In my first issue as editor of The Explorers Journal, we published the account of Steve Squyres’s painful journey to get the Mars rovers off the ground. That was just the beginning of the story. Originally warranted to last 90 Martian days, the rovers celebrated their third Earth year on Mars in early 2007. In this issue, Ken Kremer describes their independent adventures across the red planet and shares some of the more spectacular of the 177,000 images beamed back to us. Many of these, including the one on the cover, are printed in 3-D and can be viewed with the special glasses included in this issue.

Back here on Earth, Russell Fielding takes an objective look at controversial whale hunting in the North Atlantic. His pastoral photographs of the bucolic villages of the Faroe Islands are tempered by photographer Marco Paoluzzo’s stark shots of the bloody harvesting of pilot whales.

William Miller embarks on a different hunt in search of wild water bears. He’s been all over the world pursuing them and provides an exciting glimpse into their hidden world.

As John Pollack says in the introduction to his article, the hard truth about “big unknown cave” stories is that most of them don’t pan out. His photographs and stories from the Xe Bang Fai River in Laos will renew your faith that little-known, jaw-dropping wonders still abound across the planet. Just be sure to bring along some Cyalume light sticks to find your way out.

Lorie Karnath explores the wonderful wetlands of one of Europe’s most remote and pristine regions. She documents the treacherous annual migration of European white storks, but also reveals the mystical abilities of the Wendland’s magical healers.

Whether exploring with telescope or microscope, whalemobile or river kayak, the impulse to understand natural formations, our cultural traditions, or even our place in the universe is the same. Our need to explore is powerful. And it is the breadth of our diversity, in method and spirit, that fuels the imagination of our explorations. So don your 3-D glasses, turn the page, and join us as we venture across this planet and even ones beyond.
Peacefully

WATCHING

THE SLAUGHTER
Magni Gardaldí makes knives for one purpose alone: slicing through several inches of thick blubber and flesh to sever the spinal cord of a whale. These grindaknívar—whale knives—have been used in the Faroe Islands for centuries in the final act of the grindadráp—the pilot whale hunt—a sea-reddening and controversial event that is one of the last surviving relics of Viking culture on this small North Atlantic archipelago. In a grindadráp, pilot whales are driven onto the beach and killed for their meat and blubber, both of which become food for people. Entire pods of whales are killed by entire villages.

Reaching Magni’s workshop in the village of Húsar is not easy. From Boston, I catch a flight to Reykjavík, Iceland. After a week of bus rides, walking, propeller-driven airplanes, and hitchhiking, I settle into my bunk aboard the Norröna, which is docked in Seydisfjördur, a small port in eastern Iceland. A Faroes-registered ocean ferry, the Norröna plies its weekly course through the North Atlantic Ocean among storms, oil platforms, and islands with some of the world’s most dramatic scenery. After a 16-hour overnight voyage, the Norröna docks in Tórshavn—Thor’s harbor, the capital of the Faroe Islands. From Tórshavn, it requires another series of various transportation modes to reach the small island of Kalsoy, where Magni’s red Nissan pickup truck is waiting to drive me to Húsar.

“I’m the big guy in this village,” Magni says as we approach the dozen or so houses that comprise Húsar. “Because of the knives?” I ask. “No, they elected me.” In addition to being an expert knife-maker, Magni is the elected mayor of Húsar, a cobbler, a father of two, and a volunteer at the Salvation Army in Tórshavn. But his favorite job is knife making. “That’s my heart,” he says.

As we walk into his house I see that he has laid out several grindaknívar (singular is grindaknívur) on the kitchen table in anticipation of my visit. In their carved wooden sheaths, the knives look almost harmless. Unsheathed, however, each knife reveals a gleaming blade, razor-sharp and often decorated with a pattern that shows off the layers of steel like a topographical map. The handles and sheaths are decorated with inlaid bone, horn, or tooth in the shape of whales, boats, harpoons, and hooks. Magni carves these figures by hand, as he does the handles and sheaths, without a lathe or grindstone. The more decorated knives are for display, but—and Magni stresses this point—they are all built strong enough to kill a whale. Outside of the more modern Tórshavn, almost every Faroese man owns a grindaknívur.
The Whalers
When a pod of pilot whales is sighted, usually from a fishing boat, a call goes out to the local syðslumadur—like a sheriff—who decides whether the whales will be pursued or not. If the syðslumadur gives the go-ahead, men are summoned from the nearest village by means of the grindabod, a traditional word-of-mouth announcement—though today, cellular phones are often used. As quickly as possible, men run to the boats and set out to surround the whales.

The whales are then driven slowly from the open sea into the nearest approved whaling bay. As the whales near the shore, the boats speed up to cause them to swim quickly and strand themselves in the shallow water. As soon as they are within reach, the whalers onshore take over. This transfer of control coincides with the most dangerous part of the grindadráp. Because the whales rely on echolocation, they can become disoriented with the boats, shore, and men nearby. Often whales will thrash in the shallow water, and their flukes have been known to break both boats and whalers’ legs.

The first task, then, is to get the whales out of the water and onto the beach, where they will lie still under their own body weight. Men from the shore wade out to the whales and insert blunt hooks into their blowholes. With ropes attached to the hooks, they haul the whales ashore. The long-finned pilot whale (Globicephala melas) is the second largest species of dolphin after the orca, or killer whale. The males can grow up to six meters long and weigh up to three tons. It takes five to ten men to pull one whale onto the shore.

“Ja, har er dráp, sum ødilig er at síggja fyri hann, sum fridaligur stendur á landi at hyggja at tí.”

A large crowd works together on a pod of whales (courtesy Marco Paoluzzo).
With the whales on the beach, the process of killing them begins. A handbreadth behind the blowhole, the whaler makes two lateral slices with the grindknívur—the first through blubber, the next through muscle—to expose the spinal cord. Then one downward thrust breaks the cord, and the whale is dead. The process can take as little as four seconds. With everyone working together, the entire pod—often more than 200 whales—can be killed in 15 minutes.

After all the whales have been killed, they are hauled back into the water, tied to the gunwales of the boats, and transported to the designated processing area. This is usually a large, flat concrete surface like a parking lot. Immediately, the whales are opened and the internal organs are removed. As with any animal, this allows the carcass to cool and prevents spoilage of the meat.

The whales are measured, and then, with what seems like abandonment, the whalers all go home. Whale carcasses are left exposed to the salty North Atlantic wind as the syðslumárdur returns to his office with the hunt’s statistics. Following guidelines that have been used since at least the 16th century, he carefully tabulates the shares of meat and blubber that will go to each boat. Boats do not need to have participated in a hunt, or even still exist, to deserve a share. They are simply a way of grouping people. Every man, woman, and child in the Faroes is assigned to a boat. Some of these are real, functioning boats; others are old names of boats that once sailed many generations ago, and others may not have existed at all. It is the North Atlantic way to blend myth and history until—like the gray sea and foggy sky—one is not sure where each begins and ends.

“Yes, this is a slaughter which is a dreadful sight for whomever stands on the shore peacefully watching.” V. U. Hammershaimb, “Grindabod” 1891 (trans. by Kate Sanderson, 1992)
When the sydslumadur has finished making his calculations, a crowd gathers at the processing area to hear the results. Each boat is given certain individual whales, and it is up to the members of that boat to divide them as they see fit. Trades are often made. In former days, a few whales would be sold to cover the damage to the boats, but now tax money is available for such costs. The recipients of the meat and blubber harvest it themselves, spending several hours over the whales, grindaknívar in hand, carving out their portions.

Some of the meat is kept fresh and cooked immediately, but most is put away for later use. Whale meat can be frozen, salted, or dried in the wind for preservation. Blubber is almost always salted. The taste of the meat is similar to beef, with a slight fishy flavor. It is very lean and very tender. Blubber tastes more fishy and is tougher and rather oily. Often the two are eaten together with boiled potatoes.

The Controversy
Outside of the Faroes, the grindadráp is not very well known, nor is it very popular among those who do know of it. Protests have been organized and certain groups have called for a boycott of Faroese seafood, which makes up 95 percent of the islands’ exports. Much of the anti-grindadráp publicity can be traced to one man: Captain Paul Watson of Sea Shepherd, a conservation society that, according to its mission statement, “exists to conserve and protect the world’s marine wilderness ecosystems and marine wildlife species.” To this end, Sea Shepherd is opposed to the grindadráp and has been working toward its cessation since 1982. The primary reason that Captain Watson gives for being opposed to the hunt is that it is not necessary for subsistence, a point with which most Faroese will readily agree, but with reservations about the available alternatives.

“I don’t think it’s necessary today, but we like it,” says Magni, the knife-maker. He goes on to explain that if the grindadráp were to cease, “Here in Faroe Islands, we would not die of hunger. But we would have lost a very big tradition and identity. I believe we would feel like it was stealing from us. Because we use that which we kill. We don’t kill for fun. We use it for living. But it is not true to say we must kill it for living. It’s a delicacy to us.”

Top: Workers process a whale. Above: Captain Paul Watson works for Sea Shepherd (courtesy Bernard Sidler/Sea Shepherd). Right: Whales are dragged ashore for processing (courtesy Marco Paoluzzo).
The Faroe Islands comprise less than 1,400 square kilometers of land and do not produce enough livestock to provide all of the meat required by the diet of the population. Unless the diet changes, meat must be imported or harvested from the sea. “It is not necessary, but I must also say that it is not necessary to eat so much chicken,” Magni points out.

Additionally, according to Captain Watson, Sea Shepherd is against the grindadráp because of its inhuman methods, questionable sustainability, and anachronistic presence in the 21st century—all points that the Faroese would contest. The charge of anachronism is discussed among outsiders, but the Faroese themselves are eagerly tackling the subjects of humane killing and sustainability and are dedicating some of their best scientists to the work.

**The Biologist**

Foremost in the scientific approach to the grindadráp is Dorete Bloch, the biologist known in every corner of the Faroes for her expertise on pilot whales. While in Tórshavn, I lived in a small room at a house and research station operated by Dorete and her staff. The house on the road called Fútalág became my home for the time I spent in the Faroes.

When a grindadráp is announced, and the sydslumadur has been alerted, Dorete is usually the next person called. The red “whalemobile,” with its pilot-whale silhouettes painted on the sides, flies from the driveway within minutes, filled with biologists and their equipment. Speed is essential when trying to reach a grindadráp. Dorete and her staff have attended many whale drives to take blood or tissue samples for further analysis at the laboratory or to place satellite tracking tags on whales that will be released. Conducting an accurate count of the pilot whale population has been an ongoing project for the Faroese biologists.

“There are about 778,000 whales,” she says, “That means that our hunting pressure is on average 0.1 percent. And IWC [the International Whaling Commission] says that a sustainable hunt is 2 percent. On average, we are taking 1,000 whales per year.”
I can tell that Dorete has answered these questions before. Proponents of whaling must have their defenses ready at all times. The way the statistics roll off her tongue is almost automatic. I ask her about the claims that the hunt is not necessary for subsistence.

"Of course the Faroese don’t need to eat whale. Ask the Danes not to eat pork. Ask the Greenlanders not to eat seal. You eat what you can get yourself from the country. The pilot whales are free meat, and it’s a high-quality meat. Of course you can eat other things, but why should you?"

The Faroese can—and to some extent, do—import meat from other countries, most notably, beef and lamb from New Zealand. But this tiny North Atlantic archipelago is, and has always been, a seafaring nation.

The Association

"Ólavur hates killing whales," I am told by a biologist, an unlikely thing to hear about Ólavur Sjurdarberg, the president of the Grindamannafélagid, or Pilot Whalers Association. Upon meeting him, I am impressed by his gentle and soft-spoken nature as he drives me around the southern tip of Streymoy, the largest of the Faroe Islands. He patiently stops the car each time I want to photograph one of the hundreds of breathtaking views that the Faroese see every single day of their lives.

"They say you don’t like killing whales," I ask, "is this true?" "I only think," Ólavur replies, "can we do it right?" He tells me how much the grindadráp has changed over the years. "In the old days," he says, "it could be best described as a war between people and whales." Now things are different. The mission of the Grindamannafélagid is to oversee the grindadráp, to ensure that it continues in a sustainable and humane way, and to advise whaling policymakers in the Faroes.

To ensure that the grindadráp is conducted as humanely as possible, the Association has established regulations that require the use of the grindaknívar, instead of the spears that were used by whalers from ancient times until the 1980s. They also require that the whales be driven completely to the shore rather than being killed from the boats, as was also practiced in the past. These regulations have been adopted into Faroese law, and whalers that do not ensure a quick, humane death for their whales can face fines or even jail time.

One recent issue that has attracted the Grindamannafélagid’s attention is pollution. Pilot whale meat and blubber have been found to contain elevated levels of mercury. This is another point on which the whalers and the opposition readily agree. "Considering that pilot whale meat is the reason that the Faroese have the highest level of mercury in their bodies of any people in the world, the intelligent thing would be to not eat whale meat. Tradition appears to outweigh common sense in the Faroes," says Paul Watson of Sea Shepherd.

Magni Gardalíd agrees with Watson’s basic point, that pilot whale meat is causing health problems in the Faroe Islands. "If it wasn’t heavy with metal, I would eat it much more, but I respect what scientists say about it. You have to listen to that." But he also laughingly cites certain indirect health problems that result from not eating pilot whale meat: "If it was not a danger to eat whale meat, I would eat much more of that than junk food." Magni’s family eats whale only about once per month.

Ólavur also recognizes the mercury problem. He points out, as well, that the Faroese have no industry that produces mercury as a waste product. The problem is coming from abroad. "Tell the people from the distant countries, please do not put poison in the oceans because if we look into the future, this poison will kill the animals," he asks me to write.

The Future

Will the grindadráp continue? There are several factors that could threaten its survival, including the pollution and the protest. Also, Tórshavn is changing. The connection between people and the sea is weakening. The only place I saw whale meat in Tórshavn was on a buffet at the Hotel Hafnia, labeled in English for the benefit of tourists who wanted to try something exotic. It was cut into tiny bite-sized slivers, not the huge steaks that I ate with Ólavur at his home in the small village of Leirvíck.

But there is also a feeling among the youth, particularly those from more rural areas, that the grindadráp must not be lost. In fact, the first whale meat I tasted in the Faroes was given to me on the island of Nølsoy by a whaler in his early twenties. He told me he had been whaling since he was a teenager.

Today the grindadráp is a lot like Magni’s grindaknívar:
traditional but with a practical purpose, distinctly Faroese but garnering interest from abroad. Every one of his whale knives, no matter how expensive and ornamental, has a blade that is strong and sharp enough to kill a whale. Similarly, every grindadráp, no matter how publicized or protested, provides the Faroese with meat and blubber that they will eat. While the knives are made for the Faroese whalers to use, they are becoming collectors’ items abroad. Magni’s most expensive knife was presented to the prime minister of Greenland as a gift upon an official visit. The grindadráp, as well, serves its main purpose to the Faroese people, yet the controversy surrounding it and the excitement that it causes are felt by foreigners and locals alike.

I walk into the house on Fútalág on my next-to-last day in the Faroe Islands. Dorete looks up calmly from her computer. “There was a whale killing in Fuglafjørdur,” she says. “What?!” I demand. I have been in the Faroes for nearly a month and have yet to witness a grindadráp. Fuglafjørdur is close enough that we could have been there in time if we had pushed the whalemobile to its limit. “Why didn’t we go?” I plead. “They didn’t tell us they were doing it,” Dorete replies without taking her eyes from her computer screen, “it was old men. They did it the old way with spears, from the boats. They did not even tell the sydlumadur.” Traditions have a way of sticking around in the Faroe Islands. These old whalers, while clearly in violation of Faroese law and the rules set down by the Grindamannafelagid, did what the Faroese have done. They took what the sea has brought them.■

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MARCO PAOLUZZO was born in 1949 in Biel, Switzerland. He turned to travel photography following the publication of his first book on Iceland, which featured photographs that have since appeared in a number of temporary exhibitions and are part of the permanent collections of several museums in Switzerland and abroad. He has eight books to his name, six in black and white. NORTH features photographs from Iceland and the Faroe Islands.