Preface

The Arctic Circle

The Arctic, a term derived from the Greek word for "bear," comprises the northernmost part of the Earth. This unique polar region, characterized by extreme weather, ice, and cold, has shaped life in unique ways. From the polar bears, seals, and whales that evolved over millions of years to thrive in this unique frozen world, to the many Indigenous cultures that, over thousands of years, developed cultures and societies based on their relationship to the ice and to the Arctic Sea.[1]

Long a source of fascination for the people who came from regions further south around the world, exploration of the Arctic ultimately revealed both a fantastic wealth of resources and strategic territory with global geopolitical significance. Gradually, the nations with Arctic territories, including Canada, Norway, Russia, Sweden, Finland, and Iceland, came to colonize and occupy the Arctic, wresting control from the Indigenous inhabitants of these territories. Denmark and the United States also came to control Arctic territory through their acquisition of Greenland and Alaska, respectively. In the years that followed, resource exploitation and development transformed the Arctic, while the industrialization of the larger world changed the environment of Earth as a whole.[2]

By the twenty-first century, the Arctic had been transformed. Warming temperatures eliminated more than half of the ice that once covered the ocean and landmasses, oil and gas prospecting polluted the air and drove animals to extinction. In the midst of this, resource gathering companies found new opportunities, and enhanced access to potential wealth and resources. This brough the Arctic back into relevance as an increasingly important frontier for resource harvesting and national military defense strategies. With these emerging concerns stirring debate, politicians, scientists, and activists are debating how best to manage the hunger for resources and global power against the welfare of this vast but rapidly diminishing landscape.[3]

Arctic Origins

The story of the Arctic begins with the migrants who were the first to come to the Arctic from Asia. Waves of migration created a variety of different cultures, some of which still exist in the twenty-first century. There are more than forty different Indigenous ethnic groups that still live in the Arctic, comprising 10 percent of the overall population. These include well-known groups like the Sáami, famous for their herding of reindeer, and also includes the Aleut, Inuit, and Yupik people, all once called "eskimos" by Europeans outside of the Arctic. European habitation of

the Arctic began with the Viking mariners, like Eric the Red, who discovered the island that is now known as "Greenland" around 980. In the 1600s, European explorers like William Baffin, Henry Hudson, and the legendary Captain Cook, discovered new locations in the Arctic, and with them made first contact between Europe's monarchies and the millennia-old Indigenous societies in this part of the world.[4]

Trade from the Arctic began with fish and sea mammals, and this also led to the first trade disputes as participating nations soon worried that overexploitation would lead to shortages in the supply of valuable resources, like whale oil, which once powered lamps across Europe. In the 1800s, the world shifted to the petroleum economy, and Arctic oil was discovered. This changed the trajectory for the Arctic and the Arctic people, both Indigenous and colonial alike. From the nineteenth century to the modern era, mining has been the chief global aim in the Arctic, with Canada, Russia, and the other Arctic nations investing heavily in both the extraction of fossil fuels and other mineral resources. This effort has accelerated as global warming has reduced the sea ice and diminished the glaciers, making it easier for corporations to access these subterranean resources.

The militarization of the Arctic can be traced back to the efforts to protect the seafood trade, but accelerated during the World Wars, when the Arctic became a strategic route for supplies and a battleground. In the Cold War that followed, the Arctic was a staging ground for the buildup of nuclear weapons, and this contest continues in the twenty-first century, though discussion of nuclear armaments is no longer as prominent in the media or in public discourse as it once was.[5]

The Modern Arctic

Once a realm in which sea ice and glaciation made navigation difficult or in some cases impossible, the Arctic is changing and with these changes companies and military administrators are perceiving new opportunities and potentially new military threats. This had led to renewed discussion about the Arctic region and the potential benefits and risks of Arctic resource exploration. First, the Arctic has returned to public discourse is the disappearance of Arctic sea ice and glaciers due to climate change. Second, the status of resource supplies in other parts of the world has driven interest in capitalizing on newly available Arctic resources.

Management of the Arctic depends on the governments of the countries that possess Arctic territories. Russia is the nation with the most Arctic territory, with the Russian coastline comprising more than 50 percent of the Arctic landmass as a whole. Russia also has the largest population of residents living in any of the Arctic territories, and thus Russia has the highest level of overall interest in the management of the Arctic.[6] Further, the Russian economy is highly dependent on the fossil fuel economy, and this makes the Arctic region among the most important territorial advantages for the Russian state.

The Scandinavian nations collectively control significant Arctic territories, which have been important to the survival of Indigenous Arctic communities and

1
Introduction to the Arctic

Arctic Council Ministerial Meeting, Reykjavík, Iceland, 2021. Photo by U.S. Department of State, via Wikimedia. [Public domain.]

Understanding the Arctic

The Arctic is a vast polar region at the northernmost end of the Earth marked by cold and extreme habitats and unique animal and plant communities adapted to live in this challenging environment. Many modern nations have territories that extend into the Arctic region, including Norway, Sweden, Finland, Russia, Canada, the United States, and Iceland. The Arctic region is connected to the Arctic Ocean, the smallest of the world's oceans, and the coldest, and ultimately part of the Atlantic Oceanic system. The North Pole is found in the Arctic, as is the Bering Strait, a key location in the history of humanity. Inhospitable and difficult for long-term human habitation, the Arctic has long been a refuge of natural resources, though the oceans and landscape of the Arctic have also been repeatedly exploited for resources.

Humans discovered the vast polar region known as "the Arctic" at least 14,000 years ago, when travelers from Eastern Asia traveled over the Bering Land Bridge, which connected Eastern Asia to Canada, and from there to what is now the United States. Another wave of migration occurred around 5,000 years ago, with the arrival of a group known to archaeologists as the "Paleo-Eskimos." Modern Indigenous people of Siberia, Alaska, and the Aleutian Islands can trace their ancestry back to this wave of Paleo-Eskimos. One recent study, looking at ancestry in the Arctic, found that one of the first populations in the Arctic territory of Greenland came there from Siberia around 3000 BCE and were isolated in that territory for more than 4,000 years, ultimately disappearing from the archaeological record.[1]

Archaeological evidence indicates that most of the Paleo-Eskimo populations consisted of small villages each containing perhaps twenty to thirty people. Bill Fitzhugh, of the National Museum of Natural History, explained that the longevity of these societies suggests a very traditional lifestyle closely linked to the land. "One might almost say, kind of jokingly and very informally, that [they] were the hobbits of the Eastern Arctic." These arrivals and later arrivals from Asia, including the "Thule" people, most likely came by boat, and the land bridge that brought the first visitors to the Arctic was gone by this time.[2]

Scientists aren't certain how long this land bridge was navigable, but Earth was entering one of many warming periods that have occurred in geological history. The sea levels rose and the land bridge disappeared between 11,000 and 13,000 years ago. It is important to understand that while periods of warming—where glaciers melt and sea levels rise—are a natural part of Earth's history. The current warming trend, called "global warming" or "climate change," is not part of this cycle. The current warming of the climate is being caused by the mismanage-

Why Is Greenland Considered a Strategic Location?

Arctic Geopolitics

Since the end of the Cold War, the Arctic has generally been an area of international cooperation; however, climate change, resource competition, and growing militarization, especially by Russia, have raised geopolitical tensions in the region over the last decade. Russia's invasion of Ukraine in 2022 splintered its relations with the other seven Arctic states (Canada, Kingdom of Denmark, Finland, Iceland, Norway, Sweden, and the United States) and prompted Finland and Sweden to join NATO in 2023 and 2024 respectively. As a result, all Arctic states except Russia are NATO members. This shift has elevated the overall importance of the Arctic—including Greenland, which is by default part of the alliance through the Kingdom of Denmark—to NATO.

> "With the right to self-determination and the goal of independence, our country and people aim to increase their cooperation with other countries. It is important for us as responsible citizens of the world, in our own name, to have the courage to take a stand on issues and events around the world."
>
> —*Greenland in the World–Nothing About Us Without Us*

U.S. Military Capabilities

Greenland hosts Pituffik Space Base, formerly Thule Air Base, a U.S. military installation key to missile early warning and defense as well as space surveillance. Greenland is also part of the GIUK Gap (Greenland-Iceland-United Kingdom), an anti-submarine warfare chokepoint in the North Atlantic during the Cold War, which today remains important for monitoring and potentially restricting Russian naval movements in the North Atlantic and Arctic Ocean. However, the island's strategic military value to the United States has waned since the end of the Cold War due to evolutions in military technology, and investment in Pituffik Space Base has been sporadic over the years.

Future Trans-Arctic Shipping

Greenland occupies a key position along two potential shipping routes through the Arctic: the Northwest Passage, along the northern coastline of North America, and the Transpolar Sea Route, through the center of the Arctic Ocean. As Arctic sea ice melts, these routes could reduce shipping times and bypass traditional chokepoints like the Suez and Panama Canals. Currently, these routes are commercially unviable and will likely remain so for many years because of treacherous weather and floating ice. In the long term, as vessel traffic in the Arctic Ocean increases, Greenland will likely become a key player in effective management of the Arctic Ocean, including emergency management, prevention, and response. The viability of these new shipping routes and other maritime activities in the region will depend, among other things, on investments in comprehensive marine infrastructure. Greenland is strategically positioned to both benefit from and help manage such investments.

No. 26 | NATO in the Arctic: 75 Years of Security, Cooperation, and Adaptation

By Elley Donnelly
Wilson Center, April 3, 2024

As NATO commemorates its 75th birthday on April 4th, we celebrate the alliance's steadfast commitment to a peaceful and prosperous Arctic. The High North has been intricately woven into NATO's trajectory since its inception, embodying a nexus of geopolitical importance and strategic interests that have profoundly influenced the alliance's evolution.

Formed in 1949 in collective response to the threat of Soviet aggression, NATO's foundational membership included Arctic states such as Canada, Norway, Denmark (Greenland), Iceland, and the United States. These countries held national interests in the Arctic, and understood the strategic significance of the region, its potential as a military theater, and its role in global maritime trade. The participation of these states laid the groundwork for NATO's consideration of the Arctic as a crucial frontier for security interests from the outset.

The Arctic's unique geography is characterized by unforgiving icy waters, remote islands, and vast expanses, which have continually influenced NATO's strategic calculus. During World War II, the Arctic theater saw the tactical importance of weather control, known as the Weather War, where Allied and Axis powers sought to manipulate weather patterns to gain military advantage in the region. The proximity of NATO's Arctic boundaries to Russia's northern borders further underscores the region's significance as a potential flashpoint for geopolitical competition.

Cold War Era: Tension in the Arctic

During the Cold War, the Arctic emerged as a critical frontline in the confrontation between NATO and the Soviet Union. The distinctive Arctic landscape, including the strategic Greenland-Iceland-UK (GIUK) Gap, proved conducive to intelligence gathering and asset positioning. The Arctic Ocean also served as a potential route for Soviet submarines and bombers, heightening NATO's concerns. The increased military activity and perceived threat prompted NATO to establish a robust defensive presence in the region. The Cold War era witnessed the deployment of early warning systems, military bases, and surveillance efforts designed for Soviet deterrence and safeguarding NATO's interests in the Arctic, while also securing transatlantic supply lines critical for Western defense.

The True Cost of Mining in the Canadian Arctic

By Henry Harrison
The Circle (WWF), April 2023

Operated by a Canadian mining company called Baffinland, the Mary River Mine is one of the world's richest reserves of high-grade iron ore. Located on the northern end of Baffin Island in Nunavut, the mine produces 4.2 million tonnes of ore each year. In 2024, that amount will increase to 6 million.

Last fall, the Canadian government rejected Baffinland's proposal to further expand its operations. The company's plans would have more than doubled the mine's output and seen a 110 km railway built to service the nearby port. Although the government's decision was a victory for many Inuit groups in the region—who fought the proposal—the 1,700 residents of Pond Inlet are still living with the consequences of having an iron mine as a neighbour. Enookie Inuarak is one of them. He's the former vice chairperson of the Mittimatalik Hunters & Trappers Organization, one of the groups that fought the expansion plan. He spoke to *The Circle* about the impact the mine has had on his community since it opened in 2015.

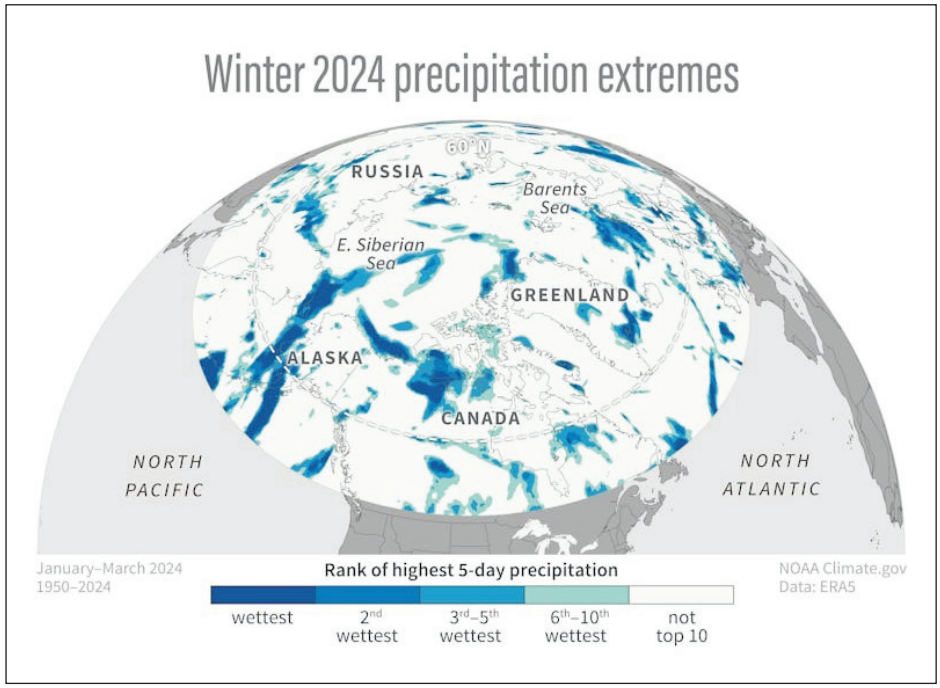
How would you describe Pond Inlet?

It's one of the most northern communities in Nunavut, above the Arctic Circle. Right now, it's the dark season. We haven't seen the sun for at least two or three weeks. This area is a highway for marine wildlife during spring and summer—and even in winter. We see species like bowhead whales, narwhals, belugas, polar bears, different kinds of seals and a lot of birds. We are still very active in harvesting for subsistence use. We depend on it for food and clothing. It's a very important part of our diet, especially narwhals, different kinds of seals, caribou and Arctic char.

When Baffinland opened the mine in 2015, how did it affect your community?

It's so different now. First off, we started noticing the marine wildlife not being around as much as before. And we ended up having to travel longer and farther to hunt and spend more on gas. We also had to start spending more on store-bought food.

But less marine wildlife was just one of the first impacts we noticed. We're harvesting less char now during the summer. We see fewer seals and narwhals, and even birds, now. There are constantly ships coming and going, anywhere from two to five a day, and there's constant noise pollution. Even before there



A map of Arctic precipitation from January to March 2024 shows the wide differences among regions and where some saw their wettest year on record. Arctic Report Card 2024, NOAA Climate.gov

Ice Seals, Caribou, and People Feeling the Change

Rapid Arctic warming also affects wildlife in different ways.

As Lori Quakenbush and colleagues explain in this year's report, Alaska ice seal populations, including ringed, bearded, spotted and ribbon seals, are currently healthy despite sea ice decline and warming ocean waters in their Bering, Chukchi and Beaufort sea habitats.

However, ringed seals are eating more saffron cod rather than the more nutritious Arctic cod. Arctic cod are very sensitive to water temperature. As waters warm, they shift their range northward, becoming less abundant on the continental shelves where the seals feed. So far, negative effects on seal populations and health are not yet apparent.

On land, large inland caribou herds are overwhelmingly in decline. Climate change and human roads and buildings are all having an impact. Some Indigenous communities who have depended on specific herds for millennia are deeply concerned for their future and the impact on their food, culture and the complex and connected living systems of the region. Some smaller coastal herds are doing better.

Indigenous peoples in the Arctic have deep knowledge of their region that has been passed on for thousands of years, allowing them to flourish in what can be an inhospitable region. Today, their observations and knowledge provide vital support for Arctic communities forced to adapt quickly to these and other

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