

The Big Thaw

To much of the world, Greenland is an obscure island sheathed in ice, a giant white blotch on the map. Now, a warming climate is freeing up the country's resources in previously frozen expanses of land and sea, and Greenlanders are bestirring themselves to seek independence from Denmark.

BY JOSHUA KUCERA

NUUK, GREENLAND, IS A POKY LITTLE PLACE. Its fanciest hotel shares a building with a grocery store. A town of brightly painted wooden houses against a dramatic mountain backdrop, Nuuk looks like a western ski resort with some European-style public housing thrown in. But in this sleepy setting, where a population of 15,000 lives a mere 150 miles south of the Arctic Circle, a revolution is brewing. Very slowly.

For decades, Greenlanders have gently agitated for greater freedom from Denmark, the nation that colonized them centuries ago. In 1979, they attained home rule—which produced, among other changes, a new, Inuit name for the capital, Nuuk (pronounced “nuke”), formerly known by the Danish name Godthåb. On November 25, Greenlanders will go to

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the polls to take another major step out of Denmark's shadow: They are likely to approve a law that will formally give Greenland the right to declare independence and make Greenlandic—which is closely related to the Inuit languages spoken in Canada—rather than Danish, the official language.



Sermitsiaq mountain towers over the harbor of Greenland's capital, Nuuk, a sleepy town where pro-independence sentiment is gathering force.

In an age of violent independence movements such as those of Kosovo and East Timor, this is national liberation in slow motion. The impulse toward self-determination is the same as in liberation movements elsewhere across the globe: Greenland's 56,000 people are mainly Inuits who have little in common with Danes.

But Greenland's independence aspirations are also getting a boost from an unlikely source: global warming.

Americans might joke about the visible effects of climate change during a spell of warm weather. But more than anywhere else in the world, Greenland is experiencing honest-to-God warming. The island's ice sheet—

which contains 10 percent of the world's fresh water, equivalent to the entire Gulf of Mexico—is melting at a rate of 57 cubic miles a year, and the loss is apparent everywhere. Midway up the back side of Nuuk's landmark mountain, Sermitsiaq, which looms over the city like Mt. Rainier does over Seattle, Greenlanders point out a gray band where the ice on the mountaintop has shrunk and the glacier below has receded. In 2007, the

more likely that Erik gave Greenland an attractive name to lure other settlers there.)

Denmark's colonization of Greenland began in 1721, when a missionary, Hans Egede, came there looking for the Norse settlers, who hadn't been heard from since the 14th century. Egede worried that the Protestant Reformation had passed Erik's descendants by, leaving them unredeemed Catholics. He found no Norsemen (they died out under mysterious circumstances in the 15th century), but stayed on to convert the Inuits to Christianity.

Egede's efforts opened the door to a Danish monopoly on trade in whales and furs with the island, and eventually colonization. Denmark's rule was marked by a combination

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Northwest Passage, which runs south of Greenland and along Canada's northern coast, was free of ice for the first time since scientists began monitoring it. All of this melting is helping to unlock the mineral and petroleum resources under land and sea, offering the prospect of Kuwaitesque wealth to Greenland's citizens.

Greenland is an unusual place. It's the world's largest island, three times the size of Texas, but it has no inter-city roads—people travel between Greenland's "cities" (a word Greenlanders use to describe even settlements of 2,000) by boat and helicopter. Jets arriving from abroad can't land in Nuuk because the airport runway is too short, so they must fly to one of two remote former U.S. air bases, hundreds of miles away, from which travelers continue on by helicopter or prop plane.

More than 80 percent of Greenland is covered by an ice cap so thick—10,000 feet at the center—that no one knows whether the island is a single landmass or an archipelago. Settlements lie only on the coasts; the icy interior is uninhabitable year round. But in summertime the coastal regions of the south are verdant with grass and wildflowers, and it is not difficult to understand why Erik the Red named the place Greenland when he was exiled there from Iceland in AD 982. (The commonly told story about his attempt to trick invaders by switching the names of Iceland and Greenland is almost certainly false; it is

of benign neglect and paternalistic social engineering. For example, while 18th-century missionaries attempted to end the Inuits' traditions of polygamy and communal living, a 1782 directive prohibited Danes from "corrupting" the Inuits with alcohol, limited contact between Danes and Inuits, and urged that the Inuits' welfare "receive the highest possible consideration, even override when necessary the interests of trade itself"

Though most Inuit Greenlanders converted quickly to Christianity, economic change came more slowly. Until the beginning of the 20th century they lived a life of dogsleds, igloos, and subsistence seal hunting, as their ancestors had for millennia. Then Denmark embarked on various modernization schemes that converted the economy into one based on industrial fishing and fish processing, and forced Inuits to abandon their traditional seminomadic lifestyle and settle in towns in Danish-built wooden houses.

A visitor familiar with Native American reservations or Canadian Inuit territory—the closest historical analogues to Greenland's experience—will notice the difference between such places and Nuuk immediately. Nuuk has the feel of a well-tended frontier outpost, with cheery wooden houses painted in primary colors competing for space with 1960s-era apartment buildings. (One such building houses a full one percent of Green-



In the eyes of former Greenland prime minister Lars-Emil Johansen, Denmark has been a generous colonial power. But Greenland's newly accessible energy deposits may end this antiquated relationship.

land's population.) Lately, the city has added a bit of cosmopolitan flair with several handsome examples of avant-garde Scandinavian architecture. The gently undulating wood-and-glass Greenlandic cultural center has been written up in the international design magazine *The Architectural Review*.

But aside from the dramatic scenery and Inuit faces, Nuuk isn't so peculiar as most visitors expect. Several years ago the Danish author of an academic paper on Greenland felt compelled to add in a footnote: "Most Danish cities have a minority of Greenlanders. Most blend in, but a small fraction constitutes a highly visible group of bums, carrying always an open beer bottle. Many Danes are surprised to come to Greenland and see cities that, as much as conditions permit, look like other small North European cities. On Sunday mornings many Greenlanders walk to the local bakery to buy freshly baked rolls."

Still, the social dislocation caused by Danish urbanization schemes is evident. The suicide rate is five times that of Europe, and one politician told me that the rate of child sexual abuse is 15 times higher than in Denmark. Alcoholism is rampant. I went to Nuuk's oldest watering hole, Kristinemut, on a Friday night, and encoun-

tered an unprecedented scene of drunkenness: Fully half the patrons were incapable of walking in a straight line.

Yet most Greenlanders acknowledge that their experience with Denmark has been more positive than negative. "Denmark is the best colonial power we could have had," Lars-Emil Johansen, a former prime minister in his sixties, told me. Johansen, like most Greenlanders, regardless of their ethnic background, has a Danish name and speaks Danish. (A notable exception is the current prime minister, who speaks only Greenlandic.) "We've never been at war with them or been oppressed, and the process of independence is

not a protest against Denmark. But we want a relationship based on mutual respect. We don't want to rely anymore on the goodwill of the Danes."

The negotiation of Home Rule put a Greenlander-run government in administrative control of nearly all state responsibilities in 1979. Today the only Danish government presence in Nuuk is a high commissioner of Greenland and a staff of a dozen to act as a liaison to the Danish prime minister's office. The Self-Government Act to be voted on in November lays out 32 areas, including the court system, immigration and border control, and education, in which the Greenland government will take more responsibility. Most significantly, the law will allow Greenland the right to exercise self-determination, or to declare independence outright.

This may seem like a tame step. But it suits the cautious nature of both Danes and Greenlanders: One scholar at the University of Greenland has argued that Danish rule has been so successful because both cultures value communitarianism, egalitarianism, and emotional restraint.

But it's not just emotional restraint that is keeping Greenlanders from impetuously throwing off the Danish yoke. There is also the matter of the most frequently cited number in Greenland: three billion Danish kroner

(about \$600 million), the amount of the annual Danish subsidy to Greenland's home-rule government. That amounts to more than \$10,000 for each of the island's residents, and about half the government budget. With independence, Greenland would lose that subsidy.

Traditionally, Greenland has had few options for industry: Seafood accounts for roughly 90 percent of its export income. It also depends on Denmark for access to higher education institutions (only 150 students attend Greenland's sole university) and health care. But Greenland's financial dependence on Denmark very soon could be history. Companies around the world are realizing that Greenland, that vast yet obscure country to the north, is sitting on a mother lode.

In the last four years mining companies, primarily based in Canada, Britain, and Australia, have begun operations at Greenland's first two mines—one for gold and another for olivine, a greenish crystalline mineral increasingly used in pollution-fighting carbon dioxide absorption. (The Danes operated mines throughout their colonization, but on a relatively small scale; all of them closed decades ago.) The government has given the green light to other companies to open five new mines by 2011. Thirty companies carried out another 78 prospecting explorations last year, and the government expects that gold, diamonds, rubies, and minerals such as olivine and niobium (used as a steel alloy) could soon become mainstays of Greenland's economy. Alcoa and the Greenland government are also contemplating the

construction of an aluminum smelter there, which would begin operating around 2015. (Greenland produces none of aluminum's ingredients, but its abundant hydropower can cheaply power smelters.)

Oil and natural gas exploration, too, have begun in earnest. Last year, the U.S. Geological Survey released its first comprehensive assessment of the oil and natural gas potential of the Arctic, and found that the seas off northeastern Greenland were among the most promising, with an estimated 8.9 billion barrels of oil and 86.2 trillion cubic feet of natural gas. "If this resource is proved and realized, northeastern Greenland would rank 19th" among the world's 500 oil and gas provinces, the report predicts. The seas to the west of Greenland are also rich with promise, estimated to contain beneath their floors 7.3 billion barrels of oil and 51.8 trillion cubic feet of natural gas.

To say that change in Greenland's economy is moving at a glacial pace doesn't mean what it used to. The country's underground wealth, unlocked by global warming, promises to revolutionize the economy—and fast. In 2005, a British mining company announced that it had found "massive" deposits of zinc and lead on land that had recently been exposed by a retreating glacier. A dramatic reduction in sea ice—10 percent every decade since 1979—has made it easier to prospect for oil offshore. In a PowerPoint presentation at a Texas energy conference this year, Greenland's Bureau of Minerals and Petroleum maintained that while some models predict that the Arctic Ocean will be ice free in 2080, others

Many Nuuk residents, transplanted from traditional villages, live in 1950s and '60s era utilitarian public housing. This building, known as Blok P, houses a full one percent of Greenland's population.



show an ice-free Arctic Ocean as early as 2040.

The changing climate is even creating new opportunities in agriculture. Farming—a relatively new occupation in Greenland introduced by Danish settlers—is thriving on the southern coast. On a bucolic hillside near the town of Qaqortoq, I visited a government agricultural research station where agronomists experiment on little rows of turnips, broccoli, cauliflower, lettuce, and strawberries, and then teach local farmers to raise the crops. The government is hoping to reduce Greenland's dependence on food shipped from Denmark, and these efforts have gotten a boost from global warming: Since 1990, the growing season has lengthened by about three weeks, said Kenneth Høegh, the station's director. Agriculture will always be a niche activity, but the greening of Greenland has spurred its (surprisingly numerous) swanky restaurants to build menus around local foods. They proudly serve dishes that include ingredients such as reindeer, muskox, angelica root, snow peas, potatoes, and rhubarb (which featured in a cold dessert soup I sampled) that were grown, hunted, or gathered in the country.

Greenlanders have always been subject to the vicissitudes of the weather. Their traditional beliefs hold that the weather is a demanding god, named Sila, who must be appeased. Until the 1920s,

nearly all Greenlanders survived by hunting seal, whale, and muskox. But hunting requires favorable conditions—clear skies and solid ice. Bad weather frequently meant starvation.

Few Greenlanders live as subsistence hunters today, but in the northern part of Greenland many do, and they are keeping alive the traditions that all Greenlanders used to observe. Global warming threatens their livelihood and way of life. Solid ice is necessary for dogsleds (and the increasingly common snowmobiles) to get around, but as winters become milder, the Greenlanders' "roads" are growing slushy and dangerous and the hunting season is shrinking.

More snow is falling (warmer air holds moisture), making it harder for game animals to forage. Thunder and lightning, once unheard of, have been reported. Jacky Simoud, a tour operator in southern Greenland, said, "Here, a good winter is a cold winter—the sky is clear and the fjord is frozen so you can go anywhere by snowmobile. But for the last four or five years it gets warm and cold, warm and cold, and you never know what will happen with the ice. So you just stay home."

But for every negative effect of global warming, there is a positive one for Greenlanders. There is less hunting but more farming. The thawing of the fjords makes navigating northern Greenland in winter on a dogsled more difficult, but kayaking in the spring and fall is easier. Shrimp are fleeing the warmer seas, but cod are coming.

Overall, Greenlanders are fairly sanguine about these shifts. "We've always been subject to the weather in Greenland, and this has made us adaptable to the changes taking place," said former prime minister Johansen. "We need to use the opportunities that climate change gives us rather than complaining about the downsides."

Global warming presents "huge opportunities," said Mininnguaq Kleist, the bookish young head of the government office that is coordinating the transition to self-government. "Ten or 15 years ago, people would say



you were completely unrealistic if you talked about independence. But now it's very realistic."

It's realistic in large part because the route to economic self-sufficiency is more apparent now than it's ever been. The most important part of the November referendum is a revenue-sharing arrangement for the petroleum and mineral wealth. Under the new law, Greenland and Denmark would split the revenues until Denmark's share became equivalent to its annual \$600 million subsidy. After that, Greenland would keep the rest. Once Greenland no longer needed the subsidy, the main argument against independence would disappear.

The Greenland government is confident that the referendum will pass, but not everyone supports independence—at least at the pace at which the government appears to be pursuing it. One opposition party, the Democrats, has come out against the referendum, arguing that it adds extra responsibilities without creating any additional income. "The law is the next step to independence, and we want to see the oil before we start spending the money from it," said Jens Frederiksen, the Democrats' leader. "Independence is important, but not to the little child who goes to bed hungry, and there are a lot of children in Greenland like that." He sees a timeline of "30, 40, 50 years" before such an eventuality. Independence "depends on so many things, and maybe in the end it won't be possible," he said.

Others worry that independence would make Greenland vulnerable to other powers that may not have Denmark's gentle touch. That's the concern of Aqqaq Lyng, the top Greenland representative to the Inuit Circumpolar Council, an international organization representing Inuits in Greenland as well as Alaska, Canada, and Russia. He has argued that independence would put Greenland at the mercy of the United States and its oil companies.

The United States has another key interest in Greenland: Thule Air Base on the far northern coast of the island. On the base—built immediately after World War II, during which the United States assumed military control over Greenland to keep it out of the hands of Germany—is a radar installation that is part of the Ballistic Missile Early Warning System. Independence advocates argue that the radar site gives Denmark, and by

extension an independent Greenland, some leverage over the United States. The base "is a ticket to the world's only superpower," Kleist said.

Denmark is likely to go along with whatever Greenlanders decide on the independence question. A few Danish right-wing politicians oppose Greenland's independence, arguing that after supporting the island for decades, Denmark should reap the material benefits to come. But that's a minority opinion. Though some Greenlandic politicians accuse Denmark of dragging its feet, the Danes have largely gone along with the independence drive.

Pro-independence Greenlanders take inspiration from the experience of Iceland, which declared independence from Denmark in 1944 and now enjoys one of the highest standards of living in the world. Icelanders return the affection: Icelandic superstar Björk has dedicated "Declare Independence," a song on her most recent album, to Greenland. "Damn colonists," she sings. "Ignore their patronizing/Tear off their blindfolds/Open their eyes."

But Björk's angry rhetoric doesn't jibe with the mood in Greenland. In a more nationalistic place, Hans Egede, Denmark's first missionary colonizer, might be seen as a villain; in Greenland he's regarded with indifference. (Statues, paintings, and memorials to Egede are everywhere—Nuuk's main hotel is even named after him—but all the Greenlanders I asked said they didn't think much about his role in their history.) Some politicians suggest that Greenland might choose to stop somewhat short of independence from Denmark and opt instead for a free association arrangement, wherein Greenland would have its own constitution but retain some ties, mainly in defense and diplomacy, with Copenhagen. Aruba (the Netherlands), the Cook Islands (New Zealand), and Micronesia (the United States) are potential models.

In Johansen's small office in Nuuk's government building hangs a poster of his political idol, Nelson Mandela. Johansen identifies with Mandela not because he believes the Greenlanders suffer as grievously as blacks did in apartheid South Africa, but because Mandela emphasizes reconciliation. "His idea of looking to the future, not dwelling on the past, is something I admire," Johansen said. "We don't want to be a colony anymore, but we will still be friends with Denmark." ■