

FROM LETHARGY TO LEADERSHIP:
AMERICA'S ORIGINS AND
OBLIGATIONS AS AN
ARCTIC NATION

by

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DEDICATION

I would like to dedicate this thesis to my two siblings and their spouses, as well as to my close friends, for encouraging me throughout this entire process. I am eternally grateful for their love and support.

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ABSTRACT

At present, temperatures in the Arctic are rising twice as fast as the global average. This drastic increase has been the catalyst for a number of vicious cycles that exacerbate climate change, such as the melting of both permafrost and ice sheets. New waterways, opened due to melting ice, have provided access to once impossible to reach resources and brought competing ambitions of both Arctic and non-Arctic nations to the forefront. The prospect of easily accessible resources such as oil, natural gas, and minerals has amplified the issues of territory and ownership in the Arctic with many nations responding with an increase in nationalism and militarization. Outcomes of this geopolitical competition will have consequences that reach far beyond the Arctic. Equally as important are the effects that these rivalries will have on the indigenous groups that live and subsist in the Arctic –many of which have been victims of systematic disenfranchisement and racism.

As a result of the purchase of Alaska in 1867, the United States belongs to an exclusive company of nations that own or oversee territory in the Arctic. These eight nations, the United States, Canada, Russia, Norway, Sweden, Finland, Iceland, and Denmark (via Greenland), despite sharing the designation of being an Arctic nation, all possess distinct ambitions and interests in the far North. Cooperation, however, is imperative to address the myriad challenges that the Arctic faces in the twenty-first century. In order for the United States to become, and remain, a responsible Arctic ally, I argue, we must first reexamine our origins as an Arctic nation and recognize the connection between the purchase of Alaska and the conquest of the American West. Acknowledging the continued existence of exploitation and colonialism in Alaska is a necessary step the United States must take on the path towards responsibility in the Arctic.

INTRODUCTION

On the shores of the remote Bolshy Lyakhovsky Island, located in northeastern Siberia, local reindeer herders recently discovered the preserved carcass of an ancient brown bear. The prehistoric bear, being called “the first and only find of its kind,” was found in September 2020 and is estimated to be between 22,000 and 39,500 years old.¹ A team of scientists from North-Eastern Federal University in Yakutsk, Russia identified the carcass as belonging to the extinct species of cave bears known as *Ursus spelaeus*, which lived sometime in the late Pleistocene era. The cause of death was unclear, however the permafrost on the island left the bear completely preserved with all of its internal organs in place, as well as some of its external features such as its nose and teeth. This ancient bear joins a number of other Ice Age mammals that have been revealed by the melting permafrost of the Siberian Arctic. Other recent discoveries have included woolly mammoths, woolly rhinos, cave lion cubs, and the perfectly preserved head of a wolf.

The frozen permafrost of the Arctic has served as a time capsule by sealing ancient soil and ancient flesh in place. Currently covering about 25 percent of the exposed landmass of the Northern Hemisphere, permafrost is defined as any land that is solid for two or more years at a time –although much of the Arctic permafrost has been frozen for tens of thousands of years. Yet, as temperatures in the Arctic continue to rise

¹“Bear from Ice Age Found ‘Completely Preserved’ in Russian Arctic.” BBC News Online. BBC, September 15, 2020. <https://www.bbc.com/news/world-europe-54160645>.

due to climate change, the permafrost has begun to melt and reveal its long-buried secrets. This unique feature of the far North presents the Arctic as a strange dichotomy of a prehistoric land frozen in time, and as a casualty of a constantly changing and warming planet.

The Arctic has frequently undergone many figurative changes in the minds of humans, proving to be one of the most fascinating –but often misunderstood– regions of the globe. For the Ancient Greeks it was home to the Hyperborean, a race of immortal giants who enjoyed twenty-four hours of sunlight and trees that bore fruit all year-round. When Greek explorer Pytheas reached what was possibly the western coast of Norway, in the fourth century BC, the farthest north was then known as Thule –a vague distinction for the region beyond the borders of the known world. Instead of giants, Pytheas described having met barbarian farmers who possessed very few domestic animals and not much grain.² Centuries later, a popular theory claimed that the Arctic contained a temperate ice-free ocean which surrounded the North Pole. This hypothesis spawned a frenzy of expeditions to the Arctic in the 19th century –many of them terribly unsuccessful– determined to confirm the existence of an open polar sea.

Misconceptions about the Arctic finally began to fade as our knowledge of the planet grew. Still, the region retained a place within the minds of the world’s southern inhabitants, but often as nothing more than a novelty. The Arctic was a land of genuine intrigue, but remote and isolated, blissfully unaffected by the affairs of the rest of the globe. Alas, the propensity to view the Arctic in this fashion has not vanished, but is still

²Robert McGhee, *The Last Imaginary Place: A Human History of the Arctic World* (Chicago: University of Chicago Press, 2007), 22-24.

among the most common misconceptions currently associated with the far North. In truth, the Arctic of the twenty-first century has revealed itself to be far more complex and integral to the global community than humans ever previously believed. Today, the region is undoubtedly linked to the rest of the globe through trade and tourism. But, perhaps now, the most significant connection between the Arctic and rest of the world is through climate change. The effects of climate change will produce a myriad of challenges far beyond the environment and the boundaries of the Arctic as melting ice begins to reshape the contours of global security. The antiquated notion that the Arctic is remote and isolated is no longer sufficient to overcome these challenges. Instead, the Arctic must find a new place in the imagination, one that views the relationship between the Arctic and the rest of the globe as profoundly related.

Integral to understanding America's role in the Arctic of the twenty-first century is understanding that our nation's past and present are also profoundly related. In this paper, I argue that, in order to become a more responsible Arctic nation, we must first reexamine our Arctic origins and acknowledge the ways in which imperialist principles of conquest and exploitation have seeped into the present. Furthermore, I believe that new perspectives about our past—specifically the connection between Alaska, the American West, and the Arctic—can guide our understanding of many issues, both environmental and political, facing the Arctic in the twenty-first century. New perspectives about our past are necessary for us to realize our role in the Arctic and rid ourselves of the lethargy that has characterized our attitude towards this region for the

past century and a half. As the Arctic obtains a new place in the human imagination it must also gain a new place in American history.

ARCTIC ORIGINS

In 1974, for its Fifteenth Edition, the *Encyclopedia Britannica* rephrased its entry for the American Arctic explorer Robert Edwin Peary to state that he is “usually credited” with the discovery of the North Pole. For over half a century textbooks and reference works had bestowed upon Peary the unequivocal achievement of being the first white man to reach the geographic North Pole. Yet, Peary’s claim that he reached the North Pole in the spring of 1909 did not stand up against the scrutiny of contemporary research. Closer examination of Peary’s journals, and further study of the controversy between Peary and his rival Frederick Cook (who claimed to have reached the Pole the previous year) revealed the likelihood that neither man had actually reached the North Pole.³ Over a century ago, however, Robert Peary’s claim was treated as an absolute fact; an American –not an Englishman, nor a Russian, nor a Norwegian– was the first to claim the top of the world. In September 1909 an article in *The Ogden Standard* confidently declared “there can be no doubt that to the United States belongs the unquestionable credit and lasting renown of discovering the North Pole.”⁴

But there was doubt, and this doubt, coupled with a willingness to reexamine and reconsider our past, helped redefine a moment in American history. Uncovering the truth behind the discovery of the North Pole is an example of the arduous, and sometimes

³Pierre Berton, *The Arctic Grail: The Quest for the North West Passage and the North Pole, 1818-1909* (New York: Viking Penguin Inc., 1988), 624.

⁴“Question of Priority in the Discovery of the North Pole.” *The Ogden Standard*, September 7, 1909. *Chronicling America: Historical American Newspapers*. (Accessed March 4, 2021). <https://chroniclingamerica.loc.gov/lccn/sn85058398/1909-09-07/ed-1/seq-1/#words=Peary+Cook+North+Pole+Arctic+conquest+Roosevelt>

controversial process of historical revision. Renowned Civil War historian James M. McPherson has called revision the “lifeblood of historical scholarship” and explained that “interpretations of the past are subject to change in response to new evidence, new questions asked of the evidence, new perspectives gained by the passage of time.”⁵ New perspectives –and greater knowledge of historical events– provides a window through which the complexities of the present can be seen more clearly.

An event in American history that, like the alleged discovery of the North Pole, warrants serious reexamination is the 1867 purchase of Alaska. Secretary of State William H. Seward, who believed Alaska’s greatest value was as a trade link between the United States and Asia, spearheaded the acquisition of this territory. A popular misconception often associated with the purchase of Alaska is that it was widely decried as a folly –a waste of money on a frozen wasteland. In truth however, the decision was almost unanimously viewed favorably.⁶ Among the touted benefits of this new territory, besides the prospect of trade with Asia, was that it would serve as a buffer against the ambitions of European empires in North America, it was rife with natural resources like timber and fish, and that it would sit as a beacon of American power in the Pacific.

True as those benefits were, equally as attractive was the role Alaska would serve as a stepping-stone towards further territorial expansion. One of Seward’s most vocal allies for the purchase of Alaska was Senator Charles Sumner from Massachusetts who,

⁵James M. McPherson, “Revisionist Historians,” *American Historical Association*, Sept. 1, 2003, <https://www.historians.org/publications-and-directories/perspectives-on-history/september-2003/revisionist-historians>

⁶Stephen W. Haycox, “Truth and Expectation: Myth in Alaska History,” *The Northern Review* 6, (Winter 1990): 59-82.

in a speech to Congress, revealed the additional benefit the purchase would serve. He called the acquisition of this new territory a “visible step in the occupation of the whole North American continent.”⁷ Along with being viewed as the origins of our status as an Arctic nation, the purchase of Alaska must be seen as a target of manifest destiny and an extension of the American West. The term “manifest destiny” was originally coined by a New York newspaperman named John O’Sullivan in 1845, who proclaimed that it was America’s God-given right, and destiny, to occupy the entire North American continent. Although, at the time, the term did conflict with notions of sectionalism and racism, it also had many proponents and has since become the unofficial catchphrase of nineteenth-century expansionism.⁸ In regard to Alaska, as political scientist Charles Emmerson has argued: “William H. Seward’s interest in expansion of the United States to the north was long-standing. Alaska was far from being the only prize in his sights. It was just part of a wider plan of territorial aggrandisement by which he hoped to create the basis for an American commercial empire.”⁹

The vein of expansionism that ran throughout the United States in the nineteenth century was so deep that other countries, including Russia, were well-aware of America’s territorial ambitions. In a letter to a fellow Russian statesman Grand Duke Konstantin, the younger brother of Czar Alexander II, addressed these concerns: “We must not deceive

⁷Charles Sumner, *Speech of Hon. Charles Sumner, of Massachusetts, on the Cession of Russian America to the United States* (1867) excerpted, Harvard University, Hathi Trust Digital Library, <https://babel.hathitrust.org/cgi/pt?id=hvd.32044019237155&view=1up&seq=2> (accessed 04 March. 2021).

⁸ Richard White, “*It’s Your Misfortune and None of My Own.*” *A New History of the American West* (Norman: University of Oklahoma Press, 1991), 73-74.

⁹Charles Emmerson, *The Future History of the Arctic: How Climate Resources and Geopolitics are Reshaping the North, and Why it Matters to the World* (London: Vintage Books, 2010), 76. Hereafter cited as Charles Emmerson, *Future History of the Arctic*.

ourselves and must foresee that the United States, aiming constantly to round out their possessions and desiring to dominate undividedly the whole of North America will take the afore-mentioned colonies from us and we shall not be able to regain them.”¹⁰ Having determined that the best option would be to sell the territory, Russia first approached the United States in 1859 with the prospect of selling Alaska. Russia was anxious to get rid of the territory, yet, at the time, the feelings were not mutual in the United States. In 1859 the all-consuming issue of slavery had overwhelmed the United States. No compromise, or act of legislation, had successfully alleviated tension for long. Acts of violence, such as the ongoing Bleeding Kansas conflicts and John Brown’s unsuccessful raid on Harper’s Ferry exposed the inevitability of the Civil War. It was not until two year after the war was over that the United States began to show real interest in Alaska and, in March of 1867, agreed to a proposal from the Russian minister in Washington to purchase Alaska for the price of \$7.2 million.

When viewed through the lens of 19th century expansionism, the territory of Alaska was subject to the very same principles of exploitation and colonialism that allowed for the conquering of the American West. Likewise, those that suffered most from our nation’s unrelenting push west also suffered when our nation pushed north. Just as Native Americans in the West were forced to relinquish their land, so too were natives in Alaska forced to accept white settlers encroaching on their homeland. As renowned Alaska historian Stephen W. Haycox explained: “Not only did the United States and Russia ignore [Native Alaskan] sovereignty in the region, but no one officially asked the

¹⁰ *Russian Opinion on the Cession of Alaska*. The American Historical Review 48, No. 3 (1943), 521–531.

Natives' opinion of the transfer. U.S. officials were not in touch with most of the Native groups in Alaska, and for the most part they had little notion of who these Native were."¹¹

Where the purchase of Alaska differed from the expansion of the contiguous American West was that Alaska was acquired without the intent of the territory ever gaining statehood. Western territories, gained for a variety of reason such as the Louisiana Purchase or victory in the Mexican-American War, were often quickly admitted to the union. Although the debates over whether these new territories would be admitted as a free or slave-state greatly accelerated the coming of the Civil War, statehood was an understood inevitability. But, as author Mary Alice Cook explains in the journal *Alaska History*: "Alaska's remote location and scanty non-Native American population made it unlikely that it would ever be admitted as a state."¹²

As a result of this unique distinction, the history of early American Alaska closely resembles that of a colony. Shortly after the purchase of Alaska was finalized the territory was placed under the jurisdiction of the U.S. Army with military commanders acting as the sole arbitrators of order and justice. During this early period tensions were high as the native population, and the few hundred Americans who migrated to Alaska, realized the limits and shortcomings of the military government. Unsurprisingly, Native Alaskans were completely neglected in all matters regarding the governing of Alaska. In fact, Native Alaskans, unlike the small population of Russians who had remained in Alaska after the transfer, were not granted U.S. citizenship upon the finalization of the purchase.

¹¹ Stephen W. Haycox, *Alaska: An American Colony*, 2nd ed. (Seattle: University of Washington Press, 2020), 182. Hereafter cited as Haycox.

¹² Mary Alice Cook, "Manifest Opportunity," *Alaska History* 26, no. 1 (2011): 4.

The military government was usually unable, or unwilling, to make any effort to understand Native culture or experience. Rather, “consistent with late-nineteenth-century American cultural assumption, the military imagined only two possible futures for the American Indian: extinction or assimilation.”¹³

In earlier decades of the nineteenth-century the systematic extermination of Native Americans in the West was commonplace. For example, in California between 1849-1870, nearly 9,500 indigenous Californians were murdered by white settlers at the behest of state authorities and militias. A further number of Native Americans in California, estimated to be between 24,00 to 27,000, were taken as slave laborers – particularly during the famous Gold Rush of 1848.¹⁴ Yet, in Alaska, as the white settler population was considerably low, violent interactions between whites and Native Alaskans were rare. A combination of everything from the climate, to the distance from the continental U.S. made Alaska much less attractive to white settlers than other territories. Similarly, being disconnected from the contiguous American West meant that Native Americans in Alaska were not subject to the same impositions that had forced the removal of the Plains Indians from their land and relocated them to reservations.

These factors thankfully spared Native Alaskans from the same fate as many of the Native Americans in the West. However, similar to the American West, Alaska did attract a number of religious reformers intent on “civilizing” the local population. It was commonly believed that the cultural, spiritual, and tribal practices of Native Americans

¹³ Haycox, 187.

¹⁴ Benjamin Madley, *American Genocide: The United States and the California Indian Catastrophe* (New Haven: Yale University Press, 2016).

were incompatible with those of white Americans; namely individualism, capitalism, and Christianity. In Alaska, the most notable “civilizer” was Sheldon Jackson, a Presbyterian church organizer from Denver who travelled to Alaska in 1877 to establish a church and a school for the native community. Jackson routinely travelled back and forth between Alaska and Washington D.C. lobbying Congress to fund education programs for Native Alaskans. Though he did not have much success in the Capital, he remained dedicated to Alaska for the remainder of his career. Stephen W. Haycox described the mindset Sheldon Jackson possessed. He wrote: “Jackson was remarkably naively confident that the transformation could be accomplished in a single generation through education. He believed that one generation converted to American values would teach those who came after it, and the work would be done; Indian culture would be eradicated.”¹⁵

By modern interpretations it can be challenging to reconcile the good intentions of religious reformers with the reality of what was essentially cultural genocide. Many of the Christian missionaries that came to Alaska in the late nineteenth century, including Sheldon Jackson, truly believed that if the native population did not assimilate to white culture they would soon become extinct. They felt it was their duty to save –whether literally or spiritually– the Native Americans of Alaska. Unfortunately, the result was often a near-complete erasure of Native American identity and culture. The goal of assimilation programs, as summarized by historian Richard White was: “In the end, Indians would be Christian farmers living in nuclear families on their own land. The remaining lands could then be opened to white farmers. In the end, all supposedly would

¹⁵ Haycox, 195.

be reconciled.”¹⁶ Unsurprisingly, this was not the result. Yet, the assimilation programs continued nonetheless.

To supplement the work of reformers the process of assimilation was officially codified in 1887 with the passage of the Dawes General Allotment Act. Also known as the severalty act, this legislation outlined the necessary steps required for a Native American to be considered “civilized.” By the terms of this Act, any Native American head of household who formally severed ties with their tribe would be given a conditional land title. After twenty-five years, if the Native American was deemed assimilated –that is, lived apart from their tribe and displayed economic, social, and political individualism—they would be given a full-fee simple title to the land and be “accepted” as citizens, though not given actual federal citizenship. In the case of Alaska and British Columbia, where there were no federally recognized tribes, assimilation to white culture was characterized by “economic individualism, Western dress and hygiene, and Christian values.”¹⁷

Again, the introduction of these programs was complex and controversial. In many cases, life expectancy and economic opportunities increased, but did so at the expense of indigenous culture and identity. What must be remembered, and taught in the twenty-first century, is that the process of assimilation was often forced and, despite seemingly good intentions by missionaries, ethnic minorities like Native Americans were viewed as racially inferior. Self-determination is paramount for any indigenous group.

¹⁶ Richard White, *“It’s Your Misfortune and None of My Own:” A New History of the American West* (Norman: University of Oklahoma Press, 1991), 111.

¹⁷ Haycox, 205.

Preservation of traditional knowledge, customs, and identity ought to be encouraged from the outside as much as they are from within. If assimilation emerges from self-determination then so-be-it, but, in the case of Alaska, the assimilation emerged from white supremacy. As Stephen W. Haycox summarized: “While all cultures are in a constant state of change, from a combination of both internal and external forces, the brutality of the American assimilation of American Natives included myriad injustices.”¹⁸

In concurrence with the mistreatment of Native Alaskans by white settlers was a similar disregard for the local wildlife and natural environment of the territory. Through a process that mirrors that of the American West, the expansion of white settlement into the interior of Alaska dramatically altered animal populations and land usage. The primary cause of the settler expansion was the discovery of gold along the Klondike River in the early 1890s which triggered a massive spike in immigration to Alaska from the American mainland. A census taken in 1910 revealed a non-Native population of 30,450 in Alaska, a sevenfold increase since 1890.¹⁹ As prospectors flocked to new interior settlements such as Fairbanks, Nome, and Dawson their impact on the Alaskan environment became substantial.

Riverbanks were stripped of trees to build riverboats, which forced game away from the rivers and greatly disrupted grazing and migration patterns. Among the most affected were moose and caribou which became extremely scarce in areas near populated settlements. For Native Alaskans, the disruption of game resources reduced the subsistence on which they traditionally depended. Further environmental degradation

¹⁸ *Ibid.*,

¹⁹ Haycox, 224.

occurred in the form of chemical pollution as miners used mercury to separate gold from other minerals, which often resulted in the contamination of rivers and streams. Larger bodies of water were an additional setting for environmental exploitation and disregard. Similar to the plight of the American bison, the over hunting of bowhead whales and northern fur seals pushed both to the brink of extinction. Although the decline was not as rapid as that of the bison –as whaling continued well into the twentieth-century– it was not until the fate of the entire species hung in the balance that action was taken to prevent complete eradication.

The mistreatment of Native Americans and the environment occurred as much in Alaska as it did anywhere else in the American West. While it still remains common to view the purchase of Alaska as a folly, or as a powerplay of an ambitious Secretary of State, the history of the purchase of Alaska must be revised. Subject to a similar vein of conquest and colonialism as the American West, the territory of Alaska –and America’s Arctic origins– cannot be separated from our nation’s unrelenting pursuit of manifest destiny. Unfortunately, the failure to properly understand the purchase and early usage of Alaska has resulted in the continuation of exploitative practices and neglect of Native interests today. By separating Alaska from the American West, we have failed to learn from our past, and instead, allowed a system of exploitation and neglect to continue into the twenty-first century.

LEGACY OF IMPERIALISM

Ninety-one years after the United States purchased Alaska the territory officially joined the Union as the forty-ninth state. The transition from territory to state, however, was not without controversy. For many mainland Americans the prospect of admitting Alaska as a state (as well as Hawaii the same year) conflicted with a deep-seated racism. Put bluntly, by historian Daniel Immerwahr: “To accept Hawaiian and Alaskan statehood, mainland politicians would have to reconcile themselves to the prospect of states not firmly under white control.”²⁰ Nearly a century after the purchase, Alaska still had not attracted a sizable white population. The gold rush that had sparked a brief spike in migration died down shortly before WWI and the next spike, after oil was discovered at Prudhoe Bay, did not occur until 1968. When Alaska gained statehood in 1959 the population of Alaska was about half native and half white which increased the likelihood that the state’s Congressional representatives would be Native American or biracial. A Massachusetts newspaper revealed the true feelings of racists across the United States when they openly printed, “We do not want those people to help govern the country... When future issues arise in the United States Senate, we do not want a situation where vital decisions may depend upon two half-breed senators.”²¹ As Alaska changed from a territory to a state Native voices went from being completely ignored to being completely unwanted. The history of Alaska, from the moment of purchase, to its eventual statehood,

²⁰ Daniel Immerwahr, *How to Hide an Empire: A History of the Greater United States* (New York: Farrar, Straus, and Giroux, 2019), 238.

²¹ *Ibid.*, 239.

to the present-day, reveals the recurring theme of a blatant disregard and ignorance towards Native American voices.

Today this ignorance is most evident in issues regarding climate change and its effect on indigenous communities. The increase in global temperatures has resulted in a decline of food sources, such as salmon, upon which native communities traditionally rely. A reduction of winter sea ice has forced indigenous hunters to travel further, often under more perilous conditions, to reach seal and walrus hunting grounds. Similarly, the diminished ice has left many coastal communities exposed and vulnerable to higher waves and erosion. Native communities in Alaska and the North American Arctic are desperate to have their voices heard and be a part of the solution. Some government and scientific organizations have announced intentions to incorporate local concerns, but, as environmental historian Adrian Howkins argues, “all too often an indigenous perspective is simply added as afterthought to traditional scientific research as a way of appeasing different interest groups.”²²

An example of this afterthought manifested in a recently-launched initiative by the National Science Foundation. Called the Navigating the New Arctic (NNA) initiative, this program seeks to “improve understanding of Arctic change, but also encourages scientists to enlist Indigenous communities in the ‘coproduction of knowledge’ by involving them in planning and executing projects.”²³ Despite the

²² Adrian Howkins, *The Polar Regions: An Environmental History* (Cambridge: Polity Press, 2016), 170. Hereafter cited as Adrian Howkins.

²³ Stone, Richard. “As the Arctic Thaws, Indigenous Alaskans Demand a Voice in Climate Change Research.” *Science*. American Association for the Advancement of Science, September 9, 2020. <https://www.sciencemag.org/news/2020/09/arctic-thaws-indigenous-alaskans-demand-voice-climate-change-research>.

announcement to enlist Indigenous communities, the execution was flawed and resulted in backlash from Native groups. In response to the NNA initiative, Kawerak, Inc., a consortium of tribes and indigenous communities in the Bering Strait region, wrote to the National Science Foundation addressing the shortcomings:

Unfortunately, there continues to be a disconnect between resource managers, policy-makers, academics, agencies, and our communities. There are many types of research questions important to our food security, human health and well-being, infrastructure, security, cultural heritage, and resilience in an Arctic that requires increasingly nimble adaptation of our communities. We continue to lack meaningful access and voice in the vast landscape that is the ‘research process’ to ensure that these questions are addressed in locally relevant and respectful ways.²⁴

The National Science Foundation acknowledged the disconnect and admitted that they made a mistake assuming that scientists understood the concept of knowledge co-production, but they said they have no plans to fund Indigenous-led projects.

Even in best-case-scenarios, when non-Native organizations recognize the importance of local voices, incorporating indigenous knowledge can be problematic and remains a very delicate issue. Anthropologist Julie Cruickshank has addressed the challenges that come with balancing incorporation and understanding of traditional knowledge:

There seems to be a growing consensus that indigenous knowledge exists as a kind of distinct epistemology that can be systemized and incorporated into Western management regimes. One of the more trenchant insights from anthropology is that as soon as taken-for-granted, everyday knowledge practices become defined and bounded as ‘systems’ of knowledge, this sets in motion processes that fracture and fragment human experience.²⁵

²⁴ “Knowledge Sovereignty and the Indigenization of Knowledge,” *Full Letter*, Kawerak, Inc. April 17, 2020. <https://kawerak.org/knowledge-sovereignty-and-the-indigenization-of-knowledge-2/>.

²⁵ Julie Cruickshank, *Do Glaciers Listen? Local Knowledge, Colonial Encounters & Social Imagination* (Vancouver: University of British Columbia Press, 2006), eBooks, chap. 8: Melting Glaciers and Emerging Histories, *Local Knowledge as TEK*.

Among the problems that can arise when attempting to incorporate traditional knowledge is believing that indigenous perspectives are bridgeable to concepts contained in the English language. For example, certain terminology such as “sustainable development” may have completely different interpretations for those within an indigenous community and those outside these communities. Also, falsely assuming that traditional knowledge can be captured or transcribed into databases all while retaining the appropriate context is an additional mistake often made by non-local administrators. Furthermore, the existence of confirmation bias leads to accepting what may be perceived as traditional knowledge, yet, in reality, only reflects ideas compatible with the intentions of state or federal administrators rather than the actual concerns of local communities.

The solution to these issues is, thankfully, rather simple. In order to ensure that indigenous voices are heard, and their concerns properly understood, all projects and conversations, no matter the subject, must be led by Indigenous communities. Relinquishing control will, no doubt, be a challenge for most non-Indigenous organizations. Historically speaking, even if Western science was able to admit the value of indigenous knowledge it was often not viewed as being on the same intellectual or academic level. For instance, it was not uncommon in the past to write-off indigenous knowledge as “superstition,” “primitive wisdom,” or simply as “observations,” rather than valid knowledge. This propensity to view indigenous knowledge as unequal to Western science still exists as unconscious bias today, however, as Adrian Howkins explains: “When taken seriously, traditional ecological knowledge has the capacity to not only contribute additional data to an understanding of environmental change over time

but also to radically change ideas about how the climate is understood by showing that science is not the only way of understanding the natural world.”²⁶

Indigenous-led programs will not only prevent a myriad of problems from arising, such as all those listed above, but will also be more successful in combating the many issues indigenous communities face. A recent UN-backed report compiled by a group called the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services studied environmental degradation brought on by human activities such as mining and agriculture. With results that would not come as a surprise to indigenous groups, the report revealed that, “on average, [Indigenous groups] are doing a better job of managing natural resources and environmental hazards like species decline and pollution”²⁷ than those with non-indigenous management. Indigenous groups, having thrived on their lands for millennia, possess a deeper understanding of local ecosystems and of the dynamics between humans and the non-human environment. Similarly, the relationship between Indigenous communities and their environment is more reciprocal, they see themselves as coexisting with their environment; an environment that is inseparable from their culture and way of life.

This symbiotic relationship between humans and nature means that indigenous communities know exactly what they need in order to survive, and thrive on their land. Unfortunately, the long-lasting effects of colonialism on these communities has resulted

²⁶ Adrian Howkins, 170.

²⁷ Sneed, Annie. “What Conservation Efforts Can Learn from Indigenous Communities.” *Scientific American*. *Scientific American*, May 29, 2019. <https://www.scientificamerican.com/article/what-conservation-efforts-can-learn-from-indigenous-communities/>.

in critical deficiencies in public infrastructure, healthcare, housing, and education. The effects of climate change on these communities has been drastic, but many of these communities face a laundry-list of additional problems. As with the issue of the changing climate, indigenous-led projects are a crucial necessity to address and overcome this systematic disenfranchisement. The United States must amend for the centuries of neglect and ignorance towards indigenous voices and communities by devoting funds to these deficiencies. The Biden administration can take significant steps forward in this regard by refocusing our attention on the needs of these communities and listening to the concerns of the locals. Joel Clement, currently a senior fellow with the Arctic Initiative at Harvard University's Belfer Center for Science and International Affairs, has identified action that the Biden administration should take. He argues:

The administration should set up an Arctic investment office within the Commerce Department to A) guide investments toward indigenous institutions, B) foster public-private investments in the region that can help Alaska address the decline of its fossil-fuel economy, and C) establish resilience standards for investment in Arctic sectors such as mining, shipping, tourism, renewable energy, and telecom. In this way, the administration can foster resilience by including improvements in public infrastructure as a cost of doing business in the region.²⁸

Making up for centuries of colonialism will not be any easy task, nor will it likely be amended by a single administration or program. However, progress can be made by acknowledging the errors of our past, and the ways in which these errors have seeped into the present. The indigenous communities in Alaska are tremendously resilient when faced

²⁸ Clement, Joel, "What the Biden Administration Can Do to Help Build a More Just and Resilient Arctic." ArcticToday, January 13, 2021. <https://www.arctictoday.com/what-the-biden-administration-can-do-to-help-build-a-more-just-and-resilient-arctic/>.

with change and adversity. A prosperous relationship with these indigenous communities is necessary for the United States to become a responsible member of the Arctic.

EXPLOITATION

Our prosperous relationship, however, must not stop with the people of the Arctic, but rather be extended to cover the natural environment of the Arctic. Listening to the concerns of the local populations while simultaneously ravaging the local environment are two things that cannot coexist for a responsible Arctic nation. Unfortunately, a remnant of nineteenth century exploitation has been the systematic degradation of the environment of Alaska specifically through the process of fossil fuel extraction. A feature of Alaska that was not foreseen by William Seward was the discovery of oil at Prudhoe Bay in 1968. By the 1980s this region of Alaska's North Slope was producing close to a quarter of America's domestic output of oil. In 1989 the consequence of this exploitation finally came to fruition when the oil tanker *Exxon Valdez* spilled approximately 11 million gallons of crude oil into Alaska's Prince William Sound. The oil, which had been extracted from Prudhoe Bay, contaminated at least 1,300 miles of coastline and is considered the worst oil spill in history in regard to damage to the environment.²⁹

Despite a clear and present danger to the environment, the extraction of fossil fuel in Alaska remains a partisan issue, especially in the Alaska National Wildlife Refuge (ANWR). This region of Alaska's North Slope consists of 19 million acres and remains one of our country's most pristine wilderness areas and is home to countless species of native plants and animals. Contained within ANWR is an area known as the 1002 region, which is a subsection of coastal plain that was designated as a site for potential oil

²⁹“Questions and Answers about the Spill,” *Exxon Valdez Oil Spill Trustee Council*. <https://evostc.state.ak.us/oil-spill-facts/q-and-a/> (accessed April 17, 2021).

drilling in 1986. The *Exxon Valdez* spill, however, derailed legislation that would have allowed drilling in the coastal plain, but the 1002 area has still remained central in the debate over fossil fuel extraction.

A controversial stipulation in a 2017 tax bill required the sale of leases for drilling in the 1002 area and set a timeline for the leases to be granted by the end of 2019. In the final days of the Trump administration nine leases were finalized, and despite revenue from the lease sale projected to net \$1.8 billion, the sale only drew \$14.4 million.³⁰ However, within the first few days of his administration, President Biden issued a number of executive orders which rendered null many actions of his predecessor. Among these was halting drilling efforts by issuing “a temporary moratorium on all activities of the Federal Government relating to the implementation of the Coastal Plain Oil and Gas Leasing Program.”³¹

The meager response by lease bidders is a rare bright spot in the ongoing debate over the 1002 area. Many potential buyers, and financiers, have seen the writing-on-the-wall: The United States is ending its dependence on fossil fuel. U.S. banks Goldman Sachs, JPMorgan Chase, Wells Fargo, Citigroup, Morgan Stanley, and Bank of America, as well as five of the largest banks in Canada, and Germany’s Deutsche Bank have all issued statements announcing policies against financing oil projects in the Arctic.³² As Andy Moderow, the Alaska state director of the Alaska Wilderness League argues: “The

³⁰ Schreiber, Melody, and Yereth Rosen. “Biden Halts Oil and Gas Development in Arctic Refuge Hours after Inauguration.” ArcticToday, January 21, 2021. <https://www.arctictoday.com/biden-halts-oil-and-gas-development-in-arctic-refuge-hours-after-inauguration/>.

³¹ *Ibid.*,

³² Rosen, Yereth. “Alaska's Governor Wants the State to Cut Ties with Banks Who Shun Arctic Oil Drilling.” ArcticToday, December 15, 2020. <https://www.arctictoday.com/alaska-governor-wants-the-state-to-cut-ties-with-banks-who-shun-arctic-oil-drilling/>.

message we should heed as Alaskans is clear: Speculative, high cost projects in places like Alaska's Arctic are no longer attractive to investors, especially with the realities of climate change and as more lucrative opportunities in renewable energy or unconventional oil plays down south exist.”³³

Notwithstanding the statements of the Biden administration or major banks, proponents of drilling will continue to push for opening ANWR. Instrumental in the fight against disinformation from these drilling proponents is a report published in 2008 by the Energy Information Administration (EIA). Called the “Analysis of Projected Crude Oil Production in the Arctic National Wildlife Refuge,” this report calculated that opening the 1002 region of ANWR for drilling would not affect the price of gasoline for at least ten years. Additionally, twenty years after leasing, the impact on the price of a barrel of oil would only range from 41 cents to \$1.44, neither of which would be significant.³⁴ In his extensive study of the far North titled *The Future History of the Arctic*, Charles Emmerson addressed this report and summarized: “What the report shows, in the end, is that the question as to whether to use the oil and gas resources of the Arctic is less important for America's overall energy future than decisions on, say, energy efficiency or alternative sources.”³⁵ The timeline confirms the absurdity of the continued pursuit of fossil fuel in ANWR. By 2040 the United States will have hopefully, if not likely, made

³³ *Ibid.*,

³⁴ Van Wagener, Dana. “Analysis of Projected Crude Oil Production in the Arctic National Wildlife Refuge.” Annual Energy Outlook 2018. U.S. Energy Information Administration, May 23, 2018. <https://www.eia.gov/outlooks/aeo/anwr.php>.

³⁵ Charles Emmerson, *The Future History of the Arctic*, 258.

significant steps in utilizing alternative energy. At that point, the miniscule reduction in the price of a barrel of oil will be even less significant than it is now.

As countries all across the world –including most Arctic nations– begin to reduce their dependence on fossil fuels the United States must follow-suit and join in the advancement and development of alternative energy. Halting drilling is a promising start, but much more needs to be done in order to ensure that our Arctic environment remains pristine and protected. One possible preventative measure, for which the data from the EIA support, would be for President Biden to designate the 1002 area a national monument under the provisions of the Antiquities Act. Employing the Antiquities Act would declare, by executive proclamation, that as a national monument the 1002 area would be protected from extractive activities like mining and drilling. However, despite being closed-off to drilling, ANWR could still remain open to those practicing a subsistence lifestyle, such as Native Alaskan communities.

Many of the national parks in Alaska were created or, in the case of ANWR, expanded as a result of the Alaska National Interests Lands Conservation Act of 1980. Along with designating more than 100 acres of the state as national parks, forests, and wildlife refuges, this legislation also protected Native Alaskan’s right to retain continued subsistence use of the public land. Historian Theodore Catton has called this distinction “inhabited wilderness,” as it allows for Native Alaskans, as well as whites who practice a subsistence lifestyle, to hunt, fish, and trap within national park boundaries.³⁶ Unlike some of the oldest national parks in the continental United States that evicted the

³⁶ Theodore Catton, *Inhabited Wilderness: Indians, Eskimos, and National Parks in Alaska* (Albuquerque: University of New Mexico Press, 1997).

indigenous inhabitants when they were formed, the federal land in Alaska demonstrates a desire to protect indigenous identity and satisfy those calling for wilderness conservation. The Alaska National Wildlife Refuge, including the 1002 area, could become a region of inhabited wilderness and allow for the preservation of both indigenous lifestyles and the environment.

It is important to note, however, that the balance between conservation and subsistence remains a complex issue, even among those that seemingly favor similar outcomes. Theodore Catton reveals that difficulties can emerge when conservationists center their support for native people on “romantic conceptions of native culture.”³⁷ For example, many conservationists naively think that Native American hunters still practice the ancient methods of their ancestors and believe Native Americans that embrace and incorporate modern technology, such as modern fishing boats or snowmobiles, into their subsistence lifestyle are no longer “native,” and thus ought not to be allowed to utilize wilderness areas. Furthermore, another illusion is the belief that all Native Americans, including those in Alaska, are fellow conservationists and oppose resource extractive practices. In reality however, there are several native communities in Alaska that favor resource extraction for a variety of reasons. This latter illusion can be difficult for many environmental groups to reconcile. But, as with the issue of assimilation, the self-determination of native communities is vitally important and the seminal factor in their preservation.

³⁷ *Ibid.*, 216.

The reasons why some native communities in Alaska support resource extraction are important to understand. In many cases, they are similar to those held by non-native citizens of Alaska. The oil industry and related infrastructure provides income for many Alaskans, not to mention a substantial contribution to Alaska's Permanent Fund. However, this simply illustrates a bigger picture, if not problem, with this system. That is, Alaska's dependence on outside investors. As has been the case for nearly its entire history, "what happens in Alaska is overwhelmingly a function of forces and decisions made outside Alaska."³⁸ Whether it be from gold, salmon, timber, or oil outside capital has been the driving-force of Alaska's economy. As argued by Stephen W. Haycox:

The purpose of these enterprises has not been to build up Alaska; rather, it has been to enrich the corporate investors. The Alaska economy has expanded and contracted in response to the decisions of the managers of the absentee capital, decisions made in response to the vicissitudes of the world market system, not the perceived needs of Alaskans, their economy, or society.³⁹

Alaska has yet to gain its independence from outside investment and it remains difficult to envision the state cutting ties to the oil industry. The lack of internal sources of capital has forced Alaska and its inhabitants to be equally reliant on outside investment. This overwhelming reliance on outside industries can understandably cause Alaskans to defend this system because significant income is simply not coming from anywhere else. Although the Permanent Fund was created to save money for future generations of Alaskan's that "would no longer have oil as a source of income," many in Alaska seem determined to make sure that day never comes.⁴⁰ Is it because of loyalty to

³⁸ Haycox, 175.

³⁹ Haycox, 172.

⁴⁰ Alaska Permanent Fund Corporation, "Frequently Asked Questions," <https://apfc.org/frequently-asked-questions/#why-did-alaskans-create-the-fund>. (accessed Apr. 3, 2021).

the fossil fuel industry? Or, is it because Alaskans know that when the bands that connect our nation to fossil fuel finally dissolve, they will have to look elsewhere for a new source of economic dependence?

CANARY IN THE COAL MINE

Reexamining our nation's Arctic origins and acknowledging the continued existence of colonialism and exploitation in Alaska is the necessary first step to become a responsible Arctic nation. The continued promulgation of nineteenth century principles has prevented the United States from earning a reputation as a leader in Arctic affairs. Even recently, specters of manifest destiny arose when President Trump announced interest in purchasing Greenland, only for the proposition to be laughed-off by Denmark. Our presence in the Arctic as a reliable and competent leader is needed. The Arctic of the twenty-first century faces an array of serious challenges, all of which require the full attention of every Arctic nation. Indeed, many of the threats facing the Arctic are of great importance –and carry great consequences– for the rest of the world. Certainly, the most pressing issue facing the planet is climate change, from which the Arctic has suffered the greatest. Accordingly, the eight nations of the Arctic must be superbly conscious and knowledgeable of the stark realities of climate change and understand the position where humanity now finds itself. For over two decades now, we have sat on the precipice of a monumental shift in understanding humanities role as the catalyst of climate change.

In the year 2000, Nobel Prize-winning chemist Paul J. Crutzen, and his colleague Eugene F. Stoermer, a marine science specialist, posited that a new geological era ought to be recognized; one that marks the time when human beings became a considerable force of change on the planet. Thus, the idea of the Anthropocene was born. Originally suggested to have begun at the start of the Industrial Revolution (~1760), the beginning of this proposed geological epoch has since been advanced and is now assigned to the

start of the Atomic Age in 1945. The detonation of atomic weapons marks the time when radioactive debris was first embedded in sediment and glacial ice and thus became part of Earth's geological record. Although the Anthropocene has yet to be approved by the International Commission on Stratigraphy, the scientific body that oversees the official geological timeline chart of the Earth, the movement has been steadily gaining traction. If, or when, the Anthropocene is acknowledged it will be defined by the anthropogenic emissions of carbon dioxide on a global scale, the systematic altering of the natural environment via agricultural chemicals, and the exponential growth of human population following WWII.⁴¹

Despite the surprising complexities of designating a new geological epoch, the take-away from the process is this: human beings have become a significant force of change on the planet. The very thought that a new geological epoch is even being considered to mark this moment is highly significant. In fact, *Homo sapiens* have only lived in two other epochs. Our current epoch, though possibly for not much longer, is the Holocene, the post-glacial age that began around 11,700 years ago at the end of the Ice Age. Prior to this age was the Pleistocene, the epoch of the Ice Age when ice sheets covered the landmasses of the Earth and woolly mammoths –and ancient brown bears– roamed the earth alongside early humans. These two geological epochs cover a span of over 2.5 million years, with the Pleistocene having begun approximately 2,580,000 years ago.

⁴¹ Subramanian, Meera. "Anthropocene Now: Influential Panel Votes to Recognize Earth's New Epoch." Nature News. Nature Publishing Group, May 21, 2019. <https://www.nature.com/articles/d41586-019-01641-5>.

The advancement into a new epoch reveals the severity of our influence on the planet. Plainly stated by historian Dipesh Chakrabarty: “The human being has become something much larger than the simple biological agent that he or she always has been. Humans now wield a geological force.”⁴² Understanding this new concept of the Anthropocene provides a different lens through which to view, interpret, or contextualize anthropogenic climate change. Furthermore, it adds both a geological and historical dimension to the consequences of our current climate crisis. Naomi Oreskes, a historian of science at Harvard University, explained the shift in thought caused by the arrival of the Anthropocene:

This was a basic tenet of geological science: that human chronologies were insignificant compared with the vastness of geological time; that human activities were insignificant compared with the force of geological processes. And once they were. But no more. There are now so many of us cutting down so many trees and burning so many billions of tons of fossil fuels that we have indeed become geological agents. We have changed the chemistry of our atmosphere, causing sea level to rise, ice to melt, and climate to change.⁴³

The consequences of humans becoming a geological force have been catastrophic. A recent report in *Frontiers in Conservation Science* summarized the current predictions of a “ghastly future of mass extinction, declining health, and climate-disruption upheavals” that will likely arise this century as a result of the climate crisis. This report, titled “Underestimating the Challenges of Avoiding a Ghastly Future,” was co-authored by seventeen different scientists from all across the world and referenced more than 150

⁴² Dipesh Chakrabarty, “The Climate of History: Four Theses,” *Critical Inquiry* 35, no. 2 (2009): 197-222.

⁴³ Naomi Oreskes, “The Scientific Consensus on Climate Change: How Do We Know We’re Not Wrong?” in *Climate Change: What It Means for Us, Our Children, and Our Grandchildren*, ed. Joseph F. C. Dimento and Pamela Doughman (Cambridge, Mass., 2007), 93.

studies about the planet's environmental decline. The authors argue that "humanity is causing a rapid loss of biodiversity and, with it, Earth's ability to support complex life," the solutions, the authors conclude, will require "fundamental changes to global capitalism, education, and equality."⁴⁴

Unfortunately, as the report suggests, the delay between action and consequences has caused many people to be unable to recognize the dire situation in which we now find ourselves. For most individuals, their daily lives are not overtly affected by climate change. Even if people have begun to notice changes, such as the worsening wildfires on the U.S. West Coast or brutal snowstorms in Texas, they often do not connect these events to the larger trend of a global climate cataclysm. This symptom of separation, or the disconnect, between localized events and the larger scale climate crisis, has been especially true in regard to climate change in the Arctic. As was the case with the Arctic throughout much of human history, the region is far-removed from the minds of the Earth's southern inhabitants. People still wrongly believe that the Arctic is a remote, far-away place. Yet, climate change in the Arctic cannot be isolated, or separated from the rest of the globe. Ice in the Arctic rapidly disappearing is directly connected to smoke from wildfires turning suburban skies blood red.

In the Arctic, the feedback loop of melting permafrost is the greatest accelerant to the exacerbation of climate change. Melting permafrost releases carbon-dioxide and methane into the atmosphere when exposed matter begins to decompose. The carbon

⁴⁴ Bradshaw, Corey J.A. et al., "Underestimating the Challenges of Avoiding a Ghastly Future." *Frontiers in Conservation Science*, December 21, 2020. <https://www.frontiersin.org/articles/10.3389/fcosc.2020.615419/full>.

dioxide and methane increase the warming of the planet, which then, in-turn, causes more permafrost to melt. According to a scientist from the National Snow & Ice Data Center, it is estimated that there are 1,400 gigatons (one gigaton equals one billion tons) of carbon trapped in Arctic permafrost. In comparison, Earth's atmosphere only contains about 850 gigatons of carbon.⁴⁵ Warmer temperatures in the Arctic do mean that the growing season lasts longer, which means that plants have more time to absorb carbon dioxide. But, as the Arctic continues to warm, permafrost could melt at such a rate that plant absorption of carbon dioxide could never keep up with the amount being released. This delicate balance is what scientists often referred to as a "tipping-point," after which the cycle becomes nearly unstoppable. The ticking-time bomb that is Arctic permafrost has already been the catalyst for a number of devastating catastrophes.

Among the more recent examples is the diesel oil spill that occurred on May 29, 2020 in the Siberian Arctic, near the town of Norilsk. Melting permafrost caused the ground below a diesel oil tank to collapse, resulting in approximately 21,000 tons of oil being spilled into the nearby Ambarnaya River. Towards the end of 2020 Russian authorities confirmed that the spill was the largest oil spill in Arctic history. Vladimir Putin lambasted the spill and declared a state of emergency, as well as had three of the station managers detained for criminal negligence. The clean-up has begun, and will likely take years, but significant damage has already been done.⁴⁶

⁴⁵ "Methane and Frozen Ground." National Snow & Ice Data Center. Accessed March 5, 2021. <https://nsidc.org/cryosphere/frozenground/methane.html>.

⁴⁶ "Russia Admits to 'World's Largest' Arctic Oil Spill." The Moscow Times, December 28, 2020. <https://www.themoscowtimes.com/2020/12/24/russia-admits-to-worlds-largest-arctic-oil-spill-a72477>.

A global pandemic caused by a long-dormant virus unearthed in the melting permafrost of the Arctic is another possible catastrophe, one that has thankfully been avoided thus far. Rampant deforestation, intensive farming, bushmeat hunting, and wildlife trading has resulted in an increase in human – animal interaction. This increased interaction is responsible for three-quarters of new infectious diseases; as we saw with the emergence of COVID-19.⁴⁷ Carbon-based matter exposed by melting permafrost is an additional source of a possible pandemic. The thawing of permafrost will encourage further development and construction in the Arctic that could potentially put humans in harm's way of an ancient pathogen. As a matter of fact, there is precedent, although minimal, for this type of spillover. In 2016 an anthrax outbreak that struck a small town in Siberia was traced to a frozen reindeer that had thawed and contaminated a water source. The particular reindeer had only died 75 years earlier, but bacteria and viruses can survive frozen in permafrost for hundreds of thousands of years.⁴⁸

Equally as serious as the dangers of melting permafrost are those that result from melting sea-ice in the Arctic. A noteworthy report published in 2021 that studied satellite observations and numerical models revealed that the rate of ice-loss, since 1990, has increased by 57 percent. Conducted by the journal *The Cryosphere*, the report studied ice-loss occurring all over the world, not just in the Arctic, and determined that the rate of ice-loss has increased from 0.8 trillion to 1.2 trillion tons per year. However, the authors

⁴⁷ Bradshaw, Corey J.A. et al., "Underestimating the Challenges of Avoiding a Ghastly Future." *Frontiers in Conservation Science*, December 21, 2020.

<https://www.frontiersin.org/articles/10.3389/fcosc.2020.615419/full>.

⁴⁸ Cho, Renee. "Why Thawing Permafrost Matters." *State of the Planet*. Earth Institute: Columbia University, January 11, 2018. <https://blogs.ei.columbia.edu/2018/01/11/thawing-permafrost-matters/>.

did address the feedback loop occurring in the Arctic, stating that: “Arctic sea ice loss has been attributed to atmospheric warming driven by anthropogenic CO₂ emissions, which has been enhanced in the Arctic when compared to the mid-latitudes likely due to sea ice loss itself.” When ice melts, the surface ground darkens and absorbs more sunlight (as opposed to frozen-sold ice which reflects sunlight). As the dark surface absorbs more sunlight it heats up and causes more ice to melt, thus establishing another feedback loop in the Arctic. All total, between 1994 and 2017 the planet lost 28 trillion tons of ice; 58% from the Northern Hemisphere and the remaining 42% from the Southern Hemisphere. The result of this loss was a rise in the global sea level by 34.6 ± 3.1 mm.⁴⁹

Examples of recent ice-loss in the Arctic prove that this trend has only worsened. In the late summer of 2019, Greenland experienced its greatest single-day loss of ice when 12.5 billion tons of ice poured into the sea. This broke the previous record, set only one day before, when 10 billion tons of ice was lost. The 22.5 billion tons of ice lost over a two-day span would be enough to cover the entire state of Florida in nearly five inches of water.⁵⁰ An additional casualty of the summer of 2019 was the last fully-intact ice sheet in the Canadian Arctic. Named the Milne Ice Sheet, and once connected to the edge of Ellesmere Island in the province of Nunavut, this massive ice shelf collapsed over the

⁴⁹ Slater, Thomas et al., “Review Article: Earth's Ice Imbalance.” *The Cryosphere*. European Geosciences Union, January 25, 2021. <https://tc.copernicus.org/articles/15/233/2021/>.

⁵⁰ Solly, Meilan. “Greenland Lost 12.5 Billion Tons of Ice in a Single Day.” *Smart News*. Smithsonian Institution, August 5, 2019. <https://www.smithsonianmag.com/smart-news/greenland-lost-record-breaking-125-billion-tons-ice-single-day-180972808/>.

course of two days. In total, roughly 80 square kilometers disappeared, which, by comparison, is twenty square kilometers larger than Manhattan Island.⁵¹

As a feedback-loop, the melting of the Arctic ice will exacerbate the overall process of ice-loss. Recent predictions by the Scripps Institute of Oceanography, at UC San Diego, indicate that losing the reflective properties of Arctic ice would be “equivalent to adding one trillion tons of CO₂ to the atmosphere.” At the current rates of emission, one trillion tons of carbon dioxide is the equivalent of the total amount emitted globally over 25 years. Losing reflective sea ice will also bring us closer to exceeding a temperature threshold set by the Intergovernmental Panel on Climate Change. In 2018 the global threshold of a 2°C increase was set, and with it the warning that if passed the planet runs the risk of “catastrophic damage ranging from more intense heat waves and coastal flooding to extinction of terrestrial species and threats to food supply.”⁵²

One of the most serious consequences of Arctic ice-loss is the impact it has on global sea level rise. According to the National Oceanic and Atmospheric Administration the average global sea level has risen by about 9 inches since 1880. Nearly one-third of this increase has come in the last twenty-five years. By the end of the century, even if greenhouse gas emissions are greatly reduced, the global sea level will have likely risen twelve inches above the year 2000 level. But, in the worst-case scenario –which, considering our lack of action against climate change is entirely possible– global sea

⁵¹ Warburton, Moira. “Canada's Last Fully Intact Arctic Ice Shelf Collapses.” Reuters, August 6, 2020. <https://www.reuters.com/article/us-climate-change-canada/canadas-last-fully-intact-arctic-ice-shelf-collapses-idUSKCN2523JH>.

⁵² Monroe, Robert. “Research Highlight: Loss of Arctic's Reflective Sea Ice Will Advance Global Warming by 25 Years.” Scripps Institution of Oceanography. UC San Diego, July 22, 2019. <https://scripps.ucsd.edu/news/research-highlight-loss-arctics-reflective-sea-ice-will-advance-global-warming-25-years>.

levels could rise by over eight feet by the year 2100. No matter what the future may hold, global sea level rise is still a significant risk today. Close to forty percent of the U.S. population, as well as eight of the world's largest ten cities, are near a coast. The rising sea level erodes coastal ecosystems that provide protection from storms and flooding. Similarly, infrastructure including housing, roads, bridges, as well as more sensitive structures like powerplants are all at a greater risk of damage from rising sea levels.⁵³

The dire threat posed by climate change requires the attention of every nation, but among the most responsible are the eight nations of the Arctic. Being a representative for the region of the globe most affected by the climate crisis requires incessant advocacy and action. A platform for this advocacy has been the Arctic Council, of which each Arctic nation, as well as six Permanent Participants representing indigenous groups, are members. The Arctic Council, by their own definition, is an “intergovernmental forum promoting cooperation, coordination and interaction among the Arctic States, Arctic Indigenous peoples and other Arctic inhabitants on common Arctic issues, in particular on issues of sustainable development and environmental protection in the Arctic.”⁵⁴ Every two years a different Arctic nation assumes the role of chair for the Council and with it a chance to set the agenda. In 2015 the United States donned the title of chair, but instead of demonstrating leadership and dedication on serious matters regarding the Arctic the United States acted as a burden on the Arctic Council.

⁵³ Lindsey, Rebecca. “Climate Change: Global Sea Level.” NOAA Climate.gov, January 25, 2021. <https://www.climate.gov/news-features/understanding-climate/climate-change-global-sea-level>.

⁵⁴ “About the Arctic Council,” The Arctic Council. <https://arctic-council.org/en/about/> (accessed April 17, 2021).

As a result of the Trump administration's denial of climate change the inclusion of the phrase "climate change," or even any references to it, became too controversial for any collaborative documents. Similarly, "projects related to climate change proposed by other nations were shot down by U.S. negotiators who knew there was no way their top leadership would be on board." The narrative of the Arctic being a zone of peace and cooperation became supplanted by the Trump administration which claimed instead that "we're entering a new age of strategic engagement in the Arctic, complete with new threats to Arctic interests and real estate." Whit Sheard, the president of the Circumpolar Conservation Union, described the damage done by the Trump administration, saying: "It was all an attempt to destabilize the Arctic, and it has ultimately left the United States a much less important actor."⁵⁵

At the end of a nation's tenure as chair, that nation issues a declaration, signed by all member states which acknowledges both the scientific and diplomatic accomplishments of the last two years as well as the Council's goals for the near future. Before passing the chairmanship to Finland, the United States demanded that six changes be made to the final declaration to reduce the language used, and the focus given, for issues related to climate change. Among the changes was the removal of a paragraph summarizing the findings of a climate report, known as the SWIPA (Snow, Water, Ice, Permafrost in the Arctic). The original draft stated that the Council member states welcome the assessment of the report and "note with concern that the Arctic Ocean could

⁵⁵ Shankman, Sabrina. "Leaked Draft Shows How U.S. Weakened Climate Change Wording in the Arctic Declaration." Inside Climate News, May 19, 2017. <https://insideclimatenews.org/news/19052017/arctic-council-climate-change-rex-tillerson-donald-trump/>.

be largely free of summer ice in two decades, that melt process in the Arctic may have greater impact on global sea level rise than previously estimated, and that the changes in the Arctic may be affecting weather in mid-latitudes.” However, in regard to SWIPA, the final version of the declaration only read that member state’s “note with concern its findings, and adopt its recommendations.”⁵⁶ The reduction of this section is especially detrimental considering that more people read the final declaration than read the many multi-volume reports issued by the Arctic Council.

Despite hindrance from the United States, the other members of the Arctic Council were able to sneak mention of climate change and the Paris Climate Agreement into the final declaration. But, without a doubt, the United States’ tenure as chair left the Arctic Council much weaker. The role of obstructionist that the United States has played in the Arctic Council has revealed how hard our country must work to regain the trust of our partners and allies in the region. In 2021 the chair of the Arctic Council will pass from Iceland to Russia. At the helm of the Arctic Council Russia, who has been the most aggressive nation in the Arctic, will likely place a larger focus on economics, security, and resource extraction. To buffer these potentially harmful ambitions President Biden must reassure our Arctic partners that the United States stands for peace, cooperation, and protection in the Arctic. As an Arctic nation our presence in the Arctic Council is guaranteed, but our dedication and leadership must be constantly maintained in the face of an ever-worsening climate crisis, and amidst the shifting contours of global security.

⁵⁶Shankman, Sabrina. “Leaked Draft Shows How U.S. Weakened Climate Change Wording in the Arctic Declaration.” Inside Climate News, May 19, 2017. <https://insideclimatenews.org/news/19052017/arctic-council-climate-change-rex-tillerson-donald-trump/>.

ARCTIC AMBITIONS

In late October 2019, at the Admiralty Shipyard in St. Petersburg, the Russian Navy publicly unveiled the latest and most impressive icebreaker to join their formidable Northern Fleet. Called the *Ivan Papanin*, after the famed Soviet polar explorer, it towered over the crowd of onlookers eager to capture a picture of the imposing vessel. Against the backdrop of a blue sky just beginning to peak out through the clouds, spectators, with cellphones raised, aimed their cameras at this leviathan. Its sleek grey and red hull, with massive pitch-black anchors and chains hanging from both sides, was likely not able to be contained in one picture.⁵⁷ Those who had gathered at the shipyard heard from Viktor Cherkov, an admiral at the state-owned United Shipbuilding Corporation, who expressed to them: “We wanted to create a ship that would ensure the safety of our fleet in the Arctic. At the same time, we wanted the ship to carry out scientific research in the Arctic ice and, of course, for it to reliably ensure the safety of our national interests there.”⁵⁸

Capable of sailing through ice nearly five feet thick, the *Ivan Papanin* is the first of four icebreakers commissioned under what is known as Project 23550. The most unique feature of this new line of icebreakers is the multiple weapon systems they carry onboard. Armaments include a 100mm A-190 artillery gun, an AK-176MA medium caliber deck gun, and eight Kalibr-NK cruise missiles capable of combating sea-surface

⁵⁷ The Siberian Times (@siberian_times) “Russia launches its first ‘combat’ icebreaker Ivan Papanin, capable of smashing through 1,5m thick ice and with heavy weapons on board. The icebreaker will be used to patrol the Arctic, it can stay away from base for up to two months,” Twitter, Oct. 27, 2019, 11:05pm., https://twitter.com/siberian_times/status/1188683153000419328?lang=en

⁵⁸ “Russia Unveils Weaponized Icebreaker As It Eyes Arctic Oil & Gas.” PortandTerminal.com, October 29, 2019. <https://www.portandterminal.com/russia-unveils-weaponized-icebreaker-as-it-eyes-arctic-oil-gas/>

and ground targets at a range up to 300km. The *Ivan Papanin* also carries a Kamov Ka-27 anti-submarine utility helicopter as well as two deployable Project 03160 Raptor patrol boats.⁵⁹

However, the *Ivan Papanin* was not the only recent development for Russia's icebreaker fleet. Five months earlier, in May of 2019, the third ship in an equally impressive line of Russian icebreakers was launched at the Baltic Shipyard in St. Petersburg. This newest icebreaker, called the *Ural* joins the *Arktika* and the *Sibir* as the largest icebreakers ever constructed. Known as the Project 22220 class, these three icebreaking behemoths will be able to displace a massive 33,540 tons and are each equipped with two RITM-200 nuclear reactors which create enough force to smash through almost ten feet of ice. In 2021 the *Ural* will be handed over to Russia's nuclear agency Rosatom with the primary function of clearing passage for ships trafficking the Northern Sea Route (NSR), the shipping lane running along Russia's northern Arctic coast. Both the first combat icebreaker of Project 23550 and the third nuclear-powered icebreaker of Project 22220 add to the already massive size of Russia's icebreaker fleet. Currently, Russia possesses the largest number of icebreakers in the world with a total of over forty operational ships, with many more under construction.⁶⁰

These developments, within the span of just five months, demonstrate Russia's high level of dedication to the Arctic. Furthermore, the construction of such exceptional

⁵⁹ Sukhankin, Sergey. "Military Icebreakers'-Russia's Trump Card in the Battle for the Arctic?" Eurasia Daily Monitor. The Jamestown Foundation, June 26, 2019. <https://jamestown.org/program/military-icebreakers-russias-trump-card-in-the-battle-for-the-arctic/>.

⁶⁰ Misokami, Kyle. "Meet 'Ural,' Russia's New Nuclear-Powered Icebreaking Behemoth." Popular Mechanics, May 28, 2019. <https://www.popularmechanics.com/military/navy-ships/a27615565/ural-russia-icebreaker/>

icebreakers, with such particular capabilities, reveal Russia's vision of the future in the Arctic, one that includes changes caused by climate change. For years Russia has anticipated the significance of the Northern Sea Route and the growing importance it will have in the future of global commerce. In 2011 then-Prime Minister Vladimir Putin spoke at an international Arctic forum held in the port city of Arkhangelsk where he told officials that: "States and private companies who chose the Arctic trade routes will undoubtedly reap economic advantages." He continued by claiming that the Northern Sea Route will soon rival the Suez Canal in economic significance as the quicker trade route between Europe and Asia.⁶¹ In 2018 the Northern Sea Route saw a record-setting year with 18 million tons of cargo being shipped. This represented an increase of over 14 million since 2013 when only 3.9 million tons of cargo were shipped along the NSR.⁶² The route has grown increasingly busy each year which has led to the prediction that the amount of cargo transported via Russia's northern coast could increase to 40 tons by 2022 and double to nearly 80 tons by 2030.⁵⁴⁶³ If current climate-change trends continue, and the Arctic draws nearer to having ice-free summers, the Northern Sea Route will become one of the busiest shipping lanes in the world.

One vessel that recently made the 4,000-mile journey along the NSR –and gained some negative attention along the way– was the *Akademik Lomonosov*. This massive craft is Russia's first of what will likely be multiple floating nuclear power stations.

⁶¹ Bryanski, Gleb. "Russia's Putin Says Arctic Trade Route to Rival Suez." Reuters, Sept. 22, 2011. <https://www.reuters.com/article/us-russia-arctic/russias-putin-says-arctic-trade-route-to-rival-suez-idUSTRE78L5TC20110922>

⁶² Humpert, Malte. "Russia's Northern Sea Route Sees Record Cargo Volume in 2018," ArcticToday, Feb. 20, 2019. <https://www.arctictoday.com/russias-northern-sea-route-sees-record-cargo-volume-in-2018/>.

⁶³ "Northern Sea Route Handles Record 9.7 Mn Tons." Offshore Energy, January 23, 2018. <https://worldmaritimeneews.com/archives/241571/northern-sea-route-handles-record-9-7-mn-tons/>

Dubbed “Chernobyl on ice” and “nuclear Titanic” by Greenpeace, the *Akademik Lomonosov* is equipped with two KLT-40S nuclear reactors capable of producing 70 megawatts of electricity. Environmental groups voiced their concerns about the potential for disaster, but despite the criticism, Rosatom claimed the vessel is “virtually unsinkable” and would be able to withstand a collision with an iceberg or a tsunami. The power station’s final destination was the port town of Pevek where it will provide heat and energy to homes, and will power drilling and mining operations in the northeastern region of Chukotka.⁶⁴

The construction of vessels such as the *Akademik Lomonosov* reveal the extent to which Russia is dedicated to the process of resource extraction in the Arctic. In preparation for their upcoming chairmanship of the Arctic Council, Russia published a fifteen-year plan outlining their visions for the Arctic in terms of policy, development, and security until 2035. The Russian Ambassador to Iceland Anton Vasiliev, who has been overseeing the transfer of Council chairmanship, proclaimed that the next fifteen years would represent a “big leap forward” in economic and social development for the Russian Arctic. He proudly touted the fossil fuel operation by Vostok Oil in the Taimyr region of northern Russia which he expects will produce 100 million tons of oil by 2035 and become the largest fossil fuel extraction project in Russian history. Furthermore, by 2035, Russia expects that their liquid natural gas production will increase from what was 8.6 million tons in 2018, to an estimated 91 million tons.⁶⁵

⁶⁴ Roth, Andrew. “Fears of ‘Chernobyl on Ice’ as Russia Prepares Floating Nuclear Plant.” *The Guardian*, August 4, 2019. <https://www.theguardian.com/world/2019/aug/04/russia-floating-nuclear-power-station-chernobyl-on-ice>.

⁶⁵ Anton Vasiliev, “Russia: The New Arctic Strategy,” (*Arctic Circle Journal*, Jan. 26, 2021), 2.

Considering Russia's desire to maximize resource extraction it ought to come as no surprise that environmental protection is not a top priority of their fifteen-year plan. Although they do not outright deny the existence of climate change, Ambassador Vasiliev has said that in the near future Russia "hopes to make practical use of the new opportunities which open up with climate change."⁶⁶ They envision climate change as an avenue for potential economic gains due to longer ice-free periods which will allow for faster and cheaper transit along the Northern Sea Route. This mindset is especially worrying considering the severity of the climate crisis, yet it is far from the only concern displayed in Russia's Arctic strategy.

An additional tactic that Russia has used to advance their resource development is staking dubious territorial claims. One of the more notorious incidents occurred on August 7, 2007 when a submersible placed a titanium Russian flag on the Arctic seabed, specifically at the geographic North Pole where all lines of longitude converge. Backing up the nationalistic gesture was a statement made few days later by Artur Chilingarov, one of the leaders of the expedition. He brazenly declared: "I don't give a damn what all these foreign politicians... are saying about this. If someone doesn't like this, let them go down themselves and try to put something there. Russia must win. Russia has what it takes to win. The Arctic has always been Russian."⁶⁷

⁶⁶ Nilsen, Thomas. "Ambassador Vasiliev Lists Russia's New Arctic Priorities with Focus on Fossil Fuels and Positive Effects of Climate Changes." *The Barents Observer*, January 27, 2021.

<https://thebarentsobserver.com/en/arctic/2021/01/ambassador-vasiliev-lists-russias-new-arctic-priorities>

⁶⁷ Breyfogle, Nicholas, and Jeffrey Dunifon. "Russia and the Race for the Arctic." *Origins: Current Events in Historical Perspectives*. Ohio State University, August 2012. <https://origins.osu.edu/article/russia-and-race-arctic>

The international response to this event was quick, but also rather dismissive. While some did praise the success of the descent of the submersible, Canada's Foreign Minister responded by saying, "You can't go around the world these days dropping a flag somewhere. This isn't the 14th or 15th century." A spokesman from the U.S. State Department brushed off the flag planting saying it had absolutely no legal standing. Despite the nonchalant reaction by other Arctic Nations it is important to understand Russia's reasoning behind such a move.⁶⁸

Ownership of the sea floor largely depends on the conditions and interpretations of an international agreement called the United Nations Convention on the Law of the Sea (UNCLOS). Events which led up to the implementation of this agreement are complex and originally stem from the need to replace 17th maritime concepts such as "freedom of the seas." As a result, in November 1994, UNCLOS came into force and has currently been signed by 167 nations. The provisions outlined in the agreement include: limiting a coastal state's territorial sea to twelve nautical miles from their coastline, guaranteeing transit rights through international straits, and recognizing the existence of Exclusive Economic Zones (EEZ) extending 200 nautical miles from a coastline over which a nation has economic rights. An additional provision, that has proved to be rather controversial (and is the reason why the United States has not signed UNCLOS) is an exception to the EEZ known as Part XI. This stipulation states that in the case where a set of geographic or geological criteria are met a country's EEZ may extend beyond 200

⁶⁸ *Ibid.*,

nautical miles, but decrees that any seabed exploration or mining past this point be managed by an intergovernmental body called the International Seabed Authority.⁶⁹

Although UNCLOS is a monumental achievement in determining proprietorship of the sea, it is not without its flaws. In many places, including in the Arctic, claims to the sea and to the seabed overlap. As explained by Charles Emmerson: “Deciding who has legal rights to what in the Arctic is complicated not because there is an absence of law, but because there is a surfeit of it. Different legal regimes apply to the land, the sea, and the seabed. The result is a palimpsest, with each set of rules overlaying a previous set of rules, but not quite effacing them.”⁷⁰ One example where this has occurred has been with the issue of continental shelves. Allowed because of Part XI of UNCLOS, a nation may extract resources from the seabed beyond 200 nautical miles if they can prove that the seabed in question is a continuation of their continental shelf. This has led to a myriad of debates on how to define continental shelves; for instance, where does the shelf end and the deep seabed begin, and how should undersea geological features such as rises or rifts factor into ownership.

Seabed mapping expeditions have been undertaken in the past few decades by multiple nations, including the United States. In fact, expeditions can be so expensive and meticulous that on a number of occasions, nations have teamed up together to map the ocean floor, such as Canada and Denmark in 2007, and then Canada and the U.S. in 2008 and 2009. Still, substantiating claims, even after collecting masses of data, is no easy task. All claims to seabed must be assessed by the Commission on the Limits on the

⁶⁹ Charles Emmerson, *The Future History of the Arctic*, 110.

⁷⁰ *Ibid.*, 98.

Continental Shelf (CLCS), a committee of international members, elected by signatories of UNCLOS, who determine the outer limits of continental shelves beyond 200 nautical miles. On multiple occasions, CLCS has rejected claims and cited a lack of convincing evidence; such as in 2001 when Russia submitted their first claim. Recently however, in the fall of 2019, Russia returned to the CLCS with a new claim.

Allegedly based on more than half a century-worth of scientific work, Russia's newest claim argues that their continental shelves, specifically the Lomonosov and Mendeleev Ridge, extends northward all the way to the North Pole. In total, the claim results in the addition of 1.2 million square kilometers of territory. The recent scientific research, according to Admiral Nikolai Evmenov, Commander-in-Chief of the Russian Navy, has "allowed us to construct a visual and detailed model of the seabed relief in the context of the Russian application to substantiate the continental shelf boundary."⁷¹ During the summer of 2019 a Russian vessel called the *Akademik Fyodorov* sailed nearly six thousand miles collecting data and completing various mapping and research studies to be used as evidence for their new claim. Russia authorities are very confident about the legitimacy of the continental shelf claim. Deputy Prime Minister Yuri Boriso echoed the sentiment of the Navy, plainly stating: "The Ministry of Defense has received new and comprehensive evidence of Russia's ownership of the Arctic Ocean shelf."⁷² Some of the claims Russia has recently made overlap with ones submitted by Canada and Denmark, but despite this, one Russian official stated: "The CLCS is an independent expert body,

⁷¹ "Nikolay Evmenov: On the Exploration of the Continental Shelf." Marine College under the Government of the Russian Federation, October 21, 2019. <http://marine.gov.ru/events/morskaya-kollegiya/6325/>

⁷² *Ibid.*,

not an arena where countries compete... We are confident that the Commission members will make their decisions objectively based on the norms of international law.”⁷³

The nature of UNCLOS and its overlapping stipulations mean that Russia will likely always be able to argue the legality of a territorial claim to some degree. Although intergovernmental groups like the CLCS will have the final say, Russia’s incessant attempts to expand their undersea territory will continue with the goal of wearing-down international resistance. Ceaseless repetition of statements about how they “own the Arctic” serve as tools to justify their actions in the region. They desire to operate in the Arctic with unchecked power and resent being beholden to foreign regulations and expectations. If Russia succeeds at convincing the world that the Arctic belongs to them any encroachment on the Far North could be taken as a threat to their national sovereignty. When Viktor Cherkov told the crowd of onlookers that the advanced combat capabilities of the *Ivan Papanin* are needed to ensure the safety of Russia’s national interests in the Arctic he announced their willingness to defend –possibly with force– the region which they believe is rightfully theirs.

Despite what the future may hold, Russia’s recent actions in the region have not gone unnoticed by the United States. During a U.S. Senate forum in early 2019 Heather Conley, the Europe program director at the Center for Strategic and International Studies, told the assembly: “The exercises, the advanced weaponry that Russia is introducing into the Arctic is not necessarily compatible, I would argue with a zone of peace.” She added

⁷³ The Barents Observer. “The Arctic Shelf Is Ours,’ Russian Defense Ministry Says.” The Moscow Times. The Moscow Times, March 5, 2021. <https://www.themoscowtimes.com/2019/10/22/the-arctic-shelf-is-ours-russian-defense-ministry-says-a67843>

the recommendation; “We need to have our eyes wide open.”⁷⁴ The United States’ response to the increase in Russian activity in the region has come under scrutiny in recent years. America’s level of preparedness and involvement in the Arctic pales in comparison to that of Russia. One of the most blatant examples of the disparity between the United States and Russia in the Arctic is the size and status of each nation’s icebreaker fleet.

Currently, the United States has three icebreakers, only two of which are operational. The fleet consists of the forty-three-year-old *Polar Star*, first commissioned in 1976; its sister ships the *Polar Sea*, which has been sitting in a drydock in Seattle being cannibalized for parts ever since its engine failed in 2010; and lastly the *Healy*, a medium-sized icebreaker commissioned in 2000. What is often referred to as the “icebreaker gap” between the United States and Russia has drawn the ire of Congressional representatives from Alaska. Senator Dan Sullivan stated: “The highways of the Arctic are icebreakers. Right now the Russians have superhighways and we have dirt roads with potholes.” Fellow Alaskan Senator Lisa Murkowski also put it bluntly: “We have to have icebreaking capacity. We are an Arctic nation.”⁷⁵ Whereas Russia’s icebreakers are a microcosm of their Arctic ambitions, the United States’ icebreakers, or lack of, are a microcosm of our neglect of the Arctic.

⁷⁴ Ruskin, Liz. “Calls for 'Vigilance' on Russian Military Buildup in Arctic.” Alaska Public Media. Alaska Public Media, February 4, 2019. <https://www.alaskapublic.org/2019/02/01/calls-for-vigilance-on-russian-military-buildup-in-arctic/>.

⁷⁵ Judson, Jen. “The Icebreaker Gap.” The Agenda, September 1, 2015. <https://www.politico.com/agenda/story/2015/09/the-icebreaker-gap-000213>.

An immediate step the United States can take to increase our presence and leadership in the Arctic would be to commit to the construction and funding of multiple new icebreakers. The need for additional icebreakers has been well-noted by a number U.S. government officials, including the Executive Branch. A memorandum issued in June 2020 by President Trump called for accelerating the timeline of the development of a fleet of polar security icebreakers by 2029. The document also suggested government agencies explore the possibility of outsourcing the construction of icebreakers to international shipbuilding companies.⁷⁶ Wherever the ships may come from, the procurement of new icebreakers must not become a victim of legislative gridlock. The cost of icebreakers is not cheap, nor is the construction process fast, therefore both sides of the political aisle must advocate for total commitment to this issue.

In April 2019, after nearly a decade of requesting funding for additional icebreakers, the U.S. Coast Guard was finally able to secure almost one billion dollars for the construction of a new heavy icebreaker. Hoping to eventually procure funds for six ships, the Commandant of the U.S. Coast Guard, Admiral Karl L. Schultz, said this first icebreaker contract is an important step towards meeting the “unique mission demands that have emerged from increased commerce, tourism, research, and international activities in the Arctic and Antarctic.”⁷⁷ However, even though funding was secured, the development may still face a number of setbacks. The Coast Guard contract for the new

⁷⁶ Schreiber, Melody. “Trump Calls for an Accelerated Expansion of the U.S. Icebreaker Fleet.” ArcticToday, June 11, 2020. <https://www.arctictoday.com/trump-calls-for-an-accelerated-expansion-of-the-u-s-icebreaker-fleet/>.

⁷⁷ Humpert, Malte. “U.S. Coast Guard Awards Contract for New Polar Class Icebreaker.” High North News, April 30, 2019. <https://www.highnorthnews.com/en/us-coast-guard-awards-contract-new-polar-class-icebreaker>.

heavy icebreaker was awarded to VT Halter Marine Inc., a shipbuilder on the Gulf Coast of Mississippi, with no prior experience building ice-capable or heavy icebreaking ships. According to those knowledgeable about the specifics of the contract, it appears that VT Halter was the cheapest option and was not selected for its technical expertise or experience. Ryan Uljua, a Senior Fellow at The Arctic Institute, said “it appears the USCG is hoping to develop domestic icebreaker construction expertise ‘from scratch’ at VT Halter on the Gulf Coast.”⁷⁸

The challenges that come with trying to rejuvenate the United States’ icebreaker fleet will exist even if funding for ships has been made available. Committing to improving our fleet will require partisan determination and persistent advocacy from government and non-governmental groups. Yet, one issue that has generated debate in regard to icebreakers is whether or not new additions to the fleet should be equipped with weapon systems. There are those who believe the United States should model Russia in this regard, but arming icebreakers would be counterproductive towards the pursuit of responsibility and leadership in the Arctic. Even habitual use of terms like “icebreaker-gap” is reminiscent of Cold War rhetoric which stressed missile or bomber “gaps.” Weaponizing our icebreakers would only serve to reinforce the idea that the Arctic is expected to become a theater of war, rather than a region of international cooperation. Robert D. English, a professor of international relations at USC, and formerly a policy analyst for the Department of Defense, has argued why an Arctic arms race would be a mistake. He maintains: “Nobody denies the need for some new heavy icebreakers to

⁷⁸ *Ibid.*

buttress an aging fleet, but these are for Coast Guard missions — not the remote warfighting scenarios hyped by Arctic hawks. Theirs is classic threat inflation, built on equal parts exaggeration and ignorance.”⁷⁹ Setting an example by not arming icebreakers would be a clear sign of our renewed dedication to ensure the Arctic remains a zone of peace.

Though icebreakers are undoubtedly necessary, the United States must also commit to the construction of Arctic infrastructure such as deep-water ports and improved communications capabilities that can withstand the harsh environment of the Far North. Funding for Arctic projects, whether icebreakers or infrastructure, has proven to be difficult to come by. Rather than arming icebreakers, improving destitute infrastructure would be a much better use of whatever funds may be allocated to the region. Dedicating our attention to improving the Arctic instead of militarizing it is in our nation’s best interests, as well as in the best interest of our Arctic allies, especially places like Greenland where the U.S. recently reopened a consulate.

Unfortunately, our lack of investments in things like infrastructure has caused many Arctic nations to turn elsewhere, most notably to China. As argued by University of Hong Kong associate professor Mia Bennett: “America’s myopic fixation with the geopolitical fault lines of yesteryear means that the government is overlooking the ways in which China is sliding under the radar in the Arctic, building up its influence through investments in resources, infrastructure, and science rather than in trying to acquire

⁷⁹ English, Robert D. “Why an Arctic Arms Race Would Be a Mistake.” ArcticToday, June 18, 2020. <https://www.arctictoday.com/why-an-arctic-arms-race-would-be-a-mistake/>.

territory.”⁸⁰ Although the United States remains skeptical, if not concerned, with China’s motivations in the Arctic, other nations have welcomed their presence – and money.

In 2015 Huawei, the Chinese telecommunications company, developed an impressive 4G network across the archipelago of the Faroe Islands. A few years later, China built the Hålogaland Bridge, the world’s longest suspension bridge north of the Arctic Circle, in Narvik, Norway. In Iceland, the China-Iceland Arctic Science Observatory opened in October 2018 with the purpose of furthering “scientific cooperation between Icelandic and Chinese scientists.”⁸¹ As troubling as it is for the United States to see the growing influence of China in the Arctic, the nations that have partnered them cannot be blamed for accepting help. If China is willing to spend billions on infrastructure, then it is no wonder China has a growing influence in the region. China has consistently proven that it is possible to have a significant influence in the Arctic without possessing territory. Moreover, in spite of their lack of territory China published their first official Arctic policy in early 2018 in which they announced their intention to establish what they refer to as a “Polar Silk Road;” an economic link between China, Europe, and the Middle East via the Northern Sea Route.

With the opening of new waterways like the Northern Sea Route, and the rebranding of old routes like the Polar Silk Road, the increasing presence and role of economic superpowers like China and Russia in the Arctic is to be expected. Though the United States may find some of the actions and ambitions of these two nations

⁸⁰ Bennett, Mia. “Blog - With \$12.1 Million US Offer to Greenland, America Is Playing Softball in the Arctic.” Eye on the Arctic, May 15, 2020. <https://www.rcinet.ca/eye-on-the-arctic/2020/05/18/blog-with-12-1-million-us-offer-to-greenland-america-is-playing-softball-in-the-arctic/>

⁸¹ *Ibid.*,

worrisome, the Arctic –which throughout modern history was reserved for Arctic nations– is now an area of interest for the entire international community. The European Union’s Special Envoy for Arctic Matters, Michael Mann, recently gave an interview during which he shared his optimism, saying: “I would like to sort of play down the idea of tension building up. It has been a very successful period for cooperation in the Arctic.”⁸² The United States can both embrace and enhance cooperation in the Arctic by remaining dedicated to this region well into the future. No longer can we be allowed to lapse into lethargy and neglect the duties that are required of a responsible Arctic nation. Leadership in the Arctic will not be determined by the expanse of a nation’s territory, nor their military might. Rather it will be the nations who promote the guiding principles of environmental protection, sustainable infrastructure, and the incorporation of indigenous knowledge that will lead the Arctic in the twenty-first century. By promoting peace and preservation, the United States can lead by example and become an admirable partner for all of our fellow Arctic nations.

⁸² Cammarata, Sarah. “EU’s Point Man for the Arctic Shrugs off Russia, China Tension.” POLITICO. POLITICO, May 21, 2020. <https://www.politico.com/news/2020/05/20/europe-russia-arctic-china-272063>

CONCLUSION

The path towards responsibility and partnership in the Arctic, however, begins at home. Repairing our relationship with the Arctic cannot succeed without first understanding our Arctic origins. We must ungrudgingly reexamine these origins and understand the ways in which colonialism was imposed on Alaska, its native people, and its environment. Yet, in doing so, we must also be able to recognize the remnants of conquest that still survive in Alaska today. Renowned historian of the American West Patricia Limerick, in her aptly titled book *Legacy of Conquest: The Unbroken Past of the American West*, explains the challenges that come from reexamining history: “The conquest of Western America shapes the present as dramatically –and sometimes as perilously– as the old mines shape the mountainsides. To live with that legacy, contemporary Americans ought to be well informed and well warned about the connections between past and present.” She continues: “But here the peculiar status of Western American history has posed an obstacle to understanding. Americans are left to stumble over –and sometimes into– those connections, caught off guard by the continued vitality of issues widely believed to be dead.”⁸³ Realizing that the shadows of colonialism still stalk the indigenous communities of Alaska today is a sobering conclusion to reach. Though we will never be able to undo the errors and misdeeds of the past, we can learn from them and adapt to ensure that they finally cease.

⁸³ Patricia Nelson Limerick, *The Legacy of Conquest: The Unbroken Past of the American West* (New York: W.W. Norton & Company, Inc), 18.

The history of the United States, and the history of the Arctic, are intertwined by the misconceptions and misunderstandings that characterize both. But just as misconceptions about the Arctic faded away as explorers, academics, and amateurs learned more about our planet, so too will the misunderstandings of our nation's past dissolve as more people learn the truths of our history. New information and new perspectives can be the catalyst for a shift in a paradigm of belief. Imagine how disappointed Pytheas must have been to not meet the giants of Hyperborea, or how nineteenth century explorers must have felt to have their ships imprisoned in ice, realizing the respite of an open polar sea is nothing but a myth. Today, whether it be the onset of the Anthropocene, or simply reimagining Alaska as an extension of the American West, confrontations with new sets of knowledge similarly threaten preconception and prejudice. What remains is a decision: to embrace the new knowledge and adjust accordingly, or to reject them, and continue in retreat of evidence.

The Arctic will never return to the pristine primordial age of the ancient brown bears and the woolly mammoths –not even will it ever return to the untouched time before nineteenth century explorers breached this frozen world. Yet, we live in an age now where humanity, as a global force of change, can alter –possibly even reverse– the pattern of exploitation we have inflicted on the Arctic and our entire natural world. Countless generations that succeed ours will learn about this region and the place that it held within the imagination of Earth's southern inhabitants. They will learn about the ancient Greeks and their myth of the Hyperborean, the zealous explorers and their quest for the Northwest Passage, and, in due time, posterity will learn about us. But where our

ancestors may be forgiven for their ignorance, we will not be. Our knowledge of the planet is unmatched, yet so too is the damage we inflict upon it. The philosopher Plato, in his ancient dialogue *Timaeus and Critias*, wrote that the demise of the fabled city of Atlantis arrived when the inhabitants ceased to be able to “carry their prosperity with moderation.”⁸⁴ Ironically, in the twenty-first century –where prosperity is in no short supply– it is things like rising sea levels that warn us of our desperate need for a little more moderation.

⁸⁴ Plato, *Timaeus and Critias*, trans. Desmond Lee (London: Penguin Books, 1977), 145.

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