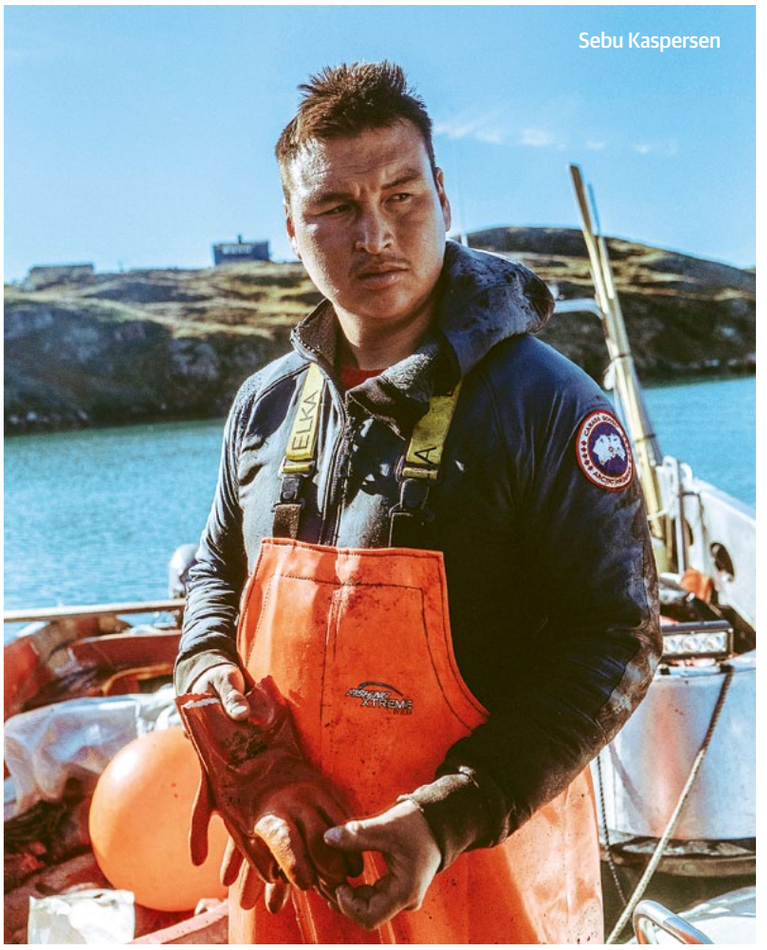
What lies beneath

A tiny town on Greenland's southern tip is fighting for its life. Behind them sits one of the world's largest deposits of uranium. Is a controversial new mine the answer? Maurice Walsh reports

Photographs by Sirio Magnabosco

Fridrik Magnusson

SIRIO MAGNABOSCO/ARCTIC TIMES PROJECT


Sebu Kaspersen

There was a calm sea and they shot a minke whale with a rifle. It is the hunter's second whale this year, the limit of his quota

It is a beautiful morning on the southern tip of Greenland; the sun is high in a cloudless sky, but there is a tang of cold in the air. A crowd of Spanish tourists in red parkas has gathered at the small jetty in Narsaq, to watch boatmen who have just returned from hunting a minke whale in the open sea. From the shoreline, the Spaniards watch the men below busy themselves, slicing the whale meat into slippery rectangular chunks. They work swiftly, as if cleaning up the scene of an emergency, deferring to one young man in orange overalls. As word spreads that a catch has landed, local people arrive with carrier bags and choose from the cuts laid out on the bloodstained floor of the little boats bobbing in the water. The bags are slung on handheld scales; today, whale meat costs 80 Danish kroner a kilo, about £9. A woman pushes a wheelbarrow down the jetty, loaded with what looks like a ribcage.

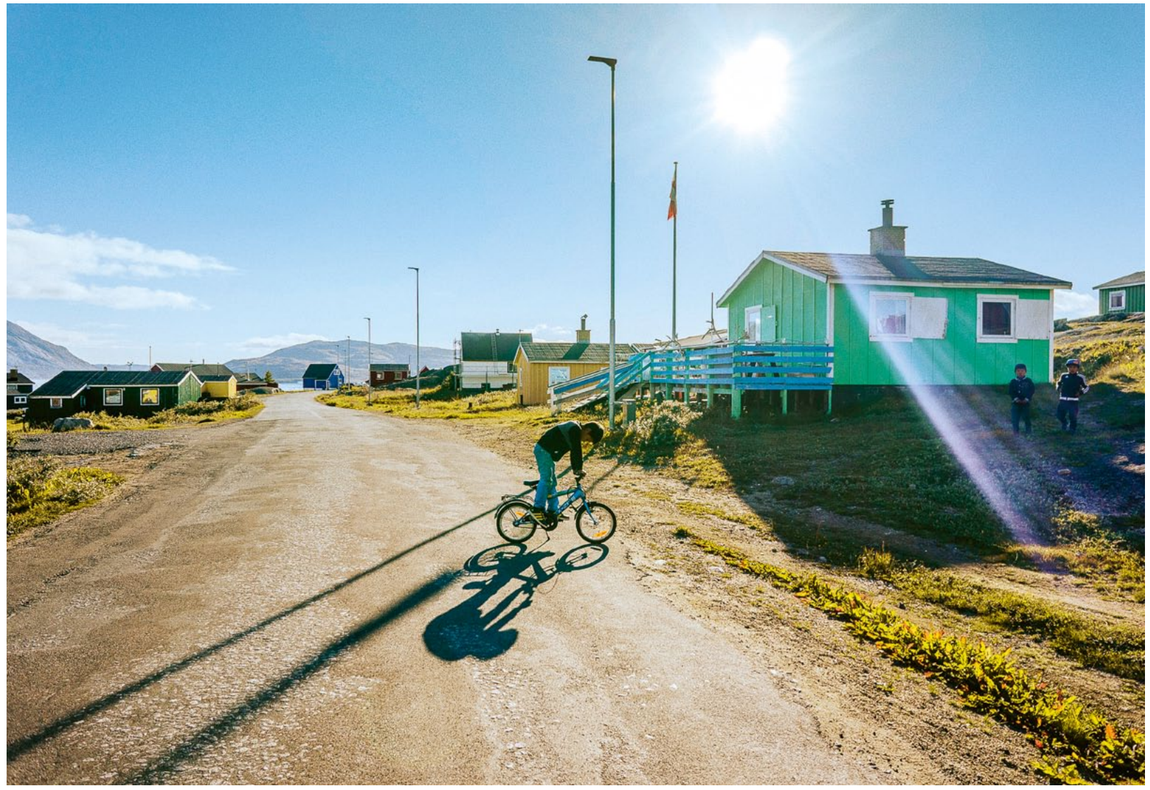
The whale hunter is a symbolic figure in Greenland but the flurry the Spaniards are observing is humdrum, devoid of ceremony. Sebu Kaspersen, the hunter in orange overalls, explains that there was a calm sea and they could see a lot of whales; they shot one with a rifle and then fired a harpoon to finish it off. It is, he says, the second minke whale he has killed this year, the limit of his quota. His living largely comes from fishing halibut, and hunting seals for their skin; mostly, he works alone, without a crew.

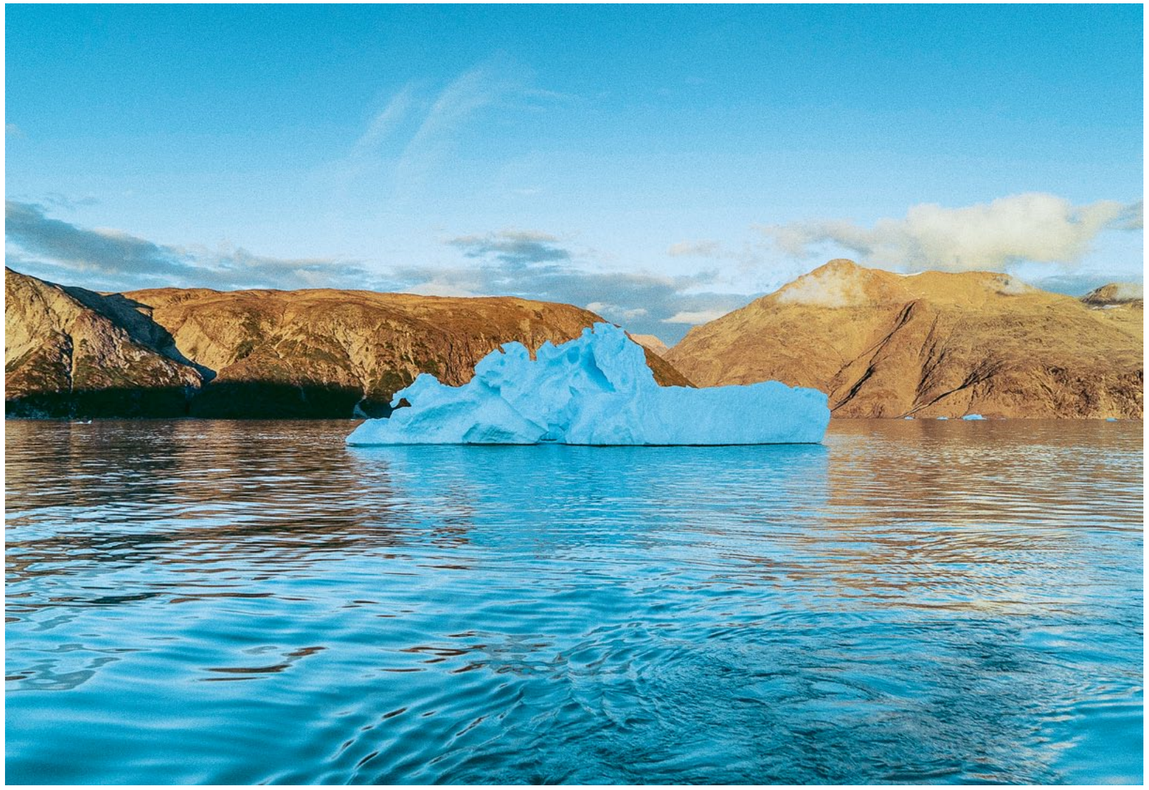
Soon the Spaniards get bored and put away their cameras. Their Argentine guide, fresh from Patagonia, gets them into their kayaks for a day's paddling in the fjord, giving instructions on how to avoid colliding with the icebergs glimmering in the sun, lest a dangerous shard come crashing down. In the evening, when they return, they will probably have dinner at Hotel Narsaq, the only hotel in this town of 1,500 people, sharing the restaurant with four Americans from New Jersey, two fathers and their sons who have come to Greenland by private plane to shoot musk ox, and who are loud in their approval of President Trump.

When the whale meat has been sold, the town settles back into a pleasant torpor. The paved road through the green, yellow, red and ochre wooden houses is mostly empty; a zigzag of smoke rises from a chimney against a sky streaked with contrails. Women and men carry shopping and push prams up the hill toward the hotel. Occasionally, the tranquillity is broken by a Volvo tractor roaring jerkily along. In the afternoon, teenagers gather on a hill, while men and women sit drinking on benches. In the square near the supermarket, two teenagers are selling hotdogs and chips from a van parked in front of a little police station.

Not far away, on the edge of town, the shadows lengthen on the dusty football pitch that sits beneath the mountains overlooking Narsaq. From here, you can look straight up the glacial valley to the Kvanefjeld plateau six kilometres away. In the past few years, the townspeople have become used to the helicopter taking off and landing near the football pitch, ferrying drill rigs and other supplies; there, men are working hard to find the mineral riches buried in Greenland's mountains.

When he visited Narsaq in July 1957, the Danish physicist Niels Bohr was probably the most famous scientist in the world. A Nobel prize»





winner, he had worked on the Manhattan Project that produced the first atomic bomb dropped on Hiroshima. But by the mid-1950s, he was a proselytiser for the peaceful use of atomic energy. There is a photograph of Bohr accepting honorary citizenship of Narsaq, bending over a lectern set up on a patch of grass, speaking into a microphone. Behind him are officials from Denmark, which had run Greenland as a colony since the 18th century; at the edge of a crowd gathered some distance away, three Inuit children watch him with indifference. In the weeks before Bohr arrived that summer, Danish geologists had taken samples from Kvanefjeld containing promising levels of uranium. His dream was that Greenland's uranium could support a nuclear power programme in Denmark.

Sixty years later, the dream is that it will provide the key to Greenland's independence. Since 2009, the island has been an "autonomous administrative division" within Denmark, giving its 56,000 inhabitants control over local resources. The idea of full independence within a generation or two is the dominant theme of local politics - even if the price of breaking free would be an annual Danish subsidy worth some £7,500 a head.

There are few options when it comes to replacing that money: fishing already accounts for more than 90% of Greenland's exports. But in the last decade, mining has emerged as the means to industrialise Greenland, creating a financial base for independence. Government delegations have toured Australia and Canada, armed with geological surveys, aiming to convince the world's leading mining communities that Greenland is a rich source of minerals - potentially the 21st century's new frontier.

As interest has grown - in 2013, the government granted four times the number of exploration licences approved in 2003 - so has the pressure to repeal a 1988 ban on uranium mining: this prevented the extraction of uranium, as well as any minerals that might have uranium as a byproduct. In 2013, after a debate that divided the country, Greenland's parliament voted narrowly to repeal the ban.

Kvanefjeld, near Narsaq, is one of many potential mines. Last month, an Australian company was given the green light to begin construction of a zinc and lead mine on the northern coast; there are currently 56 active licences to explore mining for gold, rubies, diamonds, nickel, copper and other minerals elsewhere.

But uranium has made Kvanefjeld the most controversial project, and the focus of a debate about whether this is the economic path that Greenland should pursue. (The most common argument raised against is the danger that radioactive dust will fall on neighbouring settlements and farmland.) An Australian-owned company, Greenland Minerals and Energy (GME), has spent nearly £60m developing a plan for an open pit mine here. It was due to submit an environmental impact assessment by the end of 2016, but the deadline has been extended.

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Last September, a Chinese company took a 12.5% stake in GME, with an option to increase that to 60%. On the one hand, this suggests strong faith that the project will go ahead; on the other, the deal is now under investigation by Greenland's government, concerned that they may eventually be dealing with a Chinese mining company, not an Australian one.

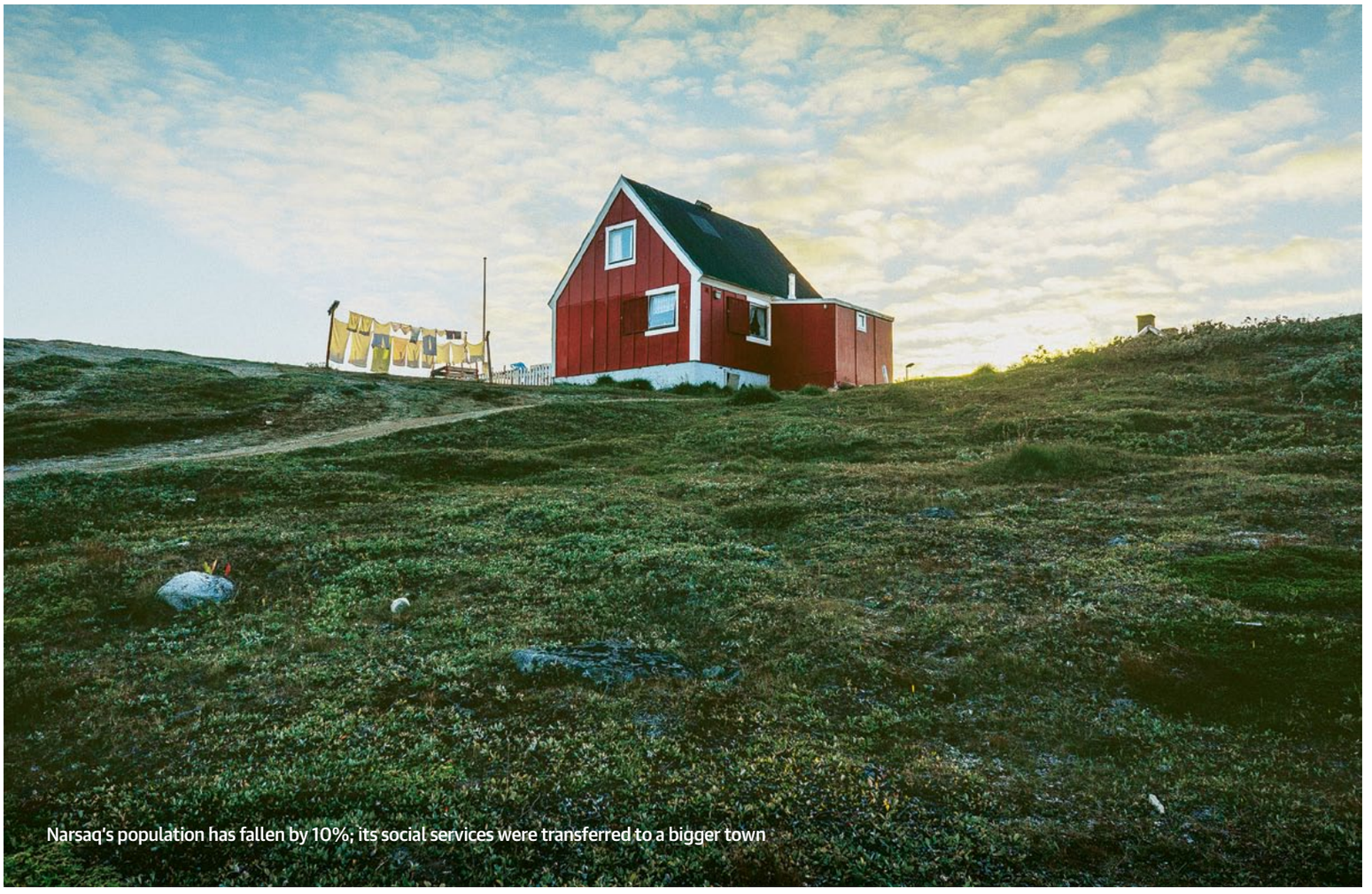
In a move that sounds counterintuitive, GME is promoting its mine as a contribution to the new global green economy. According to the company, 80% of the commercial deposits in Kvanefjeld are rare earth minerals, commonly used in wind turbines, hybrid cars and lasers; uranium accounts for only 10%. "The market for rare earth minerals is deciding this," says operations manager Ib Laursen. "Everybody is looking for them. Instead of Greenland being a passive receiver of global warming from the western world, it could contribute to green technology."

It is a clever pitch. Greenland's ice sheet has become the benchmark measurement for the march of global warming; research published in September showed that ice loss is accelerating more rapidly than previously feared. Greenland is also the emblematic victim of climate change: Inuit hunters and fishermen are called on in international conferences, to describe how their traditional lifestyles are being destroyed by warming seas.

But what the rest of the world see as creeping ruination, local politicians see as an opportunity. The melting ice sheet will make some minerals more accessible, and reveal others that are so far unknown. The attention that climate change has brought to Greenland has also made the country a more desirable tourist destination. In the last decade, there has been a big increase in the number of cruise ships stopping along the coast, and there are plans to build new airports.

Independence may be a distant prospect, but the goal of self-sufficiency eclipses any fear that Greenland may change beyond recognition. "It's a question of mentality, and whether you decide to be part of a progression or a passivity," says Vittus Qujaukitsoq, minister of industry, labour, trade, energy and foreign affairs (a wide-ranging brief that reflects both the strategic importance of mining and the intimate scale of local politics). "There are only two choices. Either you sit and wait for the opportunity to come. Or you work to grasp what opportunity brings along."

While there have been desultory attempts at mining in the past, Narsaq bears little trace of »



Narsaq's population has fallen by 10%; its social services were transferred to a bigger town

Locals invoke images of wasted landscapes and toxic pools. But supporters say this is groundless: 'We cannot live in a museum'

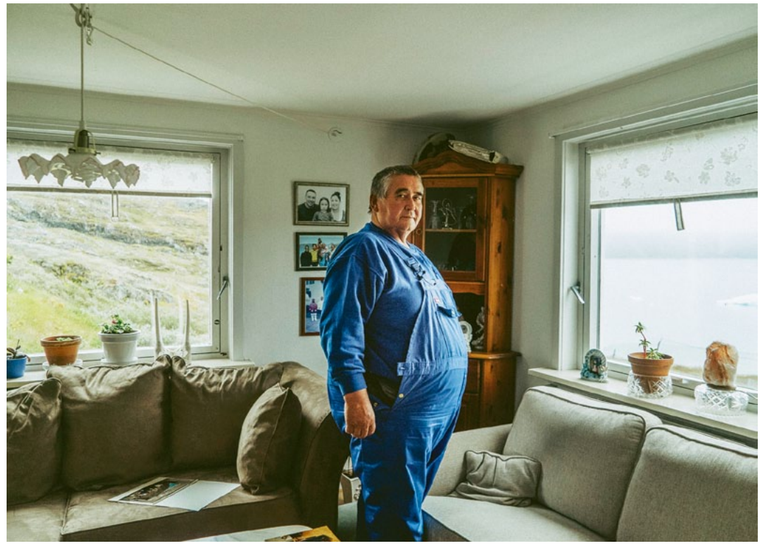
it. Today, its serenity brings to mind the town of Sulaco, the fictional setting for Joseph Conrad's novel Nostromo, in which British and American investors extract fabulous wealth from a silver mine in a South American backwater.

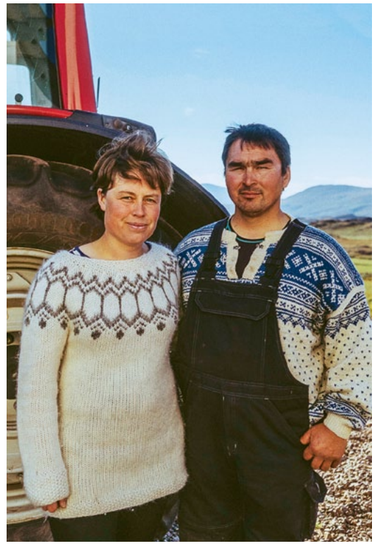
It is difficult to picture an open pit mine in the mountains behind Narsaq, to imagine the road through the valley busy with trucks and machinery, and ships waiting to be loaded with ore in a new port, built in the little bay where tourists currently meander in kayaks and the only intrusive sound is the occasional boom of ice collapsing into the water. Like the silver in Nostromo, the rare earths and uranium in Kvanefjeld would turn the town into "the blessed province of great opportunities and of largest salaries". And like Conrad's English administrator, Charles Gould, whose faith in the mine was contagious, the Kvanefjeld mine has its booster in Ib Laursen, the operations manager who has become the public face of the project. A Dane who has lived in Narsaq for over a decade, Laursen is promising 2,000 jobs during the construction of the mine and a new harbour, and a further 800 permanent jobs (300 for locals) over the next three decades. Revenue from taxes and royalties will help Greenland's economy take off, Laursen says: instead of driving away tourists, the mine will fund the development of airports, roads and hotels to attract them.

Most of the world's rare earth minerals come from China (six state-owned enterprises control nearly 90% of the planet's supply), and the scale of environmental degradation there has given open pit mining a bad reputation. Concerned locals in Greenland invoke images of wasted landscapes and pools of toxic and radioactive waste, gleaned from a Google search. Similarly, the history of uranium mining has been one of blithe disregard for the environment - though the Organisation for Economic Co-operation and Development (OECD) claims that growing awareness makes it "the most regulated and one of the safest forms of mining in the world".

Laursen presents his mine as an environmentally friendly alternative to Chinese mines, modelled on international standards of best practice. He says the fears of radioactive dust floating over south Greenland are groundless. The crushed rock discarded once the minerals have been extracted, known as tailings, will be turned into slurry and carried in a pipeline to the bottom of a nearby lake. "It would never surface as dust," Laursen says: the lake will be sealed in perpetuity by an impermeable dam.

Laursen is dismissive of Greenlanders opposed to the mine: "It's like windmills in Denmark - everybody wants sustainable energy, but they don't want a windmill in their backyard." And he challenges those in the rest of the world horrified by the prospect of large-scale mining. "You cannot live in a museum - you have the right to sustain your people. Is it OK for Europe to cut down forests, but object to one project in Greenland? It's not a banana republic. This country is huge - one or two mines will not destroy its purity." »





Klaus studied sheep farming in Norway in the mid-90s, when animals were still affected by the fallout from Chernobyl

He claims to be unfazed by the lengthy approval process GME has been required to undergo. “Greenland is occupied by doing this right, and I am sympathetic to doing a thorough job. You don’t want to rush an industrial revolution.”

The very idea of an industrial revolution, speedy or cautious, is not reassuring to many living in and around Narsaq. Enough green fields have been carved from the hillsides in this part of Greenland to make sheep farming profitable. Klaus Frederiksen and Aviaja Lennert have 600 sheep on 67 acres an hour’s boat ride from Kvanefjeld. Tractors and pieces of machinery are left haphazardly on the grass around their house overlooking the fjord; three sheepdogs scamper and bark. Their business became more expensive because of a long summer drought they blame on climate change; with their neighbours, they had to rent a ship to import hay from Denmark.

Frederiksen and Lennert first heard of plans for the mine six years ago, when they went to a local school to watch a presentation by four scientists - three women and an elderly man - who had come from Denmark, and who they now think had been hired by the government in Greenland. The scientists told them that the mine would make south Greenland more prosperous and increase demand for their lambs. But Frederiksen was alert to the dangers of radioactive dust because he had studied sheep farming in Norway in the mid-90s, when animals there were still affected by the fallout from Chernobyl. The scientists said they would remove dust from the mine by sprinkling it with water. “Well, water is usually frozen here in the winter,” Frederiksen tells me now, “so I asked them, ‘How are you going to have water to sprinkle then?’ And they said they would answer that when the environmental impact assessment arrived. When someone asked if it was possible to have no pollution in a mining area, the elderly man told us there had never been mining without pollution.” Frederiksen and Lennert believe most of the sheep farmers oppose the mine, but they avoid too many conversations about it just in case: polarisation risks harmony, and they might need each other in difficult times.

Fridrik Magnusson, the Icelandic owner of the Hotel Narsaq, is in a similarly delicate position and tries to stay neutral. “I don’t want to be selfish - I know half the town wants the mine for work, but I would rather keep the tranquillity of the place and the beauty of it,” he says. His wife, Katti, grew up in Narsaq, and they moved here from Reykjavik so that their children could be close to nature. “It’s the calmness. You know you can go and sit and watch the icebergs for half a day, a whole day.”

After putting a lot of work into starting the hotel and opening a little brewery, they were initially worried by the prospect of a mine that might drive tourists away. But they also know it will bring a lot of people here. “The hotel will be full all the time, the restaurant will be busy the whole time - and the beer will be running in every direction. We don’t know how things will be. They talk about uranium dust over the village; they talk about the water being polluted. I don’t want to believe any of it: how are you going to have a thousand people working here if it’s all going to be polluted? I don’t know.”

In the last decade, Narsaq’s population has fallen by 10%; it suffers the highest unemployment of any town in Greenland. In the 1970s, Katti’s uncle Jorgen Olesen and his three brothers made a very good living filling their boats with shrimp, delivering their loads to the factory where the shrimp were peeled, frozen and shipped to Denmark. The factory worked from dawn to dusk, each of their boats keeping 15 people in work. But just as cod disappeared in the 1970s, the shrimp moved away, and the government backed profitable factory trawlers at the expense of the independent fishermen. The shrimp factory closed six years ago, and is now a slaughterhouse where sheep farmers bring their lambs. Until his sudden death last month, Olesen made his living ferrying tourists around the fjords.

This streamlining of the fishing industry was accompanied by a squeeze on public expenditure. Many municipalities around Greenland were merged. Narsaq lost its social services, which were transferred to a bigger town nearby. “People just lost hope or interest in being here, because it’s become more difficult,” says Paninnguag Lind Jensen, a tattoo artist and sometime tourist guide who divides her time between her home town and the capital, Nuuk. “Only people who really care about Narsaq will stay here. People can’t get work, and they stay here and start drinking.” Six of the 30 pupils in her graduating class at school have killed themselves.

The opening of a new primary school, after a quarter of a century of campaigning, has brought some relief from the gloom. The principal, Ivalo Motzfeldt, tells me how even walking along the shiny corridors and using the new workbenches has increased the children’s motivation. But she knows that those who want to go to university will go to Denmark, while the others will leave for Nuuk or bigger towns: Narsaq has nothing to offer them.

In the 11-year-olds’ science class, the children have been set the task of researching uranium. Their opinions about the mine are divided, and Motzfeldt suspects they are echoing their parents’ views. The unemployed tend to believe that, if the mine opens, there will be jobs for everybody. “Money is the driving factor and it makes them blind,” she says. She is outspokenly opposed: yes, the town needs money, but the land should not be sacrificed. “When the last fish is caught and the rivers are polluted, you can’t eat money.”

From his powerful position in Nuuk, Qujaukitsoq would most likely regard such talk as homespun philosophising. He is confident that Greenland will follow best international practice. There will be a limited number of highly regulated projects; his country will not become another Congo. “It is a democratic society that the mining companies will have to operate in. I see no danger of being overrun - we have the resources to prevent corruption or misconduct.”

In the past two elections, the people have decided, by voting for parties that support the uranium mine. Now, Qujaukitsoq says, it is a decision for the government. “Are we hesitant? No. We have no reservations about creating jobs.” For him it is the only way of saving Narsaq from stagnation. Whatever image the rest of the world cherishes, one thing is clear: Greenland will make its own way in the age of climate change ●

Maurice Walsh travelled as part of the Arctic Times Project, an international team exploring the transformation of the Arctic.

Opposite page: former fisherman Jorgen Olesen; sheep farmers Klaus Frederiksen and Aviaja Lennert have 600 sheep on 67 acres an hour’s boat ride from Kvanefjeld. Above: operations manager Ib Laursen