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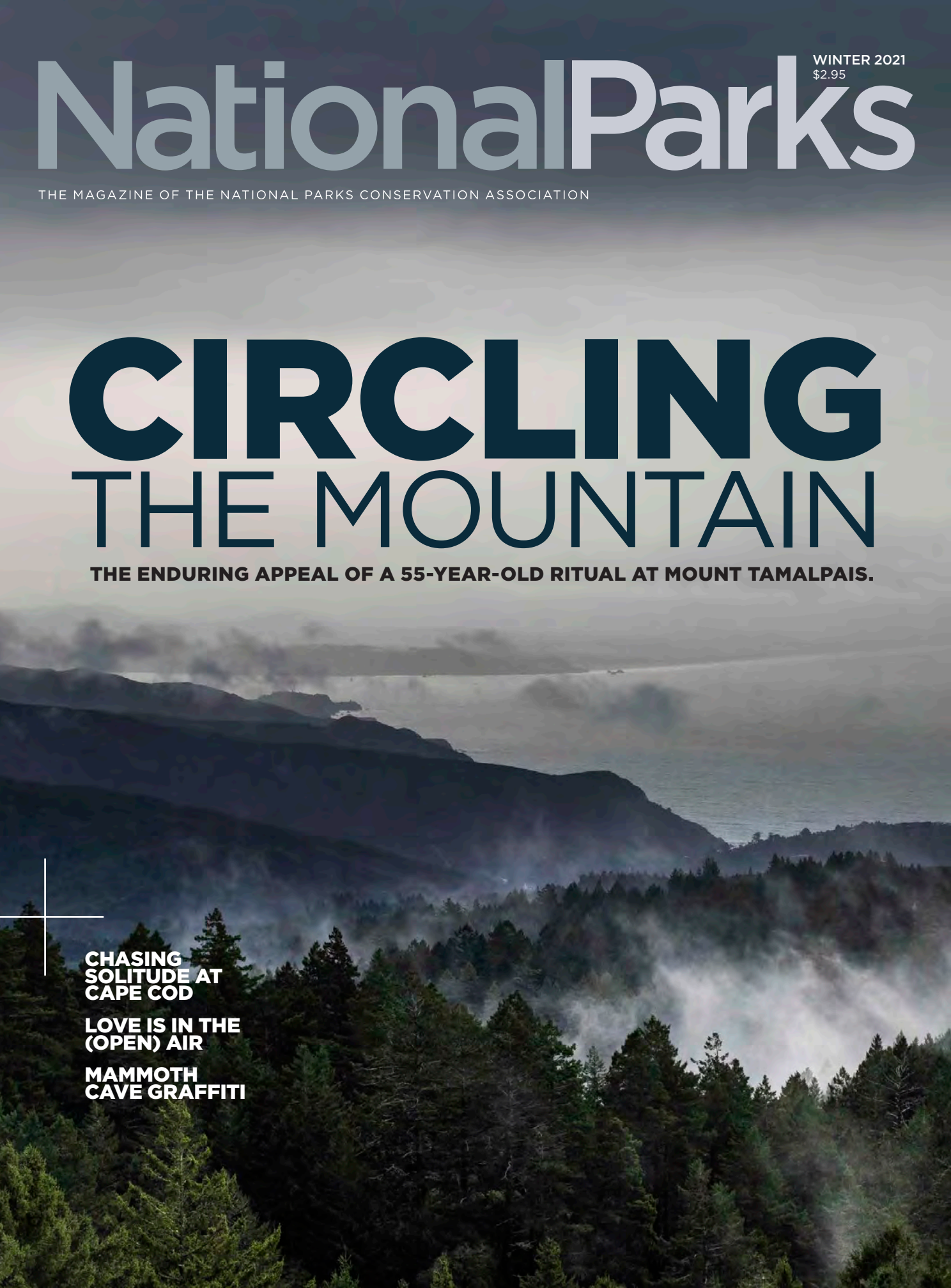

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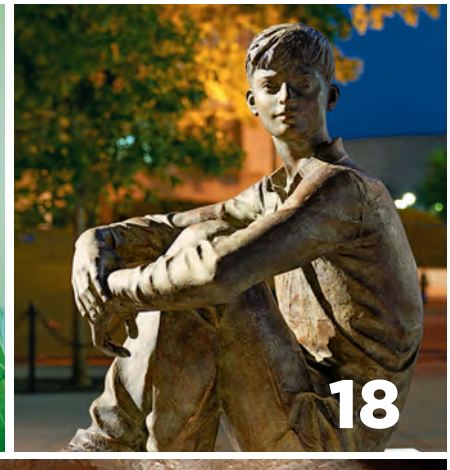
EST 1919

"I WANTED our wedding to be quiet and low-pressure, but also the coolest thing we had ever done together," said Allison Little, pictured on her wedding day with her groom, Kyle Little, in North Cascades National Park.



CLOCKWISE FROM TOP: ©THE DRAWHORNS ELOPEMENT PHOTOGRAPHY, COURTESY OF THE EISENHOWER MEMORIAL COMMISSION, ©STEPHEN ALVAREZ, ©JIM NELSON/SHUTTERSTOCK.

ON THE WEB
Follow NPCA on Facebook, Twitter and Instagram and get park news, travel tips and more on NPCA's blog: **npca.org/blog.**

History Unfolding

The 2020 election season has reminded me just how important national parks are. They are places of healing and reflection, and also of learning. You can walk across the Edmund Pettus Bridge in Selma, Alabama, and imagine the brave civil rights activists whose feet and spirit took them across that bridge in 1965. You can sit in Seneca Falls' Wesleyan Chapel, where the first women's rights convention in the U.S. was held in 1848. These are places where history unfolded. And national parks protect them.

But we don't need to look back to 1848 or 1965 to see history. We simply need to look over our shoulders. The events that unfolded in 2020, from the racial justice protests to the unprecedented election — this is history happening before our eyes. And it is up to each of us to decide whether and how we can be a part of it.

The cover of the fall issue of National Parks magazine featured a young Black protester standing in front of the Martin Luther King, Jr. Memorial wearing a Black Lives Matter shirt. In response, we received letters filled with vitriol and outrage. But we also received letters of encouragement. Some expressed interest in NPCA's stance on racial justice, and we welcomed the opportunity to share our views, which merit repeating here: NPCA unequivocally believes that Black lives matter and joins in solidarity with fellow mission-driven organizations in saying that no one should have to live in fear based on the color of his or her skin.

We also believe it is important to listen to each other and to learn from each other. We have a lot of work to do, as an organization and as a nation. But bolstered by the passion of our staff and supporters, I am up for the challenge of linking arms and walking together toward a more just society. And one day, we just might see a national park site that tells the story we are all writing together today.

With gratitude,
Theresa Pierno

Editor's Note

©AP PHOTO/MICHAEL DWYER

MARCONI BEACH, Cape Cod National Seashore.

A Way Forward

I write this as the world holds its breath. Coronavirus cases continue to climb, and we are awaiting the results in a momentous presidential election that will have an outsize effect on many issues NPCA supporters care about, from climate change to wildlife protection. I fervently hope that calm prevails and that by the time you hold this in your hands, we've collectively exhaled.

During this period of unrest, anxiety, fear and division, this magazine has brought me a great deal of solace. I've loved working on the stories in this issue, some of which were reported before the outbreak of the pandemic, and many of which provide a moving escape from the day-to-day drama we've been grinding through. Michael Branch's cover story (p. 28) about circumambulating California's Mount Tamalpais, a practice three Beat poets started in 1965, offers an abundance of wisdom about the cycles of life and seasons passing and the importance of ritual. Ritual, as one circumambulator said, can lend structure and meaning to a world that might otherwise feel chaotic.

Solitude, too, can be a way to gain perspective and find inner peace, and I delighted in following Dorian Fox's quiet journey through Cape Cod National Seashore (p. 46). And weddings! As Julie Scharper discovered, COVID-19 has led to a significant uptick in the number of people who are heading to the great outdoors for adventure elopements (p. 10). Leafing through images of happy couples exchanging vows on mountaintops and cliff edges provided a shot of joy to the editorial staff when we met to pick photos one gray afternoon.

Love. Nature. Peace. Beauty. Ritual. These are some of the things that can and will get us through tense, uncertain days, and I hope 2021 brings you these essentials in spades. Wishing you a healthy and happy new year.

Rona Marech
NPMAG@NPCA.ORG

NationalParks

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WHO WE ARE
Established in 1919, the National Parks Conservation Association is America's only private, nonprofit advocacy organization dedicated solely to protecting, preserving and enhancing the U.S. National Park System.

WHAT WE DO
NPCA protects and enhances America's national parks for present and future generations by identifying problems and generating support to resolve them.

EDITORIAL MISSION
National Parks magazine fosters an appreciation for the natural and historic treasures found in the parks, educates readers about the need to preserve those resources, and illustrates how member contributions drive our organization's park-protection efforts. The magazine uses the power of imagery and language to forge a lasting bond between NPCA and its members, while inspiring new readers to join the cause. National Parks magazine is among a member's chief benefits. Of the $25 membership dues, $6 covers a one-year subscription to the magazine.

MAKE A DIFFERENCE
Members can help defend America's natural and cultural heritage. Activists alert Congress and the administration to park threats, comment on park planning and adjacent land-use decisions, assist NPCA in developing partnerships, and educate the public and the media. Sign up to receive Park Notes, our monthly email newsletter at npca.org/join.

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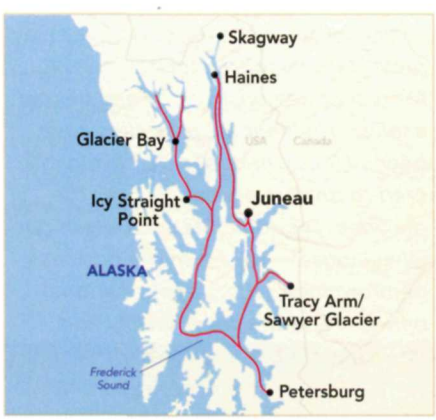

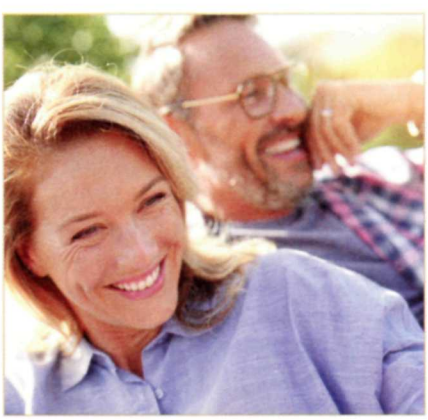

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Letters

A MORE TRUE LIGHT

It was immeasurably satisfying to see that not only the cover and cover article of the Fall 2020 magazine honored recent racial justice actions in America's national parks, but that the issue also included stories about the 150-mile run that Faith Briggs made through three national monuments and about the lives of Black Americans who homesteaded on the Great Plains. Thank you for showing American history in a more true light, making sure all Americans' stories are seen and shared, and enlightening and empowering us all.

M.A. PELLETIER
Marion, NY

AN UNHAPPY READER

I was very disappointed with the front cover on the Fall 2020 issue. Having a man with his fist in the air and a Black Lives Matter T-shirt was a poor choice. Race problems are not what national parks conservation is all about.

SOPHIE TENSON
Eau Claire, WI

The cover and cover story of the Fall issue elicited strong reactions from readers, and many echoed the sentiments in the letter above. Some respectfully disagreed with our editorial choices, but we were dismayed that many letter writers peppered their feedback with insults and false claims. They baselessly described the protester on the cover as a "criminal," wrote that Black Lives Matter is a "terrorist" organization that advocates for the "assassination of police officers" and wants to "destroy the American family," and called the magazine "corrupted" and "racist" — and worse. Some canceled their memberships or demanded that we apologize. We stand by our cover and story, a photo essay about racial justice protests that have taken place in national park sites over the last 100 years. The essay provided valuable historical context for recent demonstrations and helped explain why national park sites have been places where people have gathered to protest peacefully over the decades. The topic fits squarely in our wheelhouse — we are in the business of informing readers about national parks! — and the cover vividly and effectively illustrated the central concerns of the story. Many readers were particularly upset about the words on the T-shirt of the protester who appeared on the cover and wanted to know about NPCA's position on racial justice. Though that wasn't the subject of the story, we are happy to respond. As Theresa Pierno writes in "President's Outlook": NPCA unequivocally believes that Black lives matter. See the rest of her letter on p. 3 and learn more at www.npca.org/soi.

—Editors

SILVER LINING

Just a note to thank you for the recent issue. I was moved by the inspiring profile of the ranger who died of amyotrophic lateral sclerosis, the very personal life observations of the hiker in Obed Wild and Scenic River, the piece connecting Black Lives Matter and other civic movements in the national parks, and finally, the wonderful photo of Supreme Court Justice William O. Douglas leading that hearty group of conservationists across the

beach at Olympic Park, a site I have yet to see. I often just make time to skim the magazine or limit myself to one article, but perhaps COVID-19 has allowed me a little more quiet time. Glad I found this issue.

THE REV. PIKE THOMAS
Shreveport, LA

SNEAKY SNAKE

I totally enjoyed the Fall 2020 issue with its many superb articles, but "The DIY Desert" really caught my eye. For the last 40 years, my wife and I have been avid campers, hikers and backpackers. We have visited various sites in the deserts of the West and Southwest and have experienced many fine trips in and around what is now called Mojave National Preserve. We have camped several times in the Mid Hills campground (one of our favorites), hiked in the New York mountains, played on the Kelso Dunes and toured Mitchell Caverns. We hiked the Providence Mountains and saw several Mojave rattlesnakes along the way. We were walking up a dry wash one day when I heard the telltale sound of a rattlesnake beneath my feet. When I looked down, I was delighted to see a pygmy rattler about the size of a night crawler all coiled and ready to strike my boots. We had a good laugh and continued on. Thanks for the article and the great memories it evoked. I encourage anyone looking for outdoor adventures to consider this part of the Mojave.

JIM SELF
Eugene, OR

A MOVING READ

I was very moved by the article "Final Words" about Mike Yochim and his struggle with ALS. I am a retired registered nurse, and one of my first patients at a Veterans Affairs hospital was a man with ALS. His only remaining motor functions were blinking his eyes and moving his big toe, which he could use to push the call button. We would ask him questions to find out what he needed, and he would blink his right or left eye to answer "yes" or "no." To this day — and it has been 60 years — I can remember his name. So the article brought back many memories, and I thank you for that.

JAN BOWEN
Maumelle, AR

SENSIBLE SOLAR

Your Fall 2020 article, "A Speedy Comeback?," mentions the effect of the Soda Mountain Solar project on pronghorn migration. Why do businesspeople insist on razing the desert to build solar farms instead of placing them on existing infrastructure? Arizona State University's West campus has a huge solar field on what was revegetating desert that was supporting local wildlife, even though there were plenty of buildings in the vicinity to put the panels on. What a waste! I'm all for solar, but to *sustain* the environment, not to *replace* it. Our desert ecosystems are just as important as our forests and plains.

LINDA WILSON
Temple, TX

CORRECTIONS & CLARIFICATION

We incorrectly attributed photos that ran in "Promised Land," a story in the Fall issue about Black homesteaders. The credits on photos on pages 2 (the table of contents), 56 and 58 should have read "Dana Damewood/Reprinted with permission of the National Trust for Historic Preservation in the United States."

The story "Final Words" incorrectly stated that the forests in the Cache Creek area of Yellowstone National Park include ponderosa pine.

"The DIY Desert" failed to clarify that the poem Rob Blair recited during a celebration at Mojave National Preserve is a modified version of "The Spell of the Yukon" by Robert W. Service.

A NOTE TO OUR READERS

We are pleased to announce that National Parks Senior Editor Nicolas Brulliard won first place in the "range of work by a single author" category of the 2020 Folio: Eddie & Ozzie Awards, which recognize editorial and design excellence. The magazine also won honorable mention for overall editorial excellence, editor of the year (Editor-in-Chief Rona Marech) and long-form feature content (Todd Christopher's "Open Roads & Endless Skies," Summer 2019). In addition, the magazine won a silver medal in the Lowell Thomas Travel Journalism Competition for Matt Brass' "Water, Smoke, Spirit, Forest, Ghost, Land, Sky" [Summer 2019] in the photo illustration category.

Send letters to National Parks Magazine, 777 6th Street NW, Suite 700, Washington, DC 20001-3723. Or email npmag@npca.org. Include your name, city and state. Published letters may be edited for length and clarity.

Echoes

It's kind of like if someone was an avid climber in Joshua Tree and you suddenly removed all the boulders, or someone lived to raft the Grand Canyon and suddenly the Colorado River wasn't there anymore.

Chris Clarke, associate director of NPCA's California Desert program, speaking to the Palm Springs Desert Sun about the wildfire that tore through Mojave National Preserve in August, consuming more than 43,000 acres and burning over 1 million trees in one of the world's largest Joshua tree forests. Experts say climate change is contributing to a rise in the frequency and intensity of wildfires across the West.

This will have a chilling effect on staff who are facing discrimination, sexual harassment and racial bias, among other difficult situations.

NPCA President and CEO Theresa Pierno in The Washington Post after the National Park Service decided to freeze trainings related to racial sensitivity, bias and harassment. The training suspension came on the heels of an executive order banning federal funding of diversity courses in federal agencies.

This really could be our last chance to save one of the most important cultural landscapes in the U.S.

Ernie Atencio, NPCA's Southwest regional director, as quoted in The Dirt, an American Society of Landscape Architects blog. NPCA and its allies have long been proponents of banning oil and gas drilling within a 10-mile zone around New Mexico's Chaco Culture National Historical Park, but the Bureau of Land Management's recently released draft resource management plan failed to include that buffer. If finalized, the plan would clear the way for extractive energy activities that would imperil thousands of archaeological sites and hundreds of contemporary sacred sites near the park.

PHOTO: THE DOME FIRE BURNED 43,273 ACRES IN MOJAVE NATIONAL PRESERVE, CALIFORNIA.

ALLISON AND KYLE LITTLE in North Cascades National Park on their wedding day.

©THE DRAWHORNS ELOPEMENT PHOTOGRAPHY

'I Do' With a View

Adventure eloping is on the rise as couples increasingly steer clear of lavish weddings and opt for pandemic-appropriate ceremonies in the great outdoors.

On their wedding day, Allison and Kyle Little clambered over moss-covered rocks, he in a dark blue suit and she in a billowing, diaphanous gown and hiking boots. Photos show them crossing a rushing river on a narrow bridge, exchanging gifts while sitting on a fallen log, and, on a rocky outcrop surrounded by snow-laced mountains, saying their vows. Aside from the ancient stands of hemlock and cedar in Washington's North Cascades National Park, the only witnesses were a random hiker they recruited at the last minute and a pair of photographers, themselves a married couple, who travel throughout the West arranging and photographing elopements in spectacular natural settings.

"Unlike most couples we know who are getting married this year, we didn't have to change anything," said Allison, 30, of Des Moines, Iowa. "We had decided we wanted to elope pre-COVID-19. We both come from big families and even a 'small' wedding for us would have meant more than 100 people. I don't like being the center of attention, and I wanted our wedding to be quiet and low-pressure, but also the coolest thing we had ever done together."

So Allison, who works in media marketing, perused social media looking for memorable elopement ideas. That's how she stumbled on the concept of "adventure elopements" — tiny weddings in awe-inspiring surroundings, often national parks. That's also how she found Jess and Austin Drawhorn, the couple who ultimately photographed the wedding.

The Drawhorns are forging a path in a burgeoning — and rapidly expanding — field. They've styled their operation as a

sort of one-stop shop: They fill the roles of both photographers and wedding planners, offering recommendations on hairstylists and hiking boots, and securing permits to shoot in national parks. Jess also officiates at most of the ceremonies.

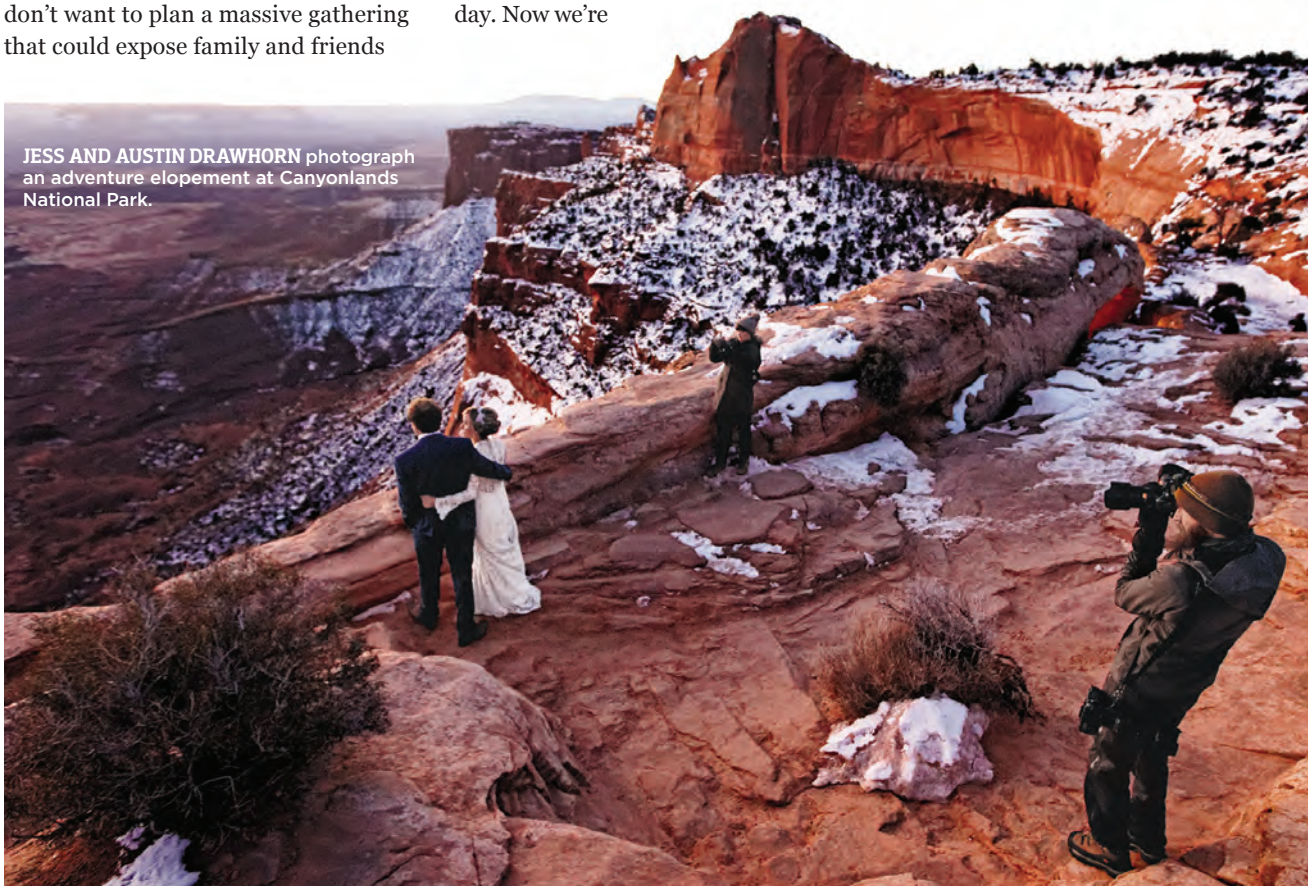
"We get to know our couples really well. It honestly feels like a first date, the first time we talk," said Jess. "We know we're going to be part of their wedding day, a story that they'll be telling for decades."

The vicissitudes of life in 2020 seem to have stirred further interest in adventure elopements, said Jess, who has seen a tenfold increase in emails from potential clients. Many couples are wary of paying hefty down payments for big, traditional weddings in this uncertain era. They don't want to plan a massive gathering that could expose family and friends to a dangerous disease — or that could be barred by local health officials. Yet couples crave something that feels more momentous than a courthouse wedding. Perhaps what is most appealing about an adventure elopement is the sense of creating a deeply personal ceremony. And having dozens of stunning photos is a big draw, too.

> "We're so outdoorsy that I don't think getting married in four walls would make sense for us."

Nick Edmundson, who runs Wandering Weddings, a site for couples seeking elopement vendors, said interest in adventure elopements had grown steadily in recent years and then exploded following the outbreak of the COVID-19 pandemic. "A year ago, the site would get 30 to 40 organic clicks a day. Now we're seeing 800 to 1,000 clicks and 1,400 to 1,500 users on our site each day," he said.

The 400 or so photographers featured on Wandering Weddings have names reminiscent of indie bands; in Colorado alone, you can find Silk & Thorn, Map and Compass, and Root and Blossom. Most of the photography businesses were born in the last five years, although it's tough to pinpoint when the trend began, Edmundson said. He attributes the increase in adventure elopements to a rising interest in outdoorsy culture and millennials' desire to eschew staid traditions — and enormous price tags. (The cost of adventure elopements



JESS AND AUSTIN DRAWHORN photograph an adventure elopement at Canyonlands National Park.

varies, but the cheapest packages, with photographers arranging many of the details, start at several thousand dollars.) Moreover, many young adults who identify as spiritual but not religious are steering clear of weddings in houses of worship yet seek to exchange vows in sacred and timeless places.

Though any number of wild spots fit the bill, national parks such as Redwood, Mount Rainier, Yosemite, Olympic, Rocky Mountain and Canyonlands are obvious candidates.

GABI AND BRANDON FOX, who photographed this couple at Olympic National Park, have shot weddings everywhere from the redwood forests of California to a Colorado ghost town to Zion National Park in Utah.

Each park has slightly different rules regarding where and when weddings can occur, how many couples can get married in a day, how big the wedding gathering can be and how much permits cost. Couples must abide by environmental regulations that bar them from leaving anything behind: no rice, no butterflies, no petals. They must also follow the same rules as the general public and avoid closed areas.

Like many of their colleagues, Gabi and Brandon Fox started shooting adventure elopements because they love backpacking, climbing and sharing their love of the outdoors. They work to convey both a reverence for the wilderness and a sense of environmental stewardship to their clients.

"We have so many couples who come from Florida or the Midwest, and we bring them to the heart of the North Cascades, and they've never seen anything like this before," said Gabi. "The couples are so blown away."

For the past six years, the Foxes and their dog Aiko have divided their time between Tacoma, Washington, and a 1972 Airstream trailer, where they are currently living full time. In recent months, they photographed weddings in the redwood forests of Northern California, a Colorado ghost town and Zion National Park in Utah. But perhaps the area they know best is the mountains of the Pacific Northwest, where they have developed expertise in the terrain and weather.

One October, the Foxes were preparing to shoot an elopement amid fall foliage in North Cascades, when a surprise storm dumped 2 feet of snow. They welcomed the turn of events, pulling out winter garb and shooting beautiful photos in the snow. At another wedding at nearby Mount Baker, a storm rolled in just as the couple were about to exchange vows. The Foxes and the bride and groom grabbed their gear, hiked higher up the mountain and performed the ceremony in the golden light above the clouds.

"We tell every couple, there's no such thing as bad weather, just bad gear," said Gabi. "If it's raining, we just go out into the rain and have a great time."

Shannon and Todd Moser of Colorado were willing to risk inclement weather to have the intimate wedding they envisioned. The couple exchanged vows among the rocky red cliffs of Canyonlands National Park in Utah in 2019, accompanied by photographers Megan and Nate Kantor. "We wanted a wedding that spoke to us," said Todd, 33, a surgical technician. He and Shannon, 29, spent their courtship hiking, backpacking and climbing in Colorado and Utah and had explored Canyonlands many times before. "We're so outdoorsy that I don't think getting married in four walls would make sense for us," he said.

The Mosers started their wedding day with a hike, then nestled on an overlook, brewing coffee on a camping stove and watching the morning light play over the land. Later, in their wedding clothes and hiking shoes, they headed to the spot they had picked to exchange vows. A few friends and relatives walked half a mile to join them, including Shannon's grandparents, who huddled against a cliff during the ceremony. Afterward, the couple and their friends went canyoneering.

For Shannon, one of the most meaningful keepsakes of the day is her dress. Like many adventure elopement brides, she did not send her gown to the cleaners after returning home, but hung it in the closet still streaked with red earth, a reminder of a profound day spent between ancient rocks and boundless sky.

—JULIE SCHARPER

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Wranglers of the West

A fully loaded mule train is a rare sight in most parts of the country, but traditional livestock packing is still thriving in Glacier National Park.

JILL MICHALAK, Glacier's first female packer, says working with the same mules each year allows packers to get to know the animals' personalities — and avoid mule wrecks.

©GREG LINDSTROM /FLATHEAD BEACON VIA AP

Swinging a leg over his saddle, Dave Elwood mounted Sonny, a stocky bay horse, at Packers Roost trailhead off Going-to-the-Sun Road. The string of seven mules behind him brayed and shuffled under their heavy loads of supplies. He used a squeeze of his knees to signal Sonny forward, and the train of livestock began its 3,000-foot ascent to Granite Park Chalet, a rustic mountain lodge located 4 miles away.

At a fork in the trail where Elwood led the string right, the mules' loads brushed fluttering lime-green aspen leaves. It was June but still chilly, and the animals' breath made white puffs in the morning air. A dramatic view of northern Montana's austere rocky ridges unfurled as the livestock switchbacked uphill. In the valley below, the aqua-colored waters of McDonald Creek glinted through the fir and larch trees.

Elwood is the lead packer at Glacier, where he oversees 45 mules, 20 horses and five seasonal packers who work from May through October. In addition to making weekly trips to the park's two functioning, century-old chalets with necessities such as propane tanks, toilet paper, food and tools, the packers stay busy hauling gear across the backcountry to support trail crews — their priority — as well as fire lookouts, carpenters, scientists, law enforcement, and search and rescue teams.

"We pack in everything from chainsaws to fishing nets," explained Elwood, 62, who grew up in Montana, began shoeing racehorses as a teenager and has worked with livestock in national parks since 1999. He pushed back his mud-splattered cowboy hat and his handlebar mustache tipped into a smile. "We pack in the fish biologists, too," he added. "I've learned a lot by sitting around the campfire with geologists or archaeologists over the years."

The packers also care for the livestock and maintain the gear. That means repairing saddles, building leather harnesses, doctoring minor injuries, giving shots, checking teeth, and branding, shoeing and grooming the animals. They also teach park employees — mainly rangers — how to ride.

"We don't have a lot of slack time," he said with a laugh.

Livestock have been integral to the development and operation of many of America's national parks since the late 1800s. Before trucks became commonplace, pack animals were the primary means for delivering supplies to build trails, lodging, bridges or outhouses. Mules and horses still play a vital role today in maintaining and building infrastructure in many Western parks where the terrain is steep, vast and roadless, including Olympic, Yosemite, Rocky Mountain and Yellowstone. Great Smoky Mountains National Park is the only Eastern park that still uses livestock for backcountry work.

Packing continues to thrive in many of these Western parks because much of the land is considered wilderness

— a designation spelled out in the 1964 Wilderness Act — which means motorized and mechanized vehicles are prohibited. Sequoia and Kings Canyon national parks in California, for example, are almost entirely wilderness. "Livestock is the preferred method to mobilize our backcountry rangers, trail crews and researchers," said public affairs officer Sintia Kawasaki-Yee. "We don't see the need decreasing in the foreseeable future."

The same goes for Glacier, where most of the park's 1 million acres are also managed as wilderness. Dan Jacobs, Glacier's trails program manager, explained that packers are integral to the park's operations since roads are few and far between. The size of the livestock program has remained fairly steady — even grown slightly — over the last few decades, he said. The park has added one seasonal packer and eight animals since the mid-1980s.

"Although packing in Glacier hasn't changed a whole lot," said Jacobs, "what has changed is our ability to find experienced packers and stockpersons." The pool of applicants for seasonal packer positions has shrunk, but Jacobs is proud that the park has been able to hire a younger generation of workers to "forward the long legacy of this traditional skill."

Jill Michalak, 34, is part of that next generation. Glacier's first female packer, Michalak started working at the park in 2017 following a two-year stint packing in Olympic. She learned to ride as a young girl in Alabama, then worked for several private outfitters in Alaska and California, where she led clients on trail rides and packed in gear for groups hunting in the wilderness. (Mules and horses play a big role in sightseeing in the West, both on and off public lands. Many national parks permit such tourist-oriented trips, but they are almost always run by concessionaires — not the National Park Service.)

> "If more people were like mules, we'd have a better world."

Michalak answered questions about the logistics of packing as she gathered tools for a trail crew in the West Glacier Horse Barn. Long blond braid hanging over one shoulder, she efficiently bundled shovels, axes and saws into a 5-foot-long wooden box, then wrangled a thick, white canvas tarp around the package and wrapped it all up with a thick rope. This is what packers call a "manty load." Each load weighs up to 90 pounds, and each mule carries two loads of roughly equal weight.

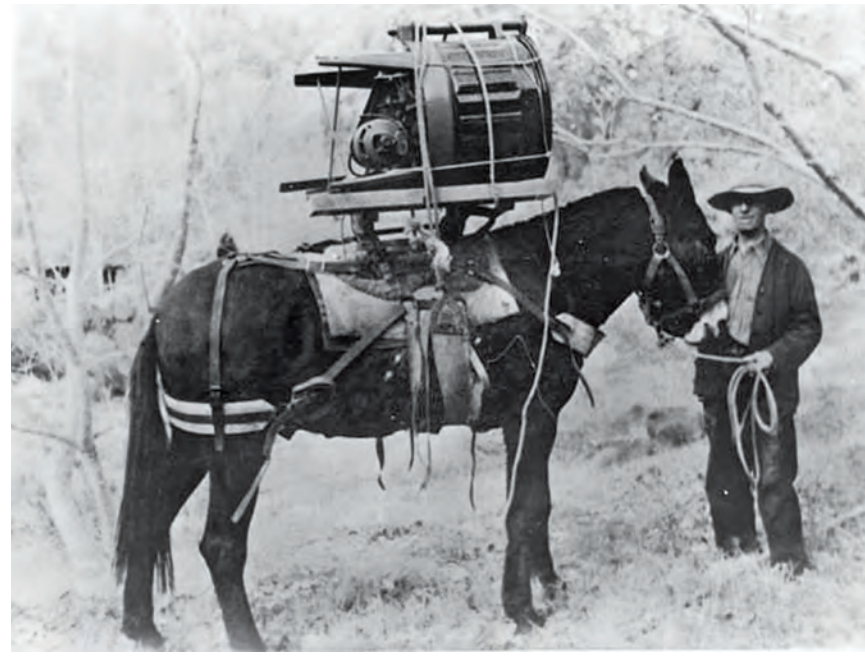
"There's a standardized way of doing things, but every packer uses their own flair," she explained.

She set aside the boxes, which would be strapped to the mules the next morning at the trailhead. Once loaded up, the animals are tied together in a line before they set out. Michalak described the importance of using a "breakaway hitch." This allows the other mules to pull free if one falls or spooks, a common occurrence on Glacier's steep, rocky trails.

"Mule wrecks are pretty awful to clean up," she said. One way that packers reduce accidents is by working with the same pack string each year so they get to know each animal's personality. "It's kind of like being a teacher in a classroom — you know where to put each kid to get the best behavior."

As she finished prepping manty loads, two of her colleagues who had spent the morning clearing downed trees from a nearby trail returned with

A MULE loaded up with a washing machine in Grand Canyon National Park in 1939.



their mule strings. Both young men sported mustaches, hats and dusty pants.

Trent Duty, 26, gave his mare horse a can of oats while he brushed down her sweaty coat. “I feel lucky to be here,” he said. “There aren’t too many jobs where you get paid to ride a horse and be in the mountains.”

Although it’s Duty’s first year working in Glacier, he’s no stranger to livestock. He worked for the U.S. Forest Service for six summers, packing mules into the Spotted Bear Ranger District south of Glacier. Also, he grew up around horses in a small cattle ranching community in central Montana, where he returns in the off-season to help with calving.

Next to Duty, Jacob Ellis, 30, leaned his tall, rangy body against the fence as he described typical work days, which often are 12 hours long: “We start the day at 5:30, get on the trail by 7:30 and usually come back to the barn by 4:30 for feeding time.” He said the park’s packers often travel 30 miles round trip in a day. If the destination is farther than 15 miles, they’ll spend the night.

Ellis is from Las Cruces, New Mexico, where he owns a taxidermy shop and guides hunting trips with his brother for the six months he’s not packing in Glacier. He has worked in the park for four years, and he plans to keep coming back.

“I like the people I work with,” he said. “And I love the mules. They think differently than a horse, and they definitely have more personality.”

Elwood, returning from his trip to Granite Park Chalet, walked into the barn, stomping the dust off his boots. “I’ve always loved packing because the animals are honest,” he said. “If more people were like mules, we’d have a better world.”

He hoisted himself up to sit on a rail and took a swig of water. “We strive for high-quality work, and we’re all here because we love it,” he said. “And we’re here to do the best we can for the Park Service and these animals.”

On cue, the mules began braying from the corral, ready for dinner after a hard day’s work. The packers hopped to it, happily handing over the hay.

BRIANNA RANDALL lives in Missoula, Montana, where she writes about science, nature and travel. She chases her two kids up trails in Glacier National Park at least once a year.

PACKERS HEAD down the mountain after delivering supplies to a fire lookout station in Glacier. “We pack in everything from chainsaws to fishing nets,” explained Dave Elwood, the park’s lead packer.

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DWIGHT D. EISENHOWER MEMORIAL, Washington, D.C.

COURTESY OF THE EISENHOWER MEMORIAL COMMISSION; PHOTOGRAPH BY ALAN KARCHMER

Welcome to the Family!

This fall, the National Park System formally welcomed the Dwight D. Eisenhower Memorial in Washington, D.C., the Mill Springs Battlefield National Monument in Nancy, Kentucky, and the Ste. Geneviève National Historical Park in Ste. Genevieve, Missouri, bringing the grand total of National Park Service sites to 422. The memorial, a 4-acre park adjacent to the National Mall, recognizes the contributions of Eisenhower, the commanding general of the Allied forces in Europe during World War II who went on to become the nation's 34th president. Designed by architect Frank Gehry, the memorial features sculptures of Eisenhower at different stages of life and is anchored along its southern border by a 450-foot, metal tapestry depicting the cliffs of Pointe du Hoc in Normandy, the site of a critical battle during the Allied invasion of Europe in June 1944. While Congress authorized the memorial's creation in 1999, progress was delayed by design disputes and a lengthy approval process, and the official dedication didn't take place until Sept. 17. Days later and several hundred miles to the west, Mill Springs Battlefield was officially established. Situated in rolling farmland, the battlefield commemorates one of the first Union victories of the Civil War. Finally, in late October, Ste. Genevieve became the most recent addition to the park system. The site preserves the stories of a pre-Revolutionary War French Canadian settlement along the western banks of the Mississippi River.

NPS/NICK SACCO

AMOUREUX HOUSE at Ste. Geneviève National Historical Park in Missouri.

—KATHERINE DEGROFF

©MELANIE MCMANUS

A LOOKOUT along the Minnesota section of the North Country National Scenic Trail.

The Long Way

The 4,600-mile North Country Trail has been painstakingly constructed by a devoted group of supporters over four decades. It's only two-thirds done and largely unknown, but step by step that is changing.

In the late 1960s, trail planners first dreamed up and mapped out an ambitious megahike that snaked for thousands of miles across a huge swath of the northern U.S. Their vision was that one day, hikers would be able to set off from North Dakota, pass through Minnesota, Wisconsin, Michigan, Ohio, Pennsylvania and New York, and trek all the way into Vermont.

Their seemingly far-fetched idea came to life in 1980, when the North Country National Scenic Trail was established by Congress. Ever since then, a crew of intrepid supporters has been laboring steadily to build the trail. Progress is slow: The footpath, though it's more than twice the length of the Appalachian Trail, isn't well known, and it's only about two-thirds complete. But the trail, which winds through land owned by federal, state and county governments as well as private individuals, is already essentially walkable — it's possible to get from one end to the other by hiking along roads where the path is unfinished. And advocates recently have celebrated a few milestones including the addition of a critical extension in Vermont, which brings the total length

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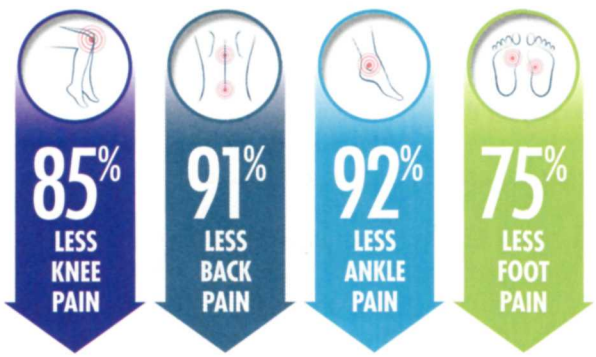

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COURTESY OF NORTH COUNTRY TRAIL ASSOCIATION

THE NORTH COUNTRY TRAIL starts in North Dakota, passes through Minnesota, Wisconsin, Michigan, Ohio, Pennsylvania and New York, and ends in Vermont.

of the trail to a stunning 4,600 miles.

The effort to append that final section took decades: Trail enthusiasts had long hoped the NCT, which previously stopped at the New York-Vermont border, would continue an additional 45 miles and connect, as initially planned, to the Appalachian Trail. That goal came into sight in 2019, when Congress passed the Dingell Act, which finally authorized that elusive extension.

"The original vision was finally realized," said trail Superintendent Chris Loudenslager. "This extension provides part of the vision of the National Trails System that the trails would become a true system over time — that you could be standing on a trail and walk anywhere in the nation."

In another victory, the Park Service recently purchased land for the trail for the first time. "That was monumental," said Loudenslager, who explained that the North Country Trail wasn't authorized to buy property until the passage of an amendment to the National Trails System Act in 2009. "With acquisition, we have the assurance that that trail is protected in perpetuity."

In May, the 2-mile Augusta Prairie section overlooking the Kalamazoo River Valley will open on an 80-acre parcel in southern Michigan, which the Park Service bought in 2017. The new stretch meanders through native prairie, restored from cornfields; 1 mile of the trail will be wheelchair accessible. The agency also acquired a 200-acre parcel in Wisconsin for the NCT, and Loudenslager expects more acquisitions in the future. (By comparison, about 600 miles of the Appalachian Trail are on lands acquired by the Park Service specifically for the trail corridor.)

Unlike trails such as the Continental Divide National Scenic Trail, which follows the Rockies, the NCT doesn't follow a geographic feature but, rather, connects a patchwork of scenic and historic sites. It passes through the Great Plains and 11 national forests, hugs parts of three Great Lakes, crosses through heavily populated areas in Ohio and winds through the Adirondacks in New York. Over the years, managers have worked with relevant agencies so the path could utilize existing regional and local trails, such as the Buckeye Trail in Ohio and the Finger Lakes Trail in New York.

NPS

Currently, about 1,500 miles of the trail are still on roads, many of them unpaved; the ultimate goal is to have the entire trail off-road. Thousands of volunteers work with the nonprofit partner group North Country Trail Association to build and maintain the trail, but they are only able to build around 50 additional miles each year. The process is slow-moving partly because volunteers must secure permission from private landowners for the trail to cross their land, ideally hammering out long-term agreements that provide access for generations. The trail is still decades from completion, said Loudenslager.

Luke Jordan, the outdoor recreation planner for the NCT, hiked the trail in 2013 in 205 days (including a full month in snowshoes), just the fourth person to do so. Along the way, he encountered a moose, a lynx, two black bears and several porcupines and was attacked by a Northern goshawk, which repeatedly swooped down at his head. After about 1,000 miles, he approached an overlook at Lake Superior and saw his first familiar view, a breathtaking panorama he recognized from childhood visits to Minnesota's North Shore. During the hike, several days would go by without sight of another human, said Jordan, who wrote about his experience in "Thru and Back Again: A Hiker's Journey on the North Country Trail." He enjoyed the solitude, but he would like to see more hikers on the trail.

"Eventually, the AT hikers coming from Georgia will get to Vermont and will see a sign that says 'North Country Trail,'" Jordan said. "I'm hoping this will bring more awareness to a relatively unknown trail. Hikers will be able to make a left turn and hike to North Dakota."

—MELANIE D. G. KAPLAN

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THE AMERICAN ROBIN — known by its Latin name as *Turdus migratorius* — exhibits a dizzying array of migration strategies.

As the Robin Flies

Where do robins go and why does it matter?

THE ROBIN WAS HOPPING on the parking lot of the Denali post office, less than half a mile from Denali National Park's entrance — and Emily Williams was desperate to catch it. American robins are a common sight on the North American continent, but this was not just any backyard robin. Williams, then an avian ecologist at Denali, had captured it a year earlier in the Alaskan park and had outfitted it with a GPS tag. The bird had likely traveled thousands of miles before coming back to the park, but without netting it and retrieving the tag, Williams would never know for sure.

"There is the key to so much data right here," Williams said. "It's so frustrating when you can see that bird with your binoculars, and you can't catch it."

Williams and a colleague would recover four tagged robins in Denali as part of a multi-location study. Collaborating researchers recovered one more robin in Amherst, Massachusetts, and two others in Montrose Park, an urban park managed by the National Park Service in Washington, D.C. The data from the birds' GPS tags showed an incredible diversity of migration strategies, according to Alex Jahn, who was then a research fellow at the Smithsonian Migratory Bird Center and who coordinated the study. Some robins migrated more than 5,000 miles round trip, one traveled a leisurely 1,500 miles, and two pretty much stayed put. This flexibility could suggest that robins are able to adjust to evolving conditions such as rising temperatures and that tracking where the birds travel could provide early warnings of a changing environment, Jahn said.

"Obviously, the seasons are changing with climate change," said Jahn, whose robin work is part of Indiana University's Grand Challenges initiative, a program that includes studying preparedness for environmental shifts. "So we can start using these birds as sentinels of that change."

Jahn was surprised to learn that though robins are ubiquitous, they had been relatively little studied and their migration patterns were poorly understood. The problem was a lack of data. For more than a century, scientists have studied bird migration through banding — they attach an aluminum band with a unique code

to the bird's leg — but this approach yields few data points as birds are rarely caught again, and the location of their capture could be anywhere along their migration path. Tracking devices were first used decades ago on large birds such as albatrosses, but it was only recently that technological improvements and advances in miniaturization made them suitable for birds as small as robins.

To follow the migration of individual robins, Jahn and his colleagues catch the birds in large, fine nets and outfit them with GPS tags. The devices, which resemble miniature backpacks, weigh no more than 3% of the bird's weight, and they must be retrieved to access the data. The researchers only selected breeding robins because they tend to be faithful to their breeding sites, so tagging them increases the likelihood of recapture.

Not all robins make it back from their perilous journey. "They could hit a window, or they could get killed by a predator or an outdoor cat," Williams said. Some might decide to breed elsewhere. The robins that do return hold valuable data for researchers — if they are lucky enough to catch the birds. To improve her chances of recovering tagged robins, Williams used a wooden decoy and sound recordings to fool a robin into thinking a rival was intruding in its territory. It didn't always work. "The robins wise up to what you're trying to do very quickly," she said.

Out of 31 tags, the scientists got seven back. The data showed that all four Denali robins headed east toward Canada in September, but then continued to different destinations — eastern Montana, northeastern Nebraska, northern Texas and western Oklahoma (the farthest point reached by any robin in the study at 2,801 miles). The robin tagged and recaptured in Amherst, Massachusetts, overwintered in South Carolina, while two robins captured in Washington, D.C., traveled no farther than 2.9 miles and 3.7 miles, respectively. A separate study of robins at a stopover site in Alberta, Canada, showed that they adjusted the timing of their migration to coincide with the earlier onset of spring at northern latitudes and that their migratory path was strongly influenced by snow conditions along the way.

> "Obviously, the seasons are changing with climate change, so we can start using these birds as sentinels of that change."

These changes in migration patterns may have far-reaching consequences. Robins, like other birds, carry seeds and could help tree and plant species expand their range northward in response to a warming climate. But robins can also carry Lyme

EMILY WILLIAMS disentangles a robin from what is called a mist net at Denali National Park in June 2020.

NPS PHOTO/ALEX JAHN

disease and can potentially propagate the disease much faster than deer and mice, said Jahn, who checks the robins he catches for ticks and routinely takes blood samples to detect signs of infection. Much more research is warranted to understand the factors at play, but eventually monitoring robin migration could help public health officials and wildlife managers anticipate the arrival of Lyme disease and other infections such as West Nile virus in new areas and possibly mitigate the impact of outbreaks.

"Any animal that might be exporting a new disease into Denali is something we'd be concerned with," said Carol McIntyre, a wildlife biologist at Denali who has studied the park's birds for decades.

Using birds as true sentinels of change will require a lot more eyes — and tags. McIntyre and her staff at Denali have been tagging several bird species, including blackpoll warblers, hermit thrushes and Swainson's thrushes, as part of a multi-year project called Critical Connections. Long-term studies suggest some bird populations in Denali are decreasing, so one of the goals of the project is to figure out what is happening along the birds' migratory paths that might be contributing to these declines.

"Most of the birds that nest in Denali are migratory," McIntyre said. "Our efforts to study and protect them need to extend well beyond the boundaries of the park."

Jahn is planning to expand robin tagging to other locations, such as Ontario, and he hopes to develop a citizen science program. Robins are particularly well suited for observations in urban environments as they've come to rely on mowed lawns to get their worms. "We're creating this habitat that robins just love," he said.

Williams is not done with robins either. She left her position at Denali and drove cross-country over the summer to Georgetown University in Washington, D.C., where she started working toward a Ph.D. in biology focused on robin migration. She hopes to collaborate with researchers across the country and to outfit robins with a new generation of tags that continually send data to the International Space Station, which then sends it back to scientists for analysis. The tags record a lot more information than the ones Williams has been using, and they could potentially function through the life of the birds. Also — crucially — they don't require researchers to recapture the birds to access the data.

"It's going to be a game changer for a lot of reasons," she said.

As for that robin on the parking lot of Denali's post office, Williams could see the tag on its back but couldn't herd it toward the net she and her colleague had placed nearby. After a few fruitless hours, they had to let that one go, and Williams, busy with other duties, never got another opportunity to look for it. More than a year later, the invaluable data is lost, but the regrets remain.

"I think we would have gotten that bird if we had spent more time on it," she said. **NP**

Faulty Freezers?

While many of Denali's birds head south for the winter, Canada jays (left) stick around. The gray birds depend on central Alaska's subfreezing temperatures to preserve the perishable food such as berries and carrion that they store away in bark crevices and other hiding spots. The problem is that Alaska is getting increasingly warmer and that thawing spoils the food that the jays count on during the long winter. "The big question is how will climate change impact these birds," Williams said. "Something like animal flesh is not going to last that long if temperatures rise."

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NICOLAS BRULLIARD is senior editor of National Parks magazine.


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Another season, another ceremonial circumambulation of Mount Tamalpais. What draws hikers to this 55-year-old ritual?

By Michael P. Branch • Photos by Philip Pacheco

CIRCLING THE MOUNTAIN

"That's the Zen of this hike," she said, smiling as raindrops splashed on her cheekbones.

THE GROUP recites a chant to the four directions at the Lone Tree Spring station (left). Above: Laura Pettibone, the hike leader, has circumambulated the mountain more than 100 times. The author (left) looks on as she reads from "The Heart of the Perfection of Wisdom Sutra," a Mahayana Buddhist text.

DECEMBER 22, THE DAY APPOINTED for our hike around Mount Tamalpais, did not look at all promising. Temperatures were in the 40s, the wind was up, and the brooding dawn sky looked like it held enough water to rain all day. After parking near the starting point of the hike in Muir Woods National Monument, on the Marin Peninsula north of San Francisco, I wrangled foul-weather gear in the cab of my truck in the dim light as rain began to hammer the roof of the pickup and surrounded it in swirling curtains. Through the deluge I could just make out a doe and fawn, patiently browsing weeds along the fringe of the empty parking lot.

Eventually, a few intrepid walkers appeared, arriving late because the torrential rain had joined a king tide to flood a highway offramp, necessitating a detour. As our little group of seven huddled together, Laura Pettibone, our hike leader, explained over the dull roar of the downpour that at winter solstice the 15-mile route around the mountain is difficult to complete before dark and that it would be especially challenging today, given the miserable weather and our late start. "But that's the Zen of this hike," she said, smiling as raindrops splashed on her cheekbones. "You never know what the weather will do or how your body will do." She pulled a laminated sheet of text from beneath her bright yellow rain poncho and began chanting, in Japanese, a Mahayana Buddhist text called "The Heart of the Perfection of Wisdom Sutra." After completing the mesmerizing chant and tucking the sheet back inside her raingear, Pettibone reminded us that we would be hiking in silence during the ascent, which would mean I would be spending the better part of the day with only the quiet of my thoughts and the sounds of wind and rain.

In circling the mountain, we would be repeating a ceremony that has been performed for 55 years. On the morning of October 22, 1965, the Beat Generation poets Gary Snyder, Allen Ginsberg and Philip Whalen stood near this spot and chanted the Heart Sutra before setting out to consecrate the mountain through ritual circumambulation. That historic walk would be enshrined in Snyder's poem "The Circumambulation of Mt. Tamalpais" and Whalen's poem "Opening the Mountain, Tamalpais: 22:x:65." The first lines of Snyder's poem introduce the story: "Walking up and around the long ridge of Tamalpais, 'Bay Mountain,' circling and climbing — chanting — to show respect and to clarify the mind. Philip Whalen, Allen Ginsberg, and I learned this practice in Asia. So we opened a route around Tam. It takes a day."

He would later explain his motivation for pioneering the ritual walk: "I felt it was time to take not just another hike on Mt. Tam, the guardian peak for the Bay and for the City — as I had done so many times — but to do it with the intent of circling it, going over it, and doing it with the formality and respect I had seen mountain walks given in Asia." Starting at Redwood Creek in Muir Woods, the three Beat poets walked clockwise around the mountain, stopping to chant at 10 "stations" — notable spots along the route that were selected spontaneously for what the poets considered their special power — before closing the loop back at the creek.

In San Francisco's countercultural community, word spread that the poets had completed a ceremonial walk around Mount Tam, and admirers soon committed to perpetuating the ritual. An open invitation to circle the mountain on Feb. 10, 1967, appeared in a Haight-Ashbury newspaper, and fliers announcing the hike were posted along Haight Street. Led by Snyder, that first public circumambulation replicated the original circuit. A group of around 70 circled the mountain together, stopped at the established stations, and performed many of the same chants.

By 1972, the ritual circumambulation was performed four times each year, on the Sunday closest to the dates of the solstices and equinoxes. For more than 40 years, this ceremonial walk was led by Matthew Davis, a local hiker and admirer of Snyder, who had attended the original group walk and went on to finish the route at least 160 times. After Davis died in August 2015, his son took over for a couple years, before Pettibone, Davis' protegee, picked up the mantle. She has now circumambulated the mountain more than 100 times.

RITUAL CIRCUMAMBULATION has its origins in a number of spiritual traditions. For Snyder, Ginsberg and Whalen, all of whom were practicing Buddhists, the source of the tradition was Zen. Snyder made his first trip to Japan in 1956, and while studying at a temple in Kyoto, he was introduced to a form of walking meditation often performed on nearby Mount Hiei. The circumambulatory practice, called "pradakshina" (Sanskrit for "the path surrounding something" or "to the right" depending on the source), is a religious rite that involves circling a sacred object (a temple, a gravesite, a mountain) in a clockwise direction to absorb spiritual energy or power from it. The ritual, which Japanese Buddhist monks still practice, evolved from ancient forms of walking practice originating in China and India.

Snyder knew Mount Tamalpais well by 1965. His first trip to the mountain was in the summer of 1939, when he was just 9 years old. In 1948, he shared a memorable three-day hike there

"TAMALPAIS" likely comes from the Coast Miwok "támal pájis," roughly meaning "west hill." The mountain has long been a site of recreation and inspiration (left). Far Right: Philip Whalen (left) and Allen Ginsberg (right) in San Francisco in 1971. Right: Gary Snyder in 1964. The three poets circumambulated Mount Tam in 1965, establishing a ritual that has endured. Below: The group trudges along a trail that the downpour transformed into a stream.

©LAVERNE HARRELL CLARK/THE UNIVERSITY OF ARIZONA POETRY CENTER, 1964

COURTESY OF GORDON BALL

with his first love. In the years following his move to the Bay Area in 1952, Snyder walked Mount Tam often, and in 1956, he took up residence in a shack on the mountain's flank. That cabin, which he called Marin-an, became an improvised zendo and a creative hub for Beat poets and writers. For a time, Snyder's friend Jack Kerouac lived with him in the shack, a barely fictionalized version of which appears in Kerouac's 1958 novel "The Dharma Bums." Among Snyder and Kerouac's guests at Marin-an were Ginsberg, Whalen, Neal Cassady, Kenneth Rexroth, William Burroughs, Lew Welch and Gregory Corso. Of this remarkable group of countercultural figures, only Snyder, who is now 90, is still alive.

By the time Snyder, Ginsberg and Whalen circled Tamalpais (whose name likely comes from the Coast Miwok "támal pájis," roughly meaning "west hill"), the mountain had long been a site of recreation and inspiration. Preservationist John Muir hiked Mount Tam, as did photographer Ansel Adams, painter Maynard Dixon, suffragist Alice Paul and many other luminaries. The early 20th-century struggle to save the mountain as a natural space with public access had its roots in the advocacy efforts of the 19th-century hiking clubs that frequented Mount Tam. The mountain today is a patchwork of private, municipal, county, state park and national park lands that includes Muir Woods National Monument and parts of the Golden Gate National Recreation Area.

My first opportunity to complete the "CircumTam," as it is sometimes called, came in 2004, when several friends of Snyder's invited me to join them on the walk. I had long admired Snyder's writing and had been profoundly influenced by "The Practice of the Wild," his 1990 book of essays exploring the biological, social and spiritual value of wild landscapes. Our leaders that day were a pair of talented writers and photographers: my friend Sean O'Grady and his mentor David Robertson, then a colleague of Snyder's at the University of California, Davis. A scholar of literature and religion who has studied and written about circumambulatory practice, Robertson believes that the heart of circumambulation is ritual, which provides structure and meaning in a world that might otherwise feel chaotic. "Ritual puts our own situation in a larger context," Robertson told me during a recent conversation. "The ritual of circumambulation is about transferring some kind of meaningful power from the land to yourself."

I experienced a sense of that transfer of power on my first CircumTam. In addition to being awed by the beauty of the mountain, I felt a deep connection to the friends I spent that day with, and I was moved by the idea that the walk itself was a kind of literary product — one that had led to a shared experience of this special place that continues to unspool over time. During the next 16 years, I completed the hike a half-dozen times, always traveling with companions who, like myself, are environmental writers. However, I was aware that for a half-century, a group of hikers had been regularly performing the circumambulation in a more structured way. While my hikes had included stops at the stations identified in the Snyder and Whalen poems, I was interested in this group's deliberate practice of conducting the hike just as Snyder and his friends had in 1965, Buddhist chants and all. My inquiries with rangers at the Golden Gate National Recreation Area led me to Pettibone, who was gracious and welcoming, and plans were soon made for me to join the winter solstice walk.

A flock of nonnative wild turkeys strutted past as Pettibone led our group on the first steps of our journey. Foregoing Redwood Creek, uncrossable because its modest plank bridge had been removed to allow salmon to reach their spawning grounds,

©KAREN MINOT

THE PATH around Mount Tam starts in Muir Woods National Monument and cuts through a swath of Golden Gate National Recreation Area.

we instead climbed a fire road to intersect the celebrated Dipsea Trail. But the trail had played trickster by turning itself into a creek, its shallow banks overflowing as we worked our way along — and sometimes through — the ephemeral stream. We soon rose out of the redwoods into a forest of Douglas firs and California bay laurels, which give much of this hike a distinctive peppery aroma — though Snyder noted in his poem that Ginsberg thought the laurels smelled like fried chicken. Although the trail meandered through a gorgeous mixed conifer forest, I was unable to achieve anything remotely resembling a Zen state of mind. Soaked through from head to toe after a single mile, I instead meditated on the likelihood of hypothermia should we press on for another eight or 10 hours under such adverse conditions. I wondered, in fact, if we might be endangered by our zeal to honor the ritual.

Pushing ahead despite my trepidation, I felt the path ascending from the wet, green bower of Redwood Creek to the exposed southern flank of the ridge, where a tenacious coast live oak dramatically splits a giant, lichen-splattered boulder. This was the same tree, the same rock the Beat poets had consecrated on their 1965 walk. In his poem, Whalen's austere language expresses the beauty of the site: "Oak tree grows out of rock / Field of Lazuli Buntings, crow song." As I watched Pettibone offer a small bow of respect to what circumambulators, with Zen-like clarity, often call Tree/Rock, I wondered what it takes to sanctify a place. This tree and rock, so perfectly natural, have become part of a rich and now intergenerational cultural fabric. A half-century of mountain pilgrims have rendered this place a shrine; and yet, it remains a tree, a rock.

By the time we approached the station called Serpentine Power Point, the rain had let up, but the cold had settled in, and the numbness in my fingers and toes had me flexing and stamping to maintain sensation. I glanced occasionally at my fellow hikers, trying to assess whether the piercing cold had numbed them as well. We stopped amid a spectacular outcropping of serpentine, a crest of angular but smooth-faced, blue-green boulders. In the rich lore of the Tam circumambulation, this site is often referred to as "the spiritual driver's seat of San Francisco," a power spot even among power spots. Geologically, the place might well be considered special, given that serpentine (the state rock of California) typically forms deep within the Earth at the boundaries of grinding tectonic plates. Scientists are uncertain how it makes its way to mountaintops, though they hypothesize that because serpentine is remarkably malleable, it is squeezed to the surface along the unstable fault lines where it is often produced.

A few more miles brought us to our lunch spot at the Rifle Camp picnic grounds, where photographer Philip Pacheco — whose images grace this essay — generously shared with me his Korean kimbap, a sliced roll with seaweed, rice, fish cake, carrots, spinach, yellow pickled daikon and egg. According to Snyder's poem, the poets' spread in 1965 wasn't bad either: Along with Swiss cheese sandwiches and salami, they also shared gomoku-no-moto, panettone with apple-currant jelly and sweet butter, and Greek walnuts in grape juice paste.

Fortified, we set out for the north side of the mountain, which was deeply shadowed, but also protected from the winds that had cut into us on the ocean side of the hike. Redwoods gave way to the naked, spiraling musculature of madrone trees; other trees were so completely covered with small ferns that their bark remained hidden beneath the shimmering verdure encircling them. On this wind-sheltered side of the mountain, silence pre-

The respite from rain and wind also brought welcome warmth, the return of sensation to my fingers and toes, and a new hope that we might dry out before the sun set.

vailed, allowing details to come into sharp focus: the trickling of water echoing in a mossy glen; the iridescence of rain droplets globed on the bony fingertips of twigs.

A notable cairn of rocks (permitted by a benevolent private landowner) comprises the fifth station of the ritual walk. Each hiker brings a single stone — carried from as close by as a few feet or as far away as another continent — and adds it to the cairn. My offering was a rough oval of blue granite the size of a wild cherry, which had come with me from my home in the Great Basin Desert on the Nevada side of the Sierra crest. Having ceremonially laid our rocks atop the pile, we walked around the cairn clockwise, each of us both leading and following as we traced the small circle of this moment within the larger circle of the day and the yet more expansive circles of the season and the year.

As our ascent toward Mount Tam's East Peak began in earnest, a break in the clouds revealed the landmark fire lookout, perched like a ceremonial teahouse atop the distant summit. A little farther on, at Inspiration Point, the clearing weather opened a spectacular view: up the rippled hills toward Napa Valley; out over the colonnaded fortress of San Quentin prison and the Richmond-San Rafael Bridge; and, all the way to the needled skyline of downtown Oakland. The respite from rain and wind also brought welcome warmth, the return of sensation to my fingers and toes, and a new hope that we might dry out before the sun set.

At the foot of the final ascent, we huddled together, by necessity breaking our silence to confer. With some regret, we quickly reached consensus that the waning light of this short, winter day

A BREAK in the clouds reveals the landmark fire lookout, perched like a ceremonial teahouse atop the rocky summit of Mount Tam's East Peak (right).

ON THE DESCENT, the hikers catch a view of the spires of the San Francisco skyline.

would not allow us to add the sacred mountain's summit to our route, as we had hoped.

"That's OK," said one of the hikers, Nick Triolo. "I'd rather not make the summit push anyhow. Best to leave that for coyote." In the culture of the Coast Miwok, summiting a mountain risks disturbing its peak-dwelling spirit — which, in the case of Mount Tam, is believed to be coyote, he said. In any case, circumambulation doesn't have a summit-driven "conquering sort of intention," he added. "At its core, a circular walk in a landscape is contemplative, investigative, surveilling a place with a deep scrutiny of all its sides." Triolo, an online editor at Orion Magazine, had grown up in the Bay Area but had learned of the circumambulatory practice of "kora" while on a trip to Nepal. Inspired by that experience, he began to study circumambulation in various cultural traditions, and now he had returned to Northern California from his home in Massachusetts to perform the ritual on Mount Tam.

AFTER A LONG DAY OF CLIMBING and traversing, our descent at last began — and, with it, lots of free-flowing conversation. There was talk of hot coffee and cold beer, of baseball and poetry, of travels on mountains near and far. I appreciated the way the silent hike had provided me the opportunity to focus on what I felt, saw and heard. But I had also developed a genuine sense of camaraderie with my fellow hikers, despite the absence of small talk and the fact that I knew almost nothing about them. Miles of walking and shivering together had forged a bond I think the Beat poets would have appreciated.

The descent was my opportunity to learn more about what brought these former strangers together on the mountain. Without exception, everyone commented on the value of ritual. Lisa Kadyk, a geneticist, said, "I'm not religious, but I do like rituals and recognition of spirituality in a big sense." Visual artist and environmental field educator Kerri Rosenstein put it this way: "I like the nature of practice. To do something over and over. To train. It requires patience and discipline. I trust that each time offers something new. That we evolve by repeating the same walk as we

Miles of walking and shivering together had forged a bond I think the Beat poets would have appreciated.

awaken both to what becomes familiar and to what becomes revealed." Gifford Hartman had throughout the day played the important role of "sweep," following us to make certain no one took a wrong turn or needed help. "A ritual is returning to a place," said Hartman, an English as a second language instructor. "Rituals also reinforce the seasonal cycles of life."

Like me, some hikers had been attracted to the CircumTam through literature or art. Hartman had been inspired by the Beat poets, especially Snyder, whose work he had loved as a young man. After moving to the Bay Area, he had been drawn to Mount Tam not through religious practice or friends, but rather through the Snyder and Whalen poems documenting the circumambulation. The natural beauty of this mountain had inspired that first ritual walk in 1965. The walk had inspired the poems. For Hartman, the poems had then inspired the walk, just as the poets intended. As Snyder explained in a 1989 interview with David Robertson, "I thought I would consecrate Tamalpais as a sacred mountain for future generations to do the same kind of pilgrimage on."

Hartman then articulated an insight I had been struggling toward. While celebrated nature writers such as Muir deified wilderness, the Beats had deliberately chosen to consecrate a well-traveled mountain that stands shoulder to shoulder with one of the world's great cities. They had intentionally brought culture — in the form of spiritual practice and literary performance — to their understanding of why and how nature matters. By sanctifying Mount Tam in the way they did, Snyder and his fellow poets encouraged us to move beyond a rigid conceptualization of nature and culture as binary realms. The ritual the Beats forged on Mount Tam, Hartman said, "is part of a legacy of bringing the human world into the natural world."

THE SUN STRUGGLED TO FIND OPENINGS in the darkening sky as we continued our descent. We followed the Fern Canyon Trail as it dropped steeply through an impossibly green valley on the mountain's south face, where manzanita, ceanothus and coyote brush dominate the landscape. From one spot, we picked up an exhilarating view of the spires of the San Francisco skyline.

The Canopy View Trail would take us the rest of the way home to Muir Woods and Redwood Creek. But we still had more than an hour of hiking ahead as we watched the last shafts of sunlight retreat beyond the horizon ridge, and we had to decide whether to take our chances walking in the dark or instead navigate by the beams of our headlamps. After a quick conference in the falling dusk, we agreed to complete the circuit by starlight and proceeded single file down into the redwoods.

Snyder's poem describes this last leg of the sacred walk as "The long descending trail into shadowy giant redwood trees." Seeds only an eighth of an inch long had produced these coast redwoods, some of which have trunks a dozen feet in diameter and crowns reaching an unfathomable 200 feet into the night sky. Sauntering through the silent forest, I thought about the years that had elapsed between the Snyder-Ginsberg-Whalen circumambulation and our own, and I compared that span to the lifetimes of the venerable trees I walked among, some of which have stood fast 20 times longer than the brief half-century pilgrims have been circling this mountain.

The tenth and final station of the circumambulation is also its first station. I had a feeling that, just as the Beat poets intended, this arrival would become a new point of departure. Approaching the CircumTam's beginning-end, I remembered the good friends who first guided me on this mountain so long ago. I thought also of my daughters, who will soon be strong enough to join me on the demanding and rewarding ritual walk. This stormy, nine-hour circuit of the mountain had become a circle within the larger circles of seasons and years that also encircle our own short lives.

Footsore but content, we seven hikers paused by Redwood Creek and exchanged hugs, saying goodbye to each other and to the day. Several in our group suddenly exclaimed, as above the dark forest canopy westward toward the sea, a meteor ignited, its tail tracing a bridge of light across the sky.

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OIL-ON-WOOD paintings from 2020 show turn-of-the-century cottages (right) in Great Smoky Mountains National Park's historic Elkmont district, which was once a logging community and later, a vacation spot. The park and a nonprofit partner are working to preserve 19 of the homes, many of which have been vacant for more than two decades. Far right: A visitor at Big Cypress National Preserve in Florida. Colored pencil on paper, 2020.

PARK PALETTE

With 11 residencies under her belt, an artist is painting and drawing her way through the National Park System.

ART BY HEATHER HECKEL

In 2016, Heather Heckel, a middle school art teacher based on Long Island, New York, sat down at her computer and typed in the search terms "nature," "art" and "travel."

Voila, the National Park Service's artist residency website popped up. Each year, around 50 park sites host visual artists (as well as some writers, musicians and other creative types) who live in housing in the parks and are asked only to explore and create art — and maybe offer a public presentation or class. Intrigued, Heckel sent out a dozen applications, eventually landing back-to-back residencies at Hot Springs National Park in Arkansas and Weir Farm National Historic Site in Connecticut. The summer unfolded just as she had dreamed it would, and she came home with a collection of new artworks and a determination to keep the park gigs going.

Nine residencies later (for a grand total of 11 if you include a few that didn't come with park housing), Heckel has undoubtedly met that goal. Over the last five summers, her park-hopping has included stints of two or four weeks at Homestead National Monument of America in Nebraska, Hubbell Trading Post National Historic Site in Arizona, Indiana Dunes National Park in Indiana, Herbert Hoover National Historic Site in Iowa, Whiskeytown National Recreation Area in California and Lake Roosevelt National Recreation Area in Washington. She also spent time as a visiting artist at Big Cypress National Preserve one winter break when she was in Florida with family

A 2019 oil-on-wood portrait of Alvis Burbank, a ranger at Hubbell Trading Post National Historic Site in Arizona, which is surrounded by the Navajo Nation (above left). Above right: A mailbox outside the 19th-century caretaker's house Heckel stayed in during her residency at Weir Farm National Historic Site in Connecticut. Colored pencil on paper, 2016. Far right: Whiskeytown Lake at Whiskeytown National Recreation Area in California. Oil on paper, 2017.

and devoted many weekends last fall and winter to completing a close-to-home residency at Sagamore Hill National Historic Site. Though the coronavirus scuttled her plan to spend a month this summer at Great Smoky Mountains National Park in Tennessee and North Carolina, she managed to find a way to get there for an abridged program.

"I've fallen in love," said Heckel, 35. "The more I do it, the more I want it to continue."

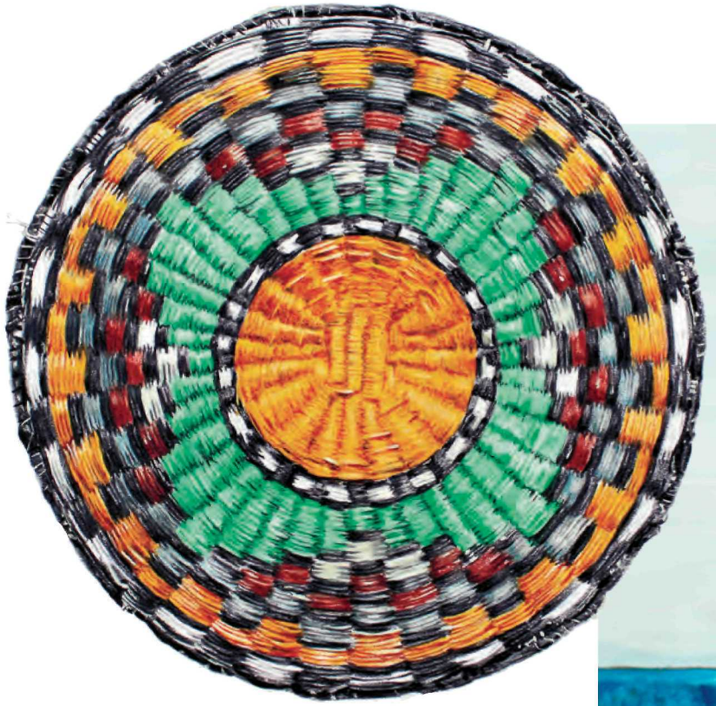
In all, she has produced about 170 park-related pencil drawings and oil paintings (including a few in progress). Her subjects range from antique farm equipment at Homestead to a visitor in leather biking gear at Big Cypress to a woven tray at Hubbell Trading Post, which is surrounded by the Navajo Nation. She has made works depicting most of the historical buildings at Herbert Hoover's birthplace and small details (copper pipes, a closet, a mailbox) at the 19th-century caretaker's house she stayed in at Weir Farm. Sometimes, she paints grand landscapes, but more often, what excites her is the people she encounters or offbeat objects or simply the way a shaft of light plays across a worn wooden floor.

"Visitors looking for a big-picture view might walk by that old sink in that old house, but she's looking at it and drawing us in through her creative lens. And helping to draw out stories," said Sheridan Roberts, who oversees the artist residency program at Great Smoky Mountains. "There are stories to be found everywhere in this park."

Ever the diplomatic teacher, Heckel couldn't be coaxed into picking a favorite park or residency. "They've all been especially magical," she said.

Fair enough. In that spirit of inclusiveness, National Parks editors have selected 13 of her works to showcase, homing in on pieces that illustrate her versatility, highlight hidden park corners and underscore the great variety of places within the park system. — *Editors*

To find out more about the artist, go to heatherheckel.com. To learn about the National Park Service's artist-in-residence program, go to nps.gov/subjects/arts/air.htm.



HECKEL SPOTTED the porcelain frog (above left) in a bedroom at Sagamore Hill National Historic Site in New York. (She paired it with goldenrod and a bee she saw in the garden.) The home of President Theodore Roosevelt from 1885 to 1919, Sagamore Hill was known as the "summer White House" during Roosevelt's years in office. Colored pencil on paper, 2019. Left: A vintage sign along Central Avenue in Hot Springs, Arkansas, the town that has been home to Hot Springs National Park for nearly 100 years. Colored pencil and ink on paper, 2016.

A WOVEN TRAY (above left) at Hubbell Trading Post. Known as Hopi plaques, these trays are made by Hopi women from Munqapi and the Third Mesa area. Colored pencil on paper, 2019. Above: The Florida Tropical House is located on the shore of Lake Michigan. The house was built for the 1933 World's Fair in Chicago and then floated by barge to what is now Indiana Dunes National Park. Colored pencil and oil paint on paper, 2018.

A STAFF MEMBER at Joanie's Blue Crab Cafe, which sits on a private inholding along Tamiami Trail in Big Cypress National Preserve (top). Colored pencil on paper, 2020. Above: A colored pencil drawing of Herbert Hoover's boyhood train, completed in 2018. The train is part of the collection at the Herbert Hoover Presidential Library and Museum, which Heckel had access to during her residency at the Herbert Hoover National Historic Site in Iowa.

A 2017 oil painting of Lake Roosevelt National Recreation Area, Washington.

CHASING SOLITUDE — AND THOREAU — ON THE OUTER BEACH OF CAPE COD NATIONAL SEASHORE

THE FARTHEST EDGE

BY DORIAN FOX

PEG'S SHACK, where the author stayed for the night. The structure is named for Margaret Watson, its original owner, who lived there for 30 years.

At the crest of the first dune, the pickup halted, then it rolled forward slowly, rocking like a boat on a swell. Behind the wheel, Janet Whelan explained that the tires were deflated to 11 pounds of pressure so the truck would handle better on the sand roads. At times, it felt like the vehicle was in charge, she told me. "You sort of let it drive," she said.

We were less than half a mile from U.S. Route 6, the main thoroughfare that runs the length of Cape Cod, and already I felt civilization falling away. All around us were wheat-colored dunes, bright in the October sun and carpeted with tufts of beachgrass. On blind curves, Whelan honked the horn in case other vehicles — most likely SUVs from Art's Dune Tours, a park concessionaire — were headed toward us.

Our destination was a cluster of rustic dune shacks strung along Provincetown and Truro's so-called "backshore," arguably the wildest, remotest part of Cape Cod National Seashore's 40 miles of protected beach. Thanks to a fortuitously timed last-minute request, the opportunity to spend time in a shack had unexpectedly materialized. Whelan, a local doctor and the chair of the Outer Cape Artist in Residence Consortium, was driving me out to the sea, where I'd be hunkering down for the night just before the structures would be buttoned up for the winter.

I'd come to the seashore on the trail of writer Henry David Thoreau, who walked a significant stretch of the cape's backshore in 1849. I was familiar with his oft-quoted book, "Cape Cod," chronicling his three trips to the area. But though I've lived in Boston for almost 20 years, visited Thoreau's grave in Concord, Massachusetts, and floated in Walden Pond, I'd spent almost no time on the cape, the hooked peninsula that famously flexes into the Atlantic. Thoreau described it as "the bared and bended arm."

On this visit, I intended to use Thoreau's travels as a rough guide for my own. I'd spend three days there mid-fall, as he had on his first trip to the cape. "In autumn," he wrote, "the thoughtful days begin, and we can walk anywhere with profit. Beside, an outward cold and dreariness ... lend a spirit of adventure to a walk." So far, the weather was in the mid-50s, oddly spring-like, but I hoped for some of that spirit. And more than that, I wanted to be alone — really alone, in a way our restless, wired culture rarely seems to allow — and feel a sense of what Thoreau called "the solitude ... of the ocean and the desert combined." Within a few months, the COVID-19 pandemic would demand far more physical isolation than I'd ever wish for. But at that moment, though I didn't yet know the term, I craved a kind of voluntary social distancing I figured Thoreau would appreciate.

NATIONAL PORTRAIT GALLERY

I'D COME TO THE SEASHORE ON THE TRAIL OF WRITER HENRY DAVID THOREAU, WHO WALKED A SIGNIFICANT STRETCH OF THE CAPE'S BACKSHORE IN 1849.

As we trudged up to the shack where I'd stay — known as Peg's, for Margaret Watson, its original owner, who lived in the structure for 30 years — I caught sight of its pitched roof in the swaying grass. I felt a sudden surge of relief, then nervous excitement. Just over the barrier dune, waves churned against the beach. I'd come for solitude, and here it was.

On October 11, 1849, Thoreau and his friend, William Ellery Channing, arrived on Cape Cod in the wake of a nor'easter, carrying umbrellas. Their aim was to hike roughly 28 miles along the blustery beach from Eastham to Provincetown. I wasn't ambitious enough to attempt their journey on foot. Though I planned to take some long walks, I'd be driving alongside their route, stopping at points of interest. In lieu of staying with an oysterman's family and a lighthouse keeper, the lodging the two men had arranged, I'd booked a

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couple of Airbnb rooms on either side of my shack stay.

The day before my ride through the dunes, shortly after arriving on the cape, I'd driven into Eastham past shingled houses and a smattering of ghosts and pumpkins (Halloween was a week away). I noticed some eateries and shops were already shuttered for the winter. Back in Thoreau's day, the term "off-season" didn't exactly apply; Cape Cod was mostly farms and fishing villages. The Cape Cod Branch Railroad — which operated the train he and Channing rode to Sandwich before taking a stagecoach to Orleans — had opened a line between Boston and the cape just the previous year.

"Thoreau was forecasting the allure of the Outer Cape a good half-century before most hotels and inns started catering to people," explained Bill Burke, the national seashore's cultural resources program manager. "His writing was evocative of the unsophisticated, untamed, highly rural, isolated Cape Cod." It would be decades before vacationers and artists flocked to the backshore for its beaches and pristine light, and a hundred years before the tourism boom of the 1950s yielded the area's first epic summer traffic jams.

CAPE COD was formed by glacial deposits during the last ice age.

Cape Cod National Seashore was authorized by President John F. Kennedy in 1961, after local communities pushed back against tourist-related development. It was one of the first national park sites to incorporate large amounts of private property within its boundaries, and staff were tasked with negotiating more than a thousand individual land transactions, a process that took more than two decades. The resulting 43,000-acre park is a patchwork of public, private and other municipal lands comprising much of the Outer Cape and surrounding waters, and managed by park staff, towns and other stakeholders. The national seashore's beaches, walking and biking trails, and historic sites now attract millions of visitors each year.

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LAMPLIGHT MEETS twilight at the Euphoria dune shack, one of 19 such buildings on the backshore.

My first stop after circling through Eastham was Salt Pond Visitor Center, near where Thoreau and Channing turned off a dirt road toward the beach. As I followed the 1.3-mile Nauset Marsh Trail beside Salt Pond, a cormorant flapped across the water, and I saw markers where, I'd learned inside, baskets of farmed oysters were submerged. Eager to continue up the coast, I headed north to the Atlantic White Cedar Swamp Trail in Wellfleet, where a boardwalk swerves through an undulating, mossy grove of trees.

By then, I was more than ready to see the ocean, so I crossed a parking lot to the Marconi Station site. In 1903, four antenna towers built by Italian inventor Guglielmo Marconi sent the first two-way transatlantic telegraph message from the U.S. to England and back, a feat that helped him earn a Nobel Prize in physics. The station was shut down in 1917, partly due to erosion of the 70-foot bluff on which it sat. Now, only a few concrete tower footings remain, surrounded by heathland. Standing on the cliff, I stared out at blue-gray waves, while a solitary walker tracked across the sand below.

Thoreau, whose brimmed hat featured a special shelf for storing plant specimens, had a romantic fascination with the cape's flora and fauna, but he also maintained a fatalistic impression of the coast. "I wished to see that seashore where man's works are wrecks," he wrote. In the 1700s and 1800s, shoals off the cape caused hundreds of shipwrecks, leading the U.S. government to set up an official lifesaving service in 1871, which was later folded into the Coast Guard. The only souls Thoreau and Channing met on the beach were "wreckers," who gathered stray cargo and driftwood, and sometimes encountered bodies that washed ashore.

For Thoreau, the unforgiving landscape offered a certain clarity. "The seashore is … a most advantageous point from which to contemplate this world," he wrote. "It

THOREAU DESCRIBED
Cape Cod as "the bared and bended arm."

is a wild, rank place, and there is no flattery in it." When I arrived at Marconi Beach, I felt some of the pensiveness Thoreau describes, but I was also struck by the shore's stripped beauty. The outgoing tide had carved furrows in the sand, which was littered with thousands of colored rocks. As I picked along the beach — finding clam shells and a brick with rounded edges — I thought I spotted a surfer in the waves. Then I realized it was a seal. Its slick head periodically surfaced and bobbed, watching me.

Since the signing of the Marine Mammal Protection Act in 1972, harbor and gray seals have proliferated on the cape, after being nearly wiped out of the area by hunters. The population is now in the tens of thousands, by some estimates, but the surge has lured predators. In 2018, Cape Cod had its first fatal shark attack in 82 years. The following year, the Atlantic White Shark Conservancy logged over 200 shark sightings off the coast, using a public tracking app that alerts beachgoers in real time.

Later that evening, after parking at the Bookstore & Restaurant in Wellfleet, I was drawn across the street to Mayo Beach, where the sun was setting over the calm bay. The sky was deep purple, with a smear of orange that pulsed before fading out. I stood for a minute, stunned, then wandered back for a delicious fried clam roll and a dozen briny oysters.

The next morning, turkeys grazed at the roadside in Truro as I drove to Highland Light, which sits on an enormous bluff, beside a golf course. The lighthouse is the oldest on Cape Cod, built in 1797 (though the original wooden structure was replaced by a brick tower in 1831, then rebuilt in 1857). After he stayed with the keeper, Thoreau remarked on the crumbling cliff beneath the lighthouse, predicting that "erelong, the light-house must be moved." It wasn't until 1996, however, that the lighthouse was shifted 450 feet back. According to Park Service estimates, the cape's shoreline erodes about 3 feet per year, and rising sea levels due to climate change are expected to accelerate that process. Of the 10 acres originally acquired by the government to build the lighthouse, six have been lost to the sea.

I made quick stops at the Highlands Center — an abandoned U.S. Air Force station now used as an arts and research hub — and Head of the Meadow Beach, where a salt meadow spreads out like a savanna. But farther north, the dunes were calling: Soon I was rushing off to catch my ride to the shack. I parked my car on the shoulder of Snail Road, then found Whelan and Bette Warner,

THE SKY WAS DEEP PURPLE, WITH A SMEAR OF ORANGE THAT PULSED BEFORE FADING OUT.

the executive director of Peaked Hill Trust, a nonprofit group that manages five of the 19 shacks on the backshore. Except for one, all the shacks are owned by the park and are considered historic properties for their unique architecture and ties to notable artists who lived and worked in them. The trust runs an annual lottery among its members for one-week stays and manages an arts and sciences residency program, one of several such shack residencies.

In the 1800s, the earliest shacks were intended as temporary dwellings for stranded sailors, "surfmen" on lifesaving patrols or fishermen. By the early to mid-1900s, as Provincetown's arts colony began to take shape, new shacks were being built by bohemians and others seeking isolation. Playwright Eugene O'Neill moved into the Peaked Hill Bars Life-Saving Station in 1919, stirring interest in the backshore as a source of inspiration. In the ensuing decades, writers and artists such as Josephine Del Deo, Mark Rothko, Jack Kerouac, Cynthia Huntington and Annie Dillard would all spend time in shacks.

Though many used the dwellings for creative escape or recreation, others, such as Peg Watson, a social worker, and poet Harry Kemp, became full-time residents, deter-

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mined to live a subsistence lifestyle. A 2005 ethnographic study of dune shack culture by the social anthropologist Robert Wolfe, commissioned by the Park Service, identified around 250 year-round residents and as many as 1,700 seasonal users over a century of shack use. Some shack dwellers cited Thoreau and the writer Henry Beston — who spent a year in a dune cottage in the 1920s — as early models for their back-to-the-land ideals.

Since the national seashore's designation, the shacks have periodically been the source of tension between shack users and the Park Service. With no electricity or indoor plumbing, the primitive structures were initially seen as a blight, and several of the original 28 shacks were demolished during the park's early years. "The intent early on was that they would all be removed, it was just a matter of time," said Burke, the park historian, noting that some of the shacks were burned by vandals or lost for other reasons.

Over time, however, more people began to advocate for the shacks. In the early 1980s, the shack of Charlie Schmid — a full-time dune dweller known for his studies of swallows — was razed just after his death. The event spurred a new campaign to save the dwellings, and though it took decades, the preservationists eventually prevailed: A 1,950-acre historic district protecting the shacks and surrounding land was formally created in 2012.

After the bumpy ride through the dunes and a few stops to pick up outgoing residents at other shacks, I found myself alone in Peg's. Padding around in my bare feet, I noticed decades' worth of do-it-yourself touches: spoons bent into coat hooks, an ingenious weight-and-pulley system for keeping the windows open, a guitar lashed to the ceiling.

Outside, I walked across the cool sand past beach roses and cedar-slat fencing to a bench made of salvaged wood overlooking the sea. I tried to imagine living there, making coffee on the propane stove, pumping water from the well, hearing the wind against the shack's walls, day after day. Already, I felt a connection to the quiet, bare-bones space. I figured I could get used to constantly sweeping out sand, and even relying on an outhouse. But I also wondered: Even in such a charming place, how does anyone adapt to so much solitude? I thought of Thoreau in his cabin at Walden Pond and the occasional trips he made back to town for supplies and his mother's cooking.

In late afternoon, I bounded down the barrier dune to the beach. As I walked along the shore, tiny plovers scurried beside me, and gulls stood in rows like soldiers, watching the surf. I came across some ancient wood, frayed like a coconut shell. A hunk of an old wreck? On the barren coast with no people in sight, it felt like I was seeing the same landscape Thoreau saw, but I knew the cape's shoreline is continuously resculpted by waves and wind, and the beach he walked was swept away long ago. Thoreau himself was aware of the speed and power of coastal erosion, writing that the cape's beaches "are here made and unmade in a day … by the sea shifting its sands."

Back at Peg's after my ramble on the beach, I ate a sandwich and shook sand from my shoes. As dusk fell, I stood on the bench outside and watched the sunset streak the clouds orange and pink. Soon the sky was overwhelmed with stars. Inside, I made tea and read for a while by the light of oil lamps. Then I buried myself in blankets, exhausted.

It was drizzling when I set off the next the morning, and I worried about getting caught in a storm. Though only about a mile long, the hike out from the shack dis-

LOW TIDE at Coast Guard Beach (top left), Nauset Light (top right) and gray seals off the coast (bottom).

SIDE TRIP

Wellfleet Bay Wildlife Sanctuary

Situated on nearly 1,200 acres of wooded tidal wetlands, Wellfleet Bay Wildlife Sanctuary is one of about 100 sites around the state protected by the Massachusetts Audubon Society. The property was once the summer retreat of Oliver Austin, a surgeon, and his son, an ornithologist who shared his father's name. The family established a bird-banding station there in 1929, and banding research was revived at the sanctuary in 2014. Staff also monitor 81 nest boxes — used by eastern bluebirds, tree swallows and other species — and facilitate public programs, including guided kayak tours, birdwatching and sea turtle patrols. When I visited the slick, aquarium-filled nature center on an overcast fall morning, a whiteboard showed hatchling counts for diamondback terrapin, a coastal turtle species.

Outside, I followed Goose Pond Trail, where I spotted a great blue heron as it glided off on massive wings, and I sat in a bird blind to spy on ducks. My favorite footpath was Bay View Trail, which skirts the water's edge under aromatic pitch pines. On a slope covered in flaming red huckleberry, a hawk perched on a high platform scouted its next meal.

ORANGE SKIES over Nauset Marsh Trail.

©MICHAEL A BLANCHETTE

trict is a challenge, but I welcomed the chance to explore more of the dune wilderness. I plodded through deep sand — where I saw ribbons of coyote tracks — and alongside boggy patches where wild cranberries grow. Catching my breath at the top of the last dune, I looked out over a blanket of russet-colored trees. The rain had picked up, but I was almost there. The cars on Route 6 sounded strangely like the ocean.

I did a quick drive through Provincetown, which looked mostly deserted. Once a salty fishing hub — "the most completely maritime town that we were ever in," Thoreau wrote — the town has evolved into an arts mecca, and for decades has been a haven for the LGBTQ community. It's now full of trim, expensive houses, many of which are boutique shops, inns or second homes. By October, a large share of the windows have gone dark. I managed to find an open cafe for coffee and an egg and linguica sandwich, then I headed back into the park.

I ended up at Province Lands Visitor Center, just a short distance from where Thoreau and Channing caught a steamer back to Boston, where I'd be returning the next day. On the hexagonal observation deck, I looked out through a foggy gray mist toward Race Point, at the tip of Cape Cod, pausing to acknowledge that I had traced the full arc of Thoreau's journey. For a brief moment, the 170 years between our experiences felt short.

Describing his return to Concord after his trip, Thoreau wrote, "I seemed to hear the sea roar, as if I lived in a shell, for a week afterward." I know what he meant; I still hear it now.

DORIAN FOX is a writer, freelance editor and writing teacher based in Boston.

TRAVEL ESSENTIALS

CAPE COD NATIONAL SEASHORE'S beaches, trails and parking areas are open year-round. Entrance fees to the six beaches the Park Service manages apply from late spring through September, when lifeguards are on duty. (There are numerous other public beaches both inside and outside the park's boundaries, some of which also charge fees.) During summer, expect heavy traffic along U.S. Route 6 and crowded parking lots on nice days; advance reservations for lodging are essential. Waves at Nauset Light Beach and Marconi Beach can be strong. For gentler surf, try Herring Cove Beach in Provincetown.

History buffs can tour two of the five working lighthouses (and see the others). They can also visit the Atwood-Higgins House (the oldest house owned by the park, in Wellfleet) or maritime homes at Eastham's Fort Hill, known for its spectacular views of ocean and marsh. Art's Dune Tours runs sightseeing trips to the dune shack district and Race Point, known for stunning sunset views. Cyclists can pedal alongside salt marshes on Head of the Meadow Trail or through pine forests and cranberry bogs on Province Lands Trail, among others.

©DAVE CLEAVELAND, MAINE IMAGING

Normally, Salt Pond Visitor Center is open year-round, while Province Lands Visitor Center operates seasonally. Due to COVID-19 concerns, however, operations are currently limited to staffed outdoor information stations, gift shops and restroom use. Beaches and trails remain open. Check nps.gov/caco for updates.

HISTORIC TRAVEL **DESTINATIONS**

Photo Credit: Ryan Turner Photography

SKI BIG SKY

Experience one of the country's most iconic ski areas in Big Sky, Montana—where fresh powder and open space is almost guaranteed. Big Sky is home to 5,850 acres of skiable terrain and 4,350 feet of vertical runs span four different mountains. Take in the view of three states and two national parks from the top of Lone Peak at 11,166 feet. Come stay and play in Big Sky—where all runs lead to adventure.

BIG ADVENTURE IN BIG SKY

Photo Credit: Ryan Turner Photography

With its endless views and wide-open skies that stretch on for miles and miles, Big Sky, Montana is aptly named. And with more outdoor adventure options than you can imagine, Big Sky offers a safe way to experience a socially-distanced vacation for those who are MontanaAware (visitbigsky/about-us/montanaaware).

Although known for legendary skiing and easy access to Yellowstone National Park, America's first National Park, today there are more ways than ever to truly enjoy the Big Sky area and immerse yourself into the great outdoors. Whether it's escaping into the solitude of the back-country wilderness on horseback or by foot; or experiencing adventures in the canyon ravines on idyllic rivers, there are so many options for spending a day in Big Sky throughout the four seasons.

Beyond the unparalleled natural wonders, a culinary adventure also awaits you at the many eateries throughout the area. Restaurants in Big Sky, MT are known for wild game, locally sourced products, and creative meals with many options for craft beer, wine and spirit lovers. Looking to stay for a weekend, or perhaps longer? The wide variety of accommodations range from luxurious vacation rentals and cozy lodges, to the more traditional hotels and everything in-between.

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MAMMOTH CAVE, which was formed by the dissolution of limestone by rainwater over millions of years, is the world's longest known cave system.

Hidden Names, Hidden Stories

A journey to the depths of Mammoth Cave to record signatures left by Civil War soldiers.

I STOOD 200 FEET below the Kentucky countryside, looking at three lines of graffiti written in pencil on the white limestone wall of Mammoth Cave. "A Rust 1861, W Garnett, V Hobartt 5th A G 1861," read the faint cursive. Today, such casual vandalism within the boundaries of a national park would probably get you arrested, but the Park Service considers these Civil War–era signatures and hundreds of other messages in the winding El Ghor passage an important part of the cave's historical record.

Beside me, Marion O. Smith carefully copied the inscriptions into a small journal as photographer Kristen Bobo fired her flash at an oblique angle to reveal hidden details. As Smith wrote, he placed question marks next to letters or symbols that were hard to make out definitively. These names had likely been left by Confederate soldiers during the opening months of the Civil War, said Smith, who with his dark, rough clothing and close-cropped white beard might have passed as a Confederate ghost himself.

This cave trip on a spring day in 2018 was part of a three-year study of Civil War signatures in Mammoth Cave National Park by Smith, Bobo and Joseph Douglas, a professor of history at Volunteer State Community College. (The next year, the park commissioned a multi-year study by Douglas and Smith

to document historical signatures left in Mammoth Cave from the 1810s to the 1930s.) Smith and his colleagues spent long days scouring the walls and ceilings of the cave for signatures, then immersed themselves in archives for scraps of information about the men who etched their names in the rock more than 150 years ago. "These names are little stories you squeeze out of the wall," Smith said. "Each one is a puzzle, and I enjoy solving puzzles."

Recording Civil War names can be difficult: Some signatures are layered atop one another, while others are frustratingly succinct, such as "William," "Capt. Jones," and "1863." Names have been smoked onto ceilings by candle flame, scratched into walls with rocks or knives, or neatly handwritten with pencil or ink.

The three-year study, which ended in 2019, yielded only 41 confirmed signatures left by Civil War soldiers during wartime. (Douglas estimates that more than 10,000 signatures were left in the cave over the past two centuries — not to mention pictographs and other markings made by Native Americans.) Such finds add little to the overall record of use of the cave by the Confederate and the Union armies, but by matching signatures found deep underground with photographs, letters and journal entries, the team achieved something they consider equally valuable: They humanized the soldiers who, for a brief moment, took in the wonders of Mammoth Cave as any tourist would — and escaped the horrors of war they would soon revisit.

"There is a poignant aspect to the research," Douglas said, noting that several of the soldiers who left their mark during a rare day of recreation would later die in battle.

The work is personal for Smith. One of America's greatest living cave explorers — a description that Smith would object to out of modesty — he is also a trained historian specializing in the Civil War era, and the project gave him a rare opportunity to combine lifelong obsessions. But time is running out. Caving is a strenuous activity, and a recent injury forced Smith to slow down substantially. At 78, he wants to make a lasting contribution to the history of the cave before no longer being able to do so.

©KRISTEN BOBO

RESEARCHER JOSEPH DOUGLAS believes this Civil War-era drawing represents President Abraham Lincoln. Douglas and his team have documented 41 Civil War signatures inside Mammoth Cave.

I had asked to join the trip for a book I was writing about Southern caves and cavers, but I had an ulterior motive. I had followed Smith's career since I started caving as a college student in 1980, and I first met him in 1989 in Mexico, where we had joined the same expedition to a deep cave. In 2002, I accompanied him into Rumbling Falls, a massive cave system in Tennessee that Smith helped discover and protect from a proposed sewage plant. I knew he was dealing with the aftermath of a recent caving accident, and I was eager to take advantage of what might be my last chance to explore Mammoth alongside a caving luminary.

Smith grew up in northern Georgia, spending much of his youth touring Civil War battlefields and reading historical accounts of the war. In his early 20s, he started poking into the region's caves and rediscovered "lost" caves mined for saltpeter during the 19th century. He first saw a Civil War-era signature in a cave in Alabama in 1972 and soon located information on that soldier. These discoveries established what would become his modus operandi for decades.

Douglas started working with Smith in 1991 on a trip to document prehistoric and historic use of Tennessee caves. Douglas was fascinated by his colleague's encyclopedic knowledge, and the two made plans to study Hubbard's Cave, a Tennessee bat cave with a few thousand 19th-century signatures. They moved on to other historic caves in Kentucky before applying for a research permit for Mammoth in 2015.

Through most of the war, Mammoth Cave remained open to soldiers stationed nearby, American civilians and even Europeans willing to travel to a war zone. The cave itself had no specific military value, but as surrounding land was seized by the Confederate army and then, in February 1862, by the Union, controlling the natural wonder became a "sign of prestige," Douglas explained.

"Confederate soldiers would write their name, then Union soldiers would write theirs in the same passage, as though claiming the space," Douglas said. He described a spot where someone wrote "hurrah for Jeff Davis," an inscription later scratched out. One cave wall has what researchers believe is a portrait of President Abraham Lincoln.

Our signature hunt began in a hallway of the park's Science and Resource Management Building, where we crowded around a framed 1908 map of Mammoth Cave showing the routes known during the Civil War. Today, over 400 miles of passages have

been mapped, with new discoveries made every year, but in the 1860s only a fraction of those passages had been explored. We decided to take what was known as the "long route" through the cave, starting with El Ghor.

We had a much easier time making our way to El Ghor than visitors 150 years ago did: We went down in an elevator and took a short walk through the Snowball Room — a large white chamber that hosted an underground cafeteria for decades until it was closed in 2013 to avoid contaminating cave life. Reaching this spot in the 19th century would have meant traveling seven or eight hours underground by lantern light. Guides — many of them enslaved African Americans — led visitors through the cave's complex maze. Abandoned shoes, broken water bottles and bits of torn woolen clothing still dot the most-traveled routes. While such trash would be promptly removed nowadays, these discards are considered part of the cave's history, and park managers have intentionally left them in place since the national park opened in 1941.

The cave's inner recesses inspired awe in some soldiers, as recorded in journals and letters. "It was the nicest thing I ever saw," wrote Union Pvt. George Kryder in a letter to his wife, Elisabeth, dated March 14, 1862. "We went into large chambers like great halls all arched over with solid rock."

Standing where they had stood, letting my eyes roam over a small section of the wall, I spotted a potential Civil War signature that no one else had noticed. I stared at the delicate cursive, thrilled with the idea that I was perhaps the first to read the simple line in over 150 years. Smith recorded it, Bobo photographed it, and we moved along. We left El Ghor and headed toward the Welcome Avenue, where the narrow corridors and low ceiling required stooping and crawling. The half-mile tunnel provided a shortcut to a graffiti-rich passage.

> "These names are little stories you squeeze out of the wall."

In September 2017, Smith was nearly killed in a Tennessee pit when another caver accidentally dislodged a fist-sized piece of flowstone that fell 40 feet and struck Smith's temple just below his helmet. Bleeding from the ears and barely conscious, he somehow climbed out of the pit unassisted and was then airlifted to a nearby hospital for treatment of a concussion and other injuries. For several months before our trip, he had been prone to periods of vertigo whenever he had to stoop or look up, both of which occurred repeatedly as we moved along the Welcome Avenue.

He told the main group to move ahead, saying he would catch up. I stayed with Smith, who walked slowly but deliberately with his carved walking stick. I felt fortunate to spend an hour traveling with him at this slower pace. As we moved along, he spotted and recorded signatures we might have missed had we traveled at a faster speed. We climbed upward, occasionally pausing for him to rest.

At last we reached the others at the Wooden Bowl Room, which some say was named for an ancient artifact found there by early explorers. From about 5,000 to 2,000 years ago, Native Americans mined gypsum from the cave walls and lit their way with torches made of river cane. I saw black "stoke marks" from torches on the walls, and burned bits of cane lay scattered on the floor. I picked up a hollow, charred piece of cane an inch long and held it to my nose. It smelled of fire.

Continuing toward the cave's historic entrance, we found new signatures, several of which Smith later identified as dating from the Civil War. We also saw the occasional artwork: a portrait of Andrew Jackson from the 1830s, a woman in a dress, and assorted birds and flowers. Smith called Douglas over to look at a name that was hard to make out. Beside it was the date 1798. If indeed from 1798, the signature would be the oldest ever found in the cave, Douglas said.

By that point, we were nearing the end of our journey, moving slowly because of fatigue. On the way out, we passed wooden saltpeter works from the early 19th century and walls scraped by ancient gypsum miners thousands of years earlier. Finally, after eight hours underground and five difficult miles, we saw the glow of daylight coming around a curve from the natural entrance. Smith slowly marched ahead, and I turned to look one last time at the darkness behind. **NP**

MATT BRANSFORD, a guide at Mammoth Cave, was the grandson of Mat Bransford, an enslaved man and one of the first of many African Americans (including multiple generations of the Bransford family) who served as guides at the cave.

MAMMOTH CAVE NATIONAL PARK

MICHAEL RAY TAYLOR teaches journalism at Henderson State University in Arkansas and is the author of several books on caving and cave science. This story is adapted from his new book, "Hidden Nature: Wild Southern Caves," published by Vanderbilt University Press.

That Was Then

©GREG EPPERSON

CLIMBER CHELSEA GRIFFIE, Yosemite National Park, 2012. In 2001, Griffie became the first African American woman to climb Yosemite's famed El Capitan.

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