

SEABED

North Pole, August 2007

Two diving capsules, MIR I and MIR II, set out from the Russian research vessel Akademik Fyodorov to explore the seabed beneath the North Pole. Expedition leader, Artur Chilingarov, is on board one of the capsules. Soon after the dive begins, he reports back to the crew on the Akademik Fyodorov: ‘We had a soft landing. We are surrounded by the yellowish ocean floor – there are no marine creatures to be seen.’¹⁸¹ MIR I and MIR II have reached a depth of 4,261 meters, where, in the yellowish seabed, they plant a Russian flag, 1 meter in height. The flag is made of titanium, an incorruptible metal.

MARE LIBERUM

Netherlands, 1609

In his pamphlet Mare Liberum, jurist Hugo Grotius distinguished two classes of goods: those which, by virtue of the physical properties that constrain them, can and need to be owned by one or more people and thus controlled; and those that are unlimited. These other goods cannot be controlled and taken possession of by a private person or a particular group of people. He writes:

The air belongs to this class of things for two reasons. First, it is not susceptible of occupation; and second its common use is destined for all men. For the same reasons the sea is common to all, because it is so limitless that it cannot become a possession of anyone, and because it is adapted for the use of all, whether we consider it from the point of view of navigation or of fisheries.

Thus, by the same token, the sea at the North Pole belongs to us all. In the seventeenth century, a country’s sovereign waters extended 3 nautical miles from the coast. Three nautical miles was the firing range of a cannon at that time. Three nautical miles was thus an area that could be defended and constituted a distinct territorial zone before international waters were instituted.¹⁸⁶ At some point, defence was no longer predicated on cannons. And at some point, countries became more interested in extending their national borders than in defending existing boundaries. The seabed became a focus of greed. But who owns the territory beneath the water, and how are these areas measured? From the coastline, from an island, from a rock in the breaking waves?

In 1994 the United Nations Convention on the Law of the Sea (UNCLOS) came into force. According to this treaty, Arctic coastal states that are signatories to UNCLOS are authorized to claim a national territorial sea of up to 12 nautical miles from the baseline and an adjoining exclusive economic zone (EEZ) of a maximum of 200 nautical miles (from the baseline). Furthermore, if a state can show that the geological structure of the continental shelf represents a prolongation of its land mass, the 200 nautical miles can be extended. This is a further reason for exploring the bottom of the Arctic Ocean: to prove ownership of this or that portion of the deep ocean, thus establishing the right to exploit it.

LOMONOSOV RIDGE

between 87° 24' 27" N, 142° 34' 11.2" E and 80° 30' 0" N, 175° 55' 12" W

The Lomonosov Ridge is a 1,800-kilometer-long mountain range lying at the bottom of thesea. Like a gigantic whale that has bedded down there. The ridge is up to 3,400 meters high. It lies there serene, sealed off from the air and in absolute darkness. Its furrows, troughs rifts, and grooves are inhabited by creatures that can withstand the cold. Copepods, for example, paddle and crawl around it. Above the ridge, closer to the surface, cod swim in schools and the clicks of seals can be heard. Icebergs drift by. In September 2007 the Russian Ministry wrote, ‘Results of an analysis of the Earth’s crust show that the structure ofthe underwater Lomonosov mountain chain is similar to the world’s other continental shelves, and the ridge is thereforepart of Russia’s land mass.’ Denmark does not concur with this, asserting that the ridge is an extension of Greenland and the mountain range thus belongs to Denmark. Canada also dissents, claiming that the ridge is an extension of its continental shelf and is Canadian land. Ownership of the Lomonosov Ridge will be decided by a new survey of the massif. The re-measurement of the furrows, troughs, rifts and grooves in the mountain massif will be of crucial importance.

HANS-INSEL

Hans-Insel, 1984

The Danish Minister for Greenland visited the small island in the Arctic Ocean. He hoisted a Danish flag and left behind a bottle of schnapps (typically Gammel Dansk). On the flagpole he had affixed the message ‘Velkommen til den danske ø’ – Welcome to the Danish Island. The 1.2-square-kilometer island is located 377 kilometers north of Qaanaaq/Thule. From a Canadian perspective it is part of the Qikiqtaaluk/Baffin region, while for the Danes it belongs to the province of Qaanaaq.The border between Greenland and Canada was agreed in 1973. When the borderline was drawn, Hans Island was omitted and a decision on where the line should run there was put off until a later date. When a Canadian delegation visits the island now, they raise a Canadian flag, leave behind a bottle of whisky (usually Canadian Club), and write ‘Welcome to Canada’ on the flagpole. The dispute was ended in 2022.

RARE EARTHS

Kvanefjeld, South Greenland, September 2020

Kvanefjeld, South Greenland, September 2020 I am standing on the high plateau and looking out across the fjords. One of the biggest rare-earths mines is due to be established here People are saying that this hill is one of the reasons that Greenland is being coveted now. As I take photos at Kvanefjeld, I wonder which rare earths have been used to make my camera and in what quantity. My enquiry to the manufacturer received no response. Based on a quick research, I suspect my gear contains europium, cobalt, terbium, samarium, and maybe lanthanum if I include my lens. Five of the 17 rare-earth elements are in the equipment I took with me to take pictures on the mountain, where the material is still buried in the ground.

REINDEER BLOOD

Narsaq, Südgrönland, September 2020

I am standing in the local museum, amongst the collection of rocks. It's not worth opening the shutters for the museum's handful of visitors. The light comes from LED lamps. A placard thanks the museum's sponsors: the Greenland Minerals mining company and the Geological Survey of Denmark and Greenland research institution. Both sponsors have a particular interest in the Kvanefjeld site. The rock there contains a range of rare earths, radioactive material and red inclusions that the Inuit call 'tugtupite' – reindeer blood – on account of its colour. The possibility of extracting the rare earths encourages people to dream big. Mining them is a lucrative business because sustainable technologies rely on these raw materials, which are used for wind turbines and electric car batteries. This is a mine, then, that causes natural destruction in the north so that the technology for sustainable energy can be built further south. There are significant fears about what the rare earths will bring to the surface with them: uranium and thorium. Many of the people living in the village of Narsaq, at the foot of the mountain, are worried that emissions from the mine will pollute arable land and the hunting and fishing grounds. No one can own land in Greenland. Everyone has free access to land and water, and fishing, hunting and gathering are open to all. This is not the case in the area around the mine, which will block the way to the hunting grounds. And the owners of the mine don't look kindly on it when Greenlanders climb the mountain and look for tugtupite, which they use to make pendants, lucky charms and pieces of jewellery. The land and the rocks on the site of the mine belong to everyone, though a little less so to the Greenlanders.

HOTEL

Narsarsuaq, September 2020

The hotel has a drawing with various plants typical of Greenland hanging in the corridor. I notice the word 'Alpinum' that appears in some of the Latin names: Cerastium alpinum, Lychnis alpina, Hieracium sect. Alpina. In the lobby, there is a brass plate commemorating a Japanese explorer who was the first to cross Greenland from north to south, along with a display of traditional Inuit clothing. The top is labelled 'Anorak' – an item of clothing that has been a global success story. The word has now entered the German language. Anorak is French, it's English, but first and foremost it's Greenlandic. Like the other guests in this hotel, I am waiting to fly back to Copenhagen. The hotel was built because of the airport. The airport was built because the US military was once stationed there. The US military was there because of World War II. Greenland belonged to Denmark at the time but was then occupied by Germany. In the hotel lobby, two guests are looking at the departures board installed there and seem a bit nervous. I start talking to them. It turns out that their flight has been delayed by a week. That's the Arctic for you! They say you have to factor things like that in here – the Arctic is unpredictable.