LOW-COST Stabilization: 80-400mm • "Velvia Color" With Digital

Outdoor Photographer®

Gift Ideas & Holiday Books

SCENIC WILDLIFE TRAVEL

DECEMBER 2004 $5.99

Capture Color In Winter Snowscapes

Back To B&W!

Caponigro Converts Color With Easy Digital Tricks

Choose & Use Telephotos For Wildlife

Ultimate **Photo Challenge**
Life Under Antarctic Ice

Nevada Scenics:
Hit The Jackpot!

Ketchum's **Panorama Tips**

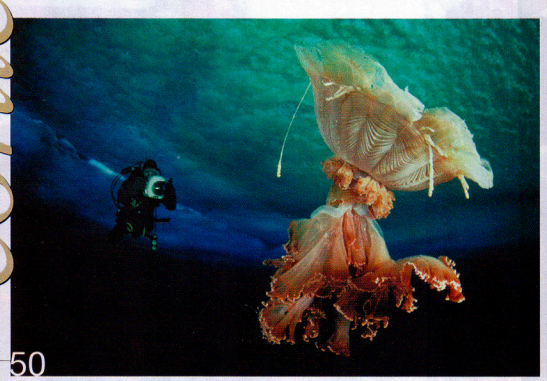
Mobile Digital
Finally, An
Indestructible
30-100GB
Hard Drive
For Field Use

$5.99US $7.99CAN
12
7 25274 01437 8

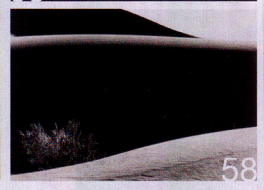
www.outdoorphotographer.com

contents

Outdoor Photographer®
December 2004 Scenic Travel Wildlife Sports Vol. 20 No. 11



68



50

58

[FEATURES]

Portfolio

Travel

94

90

Check out our Website @ www.outdoorphotographer.com

[HOW-TO]

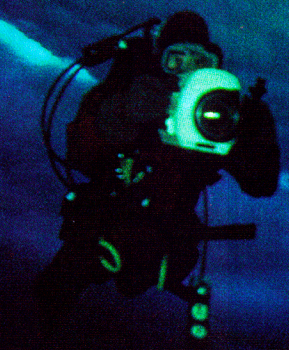
Solutions

More On Next Page ▸

Under Antarctic Ice

Norbert Wu combines the observation of a scientist with the aesthetic of a poet

By Ty Sawyer
Photography By Norbert Wu



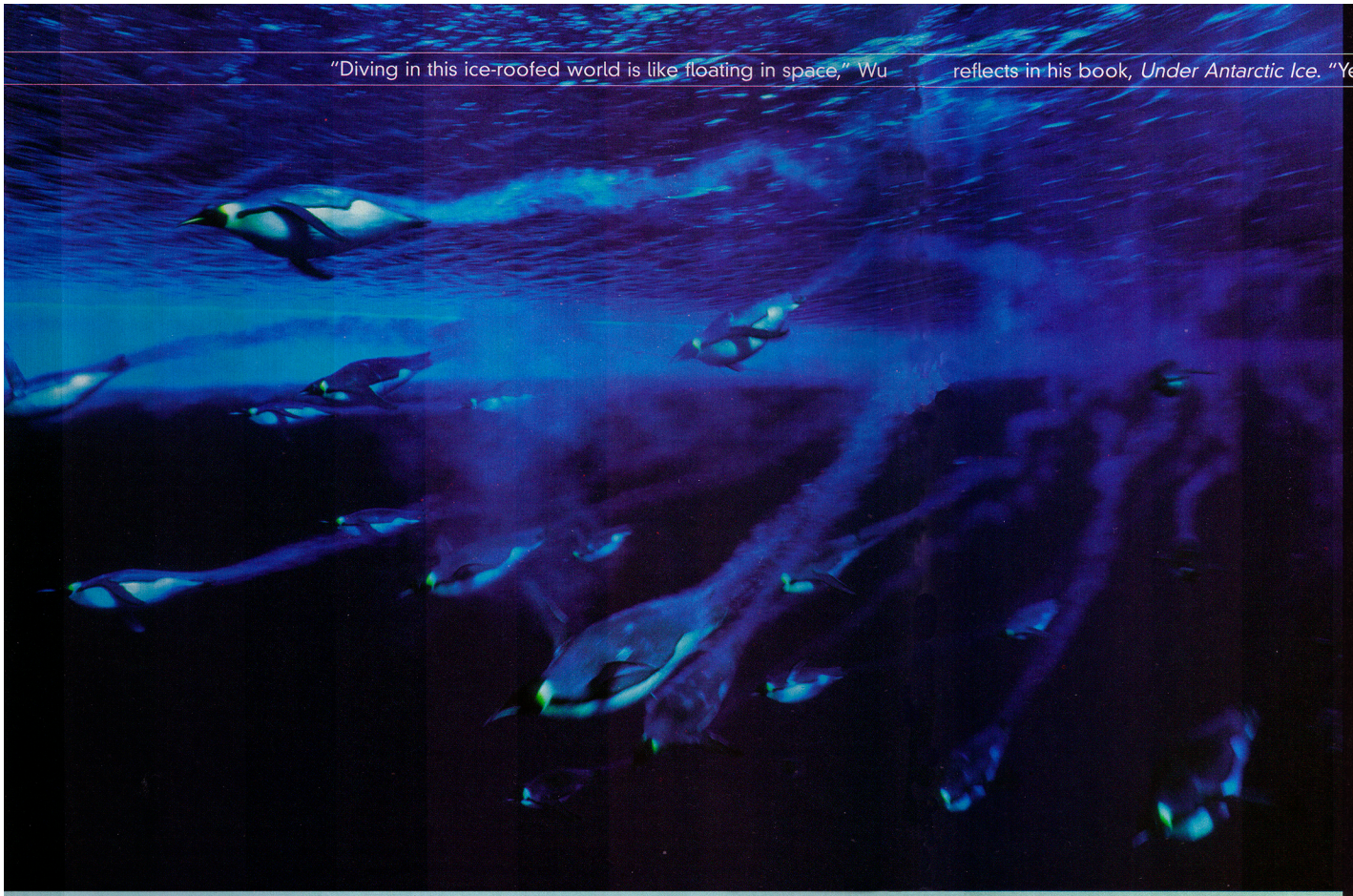
Looking through Norbert Wu's images of Antarctica conjures up a vision of a man ripped straight from the pages of an action-thriller novel, of a man who lives life on the edge, embracing the possibility of death with the swagger and savoir faire of one used to living in its shadow. But the cold truth, if I may use the term, couldn't differ more. If you look beyond the environment, you'll see the master photographic works of an eloquent observer and storyteller. Wu's intimate images of a world wrapped in a cloak of ice, and thriving in water chilly enough to freeze blood, show the deft hand of a craftsman with the innate ability to see through veneers and deep into the pulse of a moment. He's the rare combination of scientific witness and a poet of light and shadow. And, to be honest, Wu will be the first to tell you people are surprised by his appearance.

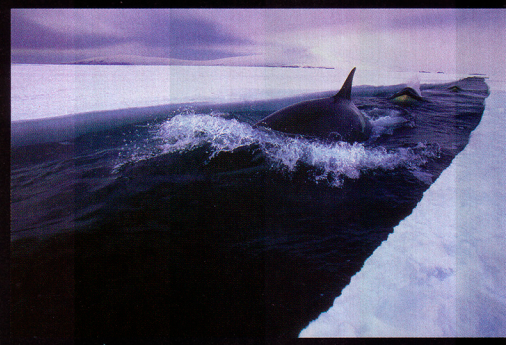
"They expect Dirk Pitt and get a short, round Chinese-American," Wu relates.

Wu spent three seasons working under a grant from the National Science Foundation in McMurdo Station, kind of a boarding school and Wild West town for self-reliant Antarctic scientists and their support staff. He quickly learned that photography in such extreme environments requires a deep understanding of patience—as well as a complete surrender to the whims of the weather, which dictate nearly everything about life at the bottom of the Earth. In three seasons (36 weeks) in Antarctica, for example, Wu had only six days that he could venture to the

Giant scyphomedusa, Desmonema glaciale, McMurdo Sound, Antarctica. This gelatinous carnivore is the largest member of the plankton family.

"Diving in this ice-roofed world is like floating in space," Wu reflects in his book, *Under Antarctic Ice*. "Yet, it's never a place to relax."





edge of the ice, where the frozen continent met the open ocean. He'd spend several days waiting out storms, and when the weather cooperated, trips to dive under the ice typically required a two-hour trip to the site in the vehicle of choice, the tracked Spryte, which Wu calls "one of most uncomfortable modes of transport on the planet." Logistically, a full day was spent in preparation for a single dive.

Getting the extraordinary shots under the ice required a cross between an act of will and human endurance, and an intricate command of one's creativity. One of Wu's greatest strengths is his ability to wrangle light, to almost make it bend to his creative will. It's probably best described as a transcendent awareness of how even the slightest brush of light will affect the tone and focus of an image he has conjured in his mind.

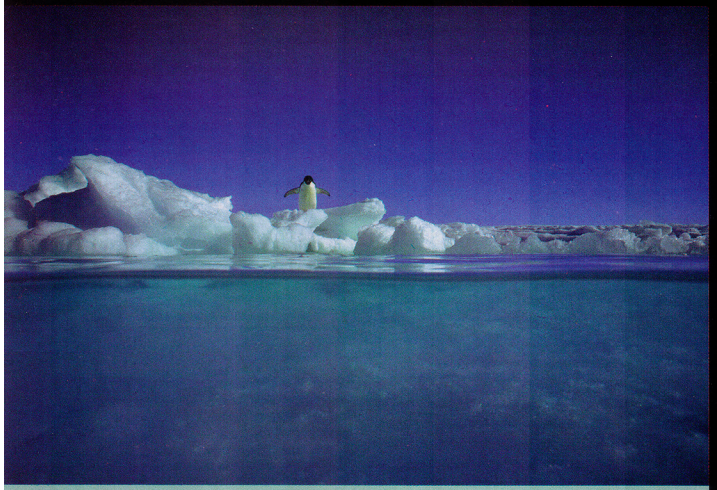
The realm under Antarctic ice offers up a potpourri of light challenges within each frame. It's dark, for one, so shooting requires long shutter speeds and an underwater tripod (Wu uses a Bogen with weights to hold it down). Then the ice reflects, diffuses and directs light in a thousand ways. Bright-colored creatures prowl a generally dark-colored substrate. As a whole, it's blue, white and black and brightly speckled all at once, and to capture an image that distills all of this singular kingdom requires an eye that sees it all at once and knows how to keep the artificial and the ambient in perfect balance while telling a story at the same time. To help, Wu utilized a standard Sekonic light meter in a specially made waterproof Ikelite housing and much trial and error.

First, Wu had to get to this underwater fairy world, and this is part of the

ABOVE: Emperor penguins shoot through the water like torpedoes.

OPPOSITE, TOP TO BOTTOM: Sitting like a fern atop a sponge, a crinoid, Promachocrinus kerguelensis, is a suspension feeder living off detritus falling down the water column; With an opening in the ice, orcas sprint through en route to more hospitable environs.

His Nikon N90s, F4s, Nikonos-V and Canon EOS-1 cameras, despite the -40 degree F temperatures, performed like bulls. The batteries were greatly affected by the cold, however.



TOP: A Weddell seal and her pup take to the water. Even at the young age of seven weeks, the pups can dive to 330 feet.

ABOVE: Master of all he surveys? Hardly. This Adélie penguin gazes out from the edge of the ice.

OPPOSITE: The chaotic landscape below Granite Harbor is a haven for sea urchins and explorers.

Seven years in the making, *Under Antarctic Ice: The Photographs of Norbert Wu* (University of California Press, 2004) represents the first time all the stories, science and extraordinary images of Norbert Wu's three seasons in Antarctica have been compiled in one place. Matching Wu's passion for Antarctica, Jim Mastro's graceful text accompanies the images, and brings to life the surreal natural beauty of the last mysterious place on the globe.

photographer's journey that's often the most interesting. After a two-hour journey across the ice, the photo team slips through a six-foot-deep hole into the water. Now, to dive in this environment requires specialized gear that begins with a dry suit and about four feet (okay, slight exaggeration) of thick thermal undergarments that greatly restrict movement. The dry suit has dry gloves that aren't famous for their dexterity. Add a dry hood that only leaves the lips exposed to the cold. Regulators must be kept dry before entering the water. If any moisture gets in them, it will freeze the regulator in the open position, causing a freeflow that will empty your tank of air in a flurry of disorienting bubbles. Other valves also could freeze up during a dive, perhaps causing your dry suit to blow up like the Michelin man, pinning you to the underside of the ice overhead.

"Diving in this ice-roofed world is like floating in space," Wu reflects in his book, *Under Antarctic Ice*. "Yet, it's never a place to relax."

Despite the effort it took to accomplish everyday tasks, for Wu, Antarctica was "a place that made me happy to be alive." Wu calls Antarctica a "pure wilderness, filled with superlatives," which sums up most outdoor photographers' dreams. But with superlatives come the challenges of finding a way to capture the essence of a world not only vast, pure and unforgiving, but also full of whimsy and surprise. For an underwater photographer like Wu, this included an entire marine ecosystem that thrives in below-freezing conditions and remains hidden from the raging winds and bitter cold of what has been called the most inhospitable place on Earth.

The first thing Antarctica does when you arrive is sort your gear for you. On one of Wu's initial forays, he packed a cooler with his cameras and headed off to shoot in the blistering -40 degree F cold of a summer day. After shooting, he repacked his cameras and shut the cooler's lid. It shattered like glass. Wu quickly switched over to Lowepro backpacks.

His Nikon N90s, F4s, Nikonos-V and Canon EOS-1 cameras, despite -40 degree F temperatures, performed like bulls. The batteries were greatly affected by the cold, however. Alkalines would die after two shots—that's two shots, not two rolls. Wu solved the problem by switching to NiCds, but, he says, "The cold wreaked havoc on my underwater equipment."

Wu arrived in Antarctica with 12 cam-

(Cont'd on page 106)

Antarctic Ice

(Cont'd from page 55)

era bodies and strobes, and seven underwater housings. The day he left, only three housings were operational. Of his strobes, only the Substrobe 200s made by Ikelite performed in the 28-degree F cold of the underwater environment. Wu's worst moment of gear panic came during his first week of underwater shooting.

He had been taking the daily two-hour trips out to the dive sites just off nearby islands. Like most underwater photographers, Wu would diligently dunk his camera housings in fresh water just before he and his team left to ensure they were watertight. Once in the water, however, the strobes wouldn't fire. Here was Wu, on a grant from the National Science Foundation, at the bottom of the world, with the weight of a thousand promises and huge expectations on his shoulders, and unable to get any shots in the poignant and unique environment beneath the ice. This went on for an entire week, switching strobes and housings and trying everything he knew to do, all with the same result. Wu was "freaking out."

He finally figured out that the flash contact was developing a short because a small amount of water around the O-rings was freezing instantaneously when he submerged the housing in the 28-degree F water. He quit dunking and got to work.

Twenty-eight degrees F, as said, is cold enough to freeze blood. Wu describes the sensation of the water touching his lips as "a thousand needles being thrust in, all at once." It's also a feeling that doesn't pass quickly. No matter how warm the undergarments, the cold begins its inexorable journey to your bones almost as soon as you get in the water. Wu said most dives lasted between 30 and 40 minutes, with his record at just over an hour (he exited the water trembling so hard he couldn't undo his dry suit zipper). Amazingly, the temperature of the water was significantly warmer than the surface, so getting in the water technically offered Wu the chance to warm up.

What kept Wu in the water was what his friend, colleague and the guy you see in many of Wu's images, Dr. Dale Stokes, calls "a large, active, colorful community under the ice." And as Wu's images attest, in one of the harshest environments in the world, there's a rich, almost lush and active community of soft corals, invertebrates, fish, mammals and sponges. Wu "had no idea there would be such diversity."

The one element that separates this underwater world from the rest of the saltwater side of the planet is the uncommon clarity of water. In many of the images, the diver in the background, or the grounded iceberg, could be several hundred feet away. In September, early in the diving season, just after the 24-hour darkness of winter, underwater visibility commonly exceeds 800 feet. As Wu says, "There's something special about peering beneath the bottom of the world."

Most of the underwater images Wu captured were accomplished during a remarkable 12-week period during his first season in Antarctica. Many of the surface images were made during two subsequent trips, during which he was also making a high-definition film for PBS. Besides the obvious cold and weather issues, Wu says the greatest obstacle to shooting above the water in Antarctica is the snow and ice, "which fool the camera meters into overexposing images." To compensate, Wu overexposed by two-thirds of a stop and bracketed in one-third increments. The results speak for themselves and should be words of wisdom to lock away for any photographers taking the Antarctic challenge.

After three noteworthy seasons where Wu says, "He was always thrilled to get there—and always glad to leave," there still remains more of the southern continent he wants to experience. "I want to spend more time at the edge of the ice with the penguins. Conditions there are tricky, and they must be just right or they're too dangerous. So there wasn't nearly enough opportunity to explore the imaging possibilities that exist there."

In talking about access to Antarctica, Wu muses, "The world is shrinking. You can jump on a plane and head to just about any corner of the world." Which is what he has spent the last year and a half doing while ferreting out marine environmental issues as a recipient of a Pew Fellowship. "There are even relatively easy ways to explore the bottom of the Earth." OP

Norbert Wu is leading a photo journey (no underwater) to South Georgia Island, made famous by Shackleton. To join him and to check out more of his photography, visit www.norbertwu.com.

OP ON THE WEB
WWW.OUTDOORPHOTOGRAPHER.COM
See: "Water Through The Seasons" (Jan./Feb. '04)
"The Many Colors Of Nature: Water" (Oct. '00)