

leased for oil and gas exploration.

“We will never understand Chaco Canyon until we understand the entire Chaco world,” says team member Ruth Van Dyke, an archaeologist at the State University of New York at Binghamton. “Ideally I would like to just draw a big circle around the San Juan Basin and say, ‘Oil and gas off limits, stay away!’ But we know that’s not going to fly.” Paul Reed, an archaeologist with the Tucson, Arizona-based organization Archaeology Southwest, which has played a leading role in the fight to protect the Chaco landscape, agrees that any protection scheme should take into account the need for economic growth in the region. “We have to engage with all parties and work out a balanced negotiated settlement here.”

But to the energy companies operating in the region, which include such major players as WPX Energy, ConocoPhillips Co., and the Canadian company Encana Corporation, Chaco advocates are asking too much. “We think it’s completely unreasonable,” says Wally Drangmeister, vice president of the Santa Fe-based New Mexico Oil & Gas Association. “The protections they want would encompass the entire San Juan Basin.” Drangmeister says that the 16-km buffer that BLM has imposed around the park is sufficient protection for the Chaco landscape.

BLM alone can’t stop all new drilling

within the buffer zone, however. The agency is only responsible for about 19% of the total lease parcels within the 16-km radius, according to Victoria Barr, BLM’s district manager for northwest New Mexico. The rest are controlled by the state of New Mexico or held by Native American tribal trusts or individual Native American allottees, mostly members of the Navajo tribe.

“Oil and gas companies are offering Navajo allottees thousands of dollars to access their lands,” Reed says. Ora Marek-Martinez, manager of the Navajo Nation’s Historic Preservation Department, notes that poverty and high unemployment lead many landholders to accept. “The socioeconomic situation is that many of our people had pretty much nothing, no electricity or running water.” She and others say the tribe is divided over the drilling, because Native Americans also have a strong interest in protecting the Chaco world. “Everything here is sacred; our spirituality is tied to the landscape,” she says. “More and more of our communities are saying they are against the drilling.”

For the archaeologists, such emotional ties to the land are a key part of understanding this far-flung ancient civilization. “What was important about living in this place?” Van Dyke asked the Mancos meeting. “Was it the mountain peaks all around you, was it who your neighbors were, was it the night sky, the raven flying overhead, the silence?” ■

POLAR SCIENCE

War over Belgian polar station

Science at risk in ownership quarrel over Antarctic base

By Tania Rabesandratana

The Belgian government and a private foundation are battling for control of the country’s research station in Antarctica—and science is stuck in the middle. The government says it has ended its agreement with the International Polar Foundation (IPF), which built the station and has managed it since its 2009 inauguration but has since been accused of misusing public funds. The government vows to continue operations at the center with the help of the Belgian army.

But IPF, led by Alain Hubert, a charismatic explorer with several polar exploits under his belt, is fighting back. The foundation claims it remains in charge of the base, the Princess Elisabeth Antarctica.

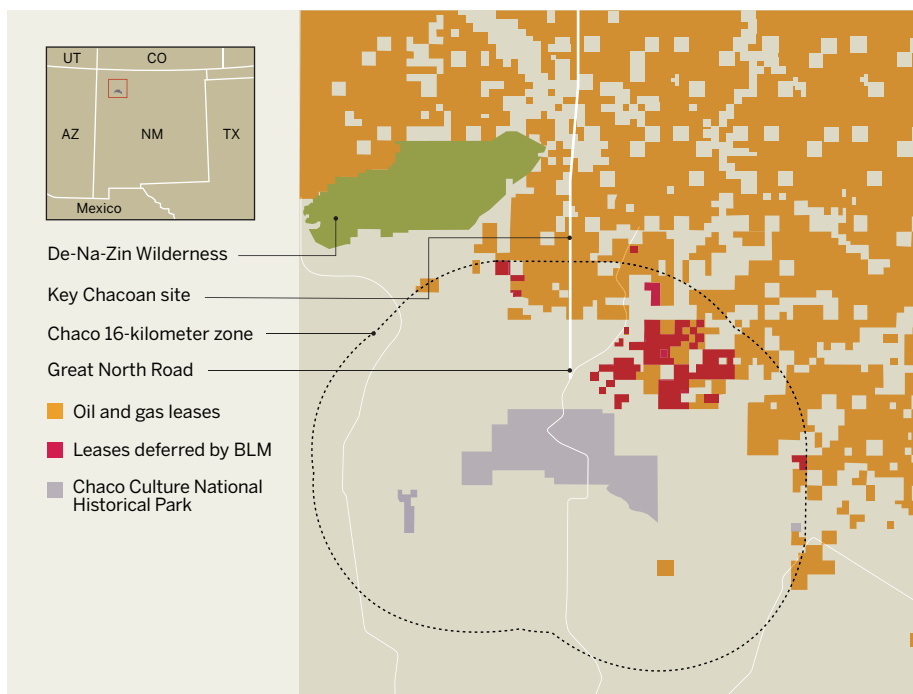
The fight is creating uncertainty for scientists who are preparing for the 2015 to 2016 Antarctic research season, says Reinhard Drews of the Université Libre de Bruxelles (ULB). “We are scheduled to leave in November and not much time is left to figure out all the details,” says Drews, who studies mass changes in Antarctica’s coastal ice sheet.

Located about 220 kilometers from the coast at an altitude of 1382 meters, the sleekly designed €21 million station can accommodate up to 40 people. It was built by IPF, with the state chipping in about €9 million and the remainder coming from private funders. After its completion, IPF transferred 99.9% of the ownership to the Belgian government; the foundation held on to a symbolic 0.1% share. IPF was tasked with handling logistics and day-to-day operations, while Belgium’s science policy office (BELSPO) manages and implements the science programs through its Polar Secretariat.

Relations soured 2 years ago after Philippe Mettens, then the president of BELSPO, filed a complaint with Brussels’s public prosecutor against Hubert, who is president of IPF’s board and, until last week, was a member of the Polar Secretariat’s strategic council.

Too close for comfort?

An energy boom in New Mexico’s northwest has brought oil and gas drilling to the archaeological landscape of ancient roads and ruins that surrounds Chaco Canyon.



DATA: ADAPTED FROM THE WILDERNESS SOCIETY

Mettens alleged that Hubert had channeled public money through the foundation and several private companies set up in his own name or that of his wife, IPF vice president Nighat Amin. The prosecutor's investigation is still ongoing.

Hubert did not respond to an email from *Science*, but Amin writes that IPF rescinded its donation agreement in 2013 because the government did not fulfill its part of the deal. "The station now belongs 100% to the Polar Foundation, and will continue to support international collaborative research," Amin says. "Since we made the gesture of giving the station to the Belgian people in March 2010 ... our lives have been turned into a living hell by the public servants."

IPF planned to hold a press conference on 20 August, after *Science* went to press, but a statement issued on 17 July says that its books are clean and that IPF's "affiliated companies" are "historical partners" that "have been remunerated for their services at fair market value."

In a Royal Decree signed on 10 August, the government announced it would change the Polar Secretariat's rules to remove six private sector members, including Hubert, from the 12-member strategic council. The government said that the presence of IPF representatives on the council was a conflict of interest, because the foundation is the main beneficiary of funds managed by the secretariat.

IPF says it will run future science expeditions to the station on its own. "The Princess

Elisabeth Antarctica has now become an international research station and will no longer be associated with any one country," the foundation wrote in an 8 August email, seen by *Science*, which invited researchers to travel to the station in the upcoming season. The government struck back 5 days later in an email to the same researchers that called the invitation "legally null and void." IPF "is no longer the official operator of the Belgian State," the government said, adding that the secretariat will run the upcoming science campaign itself, with help from the Ministry of Defense.

The fight puts researchers in a delicate position. Jan Lenaerts of Utrecht University in the Netherlands, who studies the melting ice shelves of East Antarctica, relies on private grants that have so far been managed by IPF. "This dispute makes my project's financial situation uncertain," says Lenaerts, who's hoping for a quick solution. "My only interest is science, and this science is endangered in this uncertain situation."

Some scientists say that they will work with the government instead of IPF for this year's expedition. "We have several instruments running in Antarctica that need to be checked and revised," says Frank Pattyn, a glaciologist at ULB. "Any failure in getting there means the loss of months [or] years

of data and investment." But glaciologist Konrad Steffen of the Swiss Federal Institute of Technology in Zurich says he'd rather abandon his research than accept what he sees as a government takeover. "I cannot understand how a government can nullify a contract with a foundation that has raised the money and organized the building of a research station," Steffen says.

One open question is whether the Belgian government can even run the station this year without IPF's involvement. The Princess Elisabeth is a "complex machine"

that needs specialized technicians to maintain power, heating, and data servers, says one scientist who asked to remain anonymous, and researchers need experienced mountain guides. "Failure to

get adequate support will for sure end in injury or loss of life," the scientist says. But Pattyn doesn't expect problems. "We can count on people from the Belgian army that were also involved in the construction project of the station," he says.

Mettens says he always opposed the complex deal between the government and IPF and is glad to see it end. "Alain Hubert's strength was his skill and experience," he says. "This is an interesting turning point that will push the Belgian state to acquire those skills." ■

"Our lives have been turned into a living hell by the public servants."

Nighat Amin, International Polar Foundation



The €21 million Princess Elisabeth Antarctica hosts studies of ice shelves and other research during the southern summer.

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