THE MELTING KINGDOM

translation of the Italian Vanity Fair article "Nel Regno Disciolto"

CAPTIONS:

On the Norwegian icebreaker towards the 80° parallel, almost at the North Pole, where, less than 20 years ago, polar bears wandered. Today there are shrimp-boats. Our journey into the polar night, looking for a winter that no longer exists.

GREEN RAYS

Aurora Borealis (a phenomenon that occurs 65 miles above the earth's surface - magnetic solar winds from sunspot explosions interact with the stratosphere.) Photographed on Bjørnøya, *Bear Island, in the Barents Sea*, north of Norway. The island is uninhabited with the exception of a manned weather station.

spread two

IN THE NAME OF THE KING

1. The Bjørnøya weather station, research area and living quarters for the scientists. 2. Fin Stolz, the Resident Manager and Director of the Arctic outpost. Behind him, a portrait of the Norwegian King and Queen, Harald V and Sonja. 3. Relaxing in the evening. At this moment, nine people and three huskies live on Bjørnøya. 4. Tone Toft, social assistant with the husky Laban. 5. A rescue jet boat used to transport passengers from the Norwegian Coast Guard ship *Svalbard* to Bjørnøya.

spread three

ICE RESIDENTS

- 1. Eerikka, one of three husky watch dogs on Bjørnøya.
- 2. Launching a radio-wave balloon to transmit weather data before bursting at 25 miles above the earth. 3. Andrè Barane, 50, commander of the Norwegian icebreaker *Svalbard*.
- 4. Dark Arctic excursion (around noontime) with the huskies to check weather instruments. 5. The *Svalbard* docked at the Norwegian port town of Longyearbyen at the 78° northern parallel. With just over 2000 inhabitants, it's the most populated town on the Svalbard Islands.

TEXT:

From his command post, on the dark upper deck of the icebreaker *Svalbard*, Captain Andre Barane said the obvious: "There's no more ice."

The ship is a huge 335 foot vessel of the Norwegian Coast Guard, under the Royal Norwegian Navy, with four engines totaling 18,000 horsepower. The ship has a rounded keel designed to crush a meter of ice with brute force. But the ice is not here.

The darkness of night, however, is here, and the terse light of day is somewhere else.

Since we arrived in Tromsø, Artic Norway, the sun hides below the horizon with only the magical Northern Lights occasionally piercing the blackest of darkness.

Our goal is to get to Bear Island, or Bjørnøya, a remote

hermitage, in the Barents Sea.

Our destination is a remote weather station on the north point of the island, on the 74th parallel, populated by nine Norwegians and three huskies.

The captain of the icebreaker is 50 years old with a prominent rose colored birthmark on his face. He speaks willingly; He says he has seen amazing changes in the landscape.

"Twenty years ago, this was all ice," he says, "well before getting to Bjørnøya".

The captain tells fascinating stories of fishing boats with drunk crews, passing off halibut as cod, or the time, while inspecting a Russian ship's freezer, they discovered the body of a sailor who had fell ill and died and rather than take the body back to land the crew froze him along with the fish.

But the most incredible thing, he says, was something else. Last January, in the north of Svalbard archipelago, along the 80th parallel, in the kingdom of bears, fishermen were catching shrimp.

"Strange things are happening," says the captain.

"There is no longer winter."

For the far north, the historic Paris Agreement, which limits to two degrees Celsius the warming of temperatures in the years to come, may be too little, too late.

"Two degrees warmer in Rome means six degrees higher at the Pole," explained Helge Tangen.

Helge is a true gentleman, a lover of the Opera and the regional director of the Meteorological Institute of Tromsø. Before my departure, he handed me copies of charts showing defeating results. The Arctic is the barometer of the earth, its canary in a coal mine. From the time of the last glaciation, it is synonymous with sea ice. But the natural cycle - freeze/thaw - is now skipping seasons due to rising temperatures. One of the functions of the whiteness of the ice is to reflect the sun's rays. Without this natural heat shield, light radiation (heat) is absorbed by the water, which in the autumn releases the heat into the atmosphere, raising temperatures.

A deadly vicious cycle. "The problem is that the climate may change very quickly," says Tangen. "But only in retrospect will we know that it has reached the point of no return".

I look again and again at the charts, I can hardly believe it. In Longyearbyen, the capital of the Svalbard islands, the average temperature in 1912 in mid December was -28C. (-18F)

Today is -2C. (+28F)

Because it contains salt, the sea freezes at -1.8 degrees (about +29F). Old, thick ice melts in the summer and now, the with warmer winters, only new, thin ice can form. "What it means, exactly", Nick, a young scientist explained to me, (Nick is the map man of the Institute, who's title on his business card I note with a smile is "Ice Service"), "is within the next twenty years the summer sea ice in the Arctic could completely disappear." Every day, from Monday to Friday, Nick Hughes examines the data and draws the lines, borders and margins of sea ice withdrawal

which then he transmits to the Coast Guard, fishing vessels, cruise ships and other customers who are about to navigate these once perilous waters.

Right now, the ice lies very north of Svalbard, far north of the point where Captain Barane came across the shrimp boats.

"Today, on December 3, the Svalbard sea ice area is equal to 192,927 square kilometers," he says.

What does this mean?

"The historical average from 1981 to 2010 was 335,000 square kilometers of sea ice. So, today is the lowest ever recorded. A drop of 42%."

I try to understand. I do a little search. I finally understand. It's as if half the area of Italy has disappeared off the map.

The landing at Bjørnøya, is scheduled at 8pm. But it is always dark and along with the constant ship's roll I'm at the mercy of cosmic confusion.

But there are things that I do know.

To get to land, you will need to wear a survival suit, an insulated and waterproof body glove, that, if you happen to go overboard while on the 8-man Sea Bear jet rescue boat which takes us the 500 meters between the icebreaker and land, it will keep you alive in the freezing waters of the Barents Sea for several hours. They also told me that we'll land on a narrow pier, slippery and unstable.

In the end, everything goes smoothly. A giant hook lowers our Sea Bear boat into the 8 foot swelling waves, and we gun off towards the sparse lights of the small pier. We walk up a frozen slippery path; I see, in the twilight, red houses and steep ravines and finally a long, low structure and 3 husky dog houses.

Expecting us is a curious bunch; a mix of former spies and microbiologists, programmers and chefs. There's also a social worker, a plumber and an engineer, all people who chose to spend six months in this hermitage.

The mission of the Coast Guard is to accompany a new crew, nine new employees to the weather station, which would relieve the current team of workers at Bjørnøya. Every hour, every day, the new team, like the old team, will watch the clouds (types and magnitudes), take notes of the snow, ice, rain and wave heights.

Every six hours, they will launch a weather balloon with instruments and a radio transmitter, which, before bursting at 25 miles high, and become debris in the stratosphere, measures the winds, humidity and barometric pressure, all valuable data for weather forecasts.

It's fascinating, in the 24 hour polar night, listening to these guys, announcing into the radio microphone "All ships, all ships", the universal ritual phrase with which humans scrutinize the elements to feel more confident and less alone. The location could hardly be more extreme.

"It's a wild place, you know?", one of the first things Vidar Teigen said to me.

"Here a man was eaten alive by a bear and you know why? The cabin door was locked."

Since then, the island's policy forbids locked doors. The only ones under a key are a few cabinets containing medicine and alcohol.

An unnecessary precaution. It's still required to carry a gun to go outside, but it's a bit like having to arrive here on an icebreaker in a sea with no ice.

The truth is that there are no more bears on the island that bears their name, and it's not because of the fur trappers. (Ancient traps are still visible on the island).

Vidar Teigen is a veteran of the station. In his previous life he was a microbiologist, and here he's the departing Head of Earth Observations. He loves the island and knows its history. He recounts epic stories; ships with their crews rotting from scurvy; the graves of hunters just west of the small pier; a Russian trawler that crashed in the fog in 2009. The wreck is still there, eroding by salt, creaking in the wind. The first time Teigen came it was in the mid-nineties. Another world. The ice then began miles south of the island and bears roamed around the small red houses that host us now. "In 1995, we counted 394. In the past three years we haven't seen one," says Teigen. "Yet they can swim at least 150 kilometers, can swim for days. But the ice is too far away now." Bears roam the sea ice edge to hunt for seals, but the melting ice is shrinking their habitat. In danger are also walruses, beluga whales and seals. All the creatures of the Arctic are in danger.

"Strange things happen," says Teigen.

"Previously unknown species from the South Seas are now appearing. Fish, like mackerel, that ten years ago were not in Svalbard, are here now".

One evening, or was it daytime, hard to be sure, we walked for a couple of hours on a trail, and I was thinking of a path to an unknown future. Three young station workers led us on the soft, immaculate snow. One cradling a rifle, while the huskies scampered about us, happy, playing with each other, with their bushy ringed tails whipping the crisp air. In the starry sky danced the beautiful light of Aurora Borealis. The thermometer measured -3C (+26F). Hot, for an island in the Barents Sea. I was reminded of the words of Helge Tangen, the director of the Weather Institute back in Tromsø. "Twenty years ago in December it averaged -20C (-4F).

We have entered a phase of the unpredictable, said Tangen.

We're in it.

"The ski season has lost one day every season for the last thirty seasons. We're talking about a month of winter. Gone." We're in it.

"In Tromsø, we are working on new urban planning. With the full moon and high tide, we now have flooded homes and sewers."

We're in it.

But we walk, in the night, pretending not to know.

IMMA VITELLI