tourism would further harm Mendenhall (Segall, 2020a), and in 2020, Neary pleaded with the USFS to consider the larger context of its design, writing that while the proposed trail expansions and added parking were good faith efforts, “...the benefit of these improvements will be lost on many of us if the Forest Service doesn’t also address the elephant in the room—that an endless stream of tourists powered by fossil fuels is problematic, especially when they are coming to see a disappearing glacier.”

Finally, a small segment of discourse invoked green worth to communicate the glacier’s role as an ecological cornerstone. Environmental activists, residents, and other Juneau actors criticized elements of the MGRA expansion that would hurt not only the glacier, but also the flora and fauna who call it home (e.g. Hohenstatt, 2020b). For example, community members “voiced displeasure” upon learning that the proposed MGRA expansion recommended paving over a pond that was currently being used to rear young coho salmon (Segall, 2021); others

worried that alterations would turn former bear trails into “people trails, eliminating safe passage for bears and their cubs” (Craig, 2021). As years went by, these stakeholders became increasingly uncomfortable with the ecological impacts of further development on Mendenhall Glacier, with one resident exasperating, “It’s like we’re loving this to death” (Hohenstatt, 2020b).

Altogether, this diversity of worth justifications points to the many ways that environmental values can be interpreted and invoked in discourse. Constructing Mendenhall Glacier in terms of its instrumental, relational, and intrinsic value thus increases the likelihood that an argument may connect with someone whose voice—and vote—could make a difference in the glacier’s permanence.

### **Case #2: Ice Cubes in Svartisen**

#### ***Monetizing Svartisen: An Exclusive Product and Iconic Attraction***

The plan to turn Svartisen into ice cubes to be sold to exclusive bars around the globe is founded on a view of nature as an object that can be utilized for economic gains. Unsurprisingly, justifications of Svaice’s business plan mainly displayed an instrumental approach to the precarious ecological body, whereby human-nature relations were articulated as a relationship in which nature serves humans as merchants and consumers.

The CEO of Svaice, Geir Olsen, justified the project through the principle of market worth, assessing Svartisen’s value based on its performance in a competitive market (Thévenot et al., 2000, pp. 240-243). Specifically, Olsen asserted that the glacier’s ice cubes are competitive due to their uniqueness and exclusivity: the glacier, he stated, “is 1000 years old and has a fantastic structure with encapsulated bubbles of air and water,” making it “pop a little” when thawing in the drink (Lysvold & Martinsen, 2019). Moreover, he claimed the ice cubes were more than a physical product; they are “an experience, a small piece of Norway” (Lysvold & Martinsen, 2019). The glacier’s market worth was also established through Olsen’s construction



of it as pristine nature: “The U.S. does not want ice cubes from glaciers in Alaska and Canada but views Norway with its beautiful fjords, mountains, and glaciers as a stamp of quality” (Votvik, 2018a). Allegedly, the market is “concerned with clean water and willing to pay up to double the price for drinks with natural, tiny icebergs from Svaice” (Votvik, 2018a).

Furthermore, Olsen argued, Svaice is “one of the greenest companies in Norway” because it utilizes a “renewable natural resource” (Votvik, 2018b), thus justifying the business by reference to its green worth (Thévenot et al., 2000, p. 257). The business’ green worth relies on the representation of nature as an abundant entity which can be exploited without leaving marks: “the wound will soon appear insignificant in the naturally scarred glacier” (Votvik, 2018b). Similarly, as the only journalist defending Svaice argued, the company utilizes “ice that otherwise just lies there melting” (Bratt, 2015), suggesting that since it is too late to save the glacier, it should be utilized before its monetary value diminishes.

In addition to serving merchants and consumers as an object generating profit and pleasure, the extraction of ice was justified through claims about the glacier’s industrial worth (Thévenot et al., 2000, p. 244). It was argued that the glacier’s ice cubes would create new workplaces and bring fame to the municipality, which allegedly would benefit other local businesses and the community (Bratt, 2015; Votvik, 2018a, 2018b). However, the ripple effects on the tourist industry were contested by other actors concerned about the business’ impact on the glacier’s value as a visitor attraction. Indeed, the extraction of ice cubes may put the community on the map, but on the “map of environmental hostility and destruction of outdoor life” (Bjørnbæk, 2019), thus reducing the glacier’s long-term profitability as a tourist destination. To justify this concern, opponents of Svaice invoked instrumental values to construct the glacier as a valuable tourist attraction: “Perhaps such a project can create some new jobs, but what will happen to the jobs in the tourism industry?” (Heimdal, 2016).

While some stakeholders described Svartisen as “an iconic attraction” (Nordlys, 2019) and “the core of the nature experience one is working to develop a sustainable tourist industry around” (Halvorsen, 2019), other discourse revealed a sharp contrast between the short-term profits of exploiting a precarious ecological body and the long-term development of sustainable tourist activities in the local community.

***Beyond Monetary Value: Nature as a “Health Cure for the Body and Soul”***

The newspaper coverage of the proposal to extract ice cubes from Svartisen included many critical voices opposing the plans to profit from the glacier. Opponents frequently attributed relational value to the glacier and its surrounding landscape using two worth justifications: domestic and inspiration worth (Thévenot et al., 2000, p. 249; 252).

Initially, domestic worth appeared in residents’ recollections of childhood memories with the glacier and descriptions of how the landscape has changed during their lifetime, an emotional and nostalgic concept known as “solastalgia” (Albrecht et al., 2007). Illustrative examples were found in two op-eds written by the same resident, Einar A. Kilvik (2015; 2019), who ascribed relational value to the precarious glacier landscape by invoking its value as a part of identity and personal attachment, as well as its value as a recreational environment. In one op-ed, Kilvik (2015) recounted how the landscape in his home has “changed since my childhood years” and described “the beautiful and untouched nature” as “nothing but a very dear childhood memory.” Visible changes in nature become Kilvik’s (2015) argument for protecting nature from interventions: the already suffered losses made it “all the more important to take good care of the nature that we still have left.” In addition to being part of Kilvik’s (2015) personal “roots” and identity, the Svartisen landscape was constructed as a valuable source of well-being to humans in general. Nature is constructed as a gratifying escape from modern life: “In today’s modern society, we are surrounded by a lot of noise and stress, and more and more people seek the peace

and quiet that nature can provide” (Kilvik, 2019). According to Kilvik (2015; 2019), nature is a “pure health cure for the body and soul,” a valuable object that makes human life healthy and meaningful. Similarly, representatives of the outdoor recreation industry, who are prominent voices in the debate, tended to oppose the extraction of ice cubes because it “will destroy yet another opportunity to reside in quiet and untouched nature” (Heimdal, 2016).

As in instrumental valuations of Svartisen, its relational value came from its beauty and untouchedness. But whereas the former viewed pristine nature as valuable because consumers were willing to pay for it, the latter underscored that what nature has to offer humans cannot be measured in monetary terms.

### ***An “Absurd” Business Idea Symbolizing the Exploitation of Nature and People***

Although discourse revealed that justifications for protecting Svartisen were largely grounded in human instrumental and relational benefits, green and civic worth justifications were also invoked to demonstrate the immorality of ice cube extraction, and in turn, solidify the glacier as having intrinsic value.

First, green worth appeared prominently in moral condemnations of Svaice’s plan to exploit a vulnerable ecological body, with opponents voicing anger (“I feel an ice cold wrath” [Lien, 2019]) and bodily disgust (“my stomach becomes unruly” [Hoff-Elimari, 2019]). The company was told to “be ashamed” (Ingebrigtsen, 2019) of a plan vilified as “absurd” (Marthinsen, 2019; Nordlys, 2019), “madness” (Heimdal, 2016; Hoff-Elimari, 2019; Aasheim, 2015), “reprehensible” (Nordlys, 2019), and “evil” (Lien, 2019). Stakeholders also employed civic worth to take issue with Svaice’s equality and solidarity (Thévenot et al., 2000, pp. 246-249), with some accusing the company of exploiting a precarious natural body to cater to elitist financial desires. Svaice customers were scapegoated through descriptions of the “nouveau riche business marvels [who] will not settle for anything less than fifty-dollar drinks served in

wine glasses covered in Swarovski crystals” (Vikøren, 2015). The glacier ice cubes also became a symbol of climate change and global injustices, as exemplified when a politician from the Green Party called it “a cocktail of symbols of the worst diseases the world is suffering from: climate change and intolerable economic inequality” (Hoff-Elimari, 2019).

Moreover, the disparagement of Svaice’s extractive practices highlighted the belief that Svartisen has value not only to humans but is intrinsically valuable as a habitat for endangered species that are important to preserve in their own right. Arguably, the glacier provides “a rich flora with several rare species” and plays an “important role in cooling down a feverish globe” (Nordlys, 2019); consequently, extracting ice from the glacier would “degrade the climate and biodiversity” (Heimdal, 2016).

Thévenot et al. (2000, p. 262) relate such arguments to a commitment to a deep ecology (cf. Næss, 1973) that extends beyond “common good” for humanity to encompass the welfare of non-human bodies, thus involving a shift from “anthropocentrism” to “ecocentrism.” This marks a departure from the anthropocentric principles articulated through the orders of worth, where the “common good” underpinning the arguments pertains to “common humanity,” explicitly excluding the non-human (Boltanski & Thévenot, 2006, p. 74-82; see also, Andersen, 2017, p. 285-286).

The ecocentrism of the deep ecology movement has drawn significant critique from ecofeminists and critical scholars for implicating all humans as perpetrators of environmental destruction, thereby neglecting issues of social injustice and overlooking the patriarchal, capitalist, and colonial power structures that have enabled some privileged humans to exploit both nature and marginalized human populations (e.g. Bookchin, 1987; Guha, 1989; Zimmerman, 1990). However, stakeholders invoking Svartisen’s intrinsic value took a different approach by underscoring how glacier ice extraction would cause unacceptable harm to both

nature and humans and pinpointing Svaice's instrumental approach as the root cause of both global injustices and environmental degradation.

Although the monetary value of Svartisen was frequently invoked in arguments both for and against the proposal to turn the glacier into ice cubes, newspaper coverage revealed conflicting constructions of Svartisen as an object of value and recognition of the glacier's contributions to a wider biosphere. Despite promising new workplaces and increased revenue for the local community, little support for Svaice's business plan appeared in the discourse. Instead, most of the involved parties condemned the instrumental view of nature displayed by Svaice and its allies.

### **Discussion**

Mediations of the Mendenhall and Svartisen glacial controversies share remarkable similarities in how glaciers in each location are constructed as objects of worth. However, comparing these results can reveal deeper findings about how media discourses represent and constitute dominant voices and values of nature in two cases separated by time and space.

Initially, mediations of these two cases shed light on which actors in each location have the power to assign value to glaciers. Profit advocates—primarily Svaice in Norway and the Protect Juneau's Future Committee and Global Cruise Activist Network in Alaska—were predominant in both cases, demonstrating the dilemma of when, how often, and at what personal cost to monetize melting ice. Land use and recreation supporters like The Norwegian Association for Outdoor Organizations and the USFS were also prominent, eager to protect public opportunities to escape modernity and engage in a quality nature experience. These business and government actors were joined by local residents, many of whom voiced confusion at how to

value something whose disappearance meant wealth and opportunity alongside disruption and loss of community.

Despite the close relationship between glacier conservation and Alaskan Natives (Ross, 2006) and Svartisen's location within a Sami reindeer grazing area (Frislid, 2023), Indigenous voices were crucially absent in both sets of discourse, reinforcing predictable power hierarchies in whose perspectives are represented in environmental news coverage (cf. Callison, 2022; Tegelberg, 2021). This deficiency was particularly curious in Norwegian discourse given the prominent use of domestic and inspiration worth justifications, as these arguments construct nature as an important part of Norwegians' identity, culture, and wellbeing—in other words, of relational value. Indigenous scholars have long referenced the interrelationship between nature, identity, and memory (e.g. Whyte, 2017), and environmental researchers have affirmed the connection between relational values and Indigenous culture and practice (e.g. Neuteleers, 2020), but Indigenous underrepresentation in media remains a noted issue (e.g. Moore, 2019). Expanding Indigenous media representation may thus provide an opportunity for publics within and beyond Alaska and Norway to see nature beyond the purely economic and consider environmental policies that counter or undo the very decisions that have harmed and infringed upon Indigenous rights (e.g. Brattland & Hausner, 2022).

In addition, the orders of worth invoked in both controversies reveal parallels in how glaciers in each case are assigned value. First, the market worth justifications present in news coverage reflects the dominance of instrumental values in each case. As mentioned previously, instrumental values ascribe worth to nature based on its economic usefulness to humans (Chan et al., 2016); in the Mendenhall and Svartisen controversies, the “true value” (Matulis, 2014) of a

glacier was defined by its potential contribution to the local economy. However, the specific arguments invoked in each case also highlight differences in how stakeholders in each location attempted to balance economic and environmental concerns, which instrumental valuation has notoriously struggled to address (Luxon, 2019).

For example, the value of Mendenhall Glacier was constructed purely via short- and long-term tourism, with some actors going as far as to use fear-driven arguments to threaten what would be lost if tourism was reduced. By contrast the value of Svartisen was constructed as short-term ice extraction and long-term tourism, and many actors expressed concern that investing in the short-term would negatively impact a long-term solution that could be both profitable *and* sustainable. Thus, while both discourses agreed that glaciers have significant instrumental value, the contemplation of sustainable monetization in the Norwegian case deviates from the “tourism-or-bust” attitude displayed in the Alaskan case, where the only option considered was expanded development.

Second, the inspiration and domestic worth justifications employed in these controversies reflects the role of relational values in both locations. At the heart of relational value is an acknowledgement of humanity’s dependence on nature for identity and survival (Hourdequin & Wong, 2005); in glacier media discourse, this manifested as nostalgia and solastalgia via allusions to each community’s respective personal attachment to “a very dear childhood memory” (Kilvik, 2015) and “favorite backyard glacier” (Craig, 2021). But while relational values were present in both cases, a closer look at the domestic worth justifications used to invoke this value supports a previous thought that this worth manifests differently between nations (Thévenot et al., 2000).

In their comparison of domestic worth justifications, Thévenot et al. (2000, pp. 249-250) identified a difference in French emphasis on the protection of heritage and patrimony compared to American emphasis on protection of a citizen's private "backyard"; our analysis revealed similar differences, with domestic worth in the Norwegian case emphasizing the preservation of Svartisen's community role and domestic worth in the Alaskan case emphasizing preservation of visitors' access to Mendenhall. Even the private property rhetoric noted by Thévenot et al. (2000) re-emerged in Alaskan discourse (ex. "We can share our favorite backyard glacier without surrendering it" [Craig, 2021]). Overall, the juxtaposition between the expressed solastalgia for Svartisen in the Norwegian case and the perceived ownership of Mendenhall in the Alaskan case suggests there may be crucial differences in how humans relate to glaciers in the two locations examined.

Finally, the civic and green worth justifications invoked in both cases point to a perceived intrinsic value of Mendenhall and Svartisen. Central to intrinsic value is a perception that the worth of nature exists independent of humans (Justus et al., 2009), an argument represented in both Alaskans' and Norwegians' concerns for the flora and fauna that depend on each glacier. However, arguments based on the intrinsic value of glaciers rarely stand alone; rather, they are often intertwined with assertions of equality and solidarity among humans. Together, these arguments form a rationale for preservation, as the exploitation of glaciers brings harm to both the environment and humans.

Additionally, just as intrinsic value can be difficult to measure, the green worth used to represent this value is similarly elusive. Thévenot et al. (2000) describe green worth as a definitionally fluid category whose meaning is determined through its relation to other worths;



for example, sustainability can be ascribed relational or instrumental value depending on whether it is associated with civic or industrial worth. In the Alaskan case, green worth was predominately invoked in arguments for sustainable tourism, thus positioning Mendenhall's green worth as an extension of market and industrial worth. The Norwegian case also displayed green worth arguments rooted in sustainable tourism, but some discourse countered this with arguments for Svartisen's intrinsic value. Thus, while green worth did emerge in both cases, Norwegian discourse positioned the worth to strengthen an ecocentric argument for environmentalism, whereas Alaskan discourse positioned it anthropocentrically to further reinforce monetary values (Thévenot et al. 2000).

### **Conclusion**

This article advanced environmental value scholarship by rhetorically analyzing newspaper coverage surrounding the utilization of two glaciers, Mendenhall in Alaska and Svartisen in Norway. Through a cross-cultural comparison of these results, this study provided insight into how a specific part of nature is deemed valuable and how these values underpin arguments for environmental protection or exploitation.

However, newspaper coverage only speaks to how environmental values are articulated in mediated debate and how the power dynamics of media systems might shape these discussions. This study cannot support broad claims about cultural differences between Alaskans and Norwegians based on media coverage alone, and the two cases examined do not encompass the entirety of perspectives found in other controversies or cultures. Future research, perhaps integrating interviews or other media (ex. TV) or cultural texts (ex. Lunde's *Blå* [2017]), is thus needed to deepen understanding of the lived experiences, beliefs, and values of additional

individuals and groups—particularly Indigenous communities—and consider how these differences may affect how stakeholders value glaciers specifically and nature more broadly.

In May 2023, Norway assumed chairship of the Arctic Council, an intergovernmental forum that gathers eight Member States—including the U.S.—with vastly different political, economic, and cultural knowledge systems to “promote cooperation between Arctic states and peoples on matters of common interest in the region” (Norwegian Ministry of Foreign Affairs, 2023, p. 3)—in other words, to mobilize, negotiate, and assign a set of universal values to the Arctic. Amid a sixth mass extinction driven by climate change and unsustainable resource use (Kolbert, 2014), geopolitical collaborations such as this demonstrate the importance and real-world implications of diversifying our instrumental approaches to nature in favor of deeper commonalities that can withstand temporal and spatial differences. Cross-cultural case studies such as this thus remind us that if we are to tackle climate change at a global scale, we must remember the relational and intrinsic values that are contained in local environments like rivers, forests—and glaciers.

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## References

- Albrecht, G., Sartore, G.-M., Connor, L., Higginbotham, N., Freeman, S., Kelly, B., . . . Pollard, G. (2007). Solastalgia: The distress caused by environmental change. *Australasian Psychiatry*, 15(1\_suppl), S95-S98. doi:10.1080/10398560701701288
- Andersen, G. (2017). *Parlamentets natur: Utviklingen av norsk miljø- og petroleumspolitik (1945–2013)*. Universitetsforlaget. <https://doi.org/https://doi.org/10.18261/9788215028132-2017>
- Andreassen, L. M. (2022). *Breer og fonner i Norge* (Report 3/2022). The Norwegian Water Resources and Energy Directorate. [https://publikasjoner.nve.no/rapport/2022/rapport2022\\_03.pdf](https://publikasjoner.nve.no/rapport/2022/rapport2022_03.pdf)
- Anker, P. (2018). A pioneer country? A history of Norwegian climate politics. *Climatic Change*, 151(1), 29-41. <https://doi.org/10.1007/s10584-016-1653-x>
- Anker, P. (2020). *The power of the periphery: How Norway became an environmental pioneer for the world*. New York: Cambridge University Press.
- Berntsen, B. (2011). *Grønne linjer. Natur og miljøvernets historie i Norge*. Unipub.
- Bjørke, M. R. (2019). Miss hare struggles: How examples of threatened animals tell a story of climate change. *Ethnologia Scandinavica*, 50, 187-202.
- Bjørke, M. R., & Andersen, I. V. (2023). Naturkrisen - en global krise for lokal natur? *Nytt Norsk Tidsskrift*, 40(2-3), 94-194. <https://doi.org/10.18261/nnt.40.2-3.2>
- Boltanski, L., & Thévenot, L. (2006 [1991]). *On justification: Economies of worth* (C. Porter, Trans.). Princeton University Press. <https://doi.org/10.2307/j.ctv1zm2tzm>
- Bookchin, M. (1987). Social ecology versus deep ecology: A challenge for the ecology movement. *Green perspectives: Newsletter of the Green Program Project, 1987*, 4-5.
- Brattland, C., & Hausner, V. H. (2022). Innledning til artikkelsamlingen i temanummeret Vindkraft og reindrift. *Tidsskriftet UTMARK*, 1, 1-9. <https://hdl.handle.net/11250/2995391>
- Bruns, C. J. (2020). Sun, sand, and satire: A rhetorical analysis of the Great Barrier Reef's obituary. In C. R. Schmitt, C. S. Thomas, & T. R. Castor (Eds.), *Water, rhetoric, and social justice: A critical confluence* (pp. 249–267). Lexington Books.
- Bruns, C. J. (2021). Grieving Okjökull: Discourses of the Ok glacier funeral. In H. Bødker & H. E. Morris (Eds.), *Climate change and journalism: Negotiating rifts of time* (pp. 121–135). Routledge.
- Callison, C. (2022). Journalism, Indigenous knowing, and climate futures (and pasts). In H. Bødker & H. E. Morris (Eds.), *Climate change and journalism: Negotiating rifts of time* (pp. 10-23). Routledge.

- Canny, A. (2023, January 24). *The Forest Service wants more input on Mendenhall Glacier area changes*. KTOO.  
<https://www.ktoo.org/2023/01/23/forest-service-input-on-mendenhall-glacier-area-changes/>
- Carson, R. (1962). *Silent spring*. Houghton Mifflin.
- Chan, K. M. A., Balvanera, P., Benessaiah, K., Chapman, M., Díaz, S., Gómez-Baggethun, E., Gould, R., Hannahs, N., Jax, K., Klain, S., Luck, G. W., Martín-López, B., Muraca, B., Norton, B., Ott, K., Pascual, U., Satterfield, T., Tadaki, M., Taggart, J., & Turner, N. (2016). Why protect nature? Rethinking values and the environment. *Proceedings of the National Academy of Sciences*, 113(6), 1462–1465.  
<https://doi.org/10.1073/pnas.1525002113>
- Davies, B., Bendle, J., Carrivick, J., McNabb, R., McNeil, C., Pelto, M., Campbell, S., Holt, T., Ely, J., & Markle, B. (2022). Topographic controls on ice flow and recession for Juneau Icefield (Alaska/British Columbia). *Earth Surface Processes and Landforms*, 47(9), 2357–2390. <https://doi.org/10.1002/esp.5383>
- DeLuca, K. M., & Demo, A. T. (2000). Imagining nature: Watkins, Yosemite, and the birth of environmentalism. *Critical Studies in Media Communication*, 17(3), 241-260.  
<https://doi.org/10.1080/15295030009388395>
- Friedman, S. M. (2015). The changing face of environmental journalism in the United States. In A. Hansen & J. R. Cox (Eds.), *The Routledge handbook of environment and communication* (pp. 144–157). Routledge.
- Frislid, R. (2023, January 24). Salt-fjellet-Svartisen nasjonalpark. In E. Bolstad (Ed.), *Store norske leksikon*. [https://snl.no/Saltfjellet-Svartisen\\_nasjonalpark](https://snl.no/Saltfjellet-Svartisen_nasjonalpark)
- Guha, R. (1989). Radical American Environmentalism and Wilderness Preservation: A Third World Critique. *Environmental Ethics*, 11(1), 71-83.  
<https://doi.org/10.12987/9780300188479-036>
- Hawhee, D. (2023). *A sense of urgency: How the climate crisis is changing rhetoric*. The University of Chicago Press.
- Hourdequin, M., & Wong, D. B. (2005). A relational approach to environmental ethics. *Journal of Chinese Philosophy*, 32(1), 19–33. <https://doi.org/10.1111/j.1540-6253.2005.00172.x>
- IPBES. (2019). *Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*. Edited by S. Díaz et al., IPBES secretariat, Bonn, Germany.
- Justus, J., Colyvan, M., Regan, H., & Maguire, L. (2009). Buying into conservation: Intrinsic versus instrumental value. *Trends in Ecology and Evolution*, 24(4), 187–191.
- Klain, S. C., Olmsted, P., Chan, K. M. A., & Satterfield, T. (2017). Relational values resonate broadly and differently than intrinsic or instrumental values, or the New Ecological Paradigm. *PLOS ONE*, 12(8), e0183962. <https://doi.org/10.1371/journal.pone.0183962>
- Kolbert, E. (2014). *The sixth extinction: An unnatural history* (First edition). Henry Holt and Company.
- Legagneux, P., Casajus, N., Cazelles, K., Chevallier, C., Chevrinain, M., Guéry, L., . . . Gravel, D. (2018). Our house is burning: Discrepancy in climate change vs. biodiversity coverage in the media as compared to scientific literature. *Frontiers in Ecology and Evolution*, 5. doi:10.3389/fevo.2017.00175
- Leopold, A. (1987 [1949]). The land ethic. In *A sand county almanac and sketches here and there*. Oxford University Press.
- Liestøl, O., Hagen, J. O., & Nesje, A. (2020, September 19). Isbre. In E. Bolstad (Ed.), *Store norske leksikon*. <https://snl.no/isbre>

- Lunde, M. (2017). *Blå*. Aschehoug.
- Luxon, E. M. (2019). Economics-oriented discourse strategies in environmental advocacy. *Environmental Communication*, 13(3), 320–334.  
<https://doi.org/10.1080/17524032.2019.1567569>
- Lysvold, S. S. (2019, May 9). Meløy setter foten ned for luksus-isbiter. *NRK*.  
<https://www.nrk.no/nordland/meloy-setter-ned-foten-for-luksus-isbiter-1.14544986>
- Matulis, B. S. (2014). The economic valuation of nature: A question of justice? *Ecological Economics*, 3.
- Merchant, C. (2005). *The Columbia guide to American environmental history*. Columbia University Press.
- Moore, E. E. (2019). *Journalism, politics, and the Dakota Access Pipeline: Standing Rock and the framing of injustice*. Routledge.
- Nash, R. (2001). *Wilderness and the American mind* (4th ed.). Yale University Press.
- National Park Service. (2021, December 16). *Glaciers*.  
<https://www.nps.gov/subjects/aknatureandscience/glaciers.htm>
- Neuteleers, S. (2020). A fresh look at “relational” values in nature: Distinctions derived from the debate on meaningfulness in life. *Environmental Values*, 29(4), 461–479.  
<https://doi.org/10.3197/096327119X15579936382699>
- Næss, A. (1973). The shallow and the deep, long-range ecology movement: A summary. *Inquiry*, 16 (1-4), 95-100. <https://doi.org/10.1080/00201747308601682>
- Norwegian Ministry of Foreign Affairs. (2023). *Norway’s Chairship Arctic Council 2023-2025* (E1016-E; pp. 1–19). Arctic Council.  
[https://www.regjeringen.no/contentassets/034e4c4d49a44684b5fb59568103702e/230322\\_ud\\_ac\\_programbrosjyre\\_en\\_web.pdf](https://www.regjeringen.no/contentassets/034e4c4d49a44684b5fb59568103702e/230322_ud_ac_programbrosjyre_en_web.pdf)
- Noss, R. F., & Cooperrider, A. Y. (1994). *Saving nature’s legacy: Protecting and restoring biodiversity*. Island Press.
- O’Connor, M. C. (2015, April 4). A Norwegian company’s plan to make ice cubes out of glaciers unsettles some. *The Guardian*.  
<https://www.theguardian.com/vital-signs/2015/apr/04/svaice-ice-cubes-glacier-melt-cocktails-bars>
- Oravec, C. (1981). John Muir, Yosemite, and the sublime response: A study in the rhetoric of preservationism. *Quarterly Journal of Speech*, 67(3), 245–258.  
<https://doi.org/10.1080/00335638109383570>
- Painter, J. (2013). *Climate change in the media: Reporting risk and uncertainty*. I.B. Tauris & Co.
- Pascual, U., Balvanera, P., Christie, M., Baptiste, B., González-Jiménez, D., Anderson, C. B., Athayde, S., Barton, D. N., Chaplin-Kramer, R., Jacobs, S., Kelemen, E., Kumar, R., Lazos, E., Martin, A., Mwampamba, T. H., Nakangu, B., O’Farrell, P., Raymond, C. M., Subramanian, S. M., ... Vatn, A. (2022). *Summary for policymakers of the methodological assessment regarding the diverse conceptualization of multiple values of nature and its benefits, including biodiversity and ecosystem functions and services (assessment of the diverse values and valuation of nature)* (Version 2). Zenodo.  
<https://doi.org/10.5281/ZENODO.4782538>
- Peebles, J. (2015). Discourse/Rhetorical Analysis Approaches to Environment, Media and Communication. In A. Hansen & R. Cox (Eds.), *The Routledge handbook of environment and communication* (pp. 39-48). Routledge.
- Pezzullo, P. C., & Cox, R. (2018). *Environmental communication and the public sphere* (5 ed.). SAGE.

- Robertson, M., BenDor, T. K., Lave, R., Riggsbee, A., Ruhl, J., & Doyle, M. (2014). Stacking ecosystem services. *Frontiers in Ecology and the Environment*, 12(3), 186–193. <https://doi.org/10.1890/110292>
- Ross, K. (2006). *Pioneering conservation in Alaska*. University Press of Colorado.
- Rounce, D. R., Hock, R., Maussion, F., Hugonnet, R., Kochtitzky, W., Huss, M., Berthier, E., Brinkerhoff, D., Compagno, L., Copland, L., Farinotti, D., Menounos, B., & McNabb, R. W. (2023). Global glacier change in the 21st century: Every increase in temperature matters. *Science*, 379(6627), 78–83. <https://doi.org/10.1126/science.abo1324>
- Sjölander-Lindqvist, A., Murin, I., & Dove, M. E. (Eds.). (2022). *Anthropological perspectives on environmental communication*. Springer International Publishing. <https://doi.org/10.1007/978-3-030-78040-1>
- Stibal, M., Bradley, J. A., Edwards, A., Hotaling, S., Zawierucha, K., Rosvold, J., Lutz, S., Cameron, K. A., Mikucki, J. A., Kohler, T. J., Šabacká, M., & Anesio, A. M. (2020). Glacial ecosystems are essential to understanding biodiversity responses to glacier retreat. *Nature Ecology & Evolution*, 4(5), 686–687. <https://doi.org/10.1038/s41559-020-1163-0>
- Strand, J., Carson, R. T., Navrud, S., Ortiz-Bobea, A., & Vincent, J. R. (2017). Using the Delphi method to value protection of the Amazon rainforest. *Ecological Economics*, 131, 475–484. <https://doi.org/10.1016/j.ecolecon.2016.09.028>
- Tegelberg, M. (2021). Negotiating conflicting temporalities in Canadian Arctic travel journalism. In H. Bødker & H. E. Morris (Eds.), *Climate change and journalism: Negotiating rifts of time* (pp. 136-151). Routledge.
- Thévenot, L., Moody, M., & Lafaye, C. (2000). Forms of valuing nature: Arguments and modes of justification in French and American environmental disputes. In M. Lamont & L. Thévenot (Eds.), *Rethinking comparative cultural sociology: Repertoires of evaluation in France and the United States* (pp. 229–272). Cambridge University Press.
- USFS. (2019). *Mendenhall Glacier master plan*. [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd611378.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd611378.pdf)
- USGS. (n.d.). *Where are Earth's glaciers located?*. Retrieved June 26, 2023, from <https://www.usgs.gov/faqs/where-are-earths-glaciers-located>
- Warren, N. (2021). *Hudson Bay bound: Two women, one dog, two thousand miles to the Arctic*. University of Minnesota Press.
- Whyte, K. (2017). Indigenous climate change studies: Indigenizing futures, decolonizing the Anthropocene. *English Language Notes*, 55(1–2), 153–162. <https://doi.org/10.1215/00138282-55.1-2.153>
- Zimmerman, M. E. (1995). *Feminism, Deep Ecology and Environmental Ethics*. North Atlantic Books.

## Appendix: Detailed overview of newspaper materials

### Norwegian articles

- Aasheim, S. P. (2015, December 30). Rolls Royce-pjølter fra Svartisen. *Nordlys*.
- Bjørnbæk, S. (2019, March 13). Nei til isbiter fra Svartisen til verdensfiffens drinker! *Rana Blad*.
- Bratt, Tore. (2015, December 12). Svartis til pjølteren. *Rana Blad*.
- Grenersen, A. (2019, March 2). Med iskald beregning. *Avisa Nordland*.
- Halvorsen, I. (2019, March 3). For en syk, syk verden. *Nationen*.
- Hansson, H-A. (2019, March 4). Gladsak for fiffen. *Avisa Nordland*.

- Haukås, A. (2019, March 4). Ikke fornuftig. *Avisa Nordland*.
- Heimdal, L. (2015, December 6). Svartisen blir isbiter i de rikes glass. *NRK*.
- Heimdal. (2016, February 17). Isbiter i de rikes glass. *Avisa Nordland*.
- Hoff-Elimari, E. (2019, April 3). Det vi ikke snakker om når vi snakker om isbiter fra Svartisen. *Harvest*.
- Ingebrigtsen, E. (2019, March 4). Burde skamme seg. *Avisa Nordland*.
- Kilvik, E. A. (2015, September 25). Isbre og helikopter. *Avisa Nordland*.
- Kilvik, E. A. (2019, March 18). Svaice og Saltfjellet-Svartisen Nasjonalpark. *Avisa Nordland*.
- Lien, S. Å. (2019, March 25). Den iskalde vreden. *Klassekampen*.
- Lorentzen, S. (2019, March 20). Whisky on the Rocks. *Avisa Nordland*.
- Lysvold, S. S., & Lars-Bjørn M. (2019, March 11). - Det renner allerede elver rett fra breen. Da kan vi like godt ta ut isen før den smelter. *NRK*.
- Marthinsen, R. (2019, March 3). Signalet man gir dersom man tillater at det hugges løs på en isbre - et av de sterkeste symbolene på klimautfordringene - er absurd. *Rana Blad*.
- Meløyfjæring. (2016, February 19). Svaice og støy. *Avisa Nordland*.
- Myrvang, A. (2015, October 9). Kommunal voldtekt. *Avisa Nordland*.
- Nordlys. (2019, March 1). En absurd forretningsidé. *Nordlys*.
- Pettersen, V. (2019, March 4). Lettere rasert. *Avisa Nordland*.
- Solvik, B. M. (2019, February 27). En sak der fylkesmannen ikke står i veien for lokalt selvstyre. *Liberaleren*.
- Sørslett, E. (2019, March 4). Partipolitisk? *Avisa Nordland*.
- Tiller, T. (2019, March 14). Klimaabsurditeter og ung avmakt. *Nordlys*.
- Vikøren, I. (2015, November 9). Et steg nærmere luksuseksport av isbiter fra Svartisen. *Harvest*.
- Votvik, J. (2018a, September 22). Gir ikke opp drømmen om isbiter. *Avisa Nordland*.
- Votvik, J. (2018b, June 12). Skulle skape 60 arbeidsplasser. *Avisa Nordland*.
- Alaskan articles*
- CCW Staff Report. (2016a, August 31). Discussions begin about the future of Mendenhall Glacier recreation facilities. *Capital City Weekly*.
- CCW Staff Report. (2016b, November 2). Mendenhall Glacier planning meeting. *Capital City Weekly*.
- Craig, L. (2020, March 12). Opinion: We can do better at the glacier. *Juneau Empire*.
- Craig, L. (2021, January 13). Opinion: Have you seen what is proposed at Mendenhall Glacier? *Juneau Empire*.
- Deadline approaches for Mendenhall Glacier Recreation Area prospectus bid packages. (2015, September 11). *Juneau Empire*.
- Gullufsen, K. (2016, September 8). Community takes lead in glacier area upgrades—Forest Service kicks off two-year design process. *Juneau Empire*.
- Gullufsen, K. (2018a, April 27). New, ambitious plan unveiled to deal with surge of tourists at Mendenhall Glacier. *Juneau Empire*.
- Gullufsen, K. (2018b, August 17). Mendenhall moving toward overhaul. *Juneau Empire*.
- Gullufsen, K. (2018c, October 18). How a breakthrough in the Mendenhall River changes erosion near Brotherhood Bridge. *Juneau Empire*.
- Hohenstatt, B. (2019a, March 5). Mendenhall Glacier master plan calls for major change. *Juneau Empire*.
- Hohenstatt, B. (2019b, June 27). Live: What's going on with the Mendenhall master plan? *Juneau Empire*.
- Hohenstatt, B. (2019c, June 27). Mendenhall Glacier area overhaul is still a work in progress. *Juneau Empire*.

- Hohenstatt, B. (2020a, January 7). Empire Live: Tourism task force hears from Coast Guard. *Juneau Empire*.
- Hohenstatt, B. (2020b, February 21). “It’s like we’re loving this to death”: Commenters say Mendenhall plan has drawbacks. *Juneau Empire*.
- Mendenhall Prospectus open house to be held tonight. (2015, August 21). *Juneau Empire*.
- Moniak, R. (2020, September 19). Opinion: The river of nostalgia. *Juneau Empire*.
- Neary, J. (2020, March 10). Opinion: Forest Service proposal falls short in several ways. *Juneau Empire*.
- Neary, J. (2021, January 9). Opinion: Forest Service proposal lacks necessary vision. *Juneau Empire*.
- Post, K. (2021, January 11). Opinion: Mendenhall Glacier Recreation Area proposal is a head-scratcher. *Juneau Empire*.
- Romanoff, A. (2018, May 16). Forward-thinking planning vital to the future of “the glacier.” *Juneau Empire*.
- Segall, P. (2019, December 17). Empire Live: Tourism Task Force meeting at City Hall. *Juneau Empire*.
- Segall, P. (2020a, April 3). Juneauites express concerns for Mendenhall expansion plans in written comments. *Juneau Empire*.
- Segall, P. (2020b, June 14). She’s not moving at a glacial pace. *Juneau Empire*.
- Segall, P. (2020c, July 22). What NEPA changes mean for Mendenhall project is unclear. *Juneau Empire*.
- Segall, P. (2021, June 5). Federal funds go toward more analysis for visitor center area plan. *Juneau Empire*.
- Van Alen, B. (2021, January 13). Opinion: A preserved watershed is more valuable than a developed one. *Juneau Empire*.
- Zigmund, D. (2021, April 30). Cruise control on the ballot? *Juneau Empire*.