

GREEN ON WHITE

**A 350.org ACTION ON THE
APEX OF ANTARCTICA** By Molly Loomis



White. Blue. Gray. Black. White. Blue. Gray. Black. It's a bland palate blended into an astounding mix of hues, creating a landscape I'm quite sure I could never tire of.

This is neither Andy's nor my first time to Antarctica. But nonetheless, the awe of being transported from Chile's verdant rolling hills and landing five hours later on a runway made of ice in the middle of nowhere continues. The plane's door opens, and cold air clutches us in an icy embrace. It's a jump between galaxies

that leaves me speechless, even though I've seen it before. We shuffle in our big boots along the undulating waves of the runway, seeking the back side of the frozen swells for purchase. We have been airlifted to another season. The gentle breeze is void of pine, damp warming earth or sweet soggy horse manure, the smells of the unfrozen world. It is four in the morning. Judging by the sun, it could be midday. We will not see darkness for another 53 days. It is disorienting and isolating. It is

thrilling. It is the closest I will ever come to landing on the moon.

For five days, we waited to fly from our departure point of Punta Arenas, Chile, to Patriot Hills, Antarctica, passing time with last-minute organizing, spending money in bars, assuring clients that eventually we would arrive. The wind needed to calm enough, not to fly but to land on the runway, a natural runway formed by ice. Despite the delays it creates, the wind is a necessary evil. It keeps

us awake at night by flapping the walls of our tent; it leaves white marks on our cheeks like the smears of unwanted kisses from lipstick-stained lips; *and* it keeps the runway clear of snow, a necessity for landing. Combining a crosswind with a massive jet landing on an ice runway is as awful as it sounds. Until the wind calms to an average speed of 20 knots, with gusts of no more than 25, the plane stays grounded.

This year, packed among our crampons, overmitts and sunscreen is a banner. It is a bedsheet with green and orange letters crying out "Stop Climate Change. 350.org," painted by members of the environmental club at the local high school back home in the Tetons. The banner will travel with us as we guide a group of intrepid alpinists to the top of Antarctica's highest point, Mount Vinson, in an action geared at raising awareness of climate change and the importance of the number 350.

WHY ANTARCTICA?

Home to 70 percent of the earth's freshwater reserves, Antarctica features front and center in climate change concerns. Should the entire ice sheet of western Antarctica melt, sea levels would rise between 5 and 6 meters, while the eastern ice sheet holds approximately 10 times that amount.

Thus far, the bulk of attention has focused on the continent's peninsula, a place with one of the fastest warming rates in the world. Comparatively, there has been less talk of warming and its effects on the continent's interior, where Mount Vinson is located. In fact, until the release this past winter of recent research, popular opinion was that the interior was actually cooling due to a strengthening of circumpolar winds and the changes taking place on the peninsula were a localized occurrence. But work published in *Nature's* January 2009



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SNOW AND ICE CAN'T ADAPT OR MIGRATE TO HIGHER ELEVATIONS. ALL IT CAN DO IS MELT.

issue by the University of Washington's Dr. Eric Steig challenged this theory, presenting evidence that west Antarctica is believed to have warmed at a rate of more than 0.1 degree Celsius per decade for the past 50 years. The states of the peninsula and the interior are obviously entwined. As the seas around Antarctica warm, there is less available sea ice and in turn a larger body of open water. Marc De Keyser, Patriot Hill's resident meteorologist, explained to me that the difference between a sea ice surface and an open water surface is that sea ice reflects sunlight, while the water absorbs it, causing both the water and the adjacent coastal air mass to warm. This mass of warmer air creates an increase in available water vapor, which translates into more snow falling on Antarctica's desert plains. The warmer air also means a greater temperature differential between Antarctica's cold, high plateaus and the coastal region. The greater the temperature differential, the greater the strength and speed of the winds as air molecules try to bring themselves back into equilibrium.

The apex of Antarctica seems like a perfect place to spread the 350 message. Antarctica is a paradox of extremes—it's an incredibly harsh place that on the wrong day could kill the unprepared in an instant, but at the same time it's a place of amazing fragility. Snow and ice can't adapt or migrate to higher elevations. All they can do is melt. The vast majority of Antarctica is void of human presence—the ultimate example of untouched—but our impact in our countries affects the climate here. And considering that an alpinist's passion depends on the preservation of snow and ice, who better to recruit for the fight?

BASECAMP

The sound of snapping nylon rips us from our dreams. The tent's orange sidewall bows to the north, stopping just inches from my nose. Outside, the wind has scoured away the mounds of snow blocks that as of last night secured our tent's valances. Sparkling ice crystals whiz through the air as the gale erodes our snow walls. With my back braced against the flexing tent, I attempt to pack up our things in case the poles snap, which will render our tent useless. Andy puts on his facemask, goggles,

jacket, then overmitts, suiting up to shovel piles of snow back onto the valances and reinforce the walls. As soon as he moves from the vestibule, I follow. The walls, built for the prevailing easterlies that frequently blow off Patriot Hills, offer little protection from these unanticipated southern gusts. Reinforcement is desperate and, some would say, futile, as the snow is so light and the wind so strong that the bulk of each shovel full of snow streams into the brilliant blue sky like pixie dust.

Throughout camp, friends waddle in their down, focused and intent on saving their fragile homes. Moving in bunches, they migrate from tent to tent like bees between hives, working furiously to reinforce anchors and walls. Once the tent is stabilized to some level of satisfaction, they look up and search for others' outstretched arms waving for help. Where four neat rows of 10 tents once stood, there are multiple holes in the skyline. Poles cocked at odd angles punch violently through the nylon flies like compound fractures after a wreck. Halfhearted jokes about living in a war zone circulate. A list of the "homeless" begins.

Covers begin peeling back on the Weatherhavens (large canvas tents typical of field camps around the world), and the structures shake violently. I watch the weary eyes of people who have worked on the continent longer than I've been alive. Their silence scares me.

When the wind blows at 40 miles an hour, I have a hard time walking. At 60, I start to stumble. Today, even with my heels dug into the snow, I am picked up and transported. I try to focus on the feeling and forget the consequences, the fear, as I am utterly powerless against it. I look around and surrender to the weightlessness and the white cloud enveloping me—I am afloat inside a Christmas globe, shaken in a ball swirling with white. The only difference is this doesn't last for moments, it lasts for hours.

Later, when the wind finally calms, we are told that wind speeds averaged between 85 and 90 knots and gusts were over 100 knots. Several times, the anemometer's needle bounced off its chart. It is the strongest wind ever recorded at Patriot Hills. Predictions of what a warmer future might mean and Marc's words of increasing winds linger at the back of my mind.

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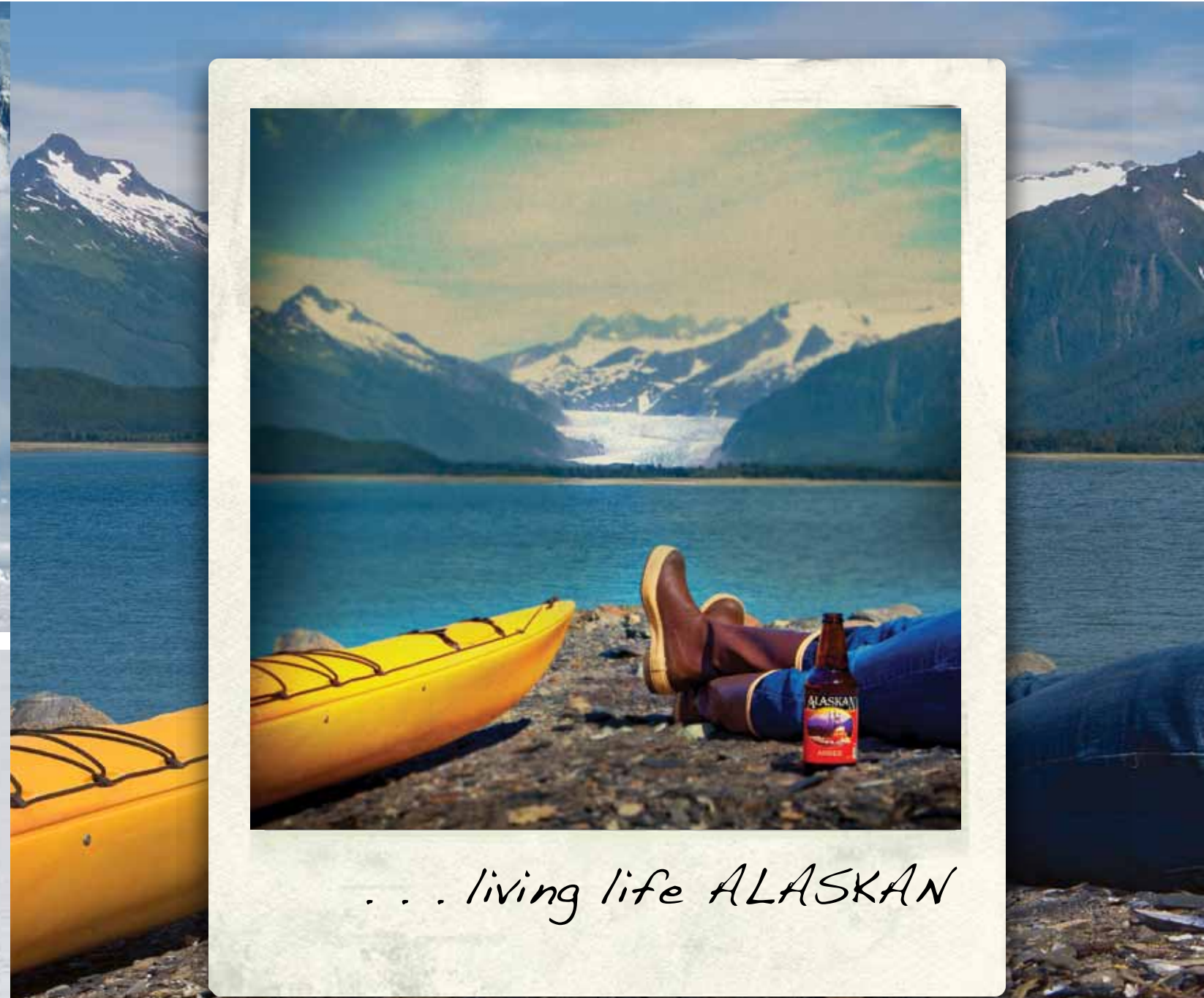


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I can't help but wonder if there will be more and more storms like this in the years to come.

We leave the next day for the Ellsworth Range, home to Mount Vinson. Topping out at 16,067 feet, Mount Vinson is the continent's highest peak. From the Twin Otter's window, I stare toward the horizon, mesmerized by the guessing game of where the ice ends, the horizon begins and clouds intervene. If I stare hard enough, I swear I can see the earth curving away toward the South Pole. We fly past craggy peaks jutting up into the sky—not so different from the mountains in many of the world's fjord lands. But there are no fish slumbering where the mountains meet the shore, no sheep droppings scattered on high precipices or tufts of moss campion tucked among the rocks. There is nothing but rock, snow and ice. Wind scoops, fields of crevasses running like washboards, nunataks, a dark moraine all by itself, curving like an eyebrow on the white linen tablecloth of the ice sheet below. The immensity of the place is staggering. Some people thrive on walking for weeks through the immensity, typically headed toward the South Pole. The thought of it is disorienting to me. I need mountains for ballast. I scrape ice off the Otter's windows and spot the Vinson Massif rising in the distance.

We land at Vinson Base Camp, elevation 7,000 feet. The steep headwall of Mount Vinson rises to the east and a rolling illusion of snow, clouds and ice to the west. Despite its sterility—there are no brilliant, glittering lakes, no wildflowers bursting like fireworks or burning alpenglows—it is among the most stunning places I know. The rest of the year, on nights when I can't sleep, I close my eyes and stare out over the Branscomb glacier, searching for contours and contrasts I haven't yet found. From Vinson Base Camp, it is a 2,000-foot, five-mile trudge up the Branscomb to "Low Camp." Most parties don't bother with snowshoes and simply walk on the wind-compacted snow, dragging sleds with tents, gear and extra food behind them. People frequently ask if we've seen conditions in Antarctica change from global warming. But neither Andy nor I feel our handful of years here qualifies us to answer that question. We can only relate the things we've experienced, like the windstorm at Patriot Hills; the days I've been so warm walking on the lower glacier that I've stripped down to just a T-shirt and paper-thin windbreaker; and the storm in 2007 that dumped unprecedented amounts of snow on the Ellsworth range, resulting in human-triggered avalanches on multiple



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aspects—a stark contrast to the old adage that there are never avalanches in Antarctica. (A maxim with some legitimacy, because, after all, western Antarctica is a desert.)

The standard route up Mount Vinson is not particularly difficult, but the cold and altitude create a fierce alliance that every year denies the summit to at least a handful of climbers. At negative 40 degrees, the slow pace that altitude dictates can become deadly. After the gradual climb to Low Camp, a long day up to High Camp follows—a 1,200-foot ascent up a fixed line and then another thousand feet. While the section is not unbearably steep, 40–48 degrees, the combination of altitude, cold, heavy loads and inefficient jumaring (mechanical ascenders that allow you to move up a rope and not slip back) by the less experienced makes for tired minds and bodies at the end of the day. “Breathe in through the nose and out through the mouth” is the mantra of high-altitude mountain guides—a chant that propels us up the hill and into another world. This forceful exhalation through tightly pursed lips creates backpressure in the lungs, which helps with oxygen intake.

Nestled in sleeping bags, tents tucked into a tight row behind the barricade of snow wall, the effects of altitude and fatigue settle in. While

and for the most part is evenly paced—one of the greatest difficulties of guided team expeditions. A long, gently sloping plateau brings the summit into view—a nondescript cap on the top of the massif with a few ribbons of rock tumbling down its flanks.

Walking uphill at altitude is tedious and made all the more so by the sections of white, featureless terrain that often must be crawled though in order to reach the summit. A forced meditation on the 10-foot section of trail rising before you. Such is the case on Mount Vinson, where the large bowl before the summit ridge can feel endless. It is only the view down sharp ridgelines and the descent, that offers an opportunity to look out over the landscape.

At the summit—a small pyramid rising in the snowy ridgeline, marked with intrusions of sedimentary rock—Andy unfurls the banner, “Stop Climate Change. 350.org,” as the other climbers pull pennants from corporate sponsors and flags from their home countries. Pictures are snapped, a radio call is made to base, and it’s time to descend. The banner, having served its purpose, is stuffed back into the pack.

I am as conflicted as satisfied.

Traveling from one end of the earth to the other to write about climate change presents an undeniable contradiction. A 35,398-mile

“BREATHE IN THROUGH THE NOSE AND OUT THROUGH THE MOUTH”—A CHANT THAT PROPELS US UP THE HILL AND INTO ANOTHER WORLD.

High Camp is only located 13,000 feet above sea level, there are days when, depending on the barometric pressure, it can feel substantially higher. Due to the decreasing pressure differential that occurs the closer one gets to either pole, a perceived elevation gain of as much as 2,000 to 3,000 feet can occur. As always, Andy awakes with a headache clamping around the base of his skull—but one that is quickly relieved by a thermos of tea.

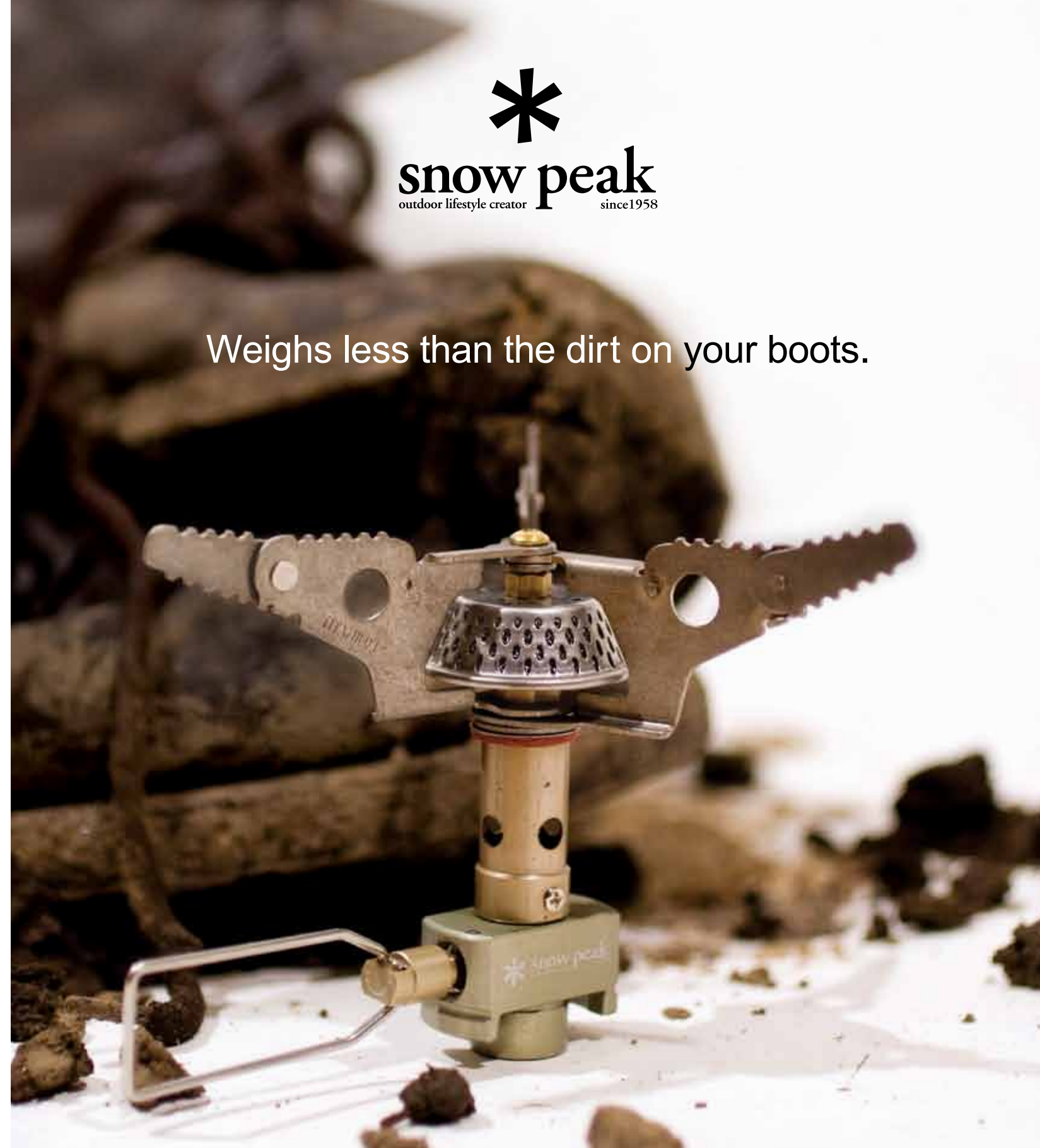
The weather report indicates an incoming storm for the next afternoon. The day is spent resting and rehydrating for tomorrow’s climb. Departure is planned for around six in the morning—earlier than is typical, in an attempt to avoid the incoming weather.

Dressed in full down, with not a centimeter of flesh showing, Andy leads out of camp. The rope stretches out into a long line, punctuated by the bodies of climbers tied to the ropes at even intervals. The team moves well together

round-trip journey for the both of us created a much different kind of carbon footprint than the one made had we just stayed home. According to TerraPass, an organization that helps travelers calculate their carbon output and buy offsets, our journey expelled approximately 20,500 pounds of carbon into the atmosphere. That’s equivalent to the emissions of a Ford Fusion driven 24,000 miles; the typical distance the average American driver drives in two years. I could list the numerous things Andy and I do that minimize our impact in other ways, including carbon offsets when we travel, but I’m afraid they’d ring of tinny, cheap justifications. In an era of accessible exploration, staying home just isn’t sexy—even though I live in a highly coveted corner of the world. Like a binge drinker, I just can’t help myself and indulge in the opportunity to work in these far-flung places even though I know how I’ll feel the next morning.


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But the simple truth is that people live in a globalized society that travels, and that's not going to change. To my mind, there exists a sliver of hope that by taking people to fragile ecosystems like Antarctica, who are less concerned about environmental issues like climate change, will have a deeper impact on them because they're witness to the effects of climate change first hand. It's our hope that our action on Mount Vinson will inspire them to action, too. Environmental advocacy isn't about telling people to return to a life pre-industrial revolution, it's about motivating them to support the changes we as a world community need to make to keep our planet hospitable. If necessity is the mother of invention, then environmental advocacy is about educating people to understand the necessity.

We fly back to Patriot Hills for our scheduled departure on December 16. A storm grounds us. A week slips by. Ten days. My best friend's wedding. I call her on the satellite phone and explain. A hard knot lodges in my throat the rest of the night. The meteorologist shows me a satellite photo of the storm: a pillow of white with the volume, depth, shadows

and texture of an oil painting. The bird's-eye view is breathtaking. Marc says it's the largest storm system he's seen during his five years working in Antarctica. Again, I think of the predicted increase of wind and snow with global warming and wonder if we've created our own Frankenstein.

There are days when the visibility drops so low that we line the 100-meter walk from the main Weatherhaven to the bathroom with fluorescent flags. Christmas slips by.

Twelve days later, the storm subsides. Another one is close behind but with enough of a gap that the plane is called.

An hour into the flight, the crew's navigator summons me to the front of the plane with a wave. He has remembered I want to see the sea ice. I crouch on all fours and peer through the belly of the navigator pit—like a tourist in a glass-bottom boat. Cracks of blue penetrate the white, and within minutes the sheet beneath me deteriorates into a shattered jigsaw of blue and white—as if someone had spilled a puzzle from its box out onto a table. Watching the dark navy overtake the white, I wonder if the pieces will ever fit back together

again. I return to my seat, passing sleeping passengers, all long overdue for showers, their faces blushing with the marks of wind and sun. I wonder if the long slogs pulling sleds and kick-stepping up steep slopes have made the connection between an outdoor recreationalist's consumption and conservation, especially in a place like Antarctica that is so resource intensive to reach. I wonder if, in their slide shows and press releases, in recounting the agonizing moments that led to their arrival at the pole or the apex of Antarctica, how often concern for the future of this place will creep into their stories. Can any of us motivate others to care? Does it make a difference? Yes is the answer I want to believe. For the sake of my work, for the sake of packing a banner to the top of Antarctica, it is the answer I need to believe.

The plane's contrail leaves a white line slicing through the blue sky. I click the seat belt round my waist and fall asleep, lulled by the noise of the engines and the heated air. ☺



CAN ANY OF US MOTIVATE OTHERS TO CARE? DOES IT MAKE A DIFFERENCE? **YES**, IS THE ANSWER I WANT TO BELIEVE.